

**A CASE FOR GEOGRAPHY IN SOUTH AFRICAN SENIOR PRIMARY
SCHOOLS: AN ANALYSIS AND EVALUATION OF CURRENT
GEOGRAPHICAL THINKING AND PRACTICE**

THESIS

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TABLE OF CONTENTS

		Page
	Title	i
	Table of contents	ii
	Declaration	v
	Abstract	vi
	Acknowledgements	vii
	List of Appendices	viii
	List of tables	ix
	List of figures	ix
CHAPTER 1		
1	INTRODUCTION	1
1.1	Introduction	1
1.2	Statement of the problem	3
1.3	Objectives of the study	3
1.4	The significance of the study	4
1.5	Organisation of the study	4
CHAPTER 2		
2	A CASE FOR GEOGRAPHY IN THE PRIMARY SCHOOL	5
2.1	Introduction	5
2.2	"A Case for Geography"	6
2.2.1	Making sense of the world	7
2.2.2	Developing a sense of place	8
2.2.3	Developing graphicacy	11
2.2.4	Geographical skills	12
2.2.5	A framework for a primary school syllabus	12
2.3	The argument for integration of subjects	14
2.4	Integration in relation to discrete subjects	18

	Page	
2.5	Integration and discrete subjects in relation to learning theory	21
2.6	Experiences with teaching an integrated approach	23
2.7	Geography vs integration within a South African context	24
2.8	Summary	25
 CHAPTER 3		
3	RESEARCH METHODOLOGY	27
3.1	Introduction	27
3.2	The survey	27
	3.2.1 The construction and administration of the questionnaire	29
	3.2.2 Semi-structured interviews	32
3.3	Survey data analysis	33
3.4	Analysis of syllabuses	34
	3.4.1 Implementation of the evaluation	35
3.5	Limitations of the study	38
3.6	Summary	38
 CHAPTER 4		
4	TEACHERS' RESPONSES TO THE TEACHING OF GEOGRAPHY AT PRIMARY SCHOOL	39
4.1	Introduction	39
4.2	Questionnaire results	39
	4.2.1 Section A: Background of respondents	40
	4.2.2 The perceived purpose, role and value of geography	41
	4.2.2.1 The aims of geography as perceived by the respondents	42
	4.2.2.2 Teachers' perceptions of the extent which the aims of geography are achieved by the current syllabus	42
	4.2.2.3 Sections of the syllabus perceived as being relevant to the pupils' needs	43
	4.2.3 Section C: Important aspects of the geography syllabus and the teaching of geography	44
	4.2.3.1 Teachers' perceptions of the important sections of the syllabus	45
	4.2.3.2 Teachers' responses to topics in a revised geography syllabus	49
	4.2.4 The organisation and teaching of geography	50
	4.2.4.1 The most frequently used teaching approach in geography	50
	4.2.4.2 Geography as a separate subject	51

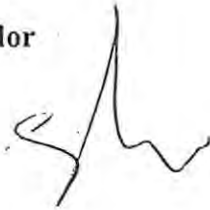
	Page	
4.2.4.3	Time allocation for the teaching of geography	53
4.2.4.4	The evaluation of geography	54
4.2.4.5	Strategies used in the teaching of geography	54
4.2.4.6	Summary of the questionnaire findings	56
4.3	Analysis of interviews	57
4.3.1	Teachers' use of a learner-centred approach to teaching	57
4.3.2	The extent to which geography is integrated with other subjects	57
4.3.3	Suggestions for a geography syllabus	58
 CHAPTER 5		
5	ANALYSIS OF SYLLABUSES	59
5.1	Introduction	59
5.2	Analysis of syllabuses	59
5.3	Summary	68
 CHAPTER 6		
6	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY	69
6.1	Introduction	69
6.2	Summary and conclusions	70
6.3	Limitations of the study	72
6.4	Recommendations	73
6.5	Conclusion	77
	List of References	78
	List of Personal Communications	81

DECLARATION

I, **Simon Michael Taylor** declare that this half-thesis is original and has not been submitted for a degree at any other university.

CANDIDATE: **S.M. Taylor**

CANDIDATE'S SIGNATURE:

A handwritten signature in black ink, appearing to be 'S.M. Taylor', written over the printed name 'S.M. Taylor'.

ABSTRACT

Geography faces several challenges in a changing South Africa. These include the challenge to initiate a primary curriculum that helps to provide a foundation for sustainable living in a society that faces serious problems of unemployment, violence, irreparable damage to the environment and the lack of housing, water and basic services for the majority of the population.

This thesis attempts to provide a case for geography in the primary school by examining the value of the subject for pupils' development and by reviewing the strengths and weaknesses of an integrated approach in view of the possible introduction of an integrated primary curriculum in South Africa.

The second aspect of the study is concerned with a survey of teachers in the Natal Education Department to evaluate the perceived value of geography as a subject and support for geography as a discrete subject.

The main thrust of geography in the primary school is to develop concepts, skills, values and attitudes that allow pupils to be more understanding and caring about the local and global environment, about people, communities, species and the natural environment on which we all depend.

The results of the survey reveal that teachers support geography as a discrete subject with an intra-curriculum approach. The introduction of an integrated core curriculum in South Africa would prove problematic as teachers are not in favour of an integrated approach across the curriculum. The lack of teacher support in Kenya for an integrated curriculum was one of the main reasons for its failure. Hopefully South Africa will learn from other countries experiences with introducing an integrated curriculum. Teachers value the role of geography in the education of the child and suggest the introduction of environmental and development themes to make the subject more relevant to children's lives.

The syllabus analysis revealed that a unified primary curriculum is required which is influenced by the needs of society in South Africa. Recommendations are made regarding ideas for a future primary curriculum.

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LIST OF APPENDICES**No**

3A	Questionnaire	82
3B	Letter to principals	91
3C	Letter to teachers	92
3D	Permission from the Natal Education Department	93
3E	Interview schedule	94
5A	Proposed primary geography draft core syllabus (N.E.D. May, 1990)	95
5B	Preamble for the draft core syllabus (N.E.D. May, 1990)	98
5C	Kenya primary school geography syllabus	102
5D	British primary school geography syllabus	110

LIST OF TABLES

No		Page
3.1	Catling's criteria for a primary school curriculum	37
4.1	Teachers' personal data summary	40
4.2	Highest qualifications of respondents in geography	41
4.3	The aims of geography as perceived by the respondents	42
4.4	Sections of the syllabus perceived as being relevant to pupils needs	43
4.5.(a)	Teachers' attitudes to map work	45
4.5.(b)	Teachers' attitudes to weather studies	45
4.5.(c)	Teachers' attitudes to resources	46
4.5.(d)	Teachers' attitudes to South Africa	47
4.5.(e)	Teachers' attitudes to urban studies	47
4.5.(f)	Teachers' attitudes to economic geography	48
4.5.(g)	Teachers' attitudes to regional geography	48
4.6	Teachers' responses to environmental/development issues	50
4.7	The approaches to the teaching of geography	50
4.8	Teachers' personal support for geography	51
4.9	Time allocation for the teaching of geography	53
4.10	The evaluation of geography	54
4.11	Strategies used in the teaching of geography	54
4.12	Reasons for not using certain strategies	56
5.1	Analysis of syllabus content	60
5.2	Analysis of syllabus aims	61

LIST OF FIGURES

2.1	Models of integration	16
2.2	Co-ordinated course	16

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The origins of this study came about in response to the challenges facing geography as a discipline and the contribution the subject can make to a better quality of life for people in South Africa. The challenge is therefore not just the curriculum with its content, but also the needs of society and specific communities in South Africa. The geography curriculum which is academic and theoretical is irrelevant in a changing South Africa facing turmoil in every facet of life (Fairhurst, 1993). The real challenge of geographers is to develop a peoples' geography in which the pupils are equipped with geographical tools to do "geography" (James, 1989) and to live geography in order to understand and to live sustainable life styles. The changing geography in a changing South Africa must be real, central to our lives and vital to our futures (Hattingh, 1993). At present according to Kriel (1993), the current geography curriculum is regarded by the National Education Policy Investigation (1992) report as being too academic and irrelevant for some learners. As a consequence geography in the proposed education system, has been accorded low status compared to science and mathematics which are considered important for vocational and technical education.

The approach adopted by the Department of National Education in the Curriculum Model for South Africa (1991) is utilitarian, with the major task of equipping pupils with skills to gain employment and earn a living. Education planners have given little thought to the importance of achieving cultural and environmental harmony within South Africa. Subjects that concern the environment such as geography have not been sufficiently emphasised as vehicles to provide environmental literacy which is essential for a future education system in South Africa (Khan, 1993 pers. comm). The environmental dimension should therefore be recognised as a basic component of geographical education.

The call for efficiency, competitiveness and accountability such as is occurring in the strategic planning of education in South Africa (Fairhurst, 1993), is in Apple's (1992) experience the domination of education by economic interests. The blame for

experience the domination of education by economic interests. The blame for unemployment and the breakdown of traditions of society are blamed on the education system and not the policies of business and industry. Education reform in South Africa should bear in mind that:

The school in contemporary society is an institution which must serve the interests of the whole population, catering for pupils of all levels of ability, and extending itself to provide schooling of both a highly general and a highly specific nature. Education like life itself, is too complicated to accommodate simple solutions...(Skilbeck and Harris, 1976:3).

The challenge of this study is to provide a "case for geography" in the primary school, taking into account the interests of the whole population in South Africa. Experience in Great Britain and Kenya inter alia, has shown that geography plays an important role in the education of the child and has therefore been retained as a separate subject in the primary school curriculum. Attempts to re-introduce geography as a school subject as opposed to social studies, by the American Geographical Association has had strong support from the United States Congress (Downs, 1988). The Commission on Geographical Education, (1992) urges governments of the world to consider geography as a core subject in the curriculum of both the primary and high school syllabus.

Geography has the potential to hold its own as a fully fledged discipline as a school subject, since its aims are to develop an understanding of people and places which makes geography relevant to the needs of the child (Fairhurst, 1993). Catling (1989) encapsulates current thinking about the role and value of geographical education in the primary phase by emphasising geography's role in developing the child's sense of identity, through the development of a sense of place and social understanding. Primary geography according to Catling (1989) is part of the process of enabling people to be more understanding and caring about the local and global environment, about people, communities, species and about the natural world on which we all depend.

As compulsory, free education, under an alternative government of national unity, may only extend to the end of the senior primary phase, this will be a major exit point for pupils leaving school (Democratic, Party 1992). It is important that geography be retained as part

of the senior primary curriculum, to expose pupils to the values, knowledge and skills unique to geography (Catling, 1979; Hurry L, 1991).

1.2 STATEMENT OF THE PROBLEM

The importance of geography to the primary school child within the South African situation necessitates an analysis of the way in which the subject is dealt with at all levels. However, for the purpose of this study the focus will be on the Natal Education Department.

The National Education Policy Investigation (1992) report argues that the current system of primary school education in South Africa needs to be revised because it is inappropriate for meeting the social, economic and cultural needs of the majority of South Africans. If education at the primary level, is to contribute to the development of the country, its curriculum should be seen to be relevant. The current geography syllabus was released in 1979 and is seen by the National Education Policy Investigation (1992) report as too academic and irrelevant for some learners. Furthermore, no provision was made for public or teacher participation in the curriculum development in the past. The majority of the role players were excluded from curriculum decisions.

1.3 OBJECTIVES OF THE STUDY

In the South African context research located in the primary school is very limited and to the best of the researcher's knowledge, no investigation has been made regarding the value of geography at this level. The purpose of this research was three-fold:

- 1) To present a case for primary school geography learners in South Africa.
- 2) To conduct a survey among primary school teachers to ascertain their attitudes towards the current syllabus and their perceptions of geography as a subject.

- 3) To evaluate the proposed draft core syllabus (Natal Education Department. 1990) using Catling's (1987) criteria and to compare these results with current British and Kenyan curricula.

1.4 THE SIGNIFICANCE OF THE STUDY

It is hoped that this study will help contribute towards securing geography's place in the future core curriculum. It is also hoped that guidelines will emerge for formulating a future geography syllabus.

1.5 ORGANISATION OF THE STUDY

Chapter two undertakes to present a "Case for Geography" in the primary school, experiences and arguments for integration. Chapter three describes the methodology employed in the research. This involved a survey approach in which a questionnaire and semi-structured interviews were administered to schools with the Natal Education Department. Permission to conduct the survey was granted by the Executive Director of the Natal Education Department. The results of the survey are recorded in chapter four. The proposed draft core syllabus (Natal Education Department, 1990) for primary school geography in South Africa is compared with the current curricula used in Britain and Kenya, using Catling's criteria for primary school geography. The results of this evaluation are reported in chapter five. Chapter six presents the conclusions and recommendations based on the research.

CHAPTER 2

A CASE FOR GEOGRAPHY IN THE PRIMARY SCHOOL

2.1 INTRODUCTION

This chapter examines the essence of the discipline in a primary educational context taking into account the challenges from curriculum planners, teachers, and the issues that affect South Africa and its future welfare. These issues are summarised by Coutts (1992), and will have an effect on the curriculum and what we teach in geography :

- 1) A population growth rate that has exceeded the ability of the Government to create sufficient numbers of jobs. Unemployment in South Africa is currently about 25%.
- 2) A society which has developed a culture of violence and little respect for human rights or human life.
- 3) Unequal distribution of resources among nations and individuals within countries. For example, the massive backlog in housing in South Africa and the provision of basic services like water and electricity for the majority of the population.
- 4) The growing exploitation of limited resources and the irreparable damage to the environment, including pollution of water and air, destruction of natural vegetation and desertification.

In making a case for geography one must consider policy reports such as the National Education Policy Investigation (1992) report, which suggests three options for a core curriculum:

- 1) To streamline the range of subjects, but to leave the actual subjects much as they are. New content, skills and processes could be introduced without changing the subject basis of the curriculum.

- 2) Move towards integration of subjects such as social studies and environmental studies. Skills and processes could be introduced with some changes in content orientation.
- 3) Move towards a different definition of knowledge underpinning the curriculum, and to introduce more radical changes, such as a more fully integrated curriculum instead of a discipline-based one (N.E.P.I., 1992:70).

The three options illuminate the different approaches to education as practised internationally. The recommendations in the National Education Policy Investigation (1992) report favours an integration of the curriculum along the lines of option 2 (above).

This chapter therefore will :

- 1) Provide a case for geography in the primary school curriculum.
- 2) Examine the argument for and against integration.
- 3) Relate integration to discrete subjects and current learning theory.
- 4) Examine experiences with integration in other countries and relate these experiences to the South African situation.

2.2 " A CASE FOR GEOGRAPHY "

In presenting a "case for geography" it is important to outline the role of geography in the primary school. Geography is one of the few subjects studied, that deals specifically with the 'real' world. In learning geography, children are educated in both personal and social contexts. On a personal level children learn to make sense of the world around them and gain a better understanding of the variety of physical and human conditions on the earth's surface. Furthermore, they learn to develop a sense of place which is crucial to our survival and development. One of the tools that assist people in making sense of the world is the development of graphicacy which is an integral part of geography. On a social level people do not live as individuals in isolation from the rest of the world, but are part of the local,

national and global setting. In such a social context it is vital that children grow to understand and appreciate the social setting in which they live for the sake of the community and the environment in which they live.

2.2.1 Making sense of the world

The purpose of all science is to enable people to understand their environment. The science of geography is grounded in the exploration of reality around us, to enable people to understand and improve the earth which we share with all other living forms. As geography is concerned with peoples' place in the world, geography is an environmental study, in which the geographer offers explanations for the many kinds of environments which he inhabits and the nature of those environments (Bailey, 1987; McCarthy and Rogerson, 1992).

Some environments are produced by human interaction with the physical and biological worlds, which were once natural but which have been changed by human interference. Other environments are wholly man-generated, for example, economic, social and political systems which impose limits on the use and distribution of resources. It is important for geographers to draw attention to the injustices of the present economic, social and political systems of the world and to help create a "better world" (Fein, 1986:1), as this understanding is fundamental to good modern environmental geography (Martin, 1993:25).

Geography is therefore a study of reasons, causes, connections and interactions. Properly presented, it offers learners a unique education in thinking about things that matter to them and to the entire global community. It encourages them to analyse the components of complex problems and to consider ways and means of resolving these problems. Geography, by its very nature, attempts to see the relationships that exist between the various natural and human processes of the earth. In doing so it develops the ability to think and to make a positive contribution to resolving issues in society and the environment which society needs for survival (Morill, as cited in Fein, 1986). This concern is crucial, because at no time in our history has the environment been so much at risk as now.

The study of geography is therefore an integral part of environmental education, (Opie, 1993:70) in which each subject is mobilised to help young people develop their own

coherent insight into human behaviour and the effect of this on people and the environment (Martin, 1993). The study of geography must not only create awareness of the environment in children, but should develop a caring attitude towards the environment, through which children come to appreciate its potential and balance. Furthermore, geography has a central role in fostering concern for human action upon the environment and enhancing our perceptions of the places we encounter.

2.2.2 Developing a sense of place

In learning geography, Catling (1988) suggests that a sense of place is at the heart of geography.

For geography grew, as one of the earliest disciplines, from human experience of exploring the world, in making sense of the location and distribution of places, in understanding the similarities and differences between places, in observing the patterns places create in the world around us, in discerning the processes, influences and effects that interrelate to produce places and patterns as they are and as they change, and in considering what actions are needed to create places that fulfil human needs and interests (Catling, 1988:15).

Geography is therefore the one subject that enables children to make sense of their environment and identify with a particular place. It is important for humans to relate to their surroundings by developing a sense of belonging and feeling for a particular place. Without a sense of belonging and feeling for a place one experiences a feeling of placelessness (Relph, 1976). This feeling according to Relph (1976), has resulted in people losing their sensitivity towards places and therefore the cultivation of place awareness. According to Yi-Fu places (1975) firstly, are our life-support system, secondly, they sustain our humanity and thirdly, they are the wellsprings of our serenity.

According to Catling (1987) the need to foster a sense of place is therefore essential for the development and existence of children. He suggests several dimensions of place, that children need for developing a sense of place.

1) **Locational awareness**

The development of a sense of location is vital to be able to find our way in places. Our knowledge of "what is where" is an essential frame of reference, enabling us to make sense of the world around us. It is only when we understand and see where a place is, that we become concerned about places. It is for this reason that Catling (1987) emphasises that modern primary school geography must focus on the local environment with which the child interacts.

2) **Territory awareness**

The development of a sense of territory is a core human need because humans need to be able to identify with a place which they see as own, be it the home, the local area, town or country. People need to have a place of their own to which they can retreat and feel secure. This need according to Maslow (cited in Yelon and Weinstein, 1977:91) is a basic human need which must be satisfied if people are to develop as happy and contented human beings. Through learning geography children can learn about the local environment and their country and develop a sense of identification with their surroundings.

Almost everyone is born with the need for identification with his surroundings in relationship to them with the need to be in a recognisable place. So a sense of place is not a fine art extra, it is something we cannot afford to do without (Relph, 1976:6).

3) **Interaction with places**

Geographers, through the use of fieldwork and secondary sources, can build up children's knowledge of places, and in doing so can help develop the child's attitudes and values towards places. The interaction with places enables children to become aware of the aesthetics of places and the problems faced in particular places.

4) **Association of people and places**

Children's interaction with places is closely linked to the people associated with places.

Children develop friendships in communities. It is people that make a particular place ones "home" town. The sense of a home place is essential for the successful development of the child. In living in a community children will become aware of different groups of people whom they don't interact with because of language, race, social and economic class. Children will often develop racist and cultural stereotyping about these certain groups of people. Geographers therefore have a unique opportunity to counteract racial and cultural stereotyping by giving children an understanding of the different cultural groups by introducing them to the culture of the particular country or the particular circumstances that groups find them-selves.

5) **Feeling for places**

Feelings are at the centre of places according to Gussow (1971) who goes on to claim that a place is a piece of the whole environment that has been claimed by feelings. All children, as a consequence, develop negative and positive feelings about certain places. It is important to explore and examine why children feel the way they do about certain places. By exploring feelings, a sense of awareness and sensitivity towards places develops. This sensitivity towards places also develops a sense of appreciation for places and it is hoped children can become more understanding and caring about the world they live in. Without a sense of place our ability to grow and survive is at risk. We all need to relate to and feel part of the place we live in. As the poet John Dan said: "No man is an island". Catling (1988) believes that:

People would possess no sense of home or homecoming, no sense of familiarity or novelty in a place, no awareness to recall or anticipate places, no ability to move thoughtfully around the environment or to relate other places to our own, no curiosity about our world, nor any concern for our environment. In short, without a sense of place, we would neither survive nor grow (Catling, 1988:14-15).

The development of a sense of place is therefore an essential part of every child's education and geography has an important role to play in this development.

2.2.3 Developing graphicacy

Closely related in importance to the development of a sense of place and environmental understanding is the development of graphicacy.

Graphicacy is the communication of spatial information that cannot be conveyed adequately by verbal or numerical means alone. The basic elements of graphicacy are maps, charts, plans, diagrams, pictorial representation and symbol reading (Balchin, 1985:9).

The teaching of graphicacy in the primary school, according to Balchin and Coleman (1973), should be placed together with the acquisition of reading, writing and arithmetic skills in importance. Literacy and numeracy do not, alone, form the total underpinning of the academic aspect of education as they both lack the ability to express information of a spatial nature in a concise manner.

The importance of graphicacy is that it helps one express the communication of relationships that cannot be successfully communicated by words or mathematical notation alone and also develops spatial concept learning (Balchin and Coleman, 1973:78).

The learning of mapwork and other forms of graphicacy should, therefore, be emphasised at school. To minimise the importance of mapwork teaching at primary school level is to deprive the child of one of the essential underpinnings of education (Balchin, 1985; Catling, 1979; Blaut and Stea, 1973). The development of the child's mapping ability is important for the following reasons:

- 1) Spatial development goes hand in hand with the development of map skills, for example, distance, direction, gradient and scale. The development of these skills is important in mathematics and other related subjects.
- 2) Map skills enable us to find out where places are and how to get from one place to another.
- 3) Maps are an aid to geographical study, they can describe the characteristics of an area and can be used as a source of information for analysis.

We live in a visual environment and the study of charts, graphs, diagrams and symbols is becoming increasingly important with the development of visual-spatial communication such as television, computer graphics and international sign languages. Geography is central in helping children understand the graphic medium, how particular graphics can be appreciated. Furthermore, graphicacy skills are becoming increasingly important in a wide range of disciplines such as engineering, photogrammetry, surveying, planning, architecture, cartography, computers and geography (Balchin, 1985). According to Balchin (1985) the challenge of developing graphicacy in the child is best accomplished by geographers.

2.2.4 Geographical skills

For children to be able to understand and value the world around them they need to acquire a range of skills which helps them to observe, record, examine and understand the environment. The range of skills includes the following:

1) Basic communication skills

For example, factual writing, creative writing, using reference books and other resources, skills derived from mathematics, modelling and picture, oral explanation and discussion.

2) Intellectual skills

For example, using scientific methods of enquiry, problem solving and decision making, experimenting and observing, evaluating.

3) Social skills

For example, pupils studying together in groups, investigation and involvement in the community, the recognition of diversity and value of people in the local community, their awareness of their own changing attitudes to aspects of the environment.

2.2.5 A framework for a primary school syllabus

Catling (1987) encapsulates current geographical thinking in his article on the criteria for primary school geography. The main features of his thinking include the need for geography as a means towards:

- 1) Building knowledge and understanding of the neighbourhood and local places in which the child lives.
- 2) Fostering children's knowledge of the variety of human, social and natural environments around the world.
- 3) Developing an understanding of how people and social and natural environments interact, and about some of the issues that arise and how these might be tackled.
- 4) Using and making maps with a range of scales of familiar and unfamiliar places.
- 5) Undertaking fieldwork to investigate places locally and further afield.
- 6) Building understanding of the roles of location and spatial connections and interactions in social and natural processes.
- 7) Challenging the preconceptions and stereotypes about peoples and places children bring to school.
- 8) Helping children to develop values on which to base judgement and decisions about social and environmental issues.
- 9) Encouraging children to take action about environmental and social issues that face them.
- 10) Providing imaginative experiences of places.
- 11) Introduction to the variety of skills employed in geographical study.

An analysis of Catling's criteria (1987) for primary school geography, reveals that modern geography embraces a participatory teaching approach in which the child develops both cognitive and affective domains more fully than the traditional rote learning approach. The emphasis is on developing the child's skills, values, attitudes and geographical concepts as opposed to the view of children being "empty vessels" that need to be filled with knowledge.

As we all live in a specific place, and places are part of our daily lives, it makes sense to enhance the child's awareness, understanding of appreciation and potential for action with regard to the places around them. The study of geography helps pupils make sense of their environment which would otherwise be a haphazard process, leading to a collection of fragmentary impressions as opposed to a systematic understanding of the world. Geography is at the centre of our lives as we are all inhabitants of the earth striving to understand the earth we live on.

2.3 THE ARGUMENT FOR INTEGRATION OF SUBJECTS

Having outlined the "case for geography" in the primary school curriculum it is important to consider the argument for an integrated subject approach. Bernstein, (1971) suggested that two major types of curriculum can be distinguished: one which emphasises discrete subjects and the other which integrates across subjects. Vallence (cited in Prawat, 1992) refers to the learner-centred and subject-centred approach. The integrated approach originated in opposition to the traditional subject approach, in which teaching was teacher-centred as opposed to child-centred:

We teach children not subjects, but human knowledge organised in ways more easily apprehended by the individual. We want to avoid knowledge in watertight compartments (Entwistle, 1970:15).

Child-centred educationalists claim that the integrated approach is more suitably developed for children working on their own and discovering things for themselves. They claim that the integrated approach is more relevant to the needs and interests of the child. The learner-centred approach perceives the acquisition of knowledge holistically as opposed to the acquisition of knowledge in a fragmented manner and results in the study of knowledge as a whole and not in discrete subjects (Williams, 1984).

Proponents of this theory and learning therefore claim that the integration of subjects is needed if pupils are to get a comprehensive picture of reality. It is argued that the division of knowledge into distinct subject divisions is artificial, and does not reflect correctly the essential unity of reality and of our ordinary way of understanding and judging. Naish (1972) claims that integration develops a holistic view of the world, that subjects are the

creation of the adult mind and that they are imposed extrinsically on children. According to Marsden (1976):

Subjects are stereotypes of narrowness, academicism, encyclopedism and in antithesis to the values associated with the child-centred education (Marsden, 1976:105).

Williams (1984) argues that a subject-based curriculum is unresponsive to pupils' needs and interests. The curriculum is seen to be divorced from the social realities of pupils' experience and fails to equip them with skills and understanding in the modern world. Pupils according to Williams (1984) have a right to select those curricular activities which meet their personal inclinations. Curriculum integration according to this view helps pupils' motivation since they pursue their own interests and satisfy their own curiosity. Pupils learn by self discovery which is more interesting and meaningful. An integrated curriculum results in more inclusive learning as integrated programs enable the learner to confront problems that are ignored or neglected by separate subjects. By incorporating a broader social objective in the school curriculum a more balanced learning programme is achieved. The purpose of pupil-centred education according to Kirk (1986) is to:

develop autonomy, the cultivation of those capacities for independent decision making ...practices should be adopted which strengthen pupils' ability to behave independently, to make choices, to work things out for themselves... choose their own curricular objectives and assume full responsibility for their own learning (Kirk, 1986:43).

The choice of curriculum objectives by the pupil depends on the degree of structure in the particular curriculum. Various types of integration have been identified and are classified according to the degree of structuring present. These different forms of integration are presented in Figure 1. The different forms of integration are arranged from structured to unstructured. At the unstructured end of the continuum, subjects as such do not make an appearance at all and children are free to develop their own individual and group approaches to large open-ended themes. The implications of the fully integrated course are that it is difficult to detect the contributions from each subject (Williams, 1984). The more structured integrated courses in which subject contributions can be identified occur at the opposite end of the continuum (Williams, 1984).

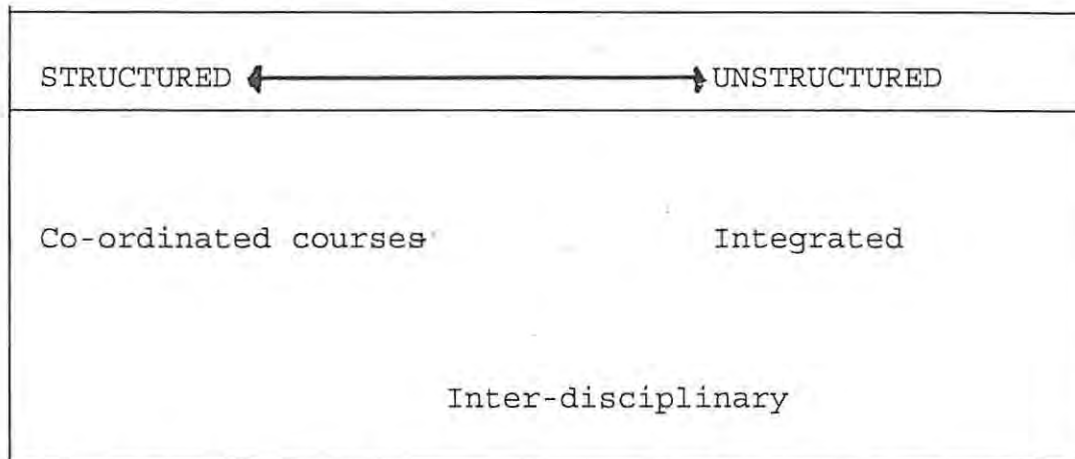


Figure 1. Models of integration (Williams, 1984:17)

In structured courses (co-ordinated) the integration specialist teachers teach their own subjects within a syllabus framework designed to highlight the inter-relationships of ideas. Figure 2 illustrates this co-ordination.

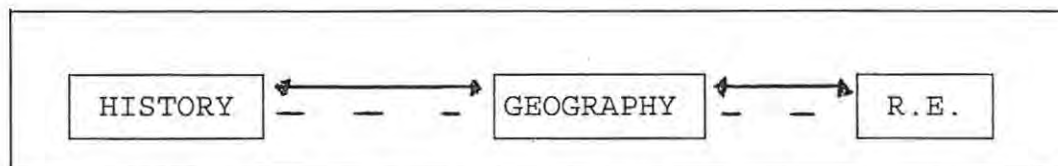


Figure 2. Co-ordinated course (Williams, 1984)

The three subjects are shown as distinct entities, each one having its own sequence of topics. The arrows between the three subjects are of two kinds. The broken line suggests that informal relationships exist between sections of the history, geography and religious education (R.E.) courses. These informal relationships may be chance occurrences when teachers find they are teaching topics which overlap other subjects. The unbroken line indicates a more formal relationship where the teachers organise their sequence of topics to take account of the overlap. Williams (1984) comments that this type of integration requires the least change to organisational structures, but requires effort, goodwill and mutual understanding between the different subject teachers. The advantage of this approach

is that the different subjects retain their identity and at the same time integrate with other subjects. This avoids compartmentalising the subjects. The disadvantage of this system is that its success depends on the co-operation of the different subject teachers.

Inter-disciplinary studies occurs when several subjects are drawn together and a common content is explored and examined from different perspectives. An inter-disciplinary method of curriculum structuring involves identifying content to which all subjects can contribute. This means that the contribution of geographical study is limited to its common ground with the other disciplines. For example, geography, history and religious education (R.E.) may be combined when examining life in a community elsewhere in the world, while geography and science may contribute to a study of weather. In another context, science and history could explore the development of a particular invention. The different subjects as such can still be identified (Williams, 1984).

In integrated studies the course is arranged in a series of topics in which the child is placed at the centre of learning and an enquiry-based approach is adopted. This is a pre-disciplinary approach in which subjects as such are not introduced to the children.

The pupils learn through their own experiences with limited input from teachers. Pupils are able to cultivate their own strengths through intensive study of activities they find interesting (Marsden, 1976). Social studies is an example of the type of course offered under the integrated studies form of integration. The integrated curriculum is open to more than one interpretation, however; the idea of making the child the focal point of education is extremely valuable. It draws attention to the importance of the child himself and of educating by discovery and letting the child be himself, enjoy himself and think for himself. This may be an emphasis worth stressing in opposition to an emphasis on the idea of schools as places in which children are ruthlessly initiated into the grim realities of life (Barrow and Woods, 1988:140).

The integrated curriculum has merits in that the child is recognised as an individual and not an empty vessel to be filled with knowledge. This approach to education however has several weaknesses in relation to discrete subjects.

2.4 INTEGRATION IN RELATION TO DISCRETE SUBJECTS

The aims of integration in its most unstructured form is to develop good attitudes to learning as opposed to what is learnt (Barrow and Woods, 1988). According to Entwistle (1970) learner-centred education which starts from the child's own spontaneous experiences and interests carries dangers of subjectivity and may merely confirm the child in his immaturity. Bruner (1960) adds that mere activity does not imply that learning has taken place. Barrow (1991) believes one cannot develop skills such as critical reasoning, logic or creativity without a subject content.

...We should base our curriculum on discrete subjects...Subjects provide a network of ideas, including values which provide a framework within which to act critically and creatively on matters of importance (Barrow, 1991:14-16).

This argument is further developed by White (cited in Kirk, 1986) who claims that activities cannot be understood without being engaged in them. For example, one cannot understand how to communicate unless one actually communicates. The engagement in core subjects is required if pupils are to understand and develop skills such as critical thinking, as advocated by Barrow (1991).

Geography in a unstructured integrated curriculum would cease to exist since the child will determine its own content. The effectiveness of learning conceptual skills related to geography would not take place as a subject content does not exist within which to develop these skills. The effectiveness of learning "knowledge as a seamless whole" (cited in Barrow, 1991:13) is challenged by Bruner (1960). He believes that each discipline has its own structure, as learning cannot take place in a vacuum:

the curriculum of a subject should be determined by the most fundamental understanding that can be achieved of the underlying principles that give structure to the subject. Teaching specific topics or skills without making clear their context in the broader fundamental structure of a field of knowledge is uneconomical in several deep senses. In the first place, such teaching makes it difficult for the student to generalise from what he has learnt to what he will encounter later (Bruner, 1960:8).

The subject curriculum therefore represents the distinctive ways in which people have learnt

to structure and codify their knowledge of themselves and the world. It represents their attempts to understand both the physical and human environment. Discrete subjects are attempts to explore, organise and understand the experiences of daily life (Entwistle, 1970).

Learning that has fallen short of a grasp of general principles has little reward in terms of intellectual excitement. The best way to create interest in a subject is to render it worth knowing, which means to make the knowledge gained usable in one's thinking beyond the situation in which the learning has occurred. Knowledge, according to Bruner (1960), which is acquired without sufficient structure to tie it together is knowledge that is likely to be forgotten, as Bruner argues that an unconnected set of facts have a pitifully short half-life in memory. Organising facts in terms of principles and ideas from which they may be inferred is the only known way of reducing the quick rate of loss of human memory.

Bruner (1960) sees knowledge as organised into subjects each with its own structures and methods. Popkewitz (1984) also acknowledges the need for structured knowledge, but knowledge learnt not in isolation but interactively with the community.

It is often thought and said that what is needed in education is wisdom and broad understanding of the issues that confront us. Not at all. What we need are deeply structured theories in education...(Popkewitz, 1984:1)

Popkewitz (1984) argues that each discipline has a different conceptual and epistemological approach that offers different types of explanations. Each discipline must focus on its particular area of study which enables researchers to consider different forms of questions and to produce greater depths of understanding. Broad understanding of issues as advocated by the integration approach gives a "murky, muddy" picture of what is happening. The genius of Einstein, for example, was his ability to put the physical world into sharp focus, different from what others accepted as common sense. This focused knowledge is needed but it must interconnect with other subjects to be able to make sense of the world and resolve problems (Fein, 1993 pers.comm).

In implementing an integrated approach to education a greater initiative from the child as an agent of own learning is required. With this in mind learner-centred educationists have failed to take into account that:

Children often bring to school negative, even hostile attitudes towards education which are a product of the environments in which they live (Entwistle, 1970:19).

This has clear implications for the integrated curriculum which requires greater initiative from the child as an agent of his own learning. Bernstein (cited in Entwistle, 1970) casts serious doubt as to the success of educating children in a learner-centred approach from an environment which is hostile to education.

The use of child-centred techniques and the realisation of child-centred values in education requires a favourable sociological climate. Assuming that a favourably sociological climate is achieved, the conditions in schools are also an important factor in integrated education.

According to Issacs (1965):

to let the child learn by doing would involve an immense advance in all the material settings of school life, as well in the number of staff and variety of equipment (Issacs, 1965:41).

These views of Issacs (1965) are confirmed by Aspinall (cited in Williams, 1984:17), who states that certain pre-conditions are required for successful integration:

- 1) A school resource centre with sophisticated duplicating facilities and secretarial assistance is vital if integration is to be implemented.
- 2) A staff ratio of 1:30 is needed with one teacher free to give remedial help.
- 3) A committed staff as integration demands much more time and effort than the separate subjects they replace.

The successful integration of subjects requires a well equipped school, teachers and small classes because of the need to provide individual attention assuming each child follows their own curriculum. Bernstein (1971) stresses that the integrated curriculum in both intellectual and organisational terms is more difficult to work with than the separate subjects. As Bernstein writes:

The collection code (separate subjects) is capable of working when staffed by mediocre teachers, whereas integrated codes call for much greater powers of synthesis (Bernstein, 1971:126).

2.5 INTEGRATION AND DISCRETE SUBJECTS IN RELATION TO LEARNING THEORY

The argument for either discrete subjects or integrated curriculum shows that their educational functions are complementary rather than exclusive, each contributing different but essential learning experiences within children's education. Firstly, integration seems a poor method for acquiring knowledge and skills in a manageable and disciplined form. To this end subject matter organised in distinctive disciplinary areas seems educationally superior to integration. Integration however provides an understanding between different subject areas. This leads to the possibility of pursuing integration of knowledge and experience through the subject curriculum itself.

We can teach subjects aware of their connection with other subject areas and using every opportunity to illustrate disciplinary principles with concrete examples from life of particular interest to the learner. In other words be sensitive to areas of overlap between one discipline and another (Entwistle, 1970:112).

Secondly, integration encourages learning by "doing" which implies active interaction of the child with the environment, to foster the child's understanding of the environment which is important for geography. Thirdly, integration requires learning to be related to the child's own experiences which implies that teachers should endeavour to perceive the world through the eyes of the child and build upon this foundation. Fourthly, integration encourages the use of problem-solving, project work, group work and games which are important in developing social, communication and intellectual skills which Catling (1988) emphasises as important in developing the child. The opportunities for developing an innovative geographical curriculum for a changing South Africa is dependent on many of the ideas emanating from integration. It is important however to relate curricular integration through discrete subjects to current learning theory.

Primary mathematics in South Africa, has moved from a transmissive style of teaching to social constructivism. According to Stoker (1993) the move from transmissive style teaching to social constructivism, represents a paradigm shift of considerable importance for primary school mathematics in South Africa. The essence of social constructivism according to Ernest (1993) is that:

Social constructivism regards individual subjects and the realm of the social as indissolubly connected. Human subjects are formed through their interactions with each other (Ernest, 1993:3).

A constructivist learning environment is one which encourages children to understand the source of their knowledge and construct that knowledge within their own minds. These ideas relate to modern geographical thinking which encourages the understanding of the environment around children, so that they can make sense of the world. Transmissive learning transfers facts to the child but constructivism encourages interaction with the environment on a social and individual basis. Society needs to develop thinkers that understand what they learn. Von Glasersfeld (1988) emphasises the shift in the student reproducing what the teacher does to the students' successfully organising their own experiences, which Catling (1987) encourages students to do by "Building knowledge and understanding of local places through investigations in fieldwork" (Catling, 1987:18). Von Glasersfeld (1988) goes on to say that students must not just recall facts but understand knowledge to be able to produce an answer. The goal of geography is to generate understanding to enable the application of knowledge to resolve environmental and social issues that face them (Catling, 1987:18).

The work of Vygotsky (cited in Stoker, 1993) concerning the role of social interaction in developing higher mental functions encourages the help from a teacher or capable peers through the interaction of language in the learning process, which Catling (1987) encourages in the development of geographical skills. These skills include communications skills and social skills in which pupils share and discuss their studies as a group.

According to Prawat (1992) constructivist teaching encourages the development of big ideas in the curriculum in which the basic concepts are understood and connected in a network of ideas which are reflected like a map. The approach develops conceptual understanding which is important, for example, in understanding the connection between man and the natural environment in modern geography (Catling, 1987).

To achieve these ideas the best attributes of integration need to be incorporated with the best attributes of the values achieved in each subject area. Therefore the ideal would be to develop a geography curriculum which reflects a constructivist approach.

2.6 EXPERIENCES WITH TEACHING AN INTEGRATED APPROACH

Britain, Kenya and the U.S.A. have had limited success in the application of an integrated curricula. All three of these countries have attempted an integrated approach in one form or another and in recent years have reverted to a subject approach.

The British Education Reform Act of 1988, re-introduced subjects with programmes of study, attainment targets and assessment levels. Geography was introduced as a foundation subject compulsory up to Form two, which is presently the system in South Africa. Kenya also reverted to a subject approach in 1985, after 15 years of an integrated curriculum approach (Ngige, 1992). According to Ngige (1992) Kenya's integration of traditional subjects failed because of two main reasons:

- 1) Poorly qualified teachers who had little knowledge of their teaching subject and were therefore reluctant to deviate from the syllabus or existing teaching methods.
- 2) Poor facilities and lack of educational resource material to institute innovative teaching methods required by the integrated approach.

Geography in the U.S.A. was reintroduced as a core subject in 1990 by President G. Bush after thirty years as an integrated subject called social studies. The America 2000 initiative was introduced to set national goals and levels of achievement for the five core subjects introduced: english, mathematics, science, history and geography (Rawlings, 1993).

The British experience according to Mills (1988), swung too far in the direction of unstructured education. From about the mid-1970's the reports of Her Majesty's Inspectors (H.M.I.) noted a general decline in the quality of work produced in the primary schools. The 1978 H.M.I. report noted the following:

- 1) Only 31% of primary school teachers in Britain had schemes of work for their subjects.

- 2) Inspectors also noted wide discrepancies in the geography content taught to children. Some work was done in geography but in most cases the essential skills and ideas were given insufficient attention.
- 3) Less than one third of all primary school children in Britain enjoyed a good all round education. For many children the teaching of geography, science and mathematics was judged to be below average.

The reason for the problems experienced was the interpretation of how integration was to be implemented in schools. Those teachers who chose the unstructured approach sought to instill in pupils the responsibility for their own learning. For example, at William Tyndale school in London, teachers abandoned the attempt to teach children the basic skills in a conventional way; they had rejected coercion of any kind, and sought to create an altogether freer and more flexible environment in which pupils would learn at their own pace and in their own time. The results were that children were left to watch television and go out to play when they felt like it. Evidence of violence and disruptive behaviour emerged resulting in a chaotic situation. The failure of an integrated approach at this school was caused by the implementation of unstructured integration which as seen from the above evidence is problematic. The best option was seen to be a structured integration (co-ordinated) approach in which the subjects are retained and at the same time the value of integration between the other subjects and the learner-centred teaching methods are utilised.

2.7 GEOGRAPHY VS INTEGRATION WITHIN A SOUTH AFRICAN CONTEXT

The experiences of Kenya, a third world country and of Great Britain, a first world country must be a lesson to experience for South Africa. On the face of it the experiences of Kenya are more applicable to South Africa. Examination of the literature pertaining to facilities, resources and teacher qualifications in South African schools revealed the following:

- 1) Many schools in South Africa lack basic resources like desks, chalk and textbooks. For example, only 5% of pupils have their own desk at school (Walker, 1991:220).

The average class size is in the ratio of 1:55 in urban schools and up to 1:120 in rural schools (Walker, 1991:203).

- 2) The majority (89%) of teachers in South Africa are poorly qualified and trained (Walker, 1991:210). Training methods are dominated by transmissive methods resulting in the majority of primary schools dominated by teacher-centred approaches to teaching (Walker, 1991:211). A comparison between Kenya and South Africa reveals a very similar situation regarding facilities, and teachers' qualifications and training. The very reasons for the failure of integration in Kenya would be applicable to South Africa. Therefore it is important to establish in chapter four, if teachers in South Africa think along the same lines as their counterparts in Kenya, with regards to responsiveness to an integrated approach and secondly to establish the availability of innovative teaching materials in South Africa for teaching an integrated approach. This information would help towards establishing the extent to which South Africa reflects the situation in Kenya and therefore the ability for South Africa to introduce a successful integrated curriculum. The Kenyan experience with integration failed because of the lack of facilities which South Africa experiences as well. In light of the Kenyan experiences the chances of successful integration in South Africa at present are very limited. The British experience with integration is a disappointing failure with experimental education. It appears that teachers' interpretations of what integration was varied considerably. From the evidence presented an unstructured integrated approach has not worked. The co-ordinated course which is a more structured form of integration appears to have been more successful.

2.8 SUMMARY

The study of geography prepares children to live and interact with the community and society on a daily basis enabling them to become active citizens in contributing to the development of the world around them. Geography is therefore not a discipline which solely observes, describes and reflects on the environment, but a discipline that responds to the potential and problems of places. Every child comes to school already as a geographer,

curious about the world about them, willing to explore the world and to discover about places and learning about people. Geographers must nurture this natural geography in every child and allow this awareness, understanding and valueing of the environment to develop. In the South African context the issues of poverty, population, unemployment, housing and environmental issues will affect the development of the curriculum. Kenya being a third world country, experiences similar issues that face South Africa. Therefore it is appropriate to take note of the efforts with integration in Kenya and the eventual return to discrete subjects with an intra-curricular approach. The key issues that South Africa must consider before introducing an integrated approach are:

- 1) Do teachers support an integrated approach?
- 2) Does South Africa have the resources available for an integrated approach?
- 3) What type of curriculum do teachers support and suggest?

The above issues highlighted in this chapter were included in a questionnaire (chapter three) with the results of these issues reported in chapter four.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The purpose of this research is firstly, to make a case for geography in the primary school on the basis of current study about geography and learning theory. Secondly, to establish the views of teachers towards integration and the availability of resources. Kenya's experience with an integrated curriculum has shown that teachers' attitudes and the availability of resources are critical for implementing a successful integrated approach. The establishment of these facts is important for curriculum planners when making a final decision concerning whether to adopt an integrated or subject approach for South Africa. In order to achieve this the research was conducted in the following phases.

- 1) To establish the extent to which the proposed core syllabus (Natal Education Department 1990), British and Kenyan syllabuses reflect current primary geographical thinking, using Catling's (1987) criteria.
- 2) To establish how geography is administered and organised in schools.
- 3) To ascertain teachers' perceptions of geography as a subject.
- 4) To ascertain teachers' attitudes to geography as a separate subject vs an integrated subject.

To achieve these objectives the research was conducted in two stages. The first stage of the research involved a survey of primary school teachers and the second stage of the research involved the evaluation of the British, Kenyan and proposed draft core syllabus for South Africa using Catling's (1987) criteria.

3.2 THE SURVEY

A survey was chosen for this study because the information could be obtained directly from the teachers by posing questions in the form of interviews and questionnaires (Dane,

1990:120) and secondly, the sample size was large enough to justify using the survey research method as opposed to other methods (Dane, 1990:120). According to Cohen and Manion, (1989:97):

a survey is an intentional method of gathering data aiming at describing the nature of existing conditions, or identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events.

A survey according to Feurstein (1986) has the following advantages:

- 1) A large quantity of information can be collected in a short period of time.
- 2) Information can be collected with the intention of describing existing conditions.
- 3) Information can be obtained cheaply compared to other research methods.
- 4) Information which has never been collected before can be gathered.

The ability to collect large amounts of data in a limited time span was of great assistance to the researcher because of the time constraint to complete the half-thesis within one year while working full time. The ability to collect data cheaply was also of assistance to the researcher because of budget constraints faced in conducting research of this nature. Surveys, however, have their disadvantages. The two most serious problems identified by Feurstein (1986) with regards to surveys as research instruments are reliability and validity. According to Cohen and Manion:

Reliability is the degree to which an instrument will give similar results from the same individuals at different times, while validity is the extent to which the research instrument measures what it is intended to measure (Cohen and Manion, 1989:318-319).

To reduce the problems of validity and reliability Cohen and Manion (1989) suggest that more than one data collecting instrument be used and a suitable sample be selected. This study therefore utilised both questionnaires and semi-structured interviews.

In selecting the sample, a sample size of not less than 30% of the research sample is suggested by Cohen and Manion (1989). This study selected 175 schools to take part in the survey, as Cates (1985) suggests as a rule of thumb to use the largest sample that can be

afforded and obtained. The sampling method chosen for this was purposive sampling, which is suitable for a sample sizes of less than 500 (Feurstein 1986). The sample was chosen from the Natal Education Department primary schools because of accessibility, which Dane (1990) regards an important factor in selecting a sample group.

Although the questionnaire was anonymous forty three of the respondents included a complementary slip with the returned questionnaires, which identified the schools. The sample group for the interviews was selected from this group because the respondents had indicated on the complementary slip to be contacted if further information was required. The interview sample used was 10% of the total respondents which was 13 of the questionnaire replies. The group of teachers interviewed were selected from the Durban region as these teachers were easily accessible to the researcher.

3.2.1 The construction and administration of the questionnaire

The questionnaire is a document normally distributed through the post to be filled in by the respondent in his own time (Behr, 1983:150).

The questionnaire according to Behr (1983) is the best available instrument for obtaining information if it is properly selected and administrated. The reasons for its suitability according to Cohen and Manion (1989) are that:

- 1) It is anonymous and encourages greater honesty.
- 2) It is more economical than the interview in terms of money and time.
- 3) A large number of respondents can be reached.

According to Leedy (1980) and Steinberg (1983) the design of the questionnaire needs considerable thought if meaningful results are to be obtained. Leedy (1980) suggests that not more than 30 questions be asked and that the more difficult questions appear towards the end of the questionnaire. Steinberg (1983) suggests that when framing questions that wording be simple and polite. Words or terms that can lead to misinterpretation must be avoided. Before the questions are put into final form, a pilot study should be carried out to eliminate any unclear questions.

The questionnaire for this study was constructed using both open-ended and closed-response questions.

The closed-response question requires the respondent to place a cross alongside one of several provided possible answers. The open-ended questions provide respondents with greater freedom by not confining them to a single alternative (Behr, 1983:150).

The closed-response questions enable the researcher to code and classify answers easily. This is useful if a large number of questionnaires have to be dealt with. The use, however, of fixed alternative answers may have the effect of forcing the respondent to think along certain lines which he might not have done, if left to choose his own responses. The open-ended form of question evokes a fuller and richer response and probes more deeply than the closed-response question. The task of summarising these responses is time-consuming and difficult.

The main weakness of the questionnaire is that incorrect responses can be made unintentionally. Mainly because of misunderstanding in reading the question or failure to understand the question. Furthermore, respondents can conceal the truth about their chosen response because of the fear that their responses could have repercussions with education authorities (Feurstein, 1986).

The questionnaire format was arranged as follows (See appendix 3A):

- 1) Section A dealt with the collection of personal data, to reflect the composition of the research population and their teaching experience. As recommended by Behr (1983) the design of this first section was such that it encouraged the respondents to complete the questionnaire.
- 2) Section B was designed to obtain data about the research population's perceptions of the aims of geography and the constraints of the current syllabus.
- 3) Section C dealt firstly with the respondents' perception of how worthwhile various

sections of the syllabus were to teach and secondly, how geography was taught in the various schools.

To eliminate mistakes, the questionnaire was tested, as suggested by Leedy (1980), before the main survey was done. This was done in four ways:

- 1) The questions were scrutinised by Natal and Rhodes University staff members.
- 2) A pilot study of the questionnaire was conducted in local Catholic private schools.
- 3) The questions were scrutinised by the superintendent of geography of the Natal Education Department, and by the director of research of the Natal Education Department.

Changes to the questionnaire were made as recommended by the above individuals.

The final questionnaire (Appendix 3A) was sent to the 175 primary schools under the jurisdiction of the Natal Education Department. The questionnaire was posted with a covering letter to the principal (Appendix 3B) of each school together with a letter (Appendix 3C) to the teacher chosen by each school principal to complete the questionnaire. A letter from the director of the Natal Education Department (Appendix 3D), giving approval for the research was also included.

A self-addressed stamped envelope was included to increase the percentage return of respondents. The names and addresses of these schools were obtained from the superintendent of geography in the Natal Education Department. Each school received one questionnaire, which reduced administration costs for the researcher. The following problems arose with the completed questionnaires:

- 1) Some sections of the questionnaire were incomplete.
- 2) There was a lack of response to some of the open-response questions.
- 3) Some respondents did not read the instructions correctly and gave incorrect responses.

An average of 7,2% of the data was incomplete and therefore unusable. Interviews were

used in an attempt to reduce the problems discussed above.

3.2.2 Semi-structured interviews

The interview is closely related to the questionnaire which is used to increase validity and act as a data-gathering technique. The research interview is defined as:

A two-person conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information, and focused by him on content specified by research objectives of systematic description, prediction, or explanation (Cohen and Manion, 1985:307).

The purpose of the research interview in this study was to clarify issues resulting from the questionnaire and to probe more deeply the open-ended responses to the questionnaire. A particular advantage of the interview is that the interpersonal interaction reduces the 'do not know' type of responses, thereby providing more complete data (Behr, 1983).

Semi-structured interviews were selected for this survey. Gay (as cited in Cates 1985:125) defines a semi-structured interview as:

an approach that involves asking structured questions followed by unstructured questions in order to facilitate explanation and understanding of the responses to the structured questions.

Semi-structured interviews are a common approach in surveys as they allow the interviewer to obtain a clearer assessment of the respondents' perceptions of structured questions by posing questions which can elicit greater clarification.

The preparation for interviews followed the same procedures as for questionnaires. Questions were devised from the analysis of the questionnaire. In constructing the interview schedule care was taken to ensure that the questions were clear and unambiguous. In wording the questions the guidelines suggested by Steinberg (1983) for questionnaires was followed.

The interview schedule (Appendix 3E) was made as brief as possible so that the interview

would not become time-consuming and the respondent become bored. The average interview was planned to last from 20 to 25 minutes.

A pilot interview was tested on two colleagues. Feedback from these interviews did not result in any changes to the interview schedule. All interviews were administered by the researcher. The interview sample was chosen from the respondents to the questionnaire who indicated that they would like to share further information. These respondents gave their name and contact phone numbers.

Two of the interviewees had initial interviews by phone, but these were both followed up with personal interviews. Since the respondents had already had contact with the researcher they were at ease and familiar with the topic and the expected questions. The responses for each answer were recorded during the interview in order to avoid errors and omissions. The recordings included questions by the interviewer, conversation which occurred during the interview and comments made by respondents. Care was taken to quote respondents directly so as not to distort the respondents meaning and lose the emphasis of the replies (Behr, 1983).

Transcripts of interviews were made and data was analysed qualitatively and compared with the questionnaire results.

3.3 SURVEY DATA ANALYSIS

The survey data was analysed in the following manner:-

- 1) The open-ended questions of the questionnaires and interviews were transcribed and analysed qualitatively. The conclusions obtained were subjective and compared to the results of the closed-response questions of the questionnaire.
- 2) The closed-response questions were computerised and analysed quantitatively in the following manner:
 - a) The numerical means of the various subsets were calculated to show the

average of the responses on a five point scale. In section B (i) for example the numerical scoring was from left to right, ie 1,2,3,4,5. This resulted in numerical means in tables 4.3 of less than 2. In section c (i) and question 36 the numerical scoring was from right to left ie 5,4,3,2,1. The numerical means were ranked to enable the most popular choices to be illuminated. The ranking of the numerical means did not indicate the significant differences between the means. Consequently percentages were shown next to each subset to indicate levels of support for each subset.

- b) To determine if the different groups, for example, male or female, urban or rural, etc, had statistically significant different views when compared with the various subsets, the chi-square test was applied using a 95% confidence level.

3.4 ANALYSIS OF SYLLABUSES

The purpose of analysing the curriculum was firstly, to establish if the proposed draft core syllabus for primary school geography in South Africa (Natal Education Department, 1990) reflected current geographical thinking and practice and secondly, to establish if the syllabus satisfied teachers' expectations regarding a syllabus as reflected in chapter four, and finally to assess if the syllabus meets the needs of the community in a changing South Africa. This was achieved by following the guidelines suggested by Evaluating Curriculum Models (unpublished lecture notes). This evaluation consisted of five stages :

1) Focusing

This was the first part of the procedure which involved clarifying the purpose of the evaluation and the information needed.

2) Preparing

This involved determining when and from whom the information was needed.

3) **Implementing**

This involved collecting all the information.

4) **Analysing**

In analysing the collected information a number of steps were involved:

- 1) Determining the criteria by which to relate the syllabus.
- 2) Determining the potential impact of the curriculum.
- 3) Determining all the likely consequences of the curriculum in action.

5) **Reporting**

Reporting was the final step which involved interpreting the information analysed and providing recommendations about the quality and relevance of the curriculum.

3.4.1 **Implementation of the evaluation**

1) **Focusing**

The purpose of the evaluation was firstly, to analyse the proposed draft core primary schools geography syllabus (Natal Education Department, 1990), on the basis of an analysis of current geographical thinking and practice. In order to determine the current geographical practice the British and Kenyan syllabuses were to be compared with the proposed draft core syllabus. The information needed was copies of the British, Kenyan and proposed draft core syllabuses. Secondly, to establish if the proposed core syllabus (Natal Education Department, 1990) met the expectations of teachers requirements regarding a geography syllabus (chapter four).

2) **Preparing**

The necessary information was obtained from the various education departments in Kenya, Britain and South Africa.

3) **Implementing**

The Kenyan syllabus was obtained from the Kenya Institute of Education in Nairobi. The British syllabus was obtained from the Department of Education and Science in London. The proposed draft core syllabus was obtained from the director of education in the Natal

Education Department.

4) **Analysing**

To evaluate the current geographical thinking reflected in the syllabuses Catling's (1987) criteria for a primary school curriculum was chosen. The geographical experiences that a primary school child should be exposed to according to Catling (1987) are shown in table 3.1.

Catling's criteria were applied by placing the eleven aspects of the primary geography curriculum into two matrixes. The one matrix would be used to evaluate the extent to which the aims of Catling were reflected in the various syllabuses. The second matrix would be used to evaluate the extent to which the content of the various syllabuses reflected Catling's criteria. Comparisons were made between the aims and content of the different countries' curricula.

Table 3.1

Catling's criteria for a primary geography curriculum

- 1) Building knowledge and understanding of the neighbourhood and local region in which the child lives.
- 2) Fostering children's knowledge of the variety of human activities and social and natural environments around the world, and of some of the places in which these occur, of which suitable evidence enables comparison with their own experience.
- 3) Developing understanding of how people and social and natural environments interact, and about some of the issues that arise and how these might be tackled.
- 4) Using and making maps at a range of scales of familiar and unfamiliar places.
- 5) Undertaking fieldwork to investigate places locally and further a field.
- 6) Building understanding of the roles of location and spatial connections and interactions in social and natural processes.
- 7) Challenging the preconceptions and stereotypes about peoples and places children bring to school.
- 8) Helping children to build informed understanding and values (social justice, participatory democracy, ecological sustainability, respect for human rights) on which to base judgement and decisions about social and environmental issues.
- 9) Encouraging children to take action about environmental and social issues that face them.
- 10) Developing a sense of place.
- 11) Introduction to the variety of skills employed in geographical study:
 - a) basic communication skills:
 - factual writing
 - imaginative writing
 - using reference books and other resources
 - skills derived from mathematics
 - modelling and picture representation
 - oral explanation and discussion
 - b) intellectual skills:
 - using scientific methods of enquiry
 - problem solving and decision making
 - experimenting and observing
 - evaluating
 - c) social skills:
 - sharing by pupils of their studies
 - investigation and involvement in the community
 - the recognition of diversity and value of people in the local community
 - their awareness of their own changing attitudes to aspects of the environment.

3.5 LIMITATIONS OF THE STUDY

The yardstick used to measure the geographical theory of the British, Kenyan and South African curriculum involved using the criteria for designing a primary school curriculum suggested by Catling (1987). The decision to select Catling was based on his contribution to British primary school geography and the fact that no geography research in the primary school has been done in South Africa in recent years. The limitations of Catling's criteria were recognised, as Catling's experience is from a first world perspective which may not have being entirely suitable for the South African situation.

Other limitations of the research methodology were that the sample consisted only of white teachers from Natal. This was unavoidable both in terms of the requirements of the half-thesis and because of limitations placed on the study by time and costs.

The interviews were not as successful as expected as interviewing requires practice. The researcher was inexperienced in conducting interviews and this was felt to reduce the effectiveness of the interviews.

3.6 SUMMARY

This study was based on the analysis of teachers' perceptions of the existing geography syllabus and the relevance of various sections of the syllabus for their pupil's needs. Teacher's attitudes towards geography as discipline were also determined.

The evaluation of the proposed draft core syllabus was analysed in terms of current geographical thinking and practice. The criteria adopted to evaluate the draft core syllabus were Catling's experiences that a child should be exposed to, and the current British and Kenyan primary school geography syllabuses. The analysis of the data based on the methodology discussed above will be presented in chapters four and five.

CHAPTER 4

TEACHERS' RESPONSES TO THE TEACHING OF GEOGRAPHY AT PRIMARY SCHOOL

4.1 INTRODUCTION

This chapter presents and analyses the results of a survey conducted in the Natal Education Department primary schools. The purpose of this survey was two-fold, firstly, to establish teachers' perceptions of geography as a subject and secondly, to establish how geography is organised and administered in schools. The results are a reflection of a questionnaire and follow-up interviews, conducted in the second term of 1993. The questionnaire analysis is presented according to the sequence of the sub-headings of the questionnaire (Appendix 3A) as follows:

- 1) Section A: Personal background of respondents.
- 2) Section B: Teachers' perceived aims of geography
- 3) Section C: The perceived value of the various sections of the syllabus and how geography is taught in the primary schools.

The follow-up interviews were conducted after the questionnaires were analysed to clarify issues resulting from the questionnaire responses.

4.2 QUESTIONNAIRE RESULTS

The 136 returns obtained from the questionnaire represented a response from 76,6% of the Natal Education Department primary schools. 50% of the responses were received within two weeks of the questionnaire being sent out. In view of the good response no follow-up of questionnaires took place. Of the 136 questionnaires received 22 were not processed because of incomplete data. The final sample size of 114 represented 65% of the total number of questionnaires sent out. It must be noted that a further 15 questionnaires were received after the cut-off date, and were not processed due to the time constraints of completing the research within one year.

4.2.1 Section A : Background of respondents

The personal information gathered from the survey population represented a broad cross-section of responses indicating a wide range of experiences. Comparisons, can therefore be made between teachers on the basis of the respondents' gender, years of teaching experience and their teaching environment.

An analysis of the various subsets reveals differences between different teacher groups regarding geography that might not have been revealed if the general experiences of the research population were grouped together.

Personal Item	Respondents According to category (N=114)				
Gender	<u>Male</u> 34,5				<u>Female</u> 65,5
Teaching Experience	<u>1-5 years</u> 37,7	<u>6-10 years</u> 19,3	<u>More than 10 years</u> 43,0		
Standard Taught	<u>Std 2</u> 16,8	<u>Std 3</u> 30,1	<u>Std 4</u> 39,8	<u>Combined</u> 13,3	
Medium of Instruction	<u>English</u> 79,8	<u>Afrikaans</u> 7,7		<u>Dual Medium</u> 12,5	
Description of School					
a) According to sex	<u>Boys only</u> 3,5	<u>Girls only</u> 0,9	<u>Co-ed</u> 95,6		
b) According to locale	<u>Small town</u> 42,9	<u>Large town</u> 29,6	<u>City</u> 27,6		
Description of School According to Model	<u>Model Q</u> 1,0	<u>Model B</u> 3,0	<u>Model C</u> 81,2	<u>Model D</u> 2,0	<u>Private</u> 12,9

An analysis of these returns (table 4.1) revealed the following:

- 1) The majority (65,5%) of primary school geography teachers in the Natal Education Department are female. Research conducted by Ballantyne (1981:100) revealed that in high schools the majority of geography teachers are male. The sample used in this research would seem to indicate that the situation is reversed in primary schools.
- 2) The majority (80%) of schools are English-medium with 95,6% of the schools co-

educational and only 4,4% single sex .

- 3) Of the teachers who responded, 43% had more than ten years teaching experience, with a statistically significant decrease in the number of teachers in the six to ten year experience bracket. This would seem to indicate that a number of teachers leave teaching after five years.
- 4) A numerically even spread was recorded from respondents teaching at schools in metropolitan areas (29,6%) and large towns (27,6%). Forty two of respondents came from smaller towns.
- 5) The majority (81,2%) of schools are model C schools.

The academic qualifications of the survey population are summarised in table 4.2.

Course	Raw score	%
No geography training	12	8,7%
College 1 yr	18	13,1%
College 2yr	16	11,6%
College 3 yr	30	21,8%
College 4 yr	46	33,5%
College 5 yr	2	1,5%
University degree	13	9,4%
Total	114	100%

The qualifications of the sample group indicate that the teachers are well prepared to teach geography with 78% of teachers with two or more years of study in geography . Only 8,7% of teachers do not have a qualification to teach geography. The relatively high qualifications of the sample group will have an impact on the responses to the questionnaire (appendix 3A).

4.2.2 The perceived purpose, role and value of geography

Section B of the questionnaire required teachers to respond to the following three aspects concerning the aims of geography:

- 1) The aims of geography as perceived by the respondents.
- 2) Whether these aims were being achieved by the current syllabus.
- 3) Sections of the syllabus perceived as being relevant to the needs of the pupil.

4.2.2.1 The aims of geography as perceived by the respondents

Rank	Item	N.Mean	Male	Female	Teaching Experience/yrs			Town		City
					0-5	6-10	>10	Small	Large	
1	Relation between man & environment	1,85	100	100	100	100	100	100	100	100
2	Local places	1,85	100	100	100	100	100	100	100	100
3	Environmental awareness/conservation	1,76	97,3	98	97,5	100	97,8	100	96,6	96,3
4	Graphicacy	1,74	100	95,8	95,3	100	98	97,6	96,6	96,3
5	Physical environment	1,64	97,3	87,5	86,1	95,4	93,9	92,8	96	84,6
6	Other lands	1,62	92,1	94,4	88,3	100	95,9	92,8	93,1	92,6
7	Problem solving	1,35	91,9	93,9	90	90,4	97,8	92,7	89,7	96,3
8	Language skills	1,32	94,6	89	92	90	91,2	92,7	82,1	96,3
9	Respect for other cultures	1,30	86,5	84,5	80	90,5	84,8	69	100	75,2
10	Love of country and culture	1,28	70,3	83	80	66,7	82,2	78,1	82,8	64,1

The results of table 4.3 regarding teachers' perceptions of the aims of geography revealed the following:

- 1) Strong support for all the statements, which theoretically indicates a high correspondence between the thinking of teachers regarding the role and value of geography with that of current thinking (chapter two).
- 2) The most strongly supported aims of geography were the development of:
 - 1) An understanding of man's relationship to the environment.
 - 1) A knowledge of local places.
 - 2) Environmental awareness/conservation.
 - 3) Graphicacy.
- 3) The sub-sets revealed no statistically significant differences.

4.2.2.2 Teachers' perceptions of the extent to which the aims of geography are achieved by the current syllabus

The relationship between the aims of geography and the achievement of these aims by the current syllabus, as perceived by teachers, revealed that teachers felt the current syllabus did not achieve

the aims of geography for the following reasons:

- 1) The majority (90%) of teachers perceived the teaching approach suggested in the syllabus to be antiquated.
- 2) Of the respondents ninety-five percent, considered geography textbooks to be knowledge-orientated rather than concept-orientated.
- 3) Fifty percent of the respondents felt that sections of the syllabus were not thematic and did not lend themselves to achieving the aims of the syllabus.
- 4) The majority (91%) of teachers experienced difficulty in obtaining resource material.
- 5) The syllabus was considered too long by 54% of the respondents.

The results of this section indicate that a gap exists between the perceived aims of geography and the way the subject is dealt with in text books and syllabus content. These observations of the teachers are further supported in later sections of the analysis with particular regard to the way in which the syllabus meets specific children's needs.

4.2.2.3 Sections of the current syllabus perceived as being relevant to the pupils' needs

Rank	Item	N.Mean	Male	Female	Teaching Experience/Yrs			Town		
					0-5	6-10	>10	Small	Large	City
1	S.A. (local)	2,67	52,2	78,9	74,4	90,5	64,6	71,4	82,1	69,2
2	Map-work	2,52	59,5	59,2	53,5	52,4	66,7	57,1	60,7	50,0
3	Topical	2,47	42,9	63,8	39,0	66,7	67,4	40,0	63,0	69,2
4	Weather	2,26	45,9	39,4	37,2	38,1	45,8	47,6	32,1	38,5
5	Urban	2,23	40,5	39,1	42,9	35,0	37,5	42,9	39,3	38,5
6	Resources	2,20	27,8	31,4	23,8	25,0	39,6	32,5	32,1	30,8
7	Africa	2,0	21,6	26,1	26,2	15,0	27,1	19,0	35,7	16,0
8	Economic	1,98	24,3	20,3	28,6	20,0	16,7	14,3	28,6	19,2

The responses to the aims of geography (table 4.3) and the current syllabus (table 4.4) revealed a similarity in the ranking of the aims and the topics in the syllabus. For example map-work is ranked 3rd as an aim and 2nd as an important section of the current syllabus. Local places is ranked 2nd as an aim of geography and 1st as an important section of the current syllabus. The results however of percentage responses to the aims of geography (table 4.3) and the current syllabus content (table 4.4) appear contradictory. For example in (table 4.3) local places has a hundred percent support by both male and female teachers as an aim in geograhly. Whilst only (52,2%) male and (78,9%) female supported local places as relevant to pupils needs in the current syllabus (table 4.4). The results would seem to indicate that teachers are supportative of the aims and content of geography, but are unhappy with the way the topics are dealt with.

The analysis of the sub-sets revealed no statistically significant differences, but noteworthy was the lower support by rural teachers for topical geography compared with teachers from metropolitan and larger areas. This may be because of the reduced access to updated resource materials in the smaller areas.

The perception by teachers that economic geography is the least important need for pupils, is important as the Department of National Education in the Curriculum Model for South Africa (1991) proposes that economics be introduced from standard two in the proposed social studies course.

4.2.3 Section C : Important aspects of the geography syllabus and the teaching of geography

Section C of the questionnaire required teachers to respond to the following four aspects concerning the teaching of geography:

- 1) The perceived importance of various sections of the syllabus.
- 2) Teachers' suggestions for topics in a revised geography syllabus.
- 3) The teaching and organisation of geography.
- 4) Teaching techniques in geography.

4.2.3.1 Teachers' perceptions of the important sections of the syllabus

The various parts of the geography syllabus were examined to establish teachers' attitudes towards the different sections of the syllabus using a semantic differential for questions 22-29. Table 4.5.a. provides a summary of the responses to map-work in terms of adjectives such as "enjoyable", "satisfying", "easy", etc (appendix 3 A).

Mapwork

Enjoyable	40,2	43,0	14,0	1,9	0,9	Unenjoyable
Satisfying	27,1	41,1	21,5	7,5	2,8	Frustrating
Valuable	57,0	28,0	12,1	2,8	0,0	Valueless
Interesting	41,5	40,6	13,2	1,9	2,8	Boring
Easy	17,0	16,0	36,8	22,6	7,5	Difficult

The results revealed by table 4.5.a. indicate that teachers (85%) consider map-work as a valuable component of the syllabus, but 30,3% find it difficult to teach. The teaching of mapwork is enjoyable (83,2%) and interesting (82,1%). When comparing map-work as valuable component of the syllabus with the results of table 4.4 (relevance of map-work to pupils needs) only fifty nine percent of male and female teachers feel that map-work is valuable.

Weather studies

Enjoyable	33,3	33,3	23,1	7,4	2,8	Unenjoyable
Satisfying	22,4	39,3	23,4	11,2	3,7	Frustrating
Valuable	36,2	33,3	21,9	6,7	1,9	Valueless
Interesting	32,4	33,3	21,9	11,4	1,0	Boring
Easy	22,3	32,0	35,9	7,8	1,9	Difficult

When examining the value of weather studies in table 4.5.b and table 4.4 it becomes apparent that teachers perceive weather studies (table 4.5.b) to be an important section of the syllabus (69,5%) but don't find weather studies (table 4.4) as relevant to the pupils needs (49,5% males and 39,4% females). Fifty four percent of the respondents found the topic easy to teach and only ten percent found the topic unenjoyable to teach.

Resource studies

Table 4.5.c.: Percentage distribution of teachers' attitudes towards resource studies N=114

Enjoyable	25,7	36,6	28,7	7,9	1,0	Unenjoyable
Satisfying	20,6	32,4	38,2	6,9	2,0	Frustrating
Valuable	34,7	31,7	29,7	4,0	0,0	Valueless
Interesting	33,0	33,0	28,0	5,0	1,0	Boring
Easy	12,1	27,3	45,5	12,1	3,0	Difficult

The results in table 4.5.c indicate that sixty six percent of teachers find resource studies interesting to teach and forty percent find the section easy to teach. The majority (66,4%) of teachers find this section a valuable component of the syllabus, but don't agree to the same extent about the value of resource studies for pupils needs (table 4.4). The support for the topic by males is 27,8% and 31,4% by females. The analysis of the open ended questions in section 4.2.2.2 revealed that teachers feel resource teaching should rather look at renewable and non-renewable resources and the need for conservation of resources. Respondents also felt strongly that relevant resources in the local areas should be studied.

South Africa

Table 4.5.d. Percentage distribution of teachers' attitudes towards South African regional studies N=114

Enjoyable	19,6	47,1	25,5	7,8	0,0	Unenjoyable
Satisfying	13,9	40,6	35,6	6,9	3,0	Frustrating
Valuable	27,0	53,0	16,0	4,0	0,0	Valueless
Interesting	19,4	48,5	21,4	9,7	1,0	Boring
Easy	16,0	32,0	42,0	9,0	1,0	Difficult

The majority of teachers found this section enjoyable (66,9%), satisfying (54,5%), valuable (80%), and interesting (67,9%) to teach. Only ten percent found the topic difficult, frustrating or boring to teach. In the open-ended responses teachers felt, however, that not enough emphasis was given to local studies in the syllabus.

Urban studies

Table 4.5.e. Percentage distribution of teachers' attitudes towards urban studies N=114

Enjoyable	29,6	37,8	21,4	8,2	3,1	Unenjoyable
Satisfying	21,0	34,0	34,0	7,0	4,0	Frustrating
Valuable	34,3	43,4	18,2	2,0	2,0	Valueless
Interesting	31,3	34,3	28,3	3,0	3,0	Boring
Easy	14,3	28,6	36,7	17,3	3,1	Difficult

The results in table 4.5 e indicate that the majority of respondents regard urban studies as valuable (77,9%) but only about forty percent of males and females regard urban studies as relevant to the pupils needs (table 4.4). Forty two percent find the topic easy to teach and only six percent find the topic boring.

Economic geography

Enjoyable	7,3	28,1	38,5	17,7	8,3	Unenjoyable
Satisfying	5,2	23,7	44,3	22,7	4,1	Frustrating
Valuable	19,6	27,8	39,2	11,7	2,1	Valueless
Interesting	7,2	32,0	32,0	22,7	6,2	Boring
Easy	2,1	15,6	42,7	32,3	7,3	Difficult

From the results in table 4.5.f it is apparent that less than fifty percent of respondents had positive attitudes towards this section. For example only thirty five percent of respondents regarded the topic as enjoyable and 46% percent felt the topic as valuable. Thirty nine percent of respondents felt the topic was difficult to teach. The negative attitude towards the value of economic geography correlates with the limited value (males 24,3% and females 20,3%) perceived by teachers of economic geography for pupils' needs and interests (table 4.4). The study of open-ended questions reveals that teachers feel that this section is too abstract and that pupils do not relate to this section very well. These results reinforce the findings in section 4.2.2.2 which ranked economic geography as the least important aim of geography. However, what is interesting is the large number of respondents who took a neutral stance to this section.

Regional geography in Africa

Enjoyable	21,6	41,2	21,6	13,7	2,0	Unenjoyable
Satisfying	14,9	38,6	31,7	9,9	5,0	Frustrating
Valuable	18,8	44,6	24,8	9,9	2,0	Valueless
Interesting	17,0	44,7	22,3	14,9	1,1	Boring
Easy	12,8	33,0	38,3	16,0	0,0	Difficult

The results in table 4.5.g. indicated a similar set of results as found with map-work, weather, resources, urban studies and local studies. For example 63% find regional studies

valuable and 62% find the topic enjoyable. Forty five percent find the topic easy to teach, whilst only 16% find the topic difficult to teach. The findings of this section reveal that teachers find the topics interesting enjoyable and valuable to teach.

A comparison of the results of the semantic differentials in table 4.5 would appear in all instances other than table 4.5.f to contradict the results in table 4.4. These results in table 4.5 and table 4.4 indicate that teachers were not dissatisfied with the topics but are reacting to the nature and approach of these topics as they are presented in the syllabus and textbooks.

4.2.3.2 Teachers' response to suggested topics in a revised geography syllabus

The purpose of this sub-section was to gauge teacher response and approaches to suggestions that environmental and development education be introduced in a revised geography syllabus.

a) Environmental Education

The results in table 4.6.a indicate that the majority of teachers (males 100% and females 93,7%) support the introduction of environmental education into the syllabus. Teachers regardless of their teaching experience or geographical location (>93%) supported environmental education. This positive response to the introduction of environmental education would seem to indicate that this group of teachers perceive geography to be a valuable means through which to promote environmental education. This view is supported by Opie (1993) who suggests that geography is an integral part of environmental education.

b) Development education

The results in table 4.6.b indicate that development education has more support amongst male teachers (80%) than female teachers (66,7%). The support for environmental education seems to be stronger than development education. The majority (72,1%) support for development education is encouraging in view of modern geographical thinking which promotes development education (chapter two).

Table 4.6

Teachers' responses to environmental/development themes
(expressed as a percentage)

	Male	Female	Teaching Experience/Yrs			Town		
			0-5	6-10	>10	Small	Large	City
Environmental themes	100	93,7	97,4	100	92,9	97,5	96,4	95,8
Development themes	80,0	66,7	70,4	63,6	73,1	77,8	73,3	58,8

c) Teachers suggestions for the syllabus

Suggestions for the syllabus in the open-ended section included:

Ecology, political geography, life-skills, population studies and cultural geography. At present none of these topics are included in the current syllabus and would need to be reviewed in designing a future syllabus.

4.2.4 The organisation and teaching of geography

The purpose of this sub-section was to establish the following:

- 1) The most frequently used teaching approach in geography.
- 2) Allocation of time for the teaching of geography.
- 3) The evaluation of geography in schools.
- 4) Teachers' perceived support for geography as a discrete subject in the curriculum.
- 5) Strategies used in the teaching of geography.

4.2.4.1 The most frequently used teaching approach in geography

Table 4.7

The approaches to teaching geography
(expressed as a percentage)

	Percentage	Male	Female	Teaching Experience/Yrs			Town		
				0-5	6-10	>11	Small	Large	City
Separate subject	70,7	77,3	66,7	71,8	66,7	72,1	70,0	75,0	76,0
Integrated with other subjects	17,2	16,7	17,5	10,3	14,3	23,3	20	14,3	8
Theme teaching	5,1	2,8	6,3	5,1	9,5	2,3	2,5	3,6	4,0
Language across the curriculum	7,1	2,7	9,5	12,8	9,5	2,3	7,5	7,1	12,0

The results in table 4.7 indicate that at present the majority (70,7) of teachers teach geography as a separate subject and 29% have adopted an integrated approach. Support for a subject approach is slightly more favourable amongst male teachers (77,3%) compared with female teachers (66,7%). Integration with other subjects appears to be used more frequently by teachers with more than 10 years experience (23,3%) compared twith the 6-10 year group. Language across the curriculum however tends to be used more by teachers with less than 5 years experience (12.8%) compared 2% teachers with more than 10 years of experience.

4.2.4.2 Geography as a separate subject

	Percentage	Male	Female	Teaching Experience/Yrs			Town		
				0-5	6-10	>11	Small	Large	City
Support for Geography as a discrete subject	72,0	72,2	71,9	70,0	75,0	72,7	70,7	72,4	70,8
Support for integrated subject	28,0	27,8	28,1	30,0	25	27,3	29,3	27,6	29,2

If one examines teachers' personal support for geography in table 4.10 the support for geography as a separate subject is 72% and for integration 28%. These results correspond very closely to the approaches used in teaching (table 4.7). The responses to the open-ended questions give insight into why teachers choose a separate subject approach verse integrated approach:

- 1) "If not taught as a subject, it might be ignored altogether."
- 2) "I think often, of integrating geography completely with another subject, but its identity as a subject in its own right is lost, and its value as subject diminished."
- 3) "It is difficult for a single skill to be honed and developed when part

of a theme. For the average and language disadvantaged child this becomes a jumble of facts and skills without any particular one being concentrated on."

- 4) "Skills learnt in geography are different to those learnt in other subjects."
- 5) "A subject approach is easier for preparation and general assessment."
- 6) "Pupils learn a wide range of interesting topics in geography which help them in their own lives."
- 7) "It is essential to know the immediate environment and the world we live in and this involves skills unique to geography."
- 8) "There is so little time available that to water it down with other subjects would not achieve anything."
- 9) "Geography skills are necessary to develop a well-rounded education and understanding of the environment."
- 10) "Geography is relevant to pupils understanding of the environment and they enjoy the subject."
- 11) "It is its own discipline therefore needs to be separate, but can easily be included with other subjects to enrich all other disciplines."
- 12) "Geography should be taught as separate subject but integrated and linked with other subjects when necessary."

The open-ended responses seem to indicate, firstly, that because of the value of geography it should be taught as a separate subject. At the same time teachers do seem to indicate that

because of the nature of the subject it needs to be integrated with other subjects at times. Secondly, teachers highlight that geography integrated as a subject such as social studies reduces the value of the subject:

I personally only had social studies and I had to study hard to fill the lost gap. So don't let it happen to our children again. Go on with geography. Social studies in retrospect was a disaster. (Source: Field Survey, 1993)

To conclude the discussion on teacher attitudes towards the practice of geography in the primary schools the following salient points can be made:-

- 1) Teachers' are unhappy about the integration of geography with other subjects. These findings correspond to the British experience during the 1970's (Mills, 1988) (chapter two).
- 2) Teachers' feel compartmentalisation is a shortcoming of geography as it is currently taught. They feel that greater integration within the subject would solve this problem.

4.2.4.3 Time allocation for the teaching of geography

Time	% of Time	Male	Female	Teaching Experience/Yrs			Town		
				0-5	6-10	>10	Small	Large	City
0-1hrs	54,0	61,3	70,0	70,0	58,8	41,9	56,1	51,7	63,6
1-2hrs	33,0	27,3	17,5	17,5	29,4	46,5	36,6	31,0	17,2
2-3hrs	12,7	11,4	12,5	12,5	11,8	11,6	7,3	17,3	19,2

The results in table 4.8 revealed that (53,8%) of teachers taught geography for one hour per week as required in the syllabus. Forty six percent of teachers with more than ten years experience spent between one to two hours per week on geography. The subsets revealed that inexperienced teachers (70%) spend up to one hour per week teaching geography. Respondents commented in the open-ended responses that insufficient time is allocated to the teaching of geography (Source : Field survey, 1993).

4.2.4.4 The evaluation of geography

The purpose of this question was to establish how geography was examined within the school system. The results in table 4.9 reveal that geography is examined by 92,8% of respondents as a separate subject. Table 4.7 reveals that 70% teach geography as a separate subject. These results would therefore suggest that about 8% teach the subject using an integrated approach.

	Percentage	Male	Female	Teaching Experience/yr		
				0-5	6-10	>11
Evaluation of geography as a separate subject	92,8	97,3	89,4	97,5	81,0	93,5
Examination as a integrated subject	7,2	2,7	10,6	2,5	19	6,5

4.2.4.5 Strategies used in the teaching of geography

Rank	Technique	Mean	Male	Female	Teaching Experience/airs			Town		
					0-5	6-10	>10	Small	Large	City
1	Worksheets	3,5	89,1	98,6	95,1	90,9	97,9	97,5	93,1	92,6
2	Maps	3,4	91,4	95,9	92,9	90,5	95,9	97,5	93,1	88,8
3	Pictures	3,2	88,9	88,7	93,8	91,9	93,6	87,5	93,1	85,2
4	Group work	2,8	69,4	71,8	63,4	72,7	77,1	82,5	64,2	62,9
4	Talk & chalk	2,8	80,6	62,5	81,4	61,9	61,3	68,3	85,8	59,2
5	OHP	2,7	79,5	59,8	49,8	50,0	74,4	68,3	55,2	65,4
5	Projects	2,7	75,7	69,4	64,7	77,3	66,7	85,4	65,5	66,7
6	Newspapers	2,6	66,6	55,0	44,2	68,1	54,4	58,9	48,3	55,6
7	Video	2,5	61,1	48,6	39,0	63,5	59,5	57,5	46,5	51,8
8	Field trips	2,3	47,2	38,1	24,2	45,5	45,6	43,9	32,2	48,0
9	Geography games	2,0	34,3	22,5	25,6	42,9	17,3	22,5	21,5	34,6
10	Textbooks	1,7	37,8	7,1	11,9	13,6	23,4	20,0	24,1	15,4
11	Computers	1,3	19,4	4,5	4,9	10,5	12,8	7,5	7,7	18,5

To determine the most frequently used teaching techniques respondents were asked to indicate which teaching techniques they used. These results are shown in table 4.11:

1) These results are particularly interesting since they reveal that this group of teachers use a wide spread of teaching resources and strategies. Of the items listed worksheets, maps, pictures, group-work and expository strategies fall into the first four categories, closely followed by the use of O.H.P. and projects. Teaching strategies involving group work and projects are well supported and indicate a move away from a wholly teacher directed learning environment. These results are to be expected from a group of teachers such as this who have had the benefit of adequate training and are regularly exposed to in-service courses.

What the researcher has found particularly interesting was the low support given to textbooks. Teachers indicated that the poor support for computers was because many of them lacked the expertise necessary for their use in the teaching of geography.

An analysis of sub-sets revealed uniformity throughout. Of interest however was the extent to which teachers in small towns supported projects (85,4%). Also interesting was that older teachers appear to use video's more extensively than others.

These results when compared with table 4.12 would seem to indicate that a greater variety of resources would be used with better funding since lack of money and appropriate materials were identified as the primary reason for not using various resources and teaching strategies.

Table 4.12

Reasons for not using the different teaching techniques

	<u>Male</u>	<u>Female</u>	<u>Teaching Experience/yr</u> s			<u>Town</u>		
			<u>0-5</u>	<u>6-10</u>	<u>>11</u>	<u>Small</u>	<u>Large</u>	<u>City</u>
Lack of money	17,2	19,0	11,1	29,4	22,2	22,6	13,0	28,6
Lack of appropriate materials	55,2	65,5	66,7	52,9	61,1	58,1	69,6	47,6
Lack of preparation time	17,2	5,2	11,1	11,8	5,6	0,0	17,4	14,3
Lack of knowledge	10,3	10,3	11,1	15,9	11,1	10,0	09,5	

4.2.4.6 Summary of the questionnaire findings

The questionnaire analysed above has highlighted the following:-

- 1) The Natal Education Department teachers are well prepared in terms their qualifications to teach geography.
- 2) The ranking of local places, environmental awareness and man's relationship to the environment as the most important aims of geography was encouraging. When examining teaching techniques, the low ranking of fieldwork is disappointing as the understanding of places and the environment is best achieved through experience. The importance of local studies is stressed by teachers but is lacking in practice.
- 3) The majority (72%) of teachers supported geography as a separate subject because of the value of the subject in the child's education. Teachers in general did not support the integration of geography with other subjects, but supported the need for geography to be retained as a separate discipline and integrated across the curriculum when necessary.
- 4) Teachers feel that the syllabus and appropriate teaching materials need to be developed to achieve the aims of geography.

4.3 ANALYSIS OF INTERVIEWS

The interviews were structured on the basis of the questionnaire results. It was felt that greater clarity was necessary with regard to the use of learner centred strategies and integrated teaching. The researcher was also interested in exploring teachers' views regarding syllabus revision.

A group of thirteen teachers who had indicated their willingness to be interviewed in the returned questionnaires were selected (chapter 3). The group consisted of four male teachers and nine female teachers. The interview was divided into three sections :

Section 1 : Dealing with the use of the learner-centred approach to teaching.

Section 2 : The extent of integrated teaching.

Section 3 : Suggestions for a geography syllabus.

4.3.1 Teachers' use of a learner-centred approach to teaching

The teachers interviewed used learner-centred approaches in their geography teaching. They felt however, that learner-centred approaches were neglected in geography because of the lack of materials. Teachers also felt they did not have the time to develop learner-centred activities as much as they would like. They were however responsive to the use of this method of teaching if resources were available. Furthermore, 10 of the teachers felt that geography was taught far too much as a theoretical subject with not enough emphasis in the syllabus on the practical aspects of the subject. "Learning more about geography outside the four walls of the classroom", as one teacher put it.

On a practical note teachers felt that with the increase in pupil numbers in classes learner-centred teaching approaches became more difficult because of the lack of space, time and organisation to arrange pupil-centred lessons.

4.3.2 The extent to which geography is integrated with other subjects

All the teachers interviewed taught geography as a subject in the time table. They would integrate geography with another subjects if necessary. For example, they would integrate geography and science when studying climate and water but normally integrating with not

more than one subject. This approach seemed to work well with geography. The teachers interviewed tended not to integrate the subjects permanently, as they felt that it does not allow an in-depth study of the subject or the development of the skills related exclusively to geography, for example, mapwork. Teachers emphasised that aspects of integration do have value and should be used when necessary, but integrated studies should not replace geography as a subject because the value of the subject would be lost. Teachers felt that geography was important in developing understanding of the environment around them and that pupils learnt skills in geography not offered in other subjects.

4.3.3 Suggestions for a geography syllabus

The teachers interviewed felt that the syllabus needed to be revised. Three of the teachers felt that geography in a revised education system, would be replaced by a life-skills program. Therefore if geography was to survive, the subject must be orientated more towards skills that would help the children in their daily lives, instead of factual knowledge which could not be transferred to another situation. Teachers also suggested that a more practical approach, with fieldwork as an integral part of the course, be introduced. The evaluation system could also include a fieldwork component. Ten of these teachers believed that geography was one of the few subjects able to develop empathy towards other racial groups. The types of skills that teachers suggested needed developing included: recording, classifying, interpreting, measuring, problem-solving, and map reading. A few of the teachers suggested that, with the intake of black pupils into the schools, the syllabus should take into account their needs. None of the teachers were able to give suggestions as to how to change the syllabus to meet black pupils needs.

Once again this group of teachers supported the inclusion of environmental and development education in a new syllabus.

CHAPTER 5

ANALYSIS OF SYLLABUSES

5.1 INTRODUCTION

The findings in chapter four revealed that teachers were dissatisfied with the existing syllabus and that the evaluation of the proposed syllabus is important to determine whether teachers' aspirations regarding a geography syllabus are met by the proposed core syllabus (N.E.D. May, 1990). In evaluating the proposed core syllabus two questions need to be answered:

- 1) Are trends in geographical thinking and learning theory reflected?
- 2) Does the syllabus reflect the needs of curriculum for a changing South Africa?

To arrive at the above evaluation the suggestions made by Catling (1987) for a primary school syllabus were considered. These are, however, rather limiting because the criteria selected by Catling are first world-orientated and may not be entirely suitable for the South Africa. The contributions of teachers in the South African context are also considered together with the actual situation. In evaluating the proposed core syllabus, the Kenyan and British curriculum are compared with Catling's criteria as well in order to give a comparative analysis of first world geography vs third world geography.

The geographical experiences that a primary school child should be exposed to according to Catling (1987) are tabulated in table 3.1 in chapter three. The ticks in table 5.1 and 5.2 indicate the number of times a particular aim and content of the syllabus is used. The three countries namely Kenya, South Africa, and Britain are compared firstly according to the content of the curriculum and secondly according to the aims of the different syllabuses.

5.2 ANALYSIS OF SYLLABUSES

South Africa's proposed draft core syllabus (N.E.D. May, 1990)

The evaluation of the proposed core syllabus encompasses Standard two to Standard four. The years before Standard two and after Standard four are in different syllabuses although they are all part of the primary school. The first three years of geography education are incorporated into environmental studies with Standard five included in the junior secondary syllabus. Primary schools therefore have three syllabuses which do not relate to each other at all.

Table 5.1

ANALYSIS OF SYLLABUS CONTENT

CRITERIA	KENYA	SOUTH AFRICA	BRITAIN
Local Region	✓		✓
Interaction between Social and Natural Environment	✓	✓	✓ ✓
Social / Environmental Issues	✓		✓
Maps	✓ ✓	✓ ✓	✓ ✓
Field Work			✓ ✓
Spatial Perception			✓
Stereotypes			
Values / Attitudes			✓
Action to resolve Environmental Issues	✓ ✓		✓
Sense of Place			✓ ✓
Geographical Skills	✓	✓	✓ ✓ ✓

Table 5.2

ANALYSIS OF SYLLABUS AIMS

CRITERIA	KENYA	SOUTH AFRICA	BRITAIN
Local Region	✓	✓	✓ ✓ ✓
Interaction between Social and Natural Environment	✓ ✓	✓	✓
Social / Environmental Issues	✓	✓	✓ ✓
Maps	✓	✓	✓
Field Work		✓	✓
Spatial Perception		✓	✓ ✓
Stereotypes		✓ ✓	✓ ✓
Values / Attitudes	✓ ✓	✓	✓
Action to resolve Environmental Issues	✓ ✓ ✓		✓
Sense of Place		✓	✓
Geographical Skills	✓ ✓	✓ ✓	✓ ✓ ✓ ✓

In evaluating the proposed core syllabus for Standard two to Standard four the aims of the preamble were not reflected in the contents of the syllabus (table 5.1 and 5.2). The consequences of having a syllabus that does not reflect the aims of the preamble are serious for the following reasons:

- 1) The purpose of the preamble is to reflect current geographical thinking and learning theory. Therefore by having a syllabus content which does not reflect the aims of the preamble implies that pupils will receive an impoverished geographical education.
- 2) Teachers will become confused in teaching a syllabus which differs from the aims of the subject.
- 3) Textbook writers would be confused as to what type of textbook to produce.

Having established that the content does not reflect the preamble, what type of syllabus content is proposed?

An evaluation of the content (table 5.1) reveals that the focus is almost exclusively on content with little reference to enquiry-based learning. Of the aims specified by Catling (1987) only mapwork, the human and natural environment are included in the syllabus content (table 5.1). The syllabus reflects the regional approach with the focus on factual recall, instead of enquiry-based learning. For example, the study of regions in Standard three and Standard four is not recommended by Catling (1987). The emphasis by Catling (1987) is rather to build knowledge of the neighbourhood and local region to encourage enquiry-based learning. This is more important than just learning facts about a region which does not relate to the child's own experiences. Catling (1987) encourages the interaction between the different natural and social environments so that children build up an understanding of the world and the issues that arise from the interaction of different environments. The syllabus does not interrelate the natural and social environments as recommended by Catling (1987). Instead the topics are developed along fragmented lines with no effort to develop the interrelationship that exists between different topics, for

example, weather, rivers, vegetation and soil. Issues that arise out of man's impact on the vegetation, soil and rivers are not developed as required by Catling's criteria (1987).

The study of farming is limited with no development of the relationship of farming to weather, relief or the use of farm products for manufacturing. Little effort is made to develop childrens' values and attitudes towards social and environmental issues as required by Catling's criteria (1987). In studying resources, for example, the environmental issues that arise from exploitation of timber, mining and sea resources are ignored. The heart of geography is not dealt with at all, namely, the development of a sense of place, or the development of skills in geography except for mapwork. The study of mapwork does not focus on the local maps as required by Catling's criteria (1987). Instead it starts with the world map.

Children's cognitive maps, which are important for developing understanding of the local environment, are overlooked. The development of positive attitudes towards other cultural groups through the study of places is not developed as required by Catling's criteria (1987). The content of the proposed core syllabus only reflects Catling's criteria (1987) to a limited extent. The preamble of the proposed syllabus reflects the criteria as suggested by Catling.

The following extract from the preamble illustrates the approach:

In the primary school, descriptive work must always have a place, but it is important that teachers recognize, and reflect in their teaching, the shift in emphasis in modern geography from mere description and analysis and evaluation. It is not sufficient to tell children, or to get them to find out, about particular places; they must be introduced, at an early age, to ways of finding out; to the methods geographers use to obtain, record and analyse information; they must be helped to gain an understanding, at their own level, of the way places function, and how geographers explain the processes involved. Activities in the classroom must reflect this changing emphasis from teachers focusing solely on building up a fund of geographical facts in the child's mind, to the pupil developing conceptual understanding and skill in explaining the geographical environment (Preamble, 1990).

The ideas expressed in the above extract reflect the thinking behind Catling's criteria. All the aspects of Catling's criteria are dealt with, namely a sense of place, graphicacy,

geographical skills and understanding of the world. But the main weakness is that the preamble does not reference with the content of the syllabus. A teacher would find it very difficult to apply the aims of the syllabus because of the breakdown of the link between the content and the aims. It appears that the syllabus content were developed independently. Secondly, the development of the local environment is only developed in one standard and not suggested for development throughout the syllabus. This is a general weakness and applies to most of the topics. Thirdly, the preamble does not develop the cross-curricular potential that exists between geography and other subjects. Fourthly, the preamble fails to encourage children to take action about environmental and social issues in their communities as recommended in Catling's criteria. Examples of discrepancies between the preamble and the content of the syllabus are given below:

- 1) Geography contributes substantially to social education, community education, multicultural education and environmental education....
- 2) Geography is primarily concerned with developing a sense of place....
- 3) Geography is concerned with people as well as landscapes...
- 4) ... economic as well as ecological systems...

(Preamble, 1990:4)

The above examples from the preamble illustrate the serious gap between the content of the proposed core syllabus and preamble. For the most part the syllabus content reflects "yesterday's" geography. The aims of the syllabus need to be thought through into the content of the syllabus. The proposed draft core syllabus therefore fails to meet the requirements of current geographical thinking and does not reflect a geography curriculum that meets the needs of South African society. It has failed to move away from academic geography which is irrelevant in a changing South Africa. Teachers suggested the following ideas which are not reflected in the contents of the proposed draft syllabus:

- 1) The introduction of environmental and development themes.
- 2) The use of learner-centred approaches with the emphasis on life-skills which pupils can use in their daily lives.
- 3) A practical geography course which develops an intra-curricula approach. This

involves the integration of subjects, but retaining the separate identity of each subject.

This syllabus in its present form does not meet the aspirations of what a geography curriculum should be in light of geographical thinking, and the needs of teachers and pupils in a changing South Africa.

The Kenyan Syllabus

The Kenyan syllabus (Appendix 5C) represents a unified primary syllabus for the years of compulsory education (Standard one to Standard eight). The study of geography is part of an interdisciplinary study with history and civics. This course is an interdisciplinary study of man and his environment.

The course aims at making the pupil understand his environment and to be a useful member of his community. To achieve this aim the pupil must be able to:

- a) Identify problems in the environment.
- b) Acquire the correct attitudes and values for the conservation and improvement of the environment.
- c) Utilise, manage and conserve the environment to meet individual, national and international needs.
- d) Understand the relationship of environmental factors for individual, national and international development.
- e) Understand and appreciate the importance of local, national and international co-operation in the use of the environment.

(Ministry of Education, Kenya 1992:55)

The Kenyan geography course focuses on the environment and the community. The analysis of the syllabus in terms of Catling's criteria reveal the following:

- 1) The study of the local environment is strongly emphasised, but the development of understanding of places and environments around the world is neglected.

- 2) The study of man's interaction with the environment and resulting issues is a central focus in studying the environment. This criterion appears to be the central focus of the syllabus together with the encouragement to take action about environmental and social issues. For example, population growth and the understanding of the relationship between population growth and quality of life.
- 3) The development of the correct values and attitudes towards the use of natural resources for sustainable living.
- 4) The absence of fieldwork in the aims and content is a major flaw in this syllabus, which is orientated towards pupils interacting with the environment and being able to live sustainable life styles.
- 5) The development of spatial connections and interactions in social and natural processes are absent from the aims and content of the syllabus.
- 6) Study skills emphasised are critical thinking, inquiry and decision making, but unfortunately the preamble does not specify how these skills are to be achieved by teachers. Catling gives a detailed list of skill activities to achieve critical thinking, inquiry and decision making.

The Kenyan syllabus does reflect Catling's criteria in many respects. However, the objectives are very different. Catling's criteria are orientated to give pupils a general geographical background. The Kenyan objectives are orientated to giving a geography education that prepares the pupils' for life, as most children in Kenya leave at the end of primary school. The syllabus is therefore orientated to helping pupils survive in society. This syllabus is a role model for the type of syllabus that South Africa requires because it is orientated towards satisfying the needs of the community. The approach to teaching the Kenyan syllabus is similar to the recommendations made in chapter two. The recommendations were that geography be retained as a separate subject, but an intra-curricula approach would be adopted. The Kenyan syllabus states that :

the study of the relationships between geography, history and civics does not imply any sacrifice of the content in any of the areas. Content items specific to each of the three areas will be stressed, without duplication and overlap as when teaching the three subjects separately. (Ministry of Education

Kenya 1992:55).

The recently introduced discrete subject approach to the teaching of geography in Kenya has been taken in the light of previous experience with a integrated curriculum. Experience in Kenya showed that the integrated curriculum was not a success (chapter two).

The British syllabus

The British curriculum, as with the Kenyan syllabus, is a curriculum that represents the years of compulsory education (level one to level four). For the purpose of this evaluation levels one and two are evaluated which corresponds with Standard two to Standard four in South Africa.

The curriculum is divided into attainment targets (Appendix 5D) in specific areas of geographical knowledge:

Attainment target 1 : Geographical skills

Attainment target 2 : Knowledge and understanding of places

Attainment target 3 : Physical geography

Attainment target 4 : Human geography

Attainment target 5 : Environmental geography

All the levels cover aspects of each attainment target in a spiral curriculum in which basic concepts are learnt and more difficult aspects of the curriculum are covered as the child becomes more mature.

In evaluating the curriculum in relation to Catling's criteria the following observations are made:

- 1) The development of sense of place is a whole attainment target and this aspect of the curriculum covers Catling's criteria.

- 2) The undertaking of fieldwork is a central theme in the study of the local area and the study of mapwork which is encouraged by Catling.
- 3) The fragmentation of the social and natural environments into separate attainment targets does not develop the understanding of how people and social environments interact and the issues that arise as required in Catling's criteria.
- 4) The study of the issues that arise from man's impact on the environment is dealt with in a separate attainment target which should rather be dealt with the issues that arise out of human and physical geography.
- 5) The development of geographical skills is comprehensive and more detailed than Catling's criteria.
- 6) In the study of various places a content approach is adopted.

Of the three curricula evaluated, the British curriculum reflects Catling's criteria more comprehensively than the Kenyan and South African syllabuses. This is understandable as Catling is British and his ideas may have influenced the development of the British curriculum. However, the three syllabuses still reflect a content approach to learning.

5.3 SUMMARY

The proposed core syllabus for South Africa is a disappointment in the light of recent curriculum developments in geographical education in other countries. The curriculum does not reflect a geography syllabus which will equip pupils to live sustainable lives as achieved in the Kenyan syllabus. The Kenyan syllabus reflects the needs of society thereby contributing to the improvement of the quality of life. This is the shortfall of Catling (1987) in that it does not prepare students for life in society. Kenya is a society that is very attuned to the environment as the majority of the community are rural-based and dependent on the resources of the environment for daily survival. The importance of living in harmony with the environment is essential for the survival of Kenya. The Kenyan approach to curriculum is one that South Africa should consider in light of developing an interdisciplinary approach to education and the need for geography to become meaningful.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

6.1 INTRODUCTION

The study of geography should prepare children to live and interact with the community and society on a daily basis enabling them to become active citizens in contributing to the development of the world around them. Geography is therefore not a discipline which solely observes, describes and reflects on the environment, but a discipline that responds to the potential and problems of places. Every child comes to school already a geographer, curious about the world about them, willing to explore the world and to discover about places and people. Geographers must nurture this natural geography in every child and allow this awareness, understanding and valuing of the environment to develop.

Catling (1987) encapsulates the above thinking in a framework for primary school geography. The emphasis in Catling's criteria is to develop the child's skills, values, attitudes and geographical concepts using a participatory teaching approach as opposed to transmission learning.

This study has identified geography as an essential part of the primary curriculum and has attempted to describe the role and value of geography in the child's development, in relation to the needs of a changing South Africa and not just to develop a curriculum with regard to its content, but a curriculum that will consider the issues facing South Africa: unemployment, environmental issues, housing, population growth rate and violence.

This chapter will provide a brief summary of key aspects of the results and the conclusions reached. Recommendations are made on the basis of the "Case for Geography" and the analysis of the survey completed with teachers and evaluation of the proposed core syllabus.

6.2 SUMMARY AND CONCLUSIONS

Literature pertaining to "A Case for Geography" in the primary school revealed that geography is perceived as an area of study concerned with developing the child's sense of place, graphicacy, geographical skills and making sense of the world. The heart of geography according to Catling (1988) is the development of a sense of place which is crucial to our survival and development. One of the tools that assists people in developing a sense of place and environmental understanding is the development of graphicacy which, according to Balchin and Coleman (1973), is one of the essential underpinnings of a balanced education. For children to be able to understand and value the world around them they need to acquire a range of skills to help them observe, record, examine and understand the environment. This understanding of the environment may enable children to adopt positive attitudes and values about the environment, upon which their survival will depend. Environmental education is an important aspect of a child's education, in which geography can play an important role in its development.

As geography is concerned with peoples' place in the world, geography is an environmental study in which the child deals with the real world. Children learn to make sense of the world around them and gain a better understanding of the variety of physical and human conditions on the earth's surface.

In considering the central ideas of integration, the literature consulted emphasises a learner-centred approach as opposed to the teacher-centred approach. Knowledge is seen as a whole and not structured into different subjects. This is problematic according to a number of educationalists (Bruner, 1960; Popkewitz, 1984; Barrow, 1991), who believe that a subject curriculum represents the distinctive ways in which people have learnt to structure and understand themselves and the world. It is an attempt to explore, organise and understand the experiences of daily life.

The successful implementation of an integrated approach requires a favourable sociological climate, a greater variety of equipment, teachers and smaller classes. It is therefore according to Bernstein (1971), more difficult to organise an integrated approach as opposed

to discrete subjects.

Kenya's failed experience with integration should be noted before implementing an integrated curriculum in South Africa. It must be noted that Kenya has not rejected integration completely, but opted for structured integration in which geography, history and civics are run as a combined course, with each subject having its own subject content with an intra-disciplinary approach. The argument for discrete subjects and an integrated curriculum therefore shows that their educational functions are complementary rather than mutually exclusive, each contributing different but essential learning experiences within children's education. Integration seems a poor method for acquiring knowledge and skills in a manageable, disciplined form.

To this end, subject matter organised in distinctive disciplinary areas seems educationally superior to integration. But integration provides an understanding between different subject areas. This leads to the possibility of pursuing integration of knowledge and experience through the subject curriculum itself.

In reviewing current learning theory the literature emphasises a shift from transmission style teaching to social constructivism which emphasises firstly, that children must learn to understand the source of their knowledge and construct the knowledge within their own minds taking into account that the subject is connected to social reality. Secondly, that subjects are formed through their interaction with other subjects. Catling's criteria for primary school curriculum takes cognisance of current learning theory and reflects a social-constructivist approach.

This study revealed teacher support for the aims of geography which, theoretically, indicates a high correspondence between the thinking of teachers regarding the role and value of geography and that of current thinking (chapter two). Teachers feel that the current aims of geography are not reflected in the existing syllabus. Teachers generally feel that a relevant up to date syllabus must be implemented which reflects the shift in geographical thinking towards a more participatory approach with the emphasis on geographical life-skills that pupils' can use in their daily lives. Ideas for a syllabus include environmental and

development issues, population, political geography and cultural tolerance. All of these issues are crucial issues facing South Africa and should influence the type of geography curriculum developed.

Teachers were found to use a wide variety of teaching approaches. Difficulties are however being experienced by teachers in developing the a participatory teaching approach because of increasing numbers of pupils in classes and the constraint of finances for obtaining resource materials.

The majority (72%) of teachers supported geography as a separate subject because of the value of the subject in the child's education as highlighted in chapter two. Teachers in general did not support the integration of geography with other subjects, even if given the choice. They preferred geography to be retained as a discrete subject and integrated across the curriculum when necessary.

The proposed draft core syllabus (Natal Education Department, 1990), is a syllabus of missed opportunity. An evaluation of the aims and content in relation to Catling's criteria revealed that much work had gone into the aims, but unfortunately the content reflected "yesterday's" geography. The aims of the syllabus reflected current geographical thinking but these ideas were not carried through into the syllabus content. The syllabus reflects the regional approach with the focus on content rather than an enquiry-based learning.

6.3 LIMITATIONS OF THE STUDY

The research constraints pertaining to this study included those of time, living in another centre, availability of funds and the structure of the half-thesis. As a result of these, the study was limited in terms of the sample population and the time and number of respondents interviewed.

A further limitation which influenced the results was the inability to conduct classroom observations to verify the validity of the data collected. Furthermore, the results do not reflect the thinking of other education departments and population groups within South

Africa. In the light of these limitations it is felt that further research is needed to provide a more representative sample of the South African teaching community.

6.4 RECOMMENDATIONS

On the basis of what this research revealed the recommendations must provide practical and feasible guidelines for a viable geography curriculum for the primary school, that is not just content driven. The research does, however accept the importance of curriculum design and development as a process which must include all the major stakeholders in a democratic way.

For any curriculum, whether geography or any other subject, the process of the curriculum design and implementation is as important as the syllabus product. These initial structures are essential if the curriculum is to gain creditability in a new education system. The involvement of all stakeholders in curriculum development is not a foreign concept, but is one that has been applied in those countries who value the notions of democracy. The role of teachers is important and they must be involved in the development of resources and identify what they perceive as their childrens' needs. They must be involved in evaluation of the curriculum at every stage of development. Furthermore, stakeholders should be involved in developing a strategy for the assessment of the curriculum and childrens' work.

Having said this the research cannot and ought not to lay down any hard and fast program to be adopted. It would otherwise be equally guilty of the errors of previous curriculum development programs. What is suggested however, are a set of guidelines which could form the initial foundation for thinking about syllabus development in geography. These guidelines are based on research done regarding current geography thinking in primary school, learning theory and needs of the South African community.

The first assumption about the geography curriculum is that it should not be integrated with other subjects to form social studies as suggested by the Department of National Education in the Curriculum Model for Education in South Africa (1991). Geographers in South Africa have severe misgivings as to the idea of integrating geography with economics and

history to form social studies. Research by Schrettendrunner (1992) reveals that when geography has been linked to other subjects, it has usually lost the rigid connection with the discipline of geography and become reduced to a minor component of the broader social studies subject area. The recommendation is therefore to retain the separate identity of each subject within in a combined course along the lines of the geography, history and civics primary school course in Kenya.

The second assumption is that one geography curriculum should be developed for the primary school instead of the three syllabuses currently considered for the different stages of the primary curriculum.

The third assumption is that pupils ideas and concerns about certain topics must be considered in planning of lessons.

The proposed objectives and content of a primary syllabus are outlined below:

- 1) To develop pupils interest in their local surroundings and in the variety of physical and human conditions of the earth's surface.
- 2) Develop positive attitudes and values towards the environment.
- 3) To introduce students to the concepts of sustained development and conservation.
- 4) To create in students an urge to become aware and take action to rectify social and environmental issues that society may face.
- 5) To develop a sense of place.
- 6) To understand some of the relationships between people and the environment and the issues that arise.
- 7) To develop map-work and other related skills.
- 8) To develop tolerance and understanding of other cultures and peoples.
- 9) To undertake fieldwork to investigate places locally and further a field.
- 10) To develop communication skills, intellectual skills and social skills.

The topics suggested below have originated from the aims of geography to give children a sense of place and a sense of identity with their area; as well as an understanding of the

processes that are part of the understanding of the earth.

These topics it is felt have greater potential for participatory teaching strategies. The ideas below emanate from the literature review, a study of syllabus and the opinions of teachers. However, it must be emphasised that a list of topics which is unrelated to the aims or approaches suggested by current theory will just continue to be miss-interpreted and miss-developed. It is therefore not the authors' intention to present another syllabus content.

SUGGESTED TOPICS FOR THE PRIMARY PHASE

TOPIC	CONTENT
Mapwork	1) Cognitive Maps, 2) Interpretation of Maps: interpreting symbols envisioning perspective locating places determining direction computing distance understanding scale imagining relief understanding elevation 3) Interpretation of pictures, graphs etc.
Weather	Weather and climate, seasons, rainfall, temperature, air pressure, polar caps, equator, climate change: green house effect, drought and floods. The relationship between climate, relief and vegetation. How does South Africa's climate influence what people do?
Water	Properties, source, water cycle, relationship between water and life, water pollution, water and diseases.
Soil	Properties, animal habitats in soil, plant cover, weathering, soil formation, erosion, conservation management.

Vegetation	Properties of trees, grasses and plants, conservation and protection of vegetation with specific reference to vegetation of the local area and ecosystems.
Agriculture	What is a farm? Where are the different types of farms in South Africa? Where does South Africa's farm production go? How has farming in South Africa changed? What problems are facing South African farmers? Feeding the world and the green revolution.
Landforms	Local land forms, hills and plains, size, structure and function. Relationship of relief to climate and vegetation.
Fuel and Energy	Role of sun, types of energy used in communities, solar energy, electricity and nuclear energy. Implications of using certain types of energy on the environment and man.
Urbanisation in South Africa.	Homelessness, poverty and housing, measuring living conditions, improving living conditions, building better communities.
Population	Population in South Africa, population and resources, implications of a rapid population growth rate, the relationship between population and quality of life. South Africa's different cultural backgrounds and perspectives.
Conservation and sustainable development.	What will South Africa be like in the 21 st century, population trends and resources, Your community in the future, clarifying your values for the future, How can we influence our future?

The purpose of this syllabus outline is to generate ideas and to give teachers and curriculum planners ideas of what a future syllabus could be like. These ideas would have to be

debated and examined at a national conference on geography curriculum.

6.5 CONCLUSION

This study set out to establish a "Case for Geography" in primary school education in South Africa. To achieve this objective a survey of primary school teachers to ascertain their perception of geography and attitudes towards geography as separate subject was undertaken.

The results revealed that teachers firstly, are very supportive of the aims of geography and the value of the subject in the child's education.

Secondly, teachers prefer geography as a discrete subject rather than integrated into other subjects. The strong support for discrete subjects may present problems in trying to introduce an integrated curriculum in South Africa.

Thirdly, integration does have its merits and should be considered within an intra-curricular approach.

Finally, this study reveals that geographers have a valid " Case for Geography" in primary schools to meet the needs of a changing South African society.

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LIST OF PERSONAL COMMUNICATIONS

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- Khan, J. (1993). Senior Lecturer, Department of Geography and Environmental Science, U.C.T.

A QUESTIONNAIRE FOR STD 2,3 and 4 GEOGRAPHY TEACHERS
IN N.E.D. PRIMARY SCHOOLS

CARD ONE

1	-	3

SECTION A : PERSONAL AND PROFESSIONAL
INFORMATION

Please answer each question by crossing the appropriate response.

For Example

MALE FEMALE

Thank-you for your co-operation.

1). Please indicate your gender

MALE FEMALE

4

2). Please indicate the number of years of Geography training you have undergone.

HIGH SCHOOL					COLLEGE					UNIVERSITY				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

5
 6
 7

3). Please indicate to which standards you teach Geography?

Standard 2 3 4 Combined Std.

8

4). Please indicate how many years of Geography teaching experience you have?

0 - 5
6 - 10
>10 yrs

9

5). Is the School you work in

Co-educational
Boys only
Girls only

10

6) Which language medium do you use when teaching?

ENGLISH ONLY
AFRIKAANS ONLY
DUAL MEDIUM
GERMAN ONLY

 11

7). Is your school situated in:

A small town
(under 20000 people)

A large town
(20000 - 100000 people)

A metropolitan Region
(100000 people and above)

 12

8). Please indicate which educational model your school falls under.

MODEL A	
MODEL B	
MODEL C	
MODEL D	
MODEL Q	
PRIVATE	

 13

SECTION B (i)
STATEMENTS RELATING TO THE AIMS OF GEOGRAPHY AND
WHETHER TEACHERS FEEL THESE AIMS ARE BEING ACHIEVED
BY THE CURRENT SYLLABUS

Please complete the following section by crossing the appropriate block.

9) Geography should encourage environmental awareness and conservation ethics in pupils.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 14

10) Geography should develop pupils' respect moral values, and tolerance of other race religions and ways of life.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 15

11) Geography should develop people's ability to read and interpret maps, graphs, diagrams, tables and photographs

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 16

12) Geography should develop pupils' awareness of the relationships that exists between man and the environment.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 17

13) Geography should develop an understanding of the physical environment and the wonder of creation.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 18

14) Geography should develop pupils' knowledge of local condition and places.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 19

15) Geography should develop pupils' knowledge and understanding of otherlands and empathy for their people.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 20

16) Geography should develop a love for one's country and culture.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 21

17) Geography at primary school level should aim to develop problem solving skills.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 22

18) Geography at primary school level should develop language skills as well as Geographical Concepts.

STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE

 23

To what extent do you feel that the Aims of Geography are being achieved by the current syllabus?

<input type="text"/>	<input type="text"/>
----------------------	----------------------

24 25

SECTION B (ii)

19). Please indicate the extent to which you find the following aspects of the Geography syllabus to be relevant to your pupils' needs and interests by using the rating scale below.

Please insert rating as follows:-

1 - Indicates that the section has little relevance to pupils' needs and interests.

2 - Indicates that the section is of average importance to pupils' needs and interests.

3 - Indicates that this section is very important for pupils' needs and interests.

- a) Map-work
- b) Weather studies
- c) Resources
- d) South Africa
- e) Urban Geography
- f) Economic Geography
- g) The Regional Geography of Africa
- h) Topical Geography

Insert Rating 1-3 here

	26
	27
	28
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	31
	32

20). What are your feelings about the current Geography Syllabus?

20.1 Suitability of content

 33

34	35

20.2 Suitability of Textbooks

36	37

20.3 Amount of work to be covered

38	39

20.4 Availability of teaching materials pertaining to the syllabus.

40	41

20.5 Evaluation and assesment

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42 43

20.6 Any other comment

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44 45

SECTION C

Please indicate the extent to which you enjoy and find the following aspects of the syllabus worth while to teach. By circling the appropriate column in the following manner.

E.G.

Teaching Geography is:

Enjoyable 1 (2) 3 4 5 unenjoyable

Satisfying (1) 2 3 4 5 frustrating

Valuable 1 2 (3) 4 5 valueless

Interesting (1) 2 3 4 5 boring

Easy 1 2 3 4 (5) difficult

22) Map-work lessons are:

Enjoyable 1 2 3 4 5 unenjoyable

Satisfying 1 2 3 4 5 frustrating

Valuable 1 2 3 4 5 valueless

Interesting 1 2 3 4 5 boring

Easy 1 2 3 4 5 difficult

23) Weather studies are:

Enjoyable 1 2 3 4 5 unenjoyable

Satisfying 1 2 3 4 5 frustrating

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|-----|-------------------------------------|---|---|---|---|---|-------------|--------------------------|--------------------------|----|
| | Valuable | 1 | 2 | 3 | 4 | 5 | valueless | <input type="checkbox"/> | 53 | |
| | Interesting | 1 | 2 | 3 | 4 | 5 | boring | <input type="checkbox"/> | 54 | |
| | Easy | 1 | 2 | 3 | 4 | 5 | difficult | <input type="checkbox"/> | 55 | |
| 24) | Resource studies are: | | | | | | | | <input type="checkbox"/> | 56 |
| | Enjoyable | 1 | 2 | 3 | 4 | 5 | unenjoyable | <input type="checkbox"/> | 57 | |
| | Satisfying | 1 | 2 | 3 | 4 | 5 | frustrating | <input type="checkbox"/> | 58 | |
| | Valuable | 1 | 2 | 3 | 4 | 5 | valueless | <input type="checkbox"/> | 59 | |
| | Interesting | 1 | 2 | 3 | 4 | 5 | boring | <input type="checkbox"/> | 60 | |
| | Easy | 1 | 2 | 3 | 4 | 5 | difficult | <input type="checkbox"/> | 60 | |
| 25) | South African Regional Studies are: | | | | | | | | <input type="checkbox"/> | 61 |
| | Enjoyable | 1 | 2 | 3 | 4 | 5 | unenjoyable | <input type="checkbox"/> | 62 | |
| | Satisfying | 1 | 2 | 3 | 4 | 5 | frustrating | <input type="checkbox"/> | 63 | |
| | Valuable | 1 | 2 | 3 | 4 | 5 | valueless | <input type="checkbox"/> | 64 | |
| | Interesting | 1 | 2 | 3 | 4 | 5 | boring | <input type="checkbox"/> | 65 | |
| | Easy | 1 | 2 | 3 | 4 | 5 | difficult | <input type="checkbox"/> | 65 | |
| 26) | Urban Geography is : | | | | | | | | <input type="checkbox"/> | 66 |
| | Enjoyable | 1 | 2 | 3 | 4 | 5 | unenjoyable | <input type="checkbox"/> | 67 | |
| | Satisfying | 1 | 2 | 3 | 4 | 5 | frustrating | <input type="checkbox"/> | 68 | |
| | Valuable | 1 | 2 | 3 | 4 | 5 | valueless | <input type="checkbox"/> | 69 | |
| | Interesting | 1 | 2 | 3 | 4 | 5 | boring | <input type="checkbox"/> | 70 | |
| | Easy | 1 | 2 | 3 | 4 | 5 | difficult | <input type="checkbox"/> | 70 | |
| 27) | Economic Geography is : | | | | | | | | <input type="checkbox"/> | 71 |
| | Enjoyable | 1 | 2 | 3 | 4 | 5 | unenjoyable | <input type="checkbox"/> | 72 | |
| | Satisfying | 1 | 2 | 3 | 4 | 5 | frustrating | <input type="checkbox"/> | 73 | |
| | Valuable | 1 | 2 | 3 | 4 | 5 | valueless | <input type="checkbox"/> | 74 | |
| | Interesting | 1 | 2 | 3 | 4 | 5 | boring | <input type="checkbox"/> | 75 | |
| | Easy | 1 | 2 | 3 | 4 | 5 | difficult | <input type="checkbox"/> | 75 | |
| 28) | Regional Geography in Africa is : | | | | | | | | <input type="checkbox"/> | 76 |
| | Enjoyable | 1 | 2 | 3 | 4 | 5 | unenjoyable | <input type="checkbox"/> | 77 | |
| | Satisfying | 1 | 2 | 3 | 4 | 5 | frustrating | <input type="checkbox"/> | 78 | |
| | Valuable | 1 | 2 | 3 | 4 | 5 | valueless | <input type="checkbox"/> | 78 | |

Interesting 1 2 3 4 5 boring
 Easy 1 2 3 4 5 difficult

29) If you had a choice of what you could teach in Geography would you introduce?

ENVIRONMENTAL EDUCATION

YES	NO
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DEVELOPMENT EDUCATION

YES	NO
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ANOTHER TOPIC? _____

79

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CARD TWO

1

2

SECTION C (ii)

30). Please indicate the way Geography is taught in your school.

30.1 As a separate subject

30.2 Integrated with other subjects

30.3 Theme teaching

30.4 Language across the curriculum
 L.A.C.

3

31). Please indicate the time spent on the teaching of Geography per week.

0 - 1 hour

1 - 2 hours

2 - 3 hours

Other

4

32). Is Geography examined as a separate subject?

YES	
NO	

5

33). Do you feel that Geography should be included as a separate subject for children to study at the primary school level?

YES	
NO	

6

Main reason: _____

34). Do you feel that Geography should be combined with Economics, and History to form Social Studies as proposed in the Curriculum model for Education in South Africa?

YES	
NO	

Main reason: _____

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9 10

35). Within your school is Geography regarded as an important part of the curriculum?

YES	
NO	

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11

36). Indicate the frequency of which you use the following teaching techniques.

Technique	Never	Very Seldom	Often	Very Often
Textbooks (pupils)				
Work-sheets				
Overhead Projects				
Video				
Newspaper Article				
Maps				
Geographical Games				
Pictures				
Field trips				
Projects				
Group-work				
Computers				
Talk and Chalk				

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37). If one of the above teaching techniques is not used, indicate your main reason.

- Lack of money
- Lack of appropriate materials/equipment
- Lack of preparation time
- Lack of knowledge know how

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APPENDIX 3.B

192 Venice Road
Durban
4001

3 May 1993

Dear Principal,

**QUESTIONNAIRE : THE TEACHING OF GEOGRAPHY IN STANDARDS 2, 3 AND
4 IN NATAL EDUCATION DEPARTMENT PRIMARY SCHOOLS**

As a primary school teacher, I am greatly concerned about the changes occurring in the education system which will also affect the subjects we teach.

I would therefore greatly appreciate it if your school would assist me by taking part in a survey which I am conducting as part of my research towards a M.Ed degree at Rhodes University. The title of my dissertation is 'A case for Geography in South African Senior Primary Schools.'

Since in the proposed Education model for South Africa put forward by the Department of National Education, Geography will no longer exist as a separate subject, it is important to establish the views of teachers of Geography towards these changes.

The questionnaire has been approved by the Director of the Natal Education Department (see extract from letter attached hereto), and by Mr H. Bosman, superintendent of Geography, Natal Education Department.

I would appreciate it if one teacher from standard 2, 3 or 4 would complete the questionnaire as soon as possible. I enclose a stamped, addressed envelope for the return of these.

I believe that teachers stand to benefit from this research as the findings will be forwarded to education planners in the Natal Education Department. As these submissions will be of a global nature the results of individual schools will not be identified and confidentiality will be respected.

Thank you in anticipation of your assistance.

Yours faithfully,



SIMON TAYLOR

192 Venice Road
Durban
4001

3 May.1993

To : Geography Teachers in Standards 2, 3 and 4

Dear Colleague,

**QUESTIONNAIRE : THE TEACHING OF GEOGRAPHY IN STANDARDS 2, 3 AND
4 IN NATAL EDUCATION DEPARTMENT PRIMARY SCHOOLS**

I would sincerely appreciate it if you would spend some time in answering this questionnaire which is part of my research towards a M.Ed degree at Rhodes University. My topic is 'A Case for Geography in South African Senior Primary Schools'.

Realising how busy teachers are, I conducted a pilot survey and the average time taken to answer the questionnaire was 20 minutes. I hope, therefore, that this will not place too much of a burden on yourself. I enclose a stamped, addressed envelope for the return of completed questionnaire.

Teachers can have an important influence on decisions about the future of Geography teaching in the Primary phase. Your views will help influence education planners with regards to future changes to the Primary School curriculum. I can assure you that the results are private and confidential and that the findings from individual schools will not be identified.

Thanking you in anticipation of your assistance.

Yours faithfully,



SIMON TAYLOR

APR 23 1993

16:09 NATAL EDUC DEPT APPENDIX 3.D

Rig korrespondensie aan die Direkteur
Address correspondence to the Director: Natal Education Department and quote reference number

P.1
EDUCATION
FAX: (031) 943908



DEPARTEMENT VAN ONDERWYS EN KULTUUR
DEPARTMENT OF EDUCATION AND CULTURE

ADMINISTRASIE: VOLKSRaad
ADMINISTRATION: HOUSE OF ASSEMBLY

NATALSE ONDERWYSDEPARTEMENT
NATAL EDUCATION DEPARTMENT

Navrae:
Enquiries: Mr D V Bromley
Verw.: 2/12/2/3
Ref.:
Tel.: (0331) 942351 X343

Natalse Onderwysgebou
Natal Education Building
Privaatsak X9044
Private Bag X9044
Pietermaritzburg 3200

26 April 1993

Mr S M Taylor
192 Venice Road
DURBAN
4001

Dear Mr Taylor

GEOGRAPHY IN THE SENIOR PRIMARY PHASE

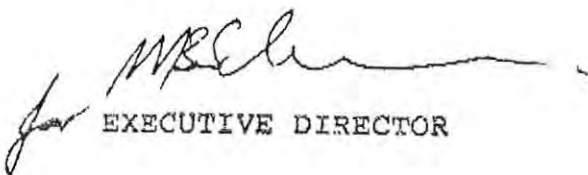
Your fax of 19 April 1993 refers.

Upon examining your questionnaire this department supports in principle your request to conduct research into geography in the senior primary phase. Permission to conduct such research in individual schools is dependent on the goodwill of the principals involved.

It would be appreciated if a copy of your findings could be made available to this department. Please send it to the Executive Director, for attention head of Research and Development.

I wish you every success with your research.

Yours sincerely


EXECUTIVE DIRECTOR



APPENDIX 3.E**INTERVIEW SCHEDULE**

QUESTION 1

Describe the different types of teaching approaches you use?

QUESTION 2

Are you more teacher-centred or pupil-centred in your approach to teaching?

QUESTION 3

Have you integrated geography with other subjects?

QUESTION 4

How successful was integration and what problems did you have?

QUESTION 5

Do you support geography as a separate subject or integrated with other subjects?

QUESTION 6

What suggestions do you have for a syllabus?

QUESTION 7

How can geography be made more relevant to the majority of pupils?

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PROPOSED DRAFT CORE SYLLABUS FOR GEOGRAPHY PHASE 2

STANDARD TWO

- 1.0 MAPWORK
 - 1.1 Making maps
 - 1.2 The compass : four main points
 - 1.3 World map based on the globe

- 2.0 WEATHER AND MAN
 - 2.1 Observation of the following weather elements:
temperature, wind and rain

- 3.0 RELIEF AND MAN
 - 3.1 Observation of relief forms in your own area such as
mountains, hills, valleys, plains, plateaux
 - 3.2 The influence of landscapes on man

- 4.0 CARING FOR RESOURCES IN OUR LOCAL ENVIRONMENT
 - 4.1 Definition of a resource
 - 4.2 Water as a critical resource
 - 4.3 Select a theme(s) relevant to the local region
 - 4.3.1 The sea as a resource
 - 4.3.2 Timber as a resource
 - 4.3.3 A mining product as a resource
 - 4.3.4 Natural vegetation as a resource

- 5.0 FARMING IN THE LOCAL AREA
 - 5.1 The concept of a farm
 - 5.2 The importance of farming

- 6.0 MANUFACTURING IN THE LOCAL AREA
 - 6.1 The concept of manufacturing
 - 6.2 The importance of manufacturing

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PROPOSED DRAFT CORE SYLLABUS FOR GEOGRAPHY PHASE 3

STANDARD THREE

- 1.0 MAPWORK
 - 1.1 Drawing maps
 - 1.2 The compass : eight main points
 - 1.3 Introduction to the atlas

- 2.0 WEATHER AND MAN
 - 2.1 Weather instruments
 - 2.2 Observation, recording and interpretation of temperature, wind direction, wind speed and rainfall

- 3.0 RIVERS AND MAN
 - 3.1 Characteristics of a river
 - 3.2 The importance of rivers in the home area

- 4.0 SELECTED SOUTH AFRICAN REGIONS
 - 4.1 A map study of Southern Africa
 - 4.2 The home region
 - 4.3 A study of at least two other regions from the following list:
 - 4.3.1 The Coastal Belt of Natal
 - 4.3.2 The Natal Midlands
 - 4.3.3 Northern Natal and the Tugela Basin
 - 4.3.4 The South Western Cape
 - 4.3.5 The Eastern Cape
 - 4.3.6 The Karoo
 - 4.3.7 The Highveld
 - 4.3.8 The Transvaal Bushveld
 - 4.3.9 The Eastern Transvaal and the Lowveld
 - 4.3.10 A Neighbouring State

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PROPOSED DRAFT CORE SYLLABUS FOR GEOGRAPHY PHASE 3

STANDARD FOUR

- 1.0 MAPWORK
 - 1.1 Drawing maps
 - 1.1.1 Direction
 - 1.1.2 Scale
 - 1.3 Thematic maps
- 2.0 WEATHER AND MAN
 - 2.1 Weather instruments
 - 2.2 Observation, recording and interpretation of maximum and minimum temperatures, wind direction and speed, rainfall
 - 2.3 Seasonal rhythms / variations
- 3.0 ROCKS AND SOILS
 - 3.1 Different rocks and their uses
 - 3.2 Different soils and their importance
- 3.0 AFRICA
 - 3.1 Map study
 - 3.2 **Natural regions**
 - 3.2.1 Life in the following natural regions: (emphasise the need to manage the resources wisely)
 - 3.2.1.1 Tropical rain forests
 - 3.2.1.2 Tropical Savannah
 - 3.2.1.3 Deserts
 - 3.2.1.4 Mediterranean regions
- 4.0 URBAN GEOGRAPHY
 - 4.1 How a town serves its own people
 - 4.2 How a town serves its surrounding area

SYLLABUS FOR GEOGRAPHY : STD 2, 3 AND 4

May, 1990

PREAMBLE

In the broadest terms the over-arching aim of Geography in the School is well stated by Fairgrieve. It is:

to train future citizens to imagine accurately the conditions of the great world stage, and so to help them to think sanely about political and social problems in the world around them.

In essence, therefore, we are seeking to provide children with those true-to-life images of different parts and peoples of the world which would help them to become informed world citizens and to equip them with the skills they need to acquire and understand those images.

In the primary school, descriptive work must always have a place, but it is important that teachers recognize, and reflect in their teaching, the shift in emphasis in modern geography from mere description to analysis and evaluation. It is not sufficient to tell children, or to get them to find out, about particular places; they must be introduced, at an early age, to ways of finding out; to the methods geographers use to obtain, record and analyse information; they must be helped to gain an understanding, at their own level, of the way places function, and how geographers explain the processes involved. Activities in the classroom must reflect this changing emphasis from teachers focusing solely on building up a fund of geographical facts in the child's mind, to the pupil developing conceptual understanding and skill in explaining the geographical environment.

Geography is primarily concerned with developing 'a sense of place' but it should be recognised that the term 'place' encompasses the 'human' as well as the 'natural' environment. Geography is concerned with people as well as landscapes, with economic as well as ecological systems. The character of places - the subject's central focus - derives from the interaction of people and places. All geographical work with young children should relate to places, beginning with familiar places and relating back to them. It is not, however, which places that are studied that is important, but what is learnt through the study of them. Modern geography demands that the emphasis be on common concepts and central skills. As these are revisited and built upon, the teacher is re-inforcing, deepening and broadening the child's understanding (the basic principle of Bruner's notion of the spiral curriculum). This syllabus enables this to be done on different scales and at increasing levels of generalisation. Commencing with the Home Region in Standard 2, the focus shifts to the Home Province in Standard 3 and to South Africa in Standard 4.

In its study of place Geography addresses five fundamental questions :
"Where is the place? and in what ways is it connected to other places?"
Relative location is more important than absolute location, time or cost distances usually are more significant than geographical distance. Developments in any area-environmental, economic, demographic result in

part from interaction with other places. This perception is vital to the development of economic awareness.

"What is the place like?" In dealing with this question (a basic area of human curiosity) teachers should utilize a wide range of resources, pictures, statistical data, maps of all kinds, travel literature, contemporary journalism and even novels.

"Why is this place like it is, and how and why does it differ from, or resemble, other places?" The intellectual thrust of the subject is exemplified by this third basic question. Geography is concerned with explanation and analysis, and inevitably with the categorising of places.

"How is the place changing and why?" This focuses on dynamic change, it invites the investigation of important issues-local, national and international and contributes to the child's political education.

"What would it feel like to be in this place?" Teachers must strive to encourage empathetic understanding arising from imaginative involvement with other environments and societies. The propensity to place oneself in another human being's situation is an essential component of moral education.

The special contributions of geography to the education of school children are listed below:

World knowledge. Through studying geography each pupil acquires special knowledge, skills and attitudes which are important resources required by adults as citizens of a complicated world. Geography, more than other subjects in the curriculum, helps the pupil to make sense of current events and informed judgements on economic, political, social and environmental issues. The skills and knowledge acquired in geography classrooms in dealing with world knowledge are useful and vital.

Graphicacy. The understanding and communication of spatial information through maps, graphs and other forms of illustration is a crucially important contribution of geography to the curriculum. Only in geography are pupils taught systematically to read and use maps.

International understanding. Geography has a special role to play in fostering better understanding of different cultures, both within our own society and elsewhere in the world.

Environmental awareness. Geography helps pupils to understand their environment and how man uses and misuses it. Through studying physical and human resources at a variety of scales from the immediate and local to the world as a whole, pupils learn to move from the familiar and concrete to the more distant, general and, perhaps, abstract. Geography seeks to satisfy and build upon the child's natural curiosity about the world.

By the time children leave primary school they should have been introduced to the principal aspects of the physical environment (weather

and surface features), patterns of settlements, dominant occupations and forms of transport, and the leisure and recreational facilities of their home areas. They should also have been introduced to the variety of environments in which people live both at home and overseas. In these latter studies teachers will seek to avoid any stereotyping of groups and nations and they and their pupils should have access to accurate, reliable and up-to-date sources of information.

Skills. Concomitant with the early stages in the development of the pupils' understanding of geographical ideas and knowledge is the acquisition of those skills necessary for the children's exploration of their world. These skills are:

- basic communication skills (associated with literacy, numeracy and oracy)
- factual writing
- imaginative writing
- using reference books and other sources
- skills derived from mathematics
- modelling and picture representations
- oral explanation and discussion
- intellectual skills
- using scientific methods of enquiry, including measurement and quantification, posing hypotheses, problem solving, testing, decision making, drawing conclusions,
- generalising and evaluating
- collecting and classifying
- experimenting and observing
- social skills
- sharing by pupils of their studies and findings
- investigation of and involvement in the community
- an appreciation of the diversity and worth of peoples in the local community and elsewhere
- their awareness of their own changing attitudes to aspects of the environment

Maps have been described as the tool of the geographer. The use of such secondary resources are essential to heighten, enliven and extend children's awareness of the world. Equally important and standing at the centre of geographical study and activity is fieldwork. The maxim that children 'learn by doing' can hardly be better exemplified than through fieldwork. Fieldwork is the first-hand investigation of a selected environment. Children must explore their immediate locality and, less frequently, they should travel further afield. Opportunities may exist for the school journey, several days spent in another part of the country, enabling the close study of a new environment in which the children can extend their skills, knowledge and experiences. Lacking opportunities for such fieldwork, pupils are restricted in their levels of achievement.

Attitudes and Values. In this particular period of South African history, as the country undergoes rapid social transformation, and its people face monumental challenges, empathy with the plight and aspirations of fellow citizens from different cultural backgrounds is a pre-requisite to orderly development. By assisting pupils to develop rationality, problem-solving ability, and sensitivity through the medium

of their discipline, geography teachers will be making a major contribution in the areas of citizenship-training and character-building.

Through the explanation and interpretation of the physical and human environment geographical studies contribute substantially to social education, community education, multicultural education and environmental education. Geography is more than an extension of the primary school curriculum; it gives coherence, depth and vitality to a child's daily experience.

KENYA

**GEOGRAPHY, HISTORY AND CIVICS
(G.H.C.)**

I. INTRODUCTION

The Geography, History and Civics course aims at helping the pupil understand himself as a social being and his relationship with his family, community, district, province, nation and international community. The Geography, History and Civics course also aims at contributing to the effective development of the pupil. Some values that the course aims at developing are patriotism, loyalty, self-reliance, tolerance, co-operation, diligence, honesty, justice, fairness, love, respect for elders, peace and responsibility. A particular concern of the Geography, History and Civics course is the development of skills. The pupil should be helped to acquire the skills of critical thinking, inquiry and decision making. The Geography, History and Civics course is a genuine attempt at an interdisciplinary study of man and his environment. The course aims at making the pupil understand his environment and be a useful member of his community. To achieve this aim the pupil must understand how the environment has moulded man's development and how in turn man has moulded the environment for his benefit. This implies a study of the relationships of knowledge of man's environment. But focusing on a study of the relationships between Geography, History and Civics does not imply any sacrifice of content in any of the areas. Content items specific to each of the three areas will be stressed, without duplication and overlap as when teaching the three subjects separately.

II. GENERAL AND SPECIFIC OBJECTIVES

At the end of the course, the learner should be able to:

1. Recognise the family as a useful social institution.
Specifically: The learner should be able to:
 - (a) Respect and appreciate the rights and obligations within the family and society.
 - (b) Recognise and explain the relationship and interdependence between different families and societies.
 - (c) Appreciate the importance of preserving the possessions of the family and society.
2. Recognise and use the environment for the individual, national and international development.
Specifically: The learner should be able to:
 - (a) Identify problems in his environment;
 - (b) Identify the potential and use of local resources;
 - (c) Acquire and use skills for the study of the environment e.g. map reading and interpretation;
 - (d) Acquire the correct attitudes and values for the conservation and improvement of the environment;
 - (e) Understand the relationship of environmental factors for individual, national and international development;
 - (f) Utilise, manage and conserve the environment to meet individual, national and international needs;
 - (g) Understand and appreciate the importance of local, national and international co-operation in the use of the environment;
 - (h) Identify the position and size of the area of study.
3. Acquire knowledge and show appreciation for the historical background of our community.
Specifically: The learner should be able to:-
 - (a) Recite stories of origin, myths and legends;
 - (b) Trace the movements of people in their communities;
 - (c) Understand and explain traditional laws, customs and beliefs which regulate movements;
 - (d) Understand and explain the kind of trade that took place in their area;
 - (e) Relate the migrations of people to geographical and environmental influences;
 - (f) Understand and explain the causes and results of the internal and external contacts and conflicts.

4. Acquire a sense of value and appreciation of ethical values of Kenyan society.
Specifically: The learner should be able to:
- Understand cultural norms in traditional societies and use this knowledge to adapt to the changing society.
 - Differentiate between right and wrong.
 - Show respect for self and others.
 - Appreciate and respect other peoples' beliefs.
 - Understand the importance of striking a balance between social stability and social change.
5. Show the development of attitudes, beliefs and values that lead to utilisation of natural resources.
Specifically: The learner should be able to:
- Identify the major components of national wealth.
 - Understand values pertaining to wealth in traditional societies.
 - Understand the distribution and values of natural resources.
 - Demonstrate the desire to work for social equality.
 - Demonstrate willingness to share resources fairly with others.
 - Understand social and economic changes or developments that have taken place since independence.
6. Understand the structure and functions of the Kenyan Political system.
Specifically: The learner should be able to:
- Explain the three branches of our government i.e Legislature, Executive and Judiciary;
 - Understand how the government is formed;
 - Recognise the role and rights of the individual;
 - Demonstrate ability and skills in the sharing of responsibility to attain social justice;
 - Understand the role of the National Anthem, National Flag and National Coat of Arms.
7. Identify, understand and have respect for the different ways of life in Kenya.
Specifically: The learner should be able to:
- Appreciate different ways of life;
 - Respect our own culture and other peoples' cultures;
 - Identify and preserve valuable cultural artefacts and other aspects of culture;
 - Understand how foreign cultures have influenced African culture;
8. Recognise and understand the need for and importance of interdependence of people and nations.
Specifically: The learner should be able to:
- Recognise the need for and maintenance of peace among nations;
 - Identify and explain the functions of major international organisations;
 - Understand the role and importance of international trade.
9. Acquire knowledge and skills necessary to understand and analyse population issues which affect the quality of life of the people of Kenya.
Specifically: The learner should be able to:
- Identify and appreciate the socio-economic implications of a rapid population growth.
 - Identify and explain the different sources of population data.
 - Explain the importance of population data.
 - Develop understanding on the relationship between population and quality of life.

STANDARD ONE

UNIT 1: Our Home

- Family members
- Location and structure of the homestead
- Basic needs of family members
- Roles of members of the family

- Amenities and facilities used in the home
- Co-operation within the family
- Celebrations and functions.

UNIT 2: OUR SCHOOL

- The way to school
- Our classroom
- The school compound
- The school routine
- History of our school
- The school community

STANDARD TWO

UNIT 1: The School Neighbourhood

- The school in relation to the immediate environment
- The community surrounding the school
- Resources and their uses
- Community administration.

UNIT 2: Our Sub-Location

- Position of the sub-location
- Physical features
- The people, their origins and distribution
- Sub-locational administration
- Social and cultural activities

UNIT 3: Our Location

- Position and size of our location
- Physical features
- Weather
- The people, their origins and distribution
- Economic activities
- Travelling in the location
- How to behave as a pedestrian
- Social and cultural activities
- Stories about the lives of the famous people in the location.
- Locational administration.

STANDARD THREE

UNIT 1: Our Division

- Position, size and shape of the division
- Physical features in the division
- The people and their distribution
- Administration in the division
- Transport and communication
- How to ride a pedal cycle safely
- Social and cultural activities

UNIT 2: Our District

- (a) Four compass points
- (b) Position and size of the district
- (c) Administrative divisions
- (d) Administration in the district
- (e) The people, movement and settlement
- (f) Physical features
- (g) Weather and seasons
- (h) Vegetation
- (i) Economic activities
- (j) Social and cultural activities in the district.

**STANDARD FOUR
OUR PROVINCE**

UNIT 1: The Physical Environment

- (a) Eight compass points
- (b) Position, size and shape of the province
- (c) Maintain physical features and their effects on the distribution of people in the province
- (d) Weather: temperature, rainfall, winds and factors influencing them: seasons in the province.
- (e) Vegetation: The main vegetation types in the province.

UNIT 2: The People

- (a) Origins
- (b) Stories of origin of communities in the province
- (c) Migration and settlement of people in the province.

UNIT 3: Social and Cultural Activities

- (a) Customs, religion, moral laws, education, ceremonies and festivals, medicine and health, recreation and entertainment, shelter.
- (b) Famous prophets, medicinemen and rainmakers.

UNIT 4: Resources and Economic Activities

- (a) *Agriculture*
 - (i) Crop farming:
 - main cash crops and food crops in the province.
 - (ii) Livestock farming
 - cattle keeping
 - poultry keeping
- (b) *Mining*
 - Types, location and uses of minerals in the province
- (c) *Industries*
 - Traditional Industries eg. basketry, pottery weaving, carving, brick making, mat making, building of structures like houses, leather work, iron works.
- (d) *Forestry*
 - (i) Planted and natural forests
 - (ii) Importance of forests

- (iii) Uses of trees
- (iv) Tree planting activities
- (e) *Wildlife*
 - (i) Different types of animals and birds in the province
 - (ii) Importance of wildlife
 - (iii) Hunting
 - (iv) Protection of wildlife
- (f) *Tourism*
 - (i) Definition
 - (ii) Major tourist attractions
 - (iii) Importance of tourism
- (g) *Transport and Communication*
 - (i) Types and functions of:
 - (a) Traditional methods of transport and communication
 - (b) Modern methods of transport and communication
 - (ii) Road Safety
 - basic road signs, causes of road accidents, prevention of road accidents.
- (h) *Trade*
 - (i) Meaning and importance of trade
 - (ii) Traditional trade in the province
 - items of trade, barter system, inter community trade.
 - (iii) Major trading centres and towns in the province
- (i) *Fishing*
 - (i) Meaning and importance of fishing
 - (ii) Where fishing is done in the province
 - (iii) Methods of fishing
 - (iv) Types of fish caught

UNIT 5: Political Development and Systems

- (a) Social organisation
 - (i) Clan systems in different communities in the province
 - (ii) Formation and functions of age groups and age sets
 - (iii) Composition and functions of councils of elders
 - (iv) Great names in our province in the past
 - religious, political, educationists, businessmen.
- (b) How our province is administered
 - The work of some of the provincial heads, e.g. PC, PEO, PMO.
- (c) Social services provided by the government in the province
- (d) Administrative divisions of the province e.g. districts.

STANDARD FIVE

KENYA

UNIT 1: The Physical Environment

- (a) Sixteen compass points
- (b) Latitude and longitude
- (c) Position, size and shape of Kenya
- (d) The main physical features: mountains, hills, plains, plateau, rift valley, rivers, lakes.

- (e) Weather and climate: Factors influencing climate, the climate of Kenya.
- (f) vegetation: Types, uses and distribution of vegetation in Kenya. Conservation of vegetation.

UNIT 2: The People

- (a) Main language groups in Kenya; Bantu, Nilotes and Cushites
- (b) The other communities found in Kenya
- (c) Origins and migration of Kenyan communities
 - (i) places of origin
 - (ii) stories of origin of different communities
 - (iii) reasons for migration
 - (iv) routes of migration
- (d) Distribution of people in Kenya
- (e) Effects of climate, vegetation and physical features on the distribution of people.

UNIT 3: Social and Cultural Activities

- (a) Education
- (b) Age groups, age sets
- (c) Religion: beliefs and practices, moral laws
- (d) Social interaction: Festivals and ceremonies, games and sports.

UNIT 4: Resources and Economic Activities

- (a) *Agriculture*: Past and present
 - (i) Crop farming: conditions of growth and where grown in Kenya of the following cash crops: sugarcane, coffee, tea and pyrethrum
- food crops: maize, bananas potatoes and vegetables.
 - (ii) Livestock farming: conditions, methods and where practised: Beef farming, Dairy farming and Bee keeping
 - (iii) Irrigation farming:
- types of irrigation.
- Mwea Tebere and Pekerra irrigation schemes, their location, crops grown and source of water.
- (b) *Pastoralism in Kenya*
 - (i) Pastoral communities
 - (ii) Environmental conditions in pastoral areas
 - (iii) Ways of life of pastoral communities e.g. dwellings, animals kept and their uses
 - (iv) New developments in pastoral areas e.g. ranching, agriculture.
- (c) *Mining*:
Extraction and uses of soda ash, limestone, diatomite, fluospar
- (d) *Modern Industries*
 - (i) processing; tea, coffee
 - (ii) manufacturing:-
textile, cement, paper
 - (iii) assembly:
motor vehicles, bicycles and radios
- (e) *Forestry*:
 - (i) Distribution of forests in Kenya
 - (ii) Uses of wood
 - (iii) The paper industry

(f) *Fisheries*

- (i) The main fishing grounds
 - (ii) Types of fish caught
 - (iii) Methods of fishing
 - (iv) Preservation of fish e.g. sun drying, smoking, refrigeration.
- #### (g) *Wildlife and Tourism*
- (i) Examples of animals and birds in Kenya
 - (ii) Major game reserves and parks
 - (iii) Wildlife conservation
 - (iv) Tourist attractions
 - (v) Importance of tourism
- #### (h) *Transport and communications*
- (i) Forms and functions of transport
 - (ii) Forms and functions of communications
 - (iii) Types of roads
 - (iv) Risks and dangers associated with road use
- #### (i) *Trade*
- Trade in the past and present
- (i) Internal trade
 - (ii) External trade
- exports and imports
 - (iii) Role played by the government in external trade e.g. licencing
- #### (j) *Urban Centres in Kenya*
- (i) Factors influencing growth of towns
 - (ii) Functions of major towns
Nairobi, Mombasa, Kisumu, Nakuru, Eldoret.
 - (iii) Problems of Urban growth
 - (iv) Efforts to solve the problems

UNIT 5: Political Systems and Development

- (a) Provinces of Kenya
- (b) Prominent leaders in traditional Kenyan societies Mumia, Masaku, Waiyaki, Sakawa, Somoei.
- (c) The coming of Europeans
- (d) African reaction to the British colonial rule
 - (i) Resistance: Nandi, Giriama and Abagusii
 - (ii) Collaboration: Abawanga, Maasai
- (e) Early political associations upto 1945
- (f) Struggle for independence
 - (i) KAU
 - (ii) Mau Mau movement
- (g) Attainment of independence: KANU, KADU APP
- (h) Great lives in the history of Kenya
 - (i) How the government works.

STANDARD SIX
KENYA AND HER NEIGHBOURS

UNIT 1: The Physical Environment

- (a) Position, size and shape
- (b) Main physical features; formation of the Rift Valley and block mountains
- (c) Weather and climate: Rainfall, temperature and winds climatic regions
- (d) Vegetation: The main vegetation types in the the region.

UNIT 2: The People

- (a) Main language groups in Eastern Africa - Bantu, Nilotes Cushites and Semites. Origin of semites, routes of migration and settlement
- (b) The other communities found in Eastern Africa - Europeans, Asians
- (c) Factors influencing the distribution of people in the region - physical, economic, social and political
- (d) Different types of population data
- (e) The importance of population data
- (f) The importance of vital registration

UNIT 3: Citizenship

- (a) Ways in which a person becomes a Kenya citizen:
 - (i) by birth
 - (ii) by registration
 - (iii) by naturalisation
- (b) Elements of good citizenship e.g. loyalty, justice, obedience, patriotism.
- (c) Importance of good citizenship.

UNIT 4: Resources and Economic Activities

- (a) *Agriculture*
 - (i) Coffee in Kenya, Uganda, Tanzania and Ethiopia
 - (ii) Maize in Kenya and Tanzania
 - (iii) Bananas in Kenya, Uganda and Somalia
 - (iv) Beef farming in Kenya and Somalia
 - (v) Dairy farming in Kenya and Tanzania
- (b) *Mining*
 - (i) Diamonds in Tanzania
 - (ii) Copper in Uganda
 - (iii) Salt in Kenya
- (c) *Fisheries*

The fishing industry in Kenya

 - (i) Fishing grounds
 - (ii) Types of fish caught
- (d) *Trade*
 - (i) Traditional trade between the Eastern African people
 - (ii) Trade in the region
 - (iii) External trade: exports and imports of each country in the region.
- (e) *Transport and Communication*
 - (i) Forms of transport and communication
 - (ii) Development of transport and communication in the region
 - (iii) Road Safety: road signs and basic traffic rules

(f) *Industries*

- (i) processing: meat caning in Tanzania, sugar in Uganda, textiles in Sudan
- (ii) Manufacturing: Cement in Uganda, Oil refinery in Kenya and Tanzania.
- (iii) Assembling: Radio in Tanzania and motor vehicle in Kenya
- (iv) Service: e.g. Hotel and banking

(g) *Tourism:*

Tourist attractions, benefits of tourism and problems associated with tourism in the region.

UNIT 5: Political Developments and Systems

- (a) Traditional systems of Buganda, Nyanwezi and Ethiopia under Menelik
- (b) The British in Uganda, Germans in Tanganyika and Italians in Somalia
- (c) Nationalism and attainment of Independence in Tanganyika
- (d) Present systems of Government in Ethiopia, Somalia and Uganda
- (e) Life and contributions of Mzee Jomo Kenyatta, Julius Nyerere and Haile Sellasie
- (f) Regional co-operation

STANDARD SEVEN

KENYA AND THE REST OF AFRICA

UNIT 1: The Physical Environment

- (a) Position, size and shape of Africa
- (b) Major physical divisions
- (c) Climate: rotation of the earth, revolution of the earth, seasons, time, solar systems, climatic regions of Africa.
- (d) Zonal distribution of vegetation in Africa

UNIT 2: The People of Africa

- (a) The main language groups in Africa and where they are found
- (b) Factors influencing distribution of people
- (c) The impact of population growth on the available resources

UNIT 3: Resources and Economic Activities

- (a) *Agriculture*
 - (i) Cotton in Sudan and Kenya
 - (ii) Pastoral farming among the Maasai, Fulani and Tswana
- (b) *Development Projects*
 - (i) River Tana projects
 - (ii) Volta River Scheme
 - (iii) High Aswan Dam
- (c) *Trade*
 - (i) Regional trade and economic co-operation e.g. PTA, ECOWAS, SADDEC.
 - (ii) External trade with the rest of the world.
- (d) *Mining*
 - (i) Gold in South Africa
 - (ii) Oil in Negeria
- (e) *Fisheries*
 - (i) Fishing grounds
 - (ii) Fishing methods
 - (iii) Types of fish caught
 - (iv) Contribution to the economy

UNIT 4: Political Development and Systems

- (a) Traditional forms of government:
 - (i) The Khoisam
 - (ii) Old Ghana
 - (iii) The Mwene Mutapa Empire
- (b) Scramble for and the partition of Africa
- (c) African reaction to the scramble and partition:
Samore Toure, Lobengula and Maji Maji rebellion.
- (d) European systems of administration in Africa
 - (i) The British in Zimbabwe
 - (ii) The French in Senegal
 - (iii) Belgians in Congo (Zaire)
 - (iv) Effects of colonial rule
- (e) The development of African nationalism
 - (i) Effects of the 2nd World War
 - (ii) Struggle for independence in Ghana
 - (iii) Armed struggle for independence in Mozambique
 - (iv) White domination in Azania (South Africa)
- (f) O.A.U.
 - (i) Formation
 - (ii) Functions
 - (iii) Problems
- (g) Achievements and failures of:
 - (i) Kwame Nkrumah of Ghana
 - (ii) Gamel Abdel Nasser of Egypt
- (h) Present system of government with specific reference to Swaziland.

STANDARD EIGHT

KENYA AND THE WORLD

UNIT 1: The Physical Environment

- (a) Effects of climate, soil and relief in Kenya on migration, settlement and economic activities of the people.
- (b) Uses of relief, political and social functions of physical features, past and present
- (c) Traditional methods of weather observation
- (d) Instruments used in weather observation and weather recording
- (e) Hostile environments; hot deserts, cold deserts, arid areas of Kenya, mountaineous environment - how they affect the lives of people.

UNIT 2: The People

- (a) Interaction of various communities in the past
- (b) Social relationships in the neighbourhood.
- (c) Current migrations in Kenya e.g Rural to Urban, Rural to Rural
 - (i) reasons for migration
 - (ii) effect of the migrations
- (d) Effects of population increase on Kenyan communities

UNIT 3: Social and Cultural Activities

- (a) The Clan
 - (i) How a clan is formed

- (ii) Functions of a clan in a traditional Kenyan society
- (iii) Rules and responsibilities of clan members
- (b) The School
 - (i) Indigeneous education in Kenya
 - (ii) Why missionaries built schools and the effects of Western education.
 - (iii) The role of the school in society
 - (iv) Relationship between the school and other institutions
 - (v) How schools are managed.

UNIT 4: Resources and Economic Activities

- (a) *Agriculture*
 - (i) Traditional forms of agriculture
 - (ii) Settler farming and its effects
 - (iii) Settlement schemes
 - (iv) Conditions of growth and districts growing horticultural crops and sisal
 - (v) Beef and dairy farming in Kenya
 - (vi) Pig farming in Kenya
 - (vii) Poultry farming in Kenya
 - (viii) Small scale farming in Kenya; Sri Lanka and Netherlands
 - (ix) Large scale farming; maize in Trans-Nzoia, Tea in Kericho and corn in U.S.A.
 - (x) Fish farming in Kenya
fishing in Kenya and Japan
- (b) *Mining*
 - (i) Distribution of major minerals in Kenya
 - (ii) Uses of the major mineral
- (c) *Soils*
 - (i) A mention of the major soil types
e.g volcanic, black cotton, alluvial
 - (ii) Uses of soil
 - (iii) Causes of soil erosion
 - (iv) Soil conservation measures
- (d) *Forestry*
 - (i) Planted and natural forests
 - (ii) Uses of forests
 - (iii) Forest conservation measures
- (e) *Tourism*
 - (i) Major tourist attractions
 - (ii) Benefits of tourism
 - (iii) Conservation measures
- (f) *Population in Kenya*
 - (i) Factors influencing population growth in Kenya
 - (ii) Consequences of rapid population growth
 - (iii) Population growth in Kenya compared to that of India and Germany
 - (iv) Proper use, management and conservation of natural resources
- (g) *Industries*
 - (i) Factors influencing industrial location
 - (ii) Industrial development since 1963
 - (iii) Advantages and disadvantages of industries
 - (iv) Jua Kali industries
 - (v) Role of youth polytechnics

- (h) *Urban centres*
 - (i) Origin of some towns eg. industrial, agricultural, ports, communication centres, mining, tourist and market towns in Kenya.
 - (ii) Problems associated with urban growth
- (i) *Trade*
 - (i) Internal trade in Kenya
 - (ii) External trade - exports and imports in Kenya
- (j) *Co-operatives*
 - (i) Types of agricultural co-operatives in Kenya
 - (ii) Benefits of co-operatives
 - (iii) Problems facing co-operatives
- (k) *Transport*
 - (i) Forms and functions of methods of transport
 - (ii) Forms and uses of means of communication
 - (iii) Road safety - basic road signs, causes of road accidents
- Prevention of road accidents

UNIT 5: Political Developments and Systems

- (a) Political parties in Kenya: Their
 - (i) origin
 - (ii) structure
 - (iii) policies
- (b) How the government is formed; elections; formation and composition of the cabinet.
- (c) Meaning and Importance of National Philosophies
 - (i) African socialism
 - (ii) The Harambee spirit
 - (iii) The Nyayo philosophy
- (d) National Unity
 - (i) Effect of colonial rule in Kenya
 - (ii) Factors promoting national unity e.g. National language, education, social interaction, the Kenya constitution.
 - (iii) Symbols of National Unity e.g. the National Anthem, National flag, Coat of Arms, Loyalty pledge, the President.
 - (iv) Factors limiting National Unity e.g. Religious divisions, tribalism, nepotism, racism.
- (e) The Government of Kenya
 - (i) The Constitution
 - (ii) The executive, the president, cabinet and civil service. - Duties and responsibilities
 - (iii) The legislature - elections and composition of National Assembly, officials of National Assembly, elections, appointment: process of legislation, control of finance, influence of policy; summoning, prorogation and dissolution of parliament.
 - (iv) The judiciary - systems of courts, protection of the fundamental rights and freedom of individuals
 - (v) The army, police and prison service in National defence and maintaining law and order.
- (f) *Local Government*
 - (i) Types and responsibilities of local authorities
 - (ii) Election of officials

- (g) *International co-operation*
 - (i) The UN and its agencies
 - (ii) The commonwealth

- (h) *Assesment*
The following assesment procedures should be used by the teacher to enable him to find out the extent to which pupils are acquiring and developing desired knowledge, skills and attitudes. As far as possible different modes of assesment should be used. These may include quizzes, tests, assignments essays, and projects.

Tests

At the end of each unit/topic/project the teacher should administer a test to monitor the performance of pupils. Tests should also be administered at the end of each term and year.

Projects

Pupils projects such as models, maps should be assigned and evaluated.

Observational techniques

Direct observation by teachers of pupils at work is an effective method of evaluating pupils acquisition of skills and attitudes.

Quizzes

Quizzes should be administered to test whether pupils have understood the information given. A quiz may be a list of questions asking for true or false answers, multiple choice items, filling in blanks items of other short answer tests.

Written Assignments

Teachers should give and mark written assignment.



G E O G R A P H Y
in the
National Curriculum
(England)

Department of Education and Science

HMSO

MARCH 1991

Attainment targets and statements of attainment: Key Stages 1 to 4

The examples serve to illustrate the attainment targets and are non-statutory

Attainment target 1: Geographical skills

Pupils should demonstrate their ability to use skills to support work for the other attainment targets in geography, and in particular:

- i) the use of maps; and
- ii) fieldwork techniques.

LEVEL

STATEMENTS OF ATTAINMENT

EXAMPLES

1

Pupils should be able to:

- 1a) follow directions.
- 1b) observe and talk about a familiar place.

follow directions round the classroom, the school and school site; follow directions using a programmable toy.

talk about home or school.

2

- 2a) use geographical vocabulary to talk about places.
- 2b) make a representation of a real or an imaginary place.
- 2c) follow a route using a plan.
- 2d) record weather observations made over a short period.
- 2e) identify familiar features on photographs and pictures.

discuss pictorial and tourist maps, using terms such as slope, river, hill, wood, park, home.

draw a pictorial map of a farm, a drawing showing the layout of a familiar room, or a treasure island.

follow a route or trail round the school site or a nearby open space.

use pupils' own observations to construct weather charts to record wet, dry, hot, cold, windy and calm periods over a day, week or month, using pupils' own symbols.

pick out selected features, eg rivers, woods, fields, streets, motorways, on pictures of local and distant places shown on postcards or in books.

3

- 3a) use letter/number co-ordinates to locate features on a map.
- 3b) use a large-scale map to locate their own position and features outside the classroom.
- 3c) make a map of a short route, showing features in the correct order.
- 3d) identify features on aerial photographs.

use a street map to locate their home, the school and other familiar landmarks; on a treasure island map displayed by a computer, use co-ordinates to plot a trail to the treasure.

use a map outside the classroom to identify features such as trees, play areas, buildings.

make a map of the route to school, or a trail round the school site.

identify buildings, railway lines, roads, on an oblique aerial photograph.

LEVEL

STATEMENTS
OF ATTAINMENT

EXAMPLES

4

- 4a) use four-figure co-ordinates to locate features on a map.
- 4b) measure the straight line distance between two points on a plan.
- 4c) identify features on both a large-scale map and on a vertical air photograph of the same place.
- 4d) measure and record weather using direct observation and simple equipment.
- 4e) use the index and contents pages to find information in an atlas.
- 4f) draw a sketch map using symbols and a key.

- record the co-ordinates of a wood, a lake or a motor-way junction on a 1:50,000 Ordnance Survey map.*
- measure the distance between home and school, home and park, and home and shops, using a simple linear scale.*
- compare a vertical air photograph and map of a section of coastline or of a built up area with distinctive features.*
- take temperature readings, make cloud cover estimates, assess wind strengths using the Beaufort scale; use a data-handling package to analyse and display the information.*
- use an atlas to find out about places in the news.*
- use information gathered outside the classroom to draw a sketch map showing the broad layout of the school and grounds, or the main features of a nearby park or local shopping centre; devise symbols to represent features.*

5

- 5a) use six-figure grid references to locate features on Ordnance Survey maps.
- 5b) interpret relief maps.
- 5c) follow a route on a 1:50,000 or 1:25,000 Ordnance Survey map and describe the features which would be seen.
- 5d) extract information from thematic maps which show distribution patterns.
- 5e) demonstrate an awareness that the globe can be represented as a flat surface.

- locate specific details on Ordnance Survey maps.*
- read heights and identify slopes, hilltops and valley bottoms from contour maps.*
- follow a route along a river or road shown on an Ordnance Survey map and describe the features which would be seen by interpreting the map; write a description for a tourist to the area.*
- describe the distribution of selected geographical patterns on a map, eg population or mean annual rainfall in the United Kingdom.*
- experiment with ways of depicting, on a flat surface, the shapes produced by the peel of an orange.*

LEVEL

STATEMENTS
OF ATTAINMENT

EXAMPLES

6

6a) use maps of appropriate scales to plan routes and measure their distances.

plan journeys using Ordnance Survey maps, atlases, bus, rail and road maps.

6b) use maps as an aid to making decisions about locations.

select criteria which are important in making a decision about the location of an enterprise, eg transport links, proximity to customers and suppliers; use maps to show suitable locations taking these criteria into account.

6c) draw an accurate cross-section from measurements taken outside the classroom.

draw to scale a cross-section of a stream channel, a beach profile or a short slope using pupils' own measurements.

6d) draw an annotated sketch outside the classroom to record and interpret a landscape.

draw a field sketch of a river valley, or urban features seen from a high point.

6e) measure and record weather using scientific instruments and procedures.

use equipment, eg maximum and minimum thermometer, rain gauge, anemometer, wind vane and barograph, to measure the weather with a data logging device or manually; record the information in a database for interrogation and display.

6f) use a map and compass to follow a route.

follow a route round a park or an orienteering course using compass bearings.

7

7a) draw, from a 1:50,000 or a 1:25,000 Ordnance Survey map, an annotated sketch map showing relationships between human and physical features.

draw an annotated sketch map to show the site and location of a town in relation to its physical setting – a dry site, a defensive site, a bridging point, a junction of valleys.

7b) interpret synoptic charts and images of cloud patterns obtained from weather satellites.

use a sequence of satellite images taken during the passage of a depression, and relate them to synoptic charts to describe and interpret changes in the weather.

7c) use satellite images to identify patterns in physical and human geography.

use false colour or other imagery from an earth resources satellite (SPOT or LANDSAT) to identify major vegetation types or the form of a coastal town.

7d) interpret topologically transformed maps.

interpret maps based on travel times, maps with territories drawn to scales that reflect socio-economic criteria, sizes of populations.

7e) interpret and identify geographical relationships between variables.

give an account of the relationship between, eg Gross Domestic Product (GDP) per capita and numbers employed in agriculture, precipitation and run-off, the various factors influencing stream flow; use scattergraphs, flood hydrographs and system diagrams to illustrate and explain such relationships.

LEVEL	STATEMENTS OF ATTAINMENT	EXAMPLES
8	<p>8a) interpret relief, land-use, settlement and transport patterns from topographical maps.</p> <p>8b) explain the factors which influence the choice of map projections for specific purposes.</p> <p>8c) use indicators to identify variations in quality of life between places and discuss the suitability of the indicators.</p>	<p><i>use topographical maps to identify and interpret broad patterns of relief, settlement and communications.</i></p> <p><i>explain the factors which influence map projections, eg equal area to show population distribution, polar centred to show air routes, Pacific centred to show ocean currents.</i></p> <p><i>draw development profiles to compare the quality of life in selected countries, as indicated by Gross Domestic Product (GDP) per head, infant mortality rates, life expectancy, literacy levels, food consumption, energy consumption; use a database package, eg containing information as above, to compare graphically, and explore indicators of, the quality of life in selected countries.</i></p>
9	<p>9a) synthesise information from different map sources to produce a sketch map which identifies important geographical features and reveals spatial patterns and associations within an area.</p>	<p><i>bring together information from Ordnance Survey, land-use, soil and conservation maps to highlight significant relationships in a rural area.</i></p>
10	<p>10a) evaluate the effectiveness of a composite thematic map as a Geographical Information System.</p>	<p><i>use transparent overlays or information technology (IT) to combine data and show inter-relationships, eg use information about relief, geology, soils, land-use, settlements and road systems to select a location for a new local authority rubbish dump; evaluate the resulting composite thematic map as a way of providing spatial information.</i></p>

Note: Pupils unable to communicate by speech, writing or drawing may use other means including the use of technology, signing systems or symbols as alternatives.

Attainment target 2: Knowledge and understanding of places

Pupils should demonstrate their increasing knowledge and understanding of places in local, regional, national, international and global contexts, particularly:

- i) a knowledge of places;
- ii) an understanding of the distinctive features that give a place its identity;
- iii) an understanding of the similarities and differences between places; and
- iv) an understanding of the relationships between themes and issues in particular locations.

LEVEL	STATEMENTS OF ATTAINMENT	EXAMPLES
1	<p>Pupils should be able to:</p> <p>1a) name familiar features of the local area.</p> <p>1b) identify activities carried out by people in the local area.</p> <p>1c) state where they live.</p> <p>1d) demonstrate an awareness of the world beyond their local area.</p> <p>1e) name the country in which they live.</p>	<p><i>name local landmarks, eg roads, postboxes, shops, parks, woods, rivers, hills.</i></p> <p><i>identify activities carried out by parents and people who work in the school, or who visit the school; people who provide a service in the community.</i></p> <p><i>state the number of dwelling, name of street and name of the town, district or village.</i></p> <p><i>talk about and paint pictures of places they have visited or seen photographs of.</i></p> <p><i>know that they live in England.</i></p>
2	<p>2a) name the countries of the United Kingdom.</p> <p>2b) describe uses of land and buildings in the local area.</p> <p>2c) identify features of a locality outside the local area and suggest how these might affect the lives of the people who live there.</p> <p>2d) describe similarities and differences between the local area and another locality specified in the programme of study.</p>	<p><i>name England, Scotland, Wales and Northern Ireland.</i></p> <p><i>talk about the use of land for homes, shops, farms, transport, recreation and industry, and the uses of different buildings.</i></p> <p><i>identify the features of a locality and how people live, dress and eat.</i></p> <p><i>give a simple description of similar and different types of farming, weather conditions, plants, animals, scenery, buildings, transport and people's lives.</i></p>

LEVEL

STATEMENTS
OF ATTAINMENT

EXAMPLES

3

3a) name the features marked on Maps A and C at the end of the programmes of study.

3b) demonstrate that they know the location of their local area within the country in which they live.

3c) use correct geographical vocabulary to identify types of landscape features and activities with which they are familiar in the local area.

3d) compare features and occupations of the local area with the other localities specified in the programme of study.

3e) explain the relationships between types of land-use, buildings and human activities in the local area.

3f) explain why some activities in the local area are located where they are.

locate their local area on a suitable map.

use appropriate vocabulary to identify landscape features, eg hills, cliffs and valleys; land-use; types of houses and other buildings; transport; and types of work and leisure facilities, eg factories and shops, sports facilities and places of entertainment.

identify similarities and differences between the local area and other localities in relief, land-use, types of settlement and work and leisure activities.

identify and give reasons for the relationships between different types of land-use and human activity in the local area.

explain why the postal sorting office is close to the railway station; why an industrial activity is located on a particular site.

4

4a) name the features marked on Maps B and D at the end of the programmes of study.

4b) describe how the landscape of a locality outside the local area has been changed by human actions.

4c) give an account of a recent or proposed change in a locality.

4d) describe the geographical features of the home region.

4e) describe how the daily life of a locality in an economically developing country is affected by its landscape, weather and wealth.

describe major landscape changes associated with economic activities, eg farming, industry, quarrying, tourism, and with the development of settlements and communications.

summarise a redevelopment proposal, eg the construction of a by-pass or other land-use development, the construction of a housing estate or supermarket, the destruction of part of a rainforest, the flooding of land caused by the construction of a dam.

describe the main features, including landscape, distribution of population and patterns of settlement.

describe how family life, housing, clothing and diet in a locality are affected by landscape, weather and wealth.

LEVEL**STATEMENTS
OF ATTAINMENT****EXAMPLES****5**

5a) name the features marked on Maps E and F at the end of the programmes of study.

5b) describe how the characteristic features of the home region are inter-related.

5c) explain how the occupations, land-use and settlement patterns of a locality outside the United Kingdom are related to environment and location.

show the links between physical features, route networks, economy, distribution of population and patterns of settlement.

explain the influence of the physical environment and improved communications on farming, forestry and tourism in a mountain valley in the French Alps.

6

6a) explain the effect of recent changes on the home region.

6b) describe the general geographical features of a European Community country specified in the programme of study, identify its main regions and compare two contrasting regions.

6c) explain the variety of geographical conditions in an economically developing country specified in the programme of study, and the influence of these conditions on the distribution of population.

6d) compare the general features of the USA, USSR and Japan.

6e) describe the sources of energy in the USA, USSR or Japan.

show how environmental, technological, economic, social or political changes have affected land-use and employment.

give a brief account of the regions and the geographical features of the country studied; describe similarities and differences in the two regions studied in climate, landscape, land-use, types of work and peoples' ways of life.

give an account of the variety of geographical conditions in the country, variations in the distribution of population, and the relationship between these factors.

give a brief account, with the aid of tables, of similarities and differences in the area, location, population, economic output and activities, physical features and trade of the three countries.

describe the origin of coal, oil and natural gas used in one of the countries.

LEVEL

STATEMENTS OF ATTAINMENT

EXAMPLES

7

7a) explain the processes that have contributed to stability or change in the home region.

7b) evaluate the extent to which an economically developing country specified in the programme of study displays the characteristics of development.

7c) explain the geographical patterns associated with one theme specified in the programme of study, in relation to the European Community as a whole.

7d) explain how developments associated with the theme selected for 7c) have affected particular areas and regions.

7e) review the environmental problems arising from the development of industry in the USA, USSR or Japan.

7f) explain how the sources of energy in the USA, USSR or Japan have influenced the location and development of manufacturing.

7g) describe and analyse the patterns of trade between countries.

identify the factors and decisions which have resulted in change or have preserved the features and character of the region.

identify the characteristics of development by reference to Gross Domestic Product (GDP), value by type of exports and imports, birth rate, death rate, infant mortality, illiteracy, doctors per 1000.

review the patterns of agricultural or industrial output, and regional development programmes, at the European Community level; discuss the role of physical, economic, technological and political factors in explaining the patterns.

explain how developments associated with agriculture have affected particular areas in the United Kingdom, Denmark and Spain.

analyse environmental problems, eg loss of land from agriculture, removal of vegetation and destruction of natural habitats, atmospheric and water pollution.

explain the relationship between sources of energy and the location of manufacturing industry.

describe the types of exports and imports that are traded among developed countries, and between developed and economically developing countries; review the value placed upon their commodities and services and analyse the problems caused by imbalances in value.

8

8a) identify geographical patterns, relationships and processes in the home region.

8b) analyse factors that have affected the economic growth of an economically developing country specified in the programme of study.

8c) explain variations in economic prosperity between different regions within the USA, USSR or Japan.

8d) explain the extent to which local or regional initiatives, or decisions made at national or European Community level, have influenced changes taking place in the theme selected for 7c) and 7d).

8e) explain the effects of international trade on countries and on levels of interdependence between countries.

analyse geographical patterns, relationships and processes which are characteristic of the home region.

review the nature of, and the value placed upon, natural resources within an economically developing country and consider how the resources act to provide opportunities or create constraints upon development; analyse the effects of political and historical factors and of trade.

explain the causes and consequences of, or disparities between, wealthy and poor regions, eg by use of the core-periphery model.

explain the role of local, regional and national initiatives in improving tourist facilities and amenities, and competition between neighbouring resorts.

explain the extent to which shifts in the terms or balance of trade may benefit some countries and disadvantage others.

LEVEL

STATEMENTS
OF ATTAINMENT

EXAMPLES

9

9a) evaluate the effects of a theme specified in the programme of study on selected areas of the European Community.

9b) analyse the influence of inward investment on the economic development of an economically developing country specified in the programme of study.

9c) evaluate the importance of government policies for geographical patterns of international trade.

review the relative importance of the consequences of population shifts within the European Community, the advantages and disadvantages of development policies, the consequences of agricultural policies, in particular places.

examine what forms of inward investment have occurred and describe the relative effect that such investment has had on employment, trade and other aspects of the economic development of the country.

review the effects on trade patterns of the establishment of trading blocs; preferential trading arrangements; the use of tariffs and quotas; international cartels.

10

10a) synthesise patterns, relationships and processes in the home region.

10b) evaluate alternative government policies and strategies relevant to the theme selected for 9a).

10c) evaluate the significance of foreign investment, loans and development assistance programmes in the economic development of an economically developing country specified in the programme of study.

10d) analyse recent trends in patterns of international trade and suggest likely future trends.

give a balanced and detailed geographical account of the home region, which explains how the characteristic geographical features, patterns and processes in the region are inter-related and the extent to which these relationships give coherence to the region.

evaluate alternative strategies which are intended to influence agriculture, population movement and tourism, by assessing their likely consequences.

appraise the overall effect of foreign investments, loans and development assistance programmes on the economic development of a country and the effects on different sectors of the economy.

explain the growing importance of trade between countries of the Pacific Rim, the significance of trade between countries of the European Community, and between the European Community and other parts of the world; suggest which of these developments are likely to continue to be significant and why.

Note: Pupils unable to communicate by speech, writing or drawing may use other means including the use of technology, signing systems or symbols as alternatives.

Attainment target 3: Physical geography

Pupils should demonstrate their increasing knowledge and understanding of:

- i) weather and climate (the atmosphere);
- ii) rivers, river basins, seas and oceans (the hydrosphere);
- iii) landforms (the lithosphere); and
- iv) animals, plants and soils (the biosphere).

LEVEL

STATEMENTS OF ATTAINMENT

EXAMPLES

1

Pupils should be able to:

- 1a) recognise rocks, soil and water and understand that they are part of the environment.

recognise soil, water and rocks (including sand) in the natural environment and describe some of their characteristics.

2

- 2a) recognise seasonal weather patterns.

use words and pictures to describe their observations and experiences of the weather and seasons.

- 2b) identify the forms in which water occurs in the environment.

know that water occurs as liquid in rain, fog, clouds, ponds, rivers and seas; and as ice in hail, frost and snow.

3

- 3a) describe contrasting weather conditions in parts of the world.

describe cold conditions in polar regions, hot and dry conditions in tropical deserts, and hot and wet conditions in tropical forests.

- 3b) describe what happens to rainwater when it reaches the ground.

study the effects of rainfall on different slopes and surfaces, eg on steep and gentle slopes; on tarmac, grass, soil and sand surfaces, and in drains.

- 3c) identify and describe a familiar landscape feature.

identify and describe features such as hills, valleys, lakes, beaches and rivers, through direct experience.

LEVEL

STATEMENTS
OF ATTAINMENT

EXAMPLES

4

4a) explain how site conditions can influence surface temperatures and local wind speed and direction.

identify temperature contrasts in sunny and shaded areas, and on different surfaces, eg tarmac and grass, and the effects on winds of buildings and walls; explain local differences in temperature and wind measurements, eg using a database linked to an overlay keyboard which shows a plan of the school and its surroundings.

4b) describe evidence that materials are eroded, transported and deposited.

collect evidence from investigations outside the classroom or the laboratory, from a video or from relevant information technology (IT) software.

4c) identify parts of a river system including sources, channel, tributaries and mouth.

identify – from maps, investigations outside the classroom, or from use of a physical model, eg a sand tray and watering can – river sources, channel, tributaries and mouth; know that rivers receive water from a wide area, and that most eventually flow into a sea or lake.

4d) describe how some earth movements are violent, and explain, in simple terms, how volcanic craters, cones and lava flows are formed.

describe from textbooks, newspaper reports, videos and pictures the damaging effects of earthquakes and volcanic eruptions; with the help of books, photographs, diagrams and relevant computer software, describe how volcanic eruptions produce craters, cones and lava flows.

4e) compare characteristics of different types of soil.

compare the characteristics of the soil at a small number of selected sites, eg depth, colour, texture and visual evidence of organic content.

5

5a) describe differences in the mean seasonal distribution of temperatures and rainfall over the British Isles.

produce and compare graphs showing the mean monthly rainfall and temperature for selected weather stations around the British Isles using a database to store and retrieve information, and relate these to maps showing annual and seasonal distribution patterns.

5b) distinguish between weather and climate.

compare weather conditions over a short period of time with the generalised description of the climate of a location.

5c) explain the causes and effects of river floods, and methods used to reduce flood risk.

give an account of the reasons why rivers flood; using maps, diagrams and case studies, describe the effects of river floods and how flood risk is reduced, eg by attempts to control river flow and by land-use management.

5d) give evidence of different types of weathering and distinguish between weathering and erosion.

examine the effects of frost action, chemical and biological weathering, on the school, local buildings or gravestones; investigate the effects of weathering on a limestone landscape; compare weathering with the removal of material by rivers, waves, wind and glaciers.

5e) relate the distribution of earthquakes and volcanoes to the boundaries of plates in the earth's crust.

compare the distribution of the main concentrations of earthquakes and volcanic activity with the boundaries of the crustal plates by, eg marking them on a world map; describe the proportion of volcanic eruptions and large earthquakes which occur near crustal boundaries.

LEVEL

STATEMENTS OF ATTAINMENT

EXAMPLES

6

6a) explain that rainfall is caused by air rising and cooling, and relate the uplift of air to relief, convection and fronts.

explain the relationship between rainfall and prevailing winds, and the distribution of upland areas; relate rainfall associated with thunderstorms to convectional activity, and frontal rainfall to the meeting of air masses with different densities.

6b) describe characteristics and distribution of types of climate, and explain how these are related to latitude, the distribution of land and sea, major relief features, and prevailing winds.

describe the main characteristics of three types of climate and their distribution in the world; refer to climate graphs of climatic types; examine the differences in relation to the location and the seasonal movements of wind and pressure belts; compare climate graphs with the same latitude but different altitudes.

6c) explain the main components and links in the hydrological cycle.

use a system diagram or a simple computer model to identify and explain the flows, stores and transfers of water.

6d) describe the features of a river basin.

describe a river basin using an Ordnance Survey map.

6e) describe the features associated with one type of landform specified in the programme of study.

outline the characteristic features of the landform studied, shown on maps and photographs, eg cliffs, stacks, wave-cut platforms, beaches, spits, bars, headlands, bays, rias, fiords on coasts; glacial troughs, hanging valleys, ribbon lakes, corries, arêtes, pyramidal peaks, terminal and recessional moraines, erratics in highland areas formed by glaciation.

6f) describe characteristics of one type of vegetation and relate those characteristics to environmental conditions and processes, including climate and human actions.

explain how Mediterranean woodland and scrub are adapted to the seasonal climatic pattern of dry, hot summers and mild, wet winters, and how such vegetation has been affected by human activities, eg felling and burning forests, grazing animals.

6g) describe some of the physical processes which can give rise to one type of natural hazard and how people respond to that hazard.

consider the conditions that produce river and coastal flooding, the circumstances leading to a particular case of serious flooding and the consequences of the event.

LEVEL

STATEMENTS
OF ATTAINMENT

EXAMPLES

7

7a) explain, with the use of weather maps, how the weather of the British Isles is influenced by anticyclones and depressions; and relate the weather conditions at a particular time to a synoptic pattern.

explain the weather sequence over a period, using information from newspapers, TV and radio weather bulletins, observations carried out at school and relevant software packages.

7b) analyse the factors in a river basin that influence stream flow.

analyse the influence of weather events, the physical characteristics and land-use of the catchment area, and river management, to explain stream flow shown on a flood hydrograph.

7c) explain the processes involved in the development of the features associated with one type of landform specified in the programme of study.

explain how marine erosion and deposition, longshore drift and changes of sea level affect coastal landforms; how freeze-thaw action, glacial erosion and deposition, and post-glacial processes affect the development of areas formed by glaciation, using evidence collected in the field.

7d) describe the causes and effects of soil erosion, and explain why some places are especially vulnerable.

locate, with the use of an atlas and satellite images, areas of the world which are seriously affected by soil erosion, and relate these to climatic and other conditions including relief; explain how and why some locations have been more adversely affected by human activity than others.

8

8a) explain how the world pattern of climatic types is influenced by the general circulation of the atmosphere.

give an account of the relationship between movements of air masses and climatic patterns.

8b) analyse the hydrological processes operating in a drainage basin system in terms of inputs, stores, flows and outputs.

use a computer model or a system diagram of a drainage basin to analyse the variables that affect flows within the system.

8c) explain how human activities can significantly affect the rate of geomorphic processes.

explain how human activities can accelerate coastal erosion along different parts of a shoreline, by removing material from beaches and offshore banks; how human activities can accelerate soil erosion on slopes.

8d) analyse attempts to prevent or reduce soil erosion.

examine the effectiveness of methods chosen to tackle soil erosion from the evidence available in a small number of case studies, at different scales.

LEVEL

STATEMENTS OF ATTAINMENT

EXAMPLES

9

9a) explain the global distribution of areas which have markedly unreliable rainfall.

9b) explain the global pattern of ocean currents, and their influence on the climates of adjacent coastal areas.

9c) explain how the landforms in an area are a consequence of the varying resistance and structure of the rocks in that area, and of processes operating over a long period.

explain the relationship between the unreliability of rainfall and the distribution of types of climate, and the general pattern of atmospheric circulation.

relate the global pattern of ocean currents to the prevailing wind systems and the shape of the ocean basins; explain the influence on the climates of adjacent coastal areas of a cold ocean current, eg the Californian Current and a warm ocean current, eg the North Atlantic Drift.

explain how the resistance and structure of different types of rocks and different geomorphic processes acting over a long period have contributed to the formation of the landforms of a particular place, eg the ridge and vale topography and the coastal features of the Isle of Purbeck, or the glacial landforms, the radial drainage pattern and the different character of the relief in the northern, central and southern parts of the Lake District.

10

10a) explain how the landforms in an area are likely to change in the future and identify the processes likely to produce these changes.

10b) explain how desertification in semi-arid lands may result from physical processes and human activities.

explain which geomorphic processes were significant in the development of an area's landforms; which are still operating; and suggest, with reasoned arguments, the likely effect of those processes in the future.

give a detailed account of how physical and human processes combine to cause desertification.

Note: Pupils unable to communicate by speech, writing or drawing may use other means including the use of technology, signing systems or symbols as alternatives.

Attainment target 4: Human geography

Pupils should demonstrate their increasing knowledge and understanding of:

- i) population;
- ii) settlements;
- iii) communications and movements; and
- iv) economic activities – primary, secondary and tertiary.

LEVEL

STATEMENTS OF ATTAINMENT

EXAMPLES

1

Pupils should be able to:

- 1a) recognise that buildings are used for different purposes.
- 1b) describe ways in which people make journeys.
- 1c) recognise that adults do different kinds of work.

talk about the uses of homes, shops, offices, factories, schools, places of worship.

describe journeys made to school, by car, bus, bicycle, taxi, on foot; how people travel to work, to the shops, or to see friends.

talk about people that they have seen working and what they do.

2

- 2a) demonstrate an understanding that most homes are part of a settlement, and that settlements vary in size.
- 2b) give reasons why people make journeys of different lengths.
- 2c) identify how goods and services needed in the local community are provided.

look at and talk about pictures, maps and photographs of homes in villages, towns and cities in different parts of the world.

ask questions and talk about short and long journeys, eg for shopping, visiting relatives, taking holidays.

know that food is obtained from local shops, stamps from post offices and newsagents, health care from doctors' surgeries and from hospitals; and that some goods and services are delivered to homes.

3

- 3a) give reasons why people change their homes.
- 3b) identify features of settlements which reveal their functions or origins.
- 3c) explain why different forms of transport are used.
- 3d) distinguish between those uses of land which require large sites and those which occupy small sites.

explain why people move homes, eg changing jobs, retirement, to find a bigger or smaller home or a more attractive location, avoiding famine, war or persecution.

identify, from work outside the classroom, maps, photographs or historic documents, features, eg harbours in ports; beaches, hotels and leisure facilities in holiday resorts; factories in manufacturing towns; market squares and commercial buildings in market towns.

explain why road, rail, sea and air transport are suitable to carry different cargoes over different routes.

describe the large amounts of land required for some types of farming, forestry, residential areas and industrial sites; the concentration on smaller sites of offices, factories, hospitals and some shops.

LEVEL	STATEMENTS OF ATTAINMENT	EXAMPLES
4	<p>4a) explain why few people live in some areas and many people live in others.</p> <p>4b) describe the layout and function of a small settlement or part of a large settlement.</p> <p>4c) explain the impact of recent or current changes in the place studied for 4b).</p> <p>4d) explain why roads and railways may not always take the shortest route between the places they link.</p> <p>4e) give reasons for the ways in which land is used, how conflict can arise because of competition over the use of land, and for the location of different types of economic activity.</p>	<p><i>investigate urban and rural areas in the United Kingdom; populations in desert areas and cities.</i></p> <p><i>describe a village with an old nucleus, a 1930s ribbon development and newer housing, or a suburban area with homes and a shopping centre.</i></p> <p><i>describe the possible effects on the settlement studied of proposals for a new housing estate in a village, or out-of-town offices or a supermarket in a suburban area.</i></p> <p><i>describe a road or rail link from their own settlement to a neighbouring town or city; give reasons, with reference to examples, why routes often follow valleys, avoid steep slopes and waterlogged flood plains; and make detours to link intermediate settlements.</i></p> <p><i>describe the influence on farming of relief, soils, and weather, the size of the farm, the technology that the farmer can use, the distance of the farm from markets for its produce; give reasons for the location of a particular factory, eg the suitability of its site, communications and access to necessary materials, power, workers and markets for its products; consider the reasons for different views being held about proposals for a new road which would cut through an urban housing estate, or whether a particular rural area should be used for farming, forestry or as open space for recreational use.</i></p>
5	<p>5a) explain the factors which lead to changes in the population size of regions and countries.</p> <p>5b) analyse factors that influence the location and growth of individual settlements, and identify the effects of such growth.</p> <p>5c) explain the reasons for the growth of economic activities in particular locations.</p> <p>5d) compare road and rail networks, and explain the effects of changes to these networks.</p> <p>5e) compare land-use and distribution patterns in selected types of economic activities.</p>	<p><i>describe how population migration, and changes in birth rates and death rates affect populations.</i></p> <p><i>analyse the location of individual settlements in relation to site and situation, available resources, communications and the overall settlement pattern; the effect of the extension of suburbs upon agricultural land-use and rural communities.</i></p> <p><i>give reasons for the development of large suburban out-of-town shopping and business districts, or major industrial sites.</i></p> <p><i>describe similarities and differences between road and rail networks in a region or country; examine the effects on people's lives resulting from the construction of bypasses, the introduction of one-way road systems, the closure of railway lines.</i></p> <p><i>compare the land-use and distribution patterns of market gardening, arable, dairy and hill farming; different types of manufacturing industry; and corner shops, shopping streets, shopping malls and out-of-town hypermarkets.</i></p>

LEVEL

STATEMENTS OF ATTAINMENT

EXAMPLES

6

6a) analyse the global distribution of population.

analyse the relationships between the global distribution of population and national territories, physical features, natural resources, and levels of industrialisation and urbanisation.

6b) analyse the patterns of land-use in a town, and identify issues that arise as settlements age and requirements change.

analyse the distribution of functional zones and their relationship to the pattern of land values, accessibility and sequence of urban development.

6c) analyse the distribution pattern of shopping centres in an area.

analyse the goods and services provided in shopping centres of different sizes in a region; and how this pattern is related to economic activities, transport and shopping behaviour.

6d) analyse the advantages and disadvantages of forms of transport, and how these change as a result of technological and other developments.

analyse the advantages and disadvantages of road and rail transport for moving goods and people; consider the effects of constructing a new motorway link or electrifying a railway line.

6e) review the advantages and disadvantages of locating similar economic activities in the same places.

review the advantages and disadvantages of science parks, industrial estates, shopping centres, regional specialisation in a particular type of farming or a particular industry.

6f) compare levels of economic development and welfare in different parts of the world using appropriate indicators.

compare per capita Gross Domestic Product (GDP), literacy rate, people per doctor, secondary school enrolments.

7

7a) analyse the causes and effects of a recent large-scale migration of population.

review the causes and consequences of the post-1945 migration from Mexico and the Caribbean into the USA, the migration of Jews to Israel, migrant workers in South Africa.

7b) analyse the processes which lead to changes in towns and cities, and their effects.

analyse the processes leading to the decline and redevelopment of inner-city areas; population shifts in urban areas and from urban to rural settlements; and the effects of such changes.

7c) explain the effects on selected economic activities of developments in communication and transport systems, and the issues that arise from these developments.

explain the impact of information technology (IT) on where people work; the development of bulk carriers and the effects on ports and port industries; the effects of rapid air freight services on market garden production.

7d) analyse changes in the distribution of selected economic activities, and the effects of these changes.

analyse the changing distribution pattern of the iron and steel industry, and the effects on people and settlements; the expansion of oilseed rape production, and the effects on farming and on rural landscapes.

7e) analyse differences between countries in the proportions of the working populations engaged in primary, secondary and tertiary activities, and explain how these have changed.

interpret graphs and statistics to show the changing structure of employment; use a spreadsheet to calculate location quotients for employment; explore differences between countries and regions, and how they have changed.

LEVEL

STATEMENTS
OF ATTAINMENT

EXAMPLES

8

8a) describe and account for differences in the demographic structure in different places and the consequences of such differences.

explain differences in age and sex structures between towns, between regions, and between countries and the effects of these differences, eg demands on particular services and facilities in a town or region with a high proportion of older people, compared with a town or region with a high proportion of young families.

8b) analyse the roles of decision makers in processes affecting urban and regional development.

analyse the respective roles of entrepreneurs, property owners, international organisations, economic and land-use planners, community groups, and local and central government.

8c) analyse the causes of uneven economic development in and between countries and make an appraisal of actions and policies intended to redress such imbalances.

analyse the causes and consequences of disparities between wealthy and poor regions, eg by use of the core-periphery model; explain contrasts in economic development on a global scale and different approaches to economic development in specific countries.

8d) apply general concepts to the interpretation of patterns and processes in human geography.

apply general concepts, eg accessibility, distance decay, urbanisation, core-periphery, environmental perception.

9

9a) analyse the causes, and geographical consequences, of the distribution of ethnic, religious or linguistic groups in selected areas.

analyse the causes and consequences of ethnic, religious or linguistic differences in a city, region or country.

9b) explain how changes in transport, including the increase in numbers of motor cars and heavy road vehicles, are affecting settlements; appraise actions to limit any damaging effects.

describe the impact on specific settlements of the increase in the number of motor cars and heavy road vehicles; the effects on commuting of improvements to transport networks and services; the likely consequences of the construction of the Channel Tunnel; use a spreadsheet to analyse the impact of changes in traffic flow on the transport network; give evidence as to the success of strategies adopted to limit damaging effects.

9c) use conceptual frameworks to analyse patterns and processes in human geography.

use a spatial model to analyse urban land-use patterns; use a structural framework which draws together different ideas to analyse and explain complex relationships between, eg natural hazards, and the varying ways in which humans adjust to such hazards.

LEVEL**STATEMENTS
OF ATTAINMENT****EXAMPLES****10**

10a) evaluate alternative explanations for international disparities in levels of economic development.

10b) examine international strategies for improving the quality of life in economically developing countries.

review theories of economic growth; cumulative causation, 'take off'; advantages and disadvantages of specific geographical locations in terms of resource base, situation, environmental potential.

discuss criteria for defining quality of life; describe the constraints which act as barriers to improvement; examine the contributions made by international strategies.

Note: Pupils unable to communicate by speech, writing or drawing may use other means including the use of technology, signing systems or symbols as alternatives.

Attainment target 5: Environmental geography

Pupils should demonstrate their increasing knowledge and understanding of:

- i) the use and misuse of natural resources;
- ii) the quality and vulnerability of different environments; and
- iii) the possibilities for protecting and managing environments.

LEVEL

STATEMENTS OF ATTAINMENT

EXAMPLES

1

Pupils should be able to:

1a) identify and name materials obtained from natural resources.

identify that wood is obtained from trees, coal from the ground, wool from sheep, food from plants and animals.

1b) express personal likes and dislikes about features of the local area.

draw a picture or talk about what is good and bad about the local area, eg noisy, quiet, dull, interesting, smelly, smoky, ugly, beautiful.

2

2a) identify how people obtain materials from the environment.

describe how materials are obtained through quarrying, mining, fishing, lumbering.

2b) describe ways in which people have changed the environment.

be aware of changes in the environment, eg buildings, roads, the uses made of land for farming and leisure, water and air pollution.

2c) suggest how they could improve the quality of their own environment.

plan and take part in the development of a school garden or nature area; organise a scheme to collect waste paper for recycling.

3

3a) describe effects on environments of extracting natural resources.

describe some of the effects on landscape, people and wildlife caused by the excavation of quarries and gravel pits, formation of spoil tips, construction of buildings and roads.

3b) describe an activity designed to improve the local environment or a place they have visited.

describe improvements to the school's grounds, by answering questions: "Why was it done?", "How was it done?", "Has it improved the local environment?"

LEVEL	STATEMENTS OF ATTAINMENT	EXAMPLES
4	<p>4a) identify the main sources of fresh water, and describe ways of ensuring a reliable supply.</p> <p>4b) discuss whether some types of environment need special protection.</p> <p>4c) describe ways in which damaged landscapes can be restored.</p>	<p><i>explain that water is obtained from rivers, lakes and underground sources; stored using tanks, dams and reservoirs; transferred by pipelines between catchment areas; describe the action taken by water companies and the National Rivers Authority to maintain supplies and control pollution.</i></p> <p><i>discuss the problems of protecting the habitats of rare species of wildlife or protecting a historic house.</i></p> <p><i>describe the restoration of derelict land, new uses for gravel pits, the landscaping of spoil tips, afforestation.</i></p>
5	<p>5a) explain why rivers, lakes, seas and oceans are vulnerable to pollution, and describe ways in which pollution problems have been addressed.</p> <p>5b) distinguish between renewable and non-renewable resources.</p>	<p><i>identify the sources of water pollution, eg industrial discharge, agricultural run-off, sewage disposal; how pollutants reach rivers, lakes and seas; and the accumulation of pollutants in lakes and along coasts; describe ways in which these problems are addressed.</i></p> <p><i>categorise resources as renewable or non-renewable using criteria.</i></p>
6	<p>6a) analyse the effect on the environment of the development of two energy sources.</p> <p>6b) explain how conflicting demands can arise in areas of great scenic attraction.</p> <p>6c) explain how attempts to plan and manage environments can have unintended effects.</p>	<p><i>review the effects of the exploitation of coal or oil; the environmental effects of electricity generation from thermal, nuclear and hydroelectric power stations.</i></p> <p><i>analyse the conflicting demands in a National Park or areas of protected coastline or countryside, eg for farming, forestry, quarrying, military use, reservoirs, and recreational purposes.</i></p> <p><i>explain unintended effects of environmental planning and management, eg pressures on the environment of increased access caused by the construction of the Trans-Amazonian Highway, earthquakes induced by reservoirs such as Lake Mead in the USA, increased salinisation caused by irrigation schemes in the Indus Valley of Pakistan, loss of wildlife and increase in soil erosion caused by hedgerow removal in the United Kingdom.</i></p>

LEVEL	STATEMENTS OF ATTAINMENT	EXAMPLES
7	<p>7a) analyse the effects of technological developments on the exploitation of natural resources and the management of environments.</p> <p>7b) explain how some leisure activities can harm the very environments that are the source of attraction.</p> <p>7c) identify possible causes of global environmental change, and explain the potential effects on parts of the world.</p>	<p><i>outline the effects on the oil industry of developments in refining, in bulk transport (including pipelines and large oil tankers), and in the technology required for offshore drilling; the effects of new refining processes on the working of low-grade mineral ores.</i></p> <p><i>give evidence of the impact of the tourist industry, eg ski lifts in mountainous areas, the effects of tourists on historic buildings.</i></p> <p><i>explain how climatic changes, as a result of an increase in levels of carbon dioxide in the atmosphere, could affect sea levels and how this would affect different parts of the world.</i></p>
8	<p>8a) analyse how the growth of both populations and economies increases the pressure on natural resources.</p> <p>8b) analyse, with particular attention to one example, why some environmental systems are fragile.</p>	<p><i>analyse the impact on regions, eg pressure on open spaces, demand for water, and on specific countries, eg the effects of population growth and economic development, on the exploitation of and attempts to conserve natural resources.</i></p> <p><i>review the relationships between human actions and physical processes in tropical rainforests, tundra, semi-arid regions and wetlands.</i></p>
9	<p>9a) explain the implications for international co-operation of resource and environmental management.</p>	<p><i>describe problems caused by water and atmospheric circulation crossing political boundaries, deforestation, global warming, acid rain; and the need for international co-operation to solve them.</i></p>
10	<p>10a) examine critically the concepts of sustainable development, stewardship and conservation.</p>	<p><i>analyse in detail the relevance and applicability of the concepts of sustainable development, stewardship and conservation, and the tension between these concepts, in respect of, eg the use of Brazilian rainforest areas, tourism in the Alps, the encroachment of farming on wildlife habitats in East Africa.</i></p>

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