

UNDERSTANDING and TEACHING PRIMARY GEOGRAPHY

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UNDERSTANDING and TEACHING PRIMARY GEOGRAPHY

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Dedication

This edition of *Understanding and Teaching Primary Geography* is dedicated to the participants in the Charney Manor Primary Geography Conferences for their joy, compassion, knowledge, thoughtfulness and contributions to primary geography research, practice and thinking over many years. We have appreciated so much all that they have given.

We also dedicate this edition to our families and friends with love and our deepest thanks for their support in this venture.

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Simon Catling and Tessa Willy

INTRODUCTION

Geography is fundamental in everybody's experience - the daily experiences of every adult and every child, wherever they are in the world. Geography concerns how we understand and use places, the spatial and environmental experiences of our daily lives, and our information about and connections with places elsewhere in the world. It concerns, for instance, where and how we live, how we feed ourselves, the journeys we make and the connections we have with places and other people. Geography explores, investigates, examines, analyses, extrapolates from, seeks to understand and explain, and is concerned to develop our appreciation of the world, its places, environments and as a whole. It examines the ways in which we live on and make use of what our planet offers, where this happens and why it occurs where it does, how we inhabit and change places, the Earth's natural and human resources and processes, our impact on the Earth and the variety of ways it affects us. We do this at a range of scales from our neighbourhood to the wider region, nationally and globally. Geography investigates the opportunities, benefits, challenges, dangers, constraints, awe and fascination our world provides. It is our home, as humans, that we share with a multitude of other living creatures and plants, and with which we are utterly interdependent. It is important that we think carefully about this, understand our world and act responsibly.

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Understanding and Teaching Primary Geography provides an introduction to geography for those teaching and intending to teach in primary and elementary education. It explores aspects of the subject and examines the teaching of geography with younger children. By 'younger children' we mean children aged from 3/4 to 11/12 years of age. This book draws on a wide range of sources from within the geography discipline, from geography education and from children's studies, as well as from yet other sources. These communities intertwine in the context of children's geographies, a theme that underpins our perspective and approach. The book is about the knowledge, curriculum, teaching and learning of geography for children in pre-school and school settings.

For us, its authors, geography is an essential subject for all children at every age. Its teaching needs to draw on how children make sense of the world for themselves, and it has to enable them to make greater sense of and take them into new experiences of and perspectives on places, environments and the Earth, and its peoples and the processes involved. Geography is a school subject that has evident links with its academic discipline, and both are concerned to enable children to become increasingly aware of their own places as well as with those of others as yet beyond their experience and appreciation. The purpose of Understanding and Teaching Primary Geography is to support teaching children from their earliest years at school to enable them to know about and understand the world better, and to appreciate it for what it truly is: our home, a fragile blue planet, of which we must take great care and which during their lifetimes is facing many changes and challenges, not least to do with our uses of its land, its climate, its oceans and our interdependence on each other. This book provides knowledge and guidance about the geography that might be included in children's curricula and how it might be taught as children undertake the first part of their journey through school systems.

Geography is included in some form in almost every nation's primary or elementary school curriculum. In some countries it is a named individual subject, but in most nations it is a subject within the social studies area of the curriculum. In a few cases it is intertwined with the science curriculum. Where geography is listed as a distinct curriculum subject, it may be taught as a separate subject, but in many nations it is linked with other subjects in a crosssubject or integrated primary school curriculum. Depending on the country, geography may appear in the curriculum for 5-year-olds or children may not be taught it formally until they are 8, 9 or 10 years old. In a few cases, preschool curricula initiate aspects of geographical learning for very young children, although they do not identify the subject. Understanding and Teaching Primary Geography has been written to support geography teaching in all these contexts during children's earliest educational years and through their primary schooling. Its purpose is to encourage and foster well-grounded geographical understanding for children through high-quality planning, teaching and learning in and of geography for children from 3/4 to 11/12 years old.

Understanding and Teaching Primary Geography is based in developing your subject understanding and teaching capability in geography. It examines and promotes ways in which these two key dimensions underpin teaching geography to support primary age children's progress in learning geography. To provide the best teaching for learning for children, you need a secure understanding of the nature of geography, what is important in its curriculum, how its teaching may be planned and undertaken, a range of approaches through which children's geographical learning can be addressed and assessed, and the variety of resources that can be used. This book explores these aspects of geography teaching.

Understanding and Teaching Primary Geography is organised in two parts with 16 chapters. The first half of the book discusses what geography is, aspects of the subject and children's geographical experience. In the second half, the focus moves on to particular aspects of and approaches to geography teaching, planning and assessment. In Part 1, Understanding Primary Geography, Chapter 1 outlines the situation and state of primary geography and identifies some of the current influences on its future for children and schools. Chapter 2 examines geography as a subject and considers its role and value for us all. Understanding and appreciating its centrality to our lives is vital for our futures. Chapter 3 examines the variety of children's geographical experience, emphasising that children bring geographical awareness and engagement into the classroom throughout their early years and primary schooling. Chapter 4 explores geographical enquiry, while Chapters 5, 6, 7 and 8 focus in greater detail at the ideas of place, physical, human and environmental geography, sustainability and environmental impact, and geography and social justice and citizenship. These are considered separately here, but are brought together in later chapters which provide a scale-based approach to developing geographical understanding. Chapter 9 considers fieldwork, photographs and map work as core skills in geography teaching and learning.

In Part 2, *Exploring Geography Teaching and Curriculum*, Chapter 10 introduces the teaching and learning of geography in the pre-school or early years, which sets some of the foundations for children's later geographical learning and understanding. Chapters 11, 12 and 13 explore three developing spatial contexts for geography teaching and learning. They connect studies of place, environment and sustainability from the familiar locales to the world. They emphasise that each of these scales – the local, the regional, the national and the global – can and should be aspects of children's geography curriculum across their schooling, drawing on the concept of a spiral, rather than linear, geography curriculum. Chapters 14 and 15 provide advice about the planning, progression and assessment of geography teaching and learning. Chapter 16 draws together several aspects of children's geography curriculum, and concludes on matters related to researching primary geography in classrooms and schools.

Throughout the book you will find, at different points, examples of geography teaching and learning from across the primary age range, references to relevant research and guidance, and suggestions for geography topics and teaching approaches. Other elements include several information boxes, and practical and reflective tasks throughout the chapters.

In many parts of the world, national professional standards for teachers have been developed. Understanding and Teaching Primary Geography is intended to support and enhance your professional practice. The two parts of the book will help you develop your understanding, capability and achievements as primary teachers, whether you are preparing to become a teacher, are in your early years in teaching or are an experienced early childhood or primary teacher. To be able to foster and extend primary children's learning and development, you need to develop and maintain your knowledge and practice in teaching geography, just as you would wish to do in your other subjects and your cross-subject teaching. It will be useful for you to have access to your local and/or national geography curriculum requirements for pre-school children and for primary education as you use this book, so that you can make connections between the advice offered here and your local or national geography curriculum. A valuable way to further your understanding of geography is to make use of the resources on the wide range of geography-based and related websites about the subject and its teaching and learning, and about the extensive variety of topics that make up geographical studies. Some sources are given at the end of each chapter.

Whether already you enjoy geography and have studied it in some depth or you come to it wishing to be inspired about its relevance and value for early years and primary children, we hope that you will find that *Understanding and Teaching Primary Geography* opens your eyes to a fuller sense of what geography is about, how it builds on and deepens children's inherent geographical awareness, interest and understanding, and how you can contribute confidently, effectively and excitingly to their learning. We wish you an enjoyable journey in your teaching, reading and learning.

Simon Catling and Tessa Willy



CHAPTER I

GEOGRAPHY IN PRIMARY Schools

Chapter objectives

This chapter enables you to:

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- develop an understanding of the situation of geography in primary schools;
- recognise some of the challenges and opportunities for primary geography;
- become aware of how primary geography's teaching and learning can be of high quality and enjoyed;
- reflect on your own experiences in learning geography;
- appreciate various contexts and influences affecting primary geography.

Introduction

Geography is 'the world discipline'.

(Bonnett, 2013, p. 7)

Geography is a fascinating, invigorating, inspiring and exciting subject to teach and learn (IGU-CGE, 2016). Understanding geography makes a difference to ourselves and others (Catling, 2012b). It is fundamental to our appreciation of and knowledge about the world in which we live, including our daily interactions and through the ways the world impacts on us, whether the causes are nearby or occur far away (Dorling and Lee, 2016). Geography studies the world as our home, from the local to the whole planet, and people's lives, activities and events across it; it examines what happens in the natural, physical environment, in human society and the interactions and impacts between the two. It concerns places, what they are, where they are, what happens, how they change, what the effects are and above all, why and where and what next? It is descriptive, analytic and predictive. Geography investigates causes, influences, consequences, changes and short- and long-term impacts in our environments. It seeks to understand locations, distributions, patterns and processes to help us make sense of the world and to enable us to improve our decisions about what we do that will affect our planet both in our neighbourhood and globally.

The International Geographical Union Commission on Geographical Education's *International Charter on Geographical Education* (IGU-CGE, 2016, pp. 4–5) expresses the nature, importance and significance of geography for all of us at all ages in the following words.

Whether it is through appreciating the beauty of the Earth, the immense power of Earth-shaping forces or the often ingenious ways in which people create their living in different environments and circumstances, studying geography helps people to understand and appreciate how places and landscapes are formed, how people and environments interact, the consequences that arise from our everyday spatial decisions, and Earth's diverse and interconnected mosaic of cultures and societies.

Geography is therefore a vital subject and resource for 21st century citizens living in a tightly interconnected world. It enables us to face questions of what it means to live sustainably in this world. Geographically educated individuals understand human relationships and their responsibilities to both the natural environment and to others. Geographical education helps people to learn how to exist harmoniously with all living species.

Geographical investigation both satisfies and nourishes curiosity. Geographical perspectives help deepen understanding of many contemporary challenges such as climate change, food scarcity, energy choices, overexploitation of natural resources and urbanisation. Teaching geography serves several vital educational goals. Building on people's own experiences, learning geography belps them to formulate questions, develop their intellectual skills and respond to issues affecting their lives. It introduces them not only to key 21st century skills but also to distinctive investigative tools such as maps, fieldwork and the use of powerful digital communication technologies such as Geographic Information Systems (GIS).

Geographers investigate the Earth's human and physical environments and within these explore what different places, areas and peoples have in common as well as the diversity of our world. Geography is interested in similarities and regularities, looking for patterns to explain what is distributed where, what happens and why, and it is stimulated by differences, what these are, where they occur, why they arise, and how they give us value - just think of the many different places, environments and communities you have been in and are involved with. Difference is a relational concept for geography (Martin, 2012). This means that in order to understand or appreciate similarities and differences we need to be able to relate features, lives, cultures, events and activities to others. What geography recognises is that the consistencies and the variety across our planet and its peoples and ecology are what provide such rich environments for our lives and for exploration and investigation. Relational understanding is vital for informative and transformative geographical learning. It is this that is fascinating and provides such stimulating opportunities for living and learning for us all.

From their earliest years children experience the world about them and begin to build an understanding of it. We have all done this. Both in their local neighbourhood and community and through their encounters with the wider world, each child's 'personal geography' amazes, enthralls and engages them from their first years - the constant encountering of the 'new' and the revisiting of familiar sites that fascinate, entice, or just provide what is wanted at particular times - because of the opportunities and the relational comparisons encountered. As we grow, explore for ourselves and encounter through many sources the 'wider world' - a little further locally or different places altogether, through television, the Internet, stories and travel - we discover the possibilities, the *affordances*, that places offer: We interrelate these and we make use of them in myriad ways. Geography is an aspect of our lives whether we realise and recognise it or not. It is always part of us and always affects us, from the places we love, to the food we eat, to where we want to go and how we feel about the concerns and issues that affect different environments, ourselves and everyone else. Geography is an amazing, essential and fundamental subject.

Throughout this book we provide a variety of insights into ways in which the teaching and learning of geography in primary schools can develop children's geographical awareness, understanding, knowledge, interest and enthusiasm. We begin by considering geography's situation in primary schools and what makes for stimulating and enjoyable teaching and learning. The chapter concludes by noting that various initiatives and interests provide opportunities for geography's role and development. Some of these are generated by geography educators; others have arisen from emergent and preferred teaching practices, opportunities for development and government policies and priorities in different parts of the world.

Geography in the primary curriculum

Geography appears in one form or another at some point in the primary school curriculum in almost all countries. In some nations it is a named single subject, as in England and Ireland (Catling, 2013a; DES/NCCA, 1999; DfE, 2013; Pike, 2015). In very many countries geography is contained within a humanities and/or social sciences curriculum area, as in Australia, New Zealand and South Africa (Australian Curriculum, 2015; Lane, 2015; Maude, 2014; NZC, 2014; Wilmot and Irwin, 2015; Wassermann, 2017) or included in a social studies curriculum, as in Scotland, the USA, South Korea, Singapore, China, Brazil, Japan, Turkey and Oman, to name just a few (Al-Nofli, 2013; Bednarz et al., 2014; Boyle-Baise and Zevin, 2014; Chang, 2014; Education Scotland, 2009; Halvorsen, 2013; Incekara, 2010; Lastória and Papadimitriou, 2012; Lee and Butt, 2014; Morgan, 2014a; Murayama, 2015; Shimura, 2015; Singapore Ministry of Education, 2012; Xuan et al., 2015; Yoshida, 2015, 2017). It may be linked with one other subject, often history or science, as in Chile, Finland and Germany (Salinas-Silva et al., 2015; Schmeinck, 2017; Tani, 2014). While in many countries geography may not appear in the primary curriculum until children are seven or nine years old, in some it is part of children's curriculum from age five or is initiated in their pre-school years, as in England (DfE, 2017). This presents a very mixed picture of geography in primary school curricula across the world. As an illustration of the variation in geography's curriculum provision in just one nation, in the UK geography appears differently in its four constituent jurisdictions: a named subject in England; an element in the humanities area of learning in Wales; in the social studies grouping in Scotland; and in Northern Ireland in 'The World Around Us' curriculum area (DfE, 2013; Donaldson, 2015; Education Scotland, 2009; CCEA, 2007). What is important to note, though, is that in each of the four UK contexts geography is an element of children's primary education.

Although geography is an element in primary curricula, there is little evidence around the world about the quality of its teaching. It is acknowledged in the USA, for example, that little is understood about how geography is taught, the contexts in which it is taught successfully, what children do and learn, and what understanding of geography teaching and learning elementary school teachers have (Battersby *et al.*, 2013). This has been recognised similarly as a concern in Australia (Erabus International, 2008). More research is certainly required into the nature, extent and quality of primary geography teaching globally (Catling, 2013b). However, there is one country that has a long, but irregular, history of evaluating the quality of geography teaching in primary schools from the 1960s to the present. That country is England. It is worthwhile drawing on the evidence that has been gathered by school inspectors in recent years about good quality teaching and what some of the concerns are.

Characteristics of good quality geography teaching

Well-taught geography is stimulating and enjoyable, uses a variety of approaches to teaching, engages the children through topical matters and issues of interest that often relate to their experience, challenges their thinking, introduces them to new themes and ideas, and holds high expectations of them. These three scenarios for topics illustrate aspects of and approaches to primary geography that have been used in primary classes.

Children examine local planning issues and put forward development plans of their own.

The initiation and use of links with schools elsewhere, nationally and in other countries, involves children in exchanging local information and gaining insight into each other's lives and communities.

Investigating topical events when they occur (perhaps even suspending the current topic of study) – e.g. the earthquakes in New Zealand and Italy in 2016, cyclones affecting Queensland, Australia, and the Philippines in 2017, and the East African famine of 2017 – enables children to explore the natural processes involved, their impacts on people, and the responses locally and elsewhere to them.

A vital motivating factor for primary children is gathering material at first hand, using learning outside the classroom. This involves undertaking fieldwork in the school grounds, in the local area and further afield. The first quotation in the box below reinforces this approach and its value. Equally motivating is exchanging information with children elsewhere about their own localities. Children are fascinated and energised by investigating topical and dramatic events and issues, such as earthquakes, dramatic weather events and planning developments and disputes. Such investigations involve undertaking geographical enquiries and engage children in active learning. These practical approaches are indicated in the fourth quotation in the box, which notes children working independently, taking their own lines of investigation within a common topic. The second and third examples reinforce that there are alternative approaches that can be used to examine issues and investigate other places with primary children. The development of positive attitudes to learning in geography is evident.

Examples from England's school geography inspectors' perspectives on stimulating primary geography

During the first half of the autumn term, work in geography for [a class of 5–6-year-old] pupils was based on fieldwork in the local environment. They explored the human and physical features in and around the school and local area. Work on aerial photographs, Google Earth and digital photography determined which features were most common. They studied the advantages and disadvantages of human and physical features, discussed which were most prominent and whether it was better to live in an area with more human or more physical features. The unit culminated in the pupils selecting and improving a derelict local shop which formed the focus of their fieldwork The fieldwork and the subsequent activities provided opportunities to explore environmental issues such as recycling, sustainability and graffiti and gave pupils the opportunity to learn about individual actions on the local area as well as the global community.

(Ofsted, 2011, p. 42)

In the last few years, more pupils had joined the school from different countries. [For a class of 6–7-year-olds] it was decided to study life in a Turkish village, as a child had recently arrived from there. The pupils interviewed her and used photographs, maps, atlases, weather forecast and clothes effectively to explore similarities and differences between their own locality and a locality in Turkey. The pupils had very specific knowledge and understanding. They were enthusiastic, interested and respectful of differences. They were also able to recognise that they had changed some of their views about Turkish weather, lifestyle and religion.

(Ofsted, 2011, p. 46)

[8–9-year-olds] pupils used drama to consider the impact of loggers and tourists on the native population of the Brazilian rainforest. Small groups of pupils presented their cameos and others listened carefully to the viewpoints.

(Ofsted, 2011, p. 46)

[A class of 10–11-year-olds], as part of the 'Blue Planet Unit' which focused on water and rivers, pupils were given the opportunity for self-directed learning, although the teacher provided an outline of the task. This set out clearly what pupils should do and ensured that it had a suitable geographical focus. The pupils were given about six weeks to complete the project. This was done mainly in their own time, but if they finished work in lessons they were allowed to work on their project in school. The pupils were allowed in discussion with the teacher, to choose the area to research and report upon and the style in which they would produce the work. Examples seen included:

- a standard report of European rivers including computer-generated data and descriptions and explanations related to the differing characteristics of these rivers
- a standard report on a single river
- a large poster display of the River Thames from source to mouth including details of flooding and river management
- a report on the River Danube which included a contour model of the centre of Budapest
- A DVD and note cards of a simple experiment made at home to produce a hydro-electric power machine and a written report setting out the advantages and disadvantages of hydro-electricity.

The pupils spoke very enthusiastically about their projects and had very good understanding about their chosen topics. They really appreciated the freedom to decide what they wanted to learn within the framework given.

(Ofsted, 2011, pp. 15-16)

These examples illustrate several characteristics of high-quality primary geography teaching identified from England's primary school inspection reports (Bell, 2005; Catling, 2004a, 2013c; Iwaskow, 2013). These are that:

- 1. Geography teaching must be *purposeful*. This means that the children know and appreciate the point of what they are studying, recognise its relevance and value, and have their curiosity whetted and engaged.
- 2. Their geographical studies need to be *problem* oriented. Children are not to be limited to information gathering and description, but must be involved in investigating, analysing, evaluating and proposing possible, even most likely (if not always preferred), solutions.
- 3. Their geographical learning should be undertaken using a *geographical enquiry* approach. This involves children in asking, selecting and

structuring questions, working out how to investigate them, undertaking investigations using a variety of sources, and in drawing conclusions based on evidence and rigorous thinking.

- 4. Children undertake their geographical studies *cooperatively*. This should involve them in contributing independently pursued studies of a chosen problem or issue to a common topic, in which the focus is on learning with and through each other in paired and larger team investigations outdoors and in class.
- 5. Children's geographical enquiries must involve *active engagement with the world*. This may be through fieldwork locally or further away, involve investigations of topical issues, or by engaging with experts and invited visitors to school from whom they seek information, insight and understanding.
- 6. Children are stimulated by *engagement with good quality resources*. Such resources will be the stimulus of the outdoor environment, and opportunities to use photographs, maps, leaflets, postcards, rocks, newspapers, artefacts, news websites, resource packs, and the many other sources that can be drawn on, including through the Web. Along with high-quality geography teaching, informative resources can be the catalyst that makes the difference between satisfactory learning and high achievement by children.

Geography curriculum making

A further feature of the ways in which good and better quality teachers teach geography is their use of *curriculum making*. Curriculum making describes a 'liberated' approach to planning a geography topic that may last a half or a full school term (Catling, 2013c). The word liberated describes how teachers feel about and view their responsibility for planning their curriculum; it refers to teachers feeling re-energised to make decisions about what to include and how to organise their geography teaching, whether in a single subject or a cross-curricular context. Curriculum making endorses primary teachers to reclaim their *agency* in determining and managing their teaching - that is, they have control in their classroom decisionmaking. Underpinning this practice are several other features of good quality teaching. These concern their attitudes and organisational responsibility. The essential attitude of curriculum makers is that they are confident in themselves as teachers and as curriculum organisers and managers. They are equally confident in their children as learners and engage them actively in developing the class geography curriculum. This means that while the particular geography topics, and their sequencing, may be school plan or year group directed, the particulars in a topic's study are not closely structured but developed by the teacher with the children's involvement. To enable this approach to be effective requires that primary teachers are committed to maintaining their professional development to enhance their subject and pedagogic understanding in geography (as well as in the other subjects they teach).

In making decisions about their geography curriculum, its topics and the approaches to study, teachers as curriculum makers recognise, draw on and engage their children's geographical experiences and awareness to develop their understanding, and in so doing help their children to enhance and extend what they already know, through engagement with new geographical knowledge and considerations. By involving children in developing their geography topics, these teachers ensure they construct their medium-term plans so as to take opportunities that arise during a topic. They are clear in their intentions and sense of direction. Their mapping out of a topic enables them to adapt content and approaches to develop children's geographical learning as the topic develops. These teachers make very effective use of their range of teaching skills and look to ways to extend and enhance these. Curriculum makers are open-minded but also rigorous, using discussion and debate through active dialogue to challenge children's ideas and proposals for lines of study, to question children's ways of working and the decisions they make about evidence and proposals, and to engage them in self and shared evaluation of their learning. This is reflected in the GA's primary geography quality mark awards in England and Wales (Owens, 2013) and in high-quality primary geography in Ireland (Pike, 2016).

These characteristics are supported by other findings (Catling, 2015a, 2017a) from an examination of high-quality teaching and learning identified by school inspectors across the humanities subjects (geography, history and religious education) in UK primary schools. This refers to the very best humanities teaching and learning found only in some five to ten per cent of primary schools. From an analysis of inspection reports, it was evident that teachers' subject knowledge was influential, particularly in terms of their appreciation of their pedagogic content knowledge, that is, their understanding of the geography they were teaching and their effective decisions about their approaches to its teaching. This analysis noted teachers' involvement of their children in identifying good lines of enquiry, the high expectations they hold of their children, and how they recognise and help children develop their understanding into new areas and more deeply. At the heart of this are the ways teachers convey enthusiasm for the subjects they teach and how they draw the relevance of what is studied to the children's attention. In such ways teachers develop children's geographical engagement, interests and deep learning (Eaude, 2018).

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Reflective task

Consider some teaching of geography that you have seen in a preschool or a primary school, whether taught in cross-curricular studies or as a separate subject. In pre-school this may have included looking at some aspects of local life and the area nearby.

Which *characteristics* of good quality geography teaching are you able to recall?

If the lesson was not of good quality, what would you want to improve? Consider how one or more of the *characteristics* in this section might be used to make such improvements. Why have you selected those ones?

Which *characteristics* you would like to apply to and develop in your own teaching of geography?

Geography in primary schools: limitations and opportunities

We have a very limited understanding of the state of geography teaching, learning and curriculum in primary schools around the world because there are few recent sources of evidence that provide a picture of the range and quality of geography in children's primary education. In the USA there is negligible evidence about geography's teaching during social studies lessons (Battersby, 2013; Boyle-Baise and Zevin, 2014; Segall and Helfenbein, 2008), just as little is known in Northern Ireland (Greenwood, 2013). Evidence about practices in primary school geography is important because it provides insight into those aspects of geography that are taught, how well taught the subject is and how children engage with it. The most informative reports that we have are found chiefly in school inspection reports in three of the UK's jurisdictions: England, Scotland and Northern Ireland (Education Scotland, 2013; ETI, 2014; Iwaskow, 2013; Ofsted, 2008a, 2011). In addition, there is limited evidence from Australia (Erebus International, 2008; Catling et al., 2013). We need to be aware, though, that this evidence is not directly up to date; the need remains to seek the latest reports on the quality of and concerns about primary geography. There have been various studies of primary teachers' perspectives on their teaching of geography, and these provide some insight into the subject's teaching but they do not give independent insights into classroom practices (Bent et al., 2017; Pike, 2015; Salinas-Silva et al., 2015; Shimura, 2015; Wilmot and Irwin, 2015; Xuan et al., 2015). There have also been reviews of teachers' geographical

knowledge (Catling, 2014b; Catling and Morley, 2013; Lee, 2018) and of geography in England's initial teacher education (Catling, 2017b). What emerges from school inspectors' reports is that much geography teaching is modest in its practices and accomplishments, and that there is a sizeable flipside to the characteristics of good quality primary geography identified above. These findings suggest concerns about the state of primary geography but indicate also directions for its development to increase the amount of good quality early years and primary geography teaching.

Constraints affecting primary geography teaching

Where geography is not well provided for or taught well, the concerns raised have been as follows.

- Too often geographical studies receive too little teaching time in primary classes with the result that teaching is often ineffective: children study superficially rather than in depth.
- Geography is much more frequently taught in an integrated or crosscurricular context, in which often it tends to be given only a minor role and not be readily identified by the teacher to the children or well thought through by themselves.
- Such an integrated or cross-curricular approach fails frequently to provide a clear focus on the key ideas, knowledge and skills of geography, resulting in weak geography and ineffective geographical learning.
- A core impediment for many teachers is their lack of or weak geographical knowledge and understanding, which inhibits their capacity to plan their geography curriculum and teaching satisfactorily, since they do not appreciate the key ideas and skills of geography and find it hard, even where they are aware of these, to apply them in the geography topics and content they teach, with resulting incoherence.
- This reflects the low status and priority given to geography in too many primary schools and classes, which weakens the opportunities for geographical learning.
- Geography teaching may often not engage children's interest and even where its topics may do, children remain unaware that there is geography in what they are studying.
- Children's personal geographies and the everyday geographies that affect them are drawn on only to a limited extent where they are recognised at all: children can remain disconnected from their studies.
- The application of geographical enquiry and investigation is lacking in much geography teaching, which tends to focus on using limited information sources to provide descriptive accounts of what is read about or seen in pictures used in a topic, in which stereotypes and misunderstanding can be reinforced.

- Geography topics have been focused too heavily on studies of places, environmental concerns and skills, with too little emphasis given to physical and human geography.
- Geographical studies can be overshadowed by a focus on literacy and numeracy in a geography topic rather than be properly focused on geographical understanding and learning.
- Opportunities for geographical fieldwork and outdoor learning are very limited, if used, and may be constrained by school leadership decisions as much as by teachers' lack of experience, interest or determination.
- In too much primary geography teaching, teachers either rely too heavily on closely structured published resources, from worksheets to textbooks, which they follow unquestioningly and do not adapt to their children's context and needs, or they simply use web-found sources which they do not question and for which they set simple comprehension questions, indicating that they do not have the skills to plan their own topics or engage children in geographical analysis, evaluation and thinking in an effective way.
- Many children develop little deep understanding in their geographical learning because of a lack of progression across a year, or between years, in the topics they study, often only repeating skills or information they have met and used before, with the result that their learning is frequently superficial.
- Assessment is under-played, with records noting little more than the geography topics covered by children, resulting in negligible reference to children's learning of and progression in understanding key geographical ideas, content knowledge and skills: this inhibits planning for progression in their learning.

While many primary teachers may teach geography just about adequately, they lack the self-belief and confidence to teach the subject effectively, finding it hard to challenge, stretch and excite their children about geography, inhibiting what children can achieve: this relates to their limited subject understanding. A contributing factor is that very many primary teachers lack any or have very limited initial or in-service education in geography and its teaching, resulting in too many teachers not having the opportunities to develop their knowledge and skills to teach geography adequately. This lets their children down, who have an entitlement in most parts of the world to good and high-quality geography teaching.

Approaches to improve primary geography teaching

Although this is a challenging scenario, in many primary schools there are teachers whose approaches to teaching geography benefit and enhance children's geographical learning. They aim for and often achieve the high-quality characteristics noted in the previous section. Their approaches include the following.

- Valuing and enjoying teaching geography, fostered by drawing particularly on their colleagues who are passionate about the subject and its learning, and communicating this to their children.
- Ensuring they and their colleagues are well-informed about the nature and content of geography and that they can maintain their subject understanding of and extend their capabilities in its teaching through consistent personal professional development, particularly in school.
- Making adequate provision of time for geography teaching in the curriculum, whether as a single subject or integrated in cross-curricular topics, and where this happens for geography to be identified and visible to the children and to take its fair share as a lead subject in topics.
- Planning geography topics to ensure a balance between the different aspects of geography, including its study of locations and places, its physical and human aspects, concern and care for the environment, and the skills to use and understand maps and to engage in fieldwork.
- Planning topics that involve the development of children's geographical understanding, knowledge and skills both within a topic and between a class's topics across a year to provide for children's progression in geographical learning.
- Rebalancing planning from overly teacher-directed and led topics to a greater involvement of children in developing lines of investigation and approaches within topics, and perhaps at times to suggest geographical topics for study themselves.
- Recasting approaches to teaching to involve more fully or entirely in a geography topic an enquiry approach that requires the children to identify and select questions, to seek evidence to respond to these, to evaluate this, and to draw conclusions and perhaps make recommendations.
- Using fieldwork and outdoor learning consistently to motivate children and to extend and enhance geography teaching and learning.
- Incorporating problem-solving and thinking skills approaches in geography planning and teaching, which engage children in critical questioning and reflection on their geographical enquiries and learning.
- Broadening and using a wide variety of teaching approaches and activities to enhance geographical learning.
- Making greater and more varied use of digital and other technologies and websites to engage and involve children in geographical learning.
- Involving children in practical projects, particularly of local interest and value, and which might contribute to the community, and to take up opportunities provided by a range of topical events and activities around the world.

- Ensuring that children can connect with and appreciate their geographical topics and studies as relevant to their lives, experiences and futures, understanding why what they study matters.
- Accessing good quality and current geographical resources, used thoughtfully and critically.
- Providing thoughtful formative and summative assessments of the children's work in geography, which involves making good use of focused and rigorous questioning and encouraging children's self-assessment of their learning and next steps in learning, and recording simply and clearly children's achievements, needs and progress in their geographical learning.

Enjoying geography teaching and learning

Enjoyment is the birthright of every child (DfES, 2003, p. 3). For many, the purpose of a primary curriculum is to develop children's sense of wonder and curiosity about and respect and care for places, people, cultures and environments throughout the world. These aims allow teachers to develop their curriculum in creative, imaginative and stimulating ways, resulting in many classes in enriched learning experiences for children. Geography is very well placed to realise this, affording many opportunities for children to be active participants in their learning through its rich and diverse subject matter and engaging its enquiry-based approach. To enjoy their learning, children need to be excited and inspired by what they do, necessitating a creative and flexible approach to teaching. Geography offers all this and, to enable it, provides highly relevant and inspiring subject matter (Pike, 2016).

When asked what they remember about geography at primary school, people tend to recall a diverse set of experiences, ranging from colouring maps to eating sandwiches in the rain on a beach during an excursion. When asked what the truly enjoyable and memorable learning experiences that they had were, responses, if offered at all, invariably refer to being outside and carrying out one form or another of experiential, interactive fieldwork, usually connected to an enquiry of some kind which had obvious purpose and relevance. People talk about how this stimulated their enjoyment of the countryside, generated an interest that led to work in planning or opened their eyes to how we pollute but can look after our streets and urban places. Alongside the content of their fieldtrip, pleasure in being out of the classroom in the environment clearly was stimulating.

Geography teaching that informs, stimulates and motivates children, and which really involves them in their learning, is at the heart of enjoyable learning, as the approaches in the box above illustrate. What is essential is to make the geographical experiences you provide purposeful, meaningful and relevant to the children and, equally important, enjoyable. If the children enjoy the activities, they will be engaged and committed to them and effective geographical learning will take place as a matter of course (Reynolds, 2014). Creating enjoyable geography learning and teaching involves a range of skills and processes, and a commitment to having and applying an open and creative mind (Mackintosh, 2007; Pike, 2016; Scoffham, 2017b). It necessitates flexibility and a willingness to take risks and make mistakes occasionally and to learn with the children. It is about giving children permission and creating opportunities for them to find their own enquiry path, and to explore and discover issues and situations that are real and relevant for them. It involves, inevitably, using a range of appropriate resources from the sophisticated, such as geographic information systems (GIS), to the basic, such as some string and pieces of paper to show an unfolding journey in a story book, and developing motivating and inspiring ideas in a creative and open-minded way. And it requires understanding the geography you teach in ways to which your children relate and from which they gain insight.

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In the classroom

Getting into geography with a bear hunt

The classic and hugely popular picture story book, We're Going on a Bear Hunt (Rosen and Oxenbury, 1989), has been a stunning stimulus for geography teaching. Children in a class of 4-6-year-olds were entranced with the swishy, swoshy grass and the splashy, sploshy water, subliminally learning about direction and developing their geographical vocabulary as they practised acting out going over, under, into and through all sorts of exciting natural features: rivers, mud, caves, forests and snowstorms. Making a 3D model map of the area travelled through in the story enhanced the learning opportunities for one group as the children navigated their way around the increasingly familiar landforms and natural features. For another group, props, including a map, binoculars and a compass, provided the stimulus for planning a 'journey' in the playground using questions such as 'Where are we going?', 'Which way do we go?' and 'How do we know it's the right way?' To assess their understanding and recall of the story, as well as developing their spatial awareness, these children painted picture maps of the bear hunt, identifying and depicting individual features and their locations. Encouraging children to talk about their map as they created it, using prompt guestions, such as 'What' is that feature?', 'Which way do you go?', 'What is it like there?', and, more openly, 'Tell me about your map', involved them in describing and explaining what they knew and understood.

Reflective task

Think back to your geography classes at school. Did you enjoy geography? What has stayed with you about its teaching and what you learned? Why is this? Would you have wanted it to be different or to be even better?

Can you recall your geographical learning from your primary school? What do you remember? Did you realise that you were taught geography? Why do you think this is so?

As a primary teacher, you will teach geography. How do you feel about this and why? What would help you to teach geography well? What would provide the children with memorable learning experiences? Make brief notes for your future reference of your views.

Initiatives in education

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Appreciating geography teaching in primary schools requires awareness and understanding of the changes in and evolution of the primary curriculum, as well as of other matters affecting primary schools and younger children's education. Here we outline some influences that are directly relevant to primary geography. It is essential to keep alert to developments in the curriculum and schooling, whether government or locally initiated, and to consider how they might and can affect geography teaching and children's geographical learning in primary schools. Some of these initiatives concern how we might consider the purpose of primary education, while others focus directly on geography education and may, if not immediately, have an impact on geography in the primary curriculum. The first influence we note concerns what many governments now see as centrally important - that is, setting the context for school learning - or, to put it alternatively, providing aims and purposes for education. We discuss, second, the matter of geographical knowledge before noting matters of government, state or local geography curriculum guidance. These are followed by reference to several other educational matters. Several are developed in later chapters.

Contexts for learning

Countries around the world set children's school lives and learning in wider educational and social contexts by specifying the national intended aims and outcomes for children's schooling. For instance, one approach has been to set goals for children to develop towards during their schooling. In Australia these goals have been identified as: successful learners, confident and creative individuals, and active and informed citizens (MCEETYA, 2008, pp. 8–9). You might seek out such statements in your own country. Many of the points that were made about these three areas are reflected in other countries' intentions for schooling in society, and in debates about primary education (Alexander, 2010). In view of what has been presented in this chapter, it is pertinent to dwell on this aspect of educational intentions and to say something about each one.

A key element in becoming a *successful learner* is that children play an active role in their learning, develop their abilities to think logically with increasing depth of understanding, to gather and evaluate evidence thoughtfully, applying disciplinary knowledge, and to be resourceful and innovative in problem-solving approaches and tasks. Children should make consistent use of their developing numeracy and literacy skills, alongside applying digital technologies across their studies, not least to analyse, evaluate and communicate their learning effectively. They should develop the ability to work independently as well as alongside others collaboratively in teams. Important in their learning is being motivated by what they do in school in order to achieve their potential. A core purpose in this is to enable children to make sense of the world and to understand and appreciate how things have come to work as they do and be as they are. Not just this last point but clearly all the others contribute to primary children's high-quality geographical learning, resonating with the points made about good geography teaching and learning.

To become *confident and creative individuals* children need to be selfaware, to build their self-identity and to have self-worth, to believe in and be confident in themselves. Their physical and mental health are as important as their emotional, spiritual and cognitive well-being, and these are engendered through optimism about the future, evolving a set of personal values that include respect for others and empathy, and their sense of living satisfying lives. This includes becoming aware of, understanding and considering the challenges in the world and exploring possible mitigations and resolutions. Building the confidence to be enterprising and resilient, to be creative and take opportunities, and to develop decision-making skills and take responsibility for their actions are important qualities for children to develop. Each of these can support and be enhanced through primary children's geographical learning.

By being *active and informed citizens*, children appreciate the value of diversity in their local, national and international communities, and act with ethical integrity. They will hold to the values of democracy, the rule of law, justice and equality, and have respect for all people and for natural and social environments. As developing responsible local and global citizens, they will act for the common good, to sustain and improve society and the

natural and human created world. Geographical learning plays a central and fundamentally important role in fostering such citizenship.

Various aspects of these three aims and goals for education underpin and are explored and illustrated in the rest of this book.

Debating knowledge for the primary geography curriculum

Teaching geography has always involved developing primary children's knowledge of the subject; it would be pointless if it did not do so. Across the years the prioritised content of primary school geography has evolved universally, if not contemporaneously, and to emphasise similar content. In the first part of the twentieth century there was an emphasis on regional geography, with children introduced to information about the continents and a selection of nations around the world, as well as some aspects of local geography. By the middle of the century in a number of countries there had been a shift in emphasis to investigations in local environments and studies of particular aspects of the physical and natural world in other places, in some nations using a sequentially concentric approach across year groups from the local to the global in geography. However, some felt that world knowledge - for instance, of continents, oceans and countries had become less important. Towards the end of the twentieth century and into the twenty-first century, moves were made to rebalance these different aspects of the subject. It was appreciated that children needed to develop a factual base of information about the world, to appreciate the importance of maps and atlases in studying and finding out about the world, to develop their understanding of places and of aspects of human and physical geography, and to appreciate such core concepts in geography as location, scale, place, spatial distribution and connections, and environmental processes and diversity, as well as undertake fieldwork investigations locally and further afield. In different ways these aspects of subject information, key areas of content and the core ideas in geography were written into curriculum guidelines in countries like England, Australia, the USA and South Africa (ACARA, 2011; DBE, 2011; Halvorsen, 2013; DfE, 2013; Heffron and Downes, 2012).

Debates about the nature and importance of subject knowledge and the school curriculum are nothing new. They have always considered what ought to be taught and have focused on concerns about which aspects of a subject's matter should be prioritised and emphasised in teaching and learning (Winter, 2011). The debate engages with what is meant by 'knowl-edge' in the context of the school curriculum. To what extent is it about the factual information which children should 'know'? Does a focus on 'information' sideline other ideas about curriculum knowledge that should be discussed? Does curriculum knowledge cover the main areas of content a

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subject should cover, such as urbanism, agribusiness and climate change effects in geography, or is it about deeper subject ideas, such as location, scale, place, spatial processes and environmental management, or does it encompass both? This debate has been given impetus by educational sociologists who are interested in knowledge specialisation and what is termed 'powerful knowledge' (Young, 2008; Young and Muller, 2016). The phase 'the knowledge turn' (Lambert, 2014) has been coined to encapsulate this move into a renewed debate about the nature of school knowledge. In particular, it has been taken up in geography education (Butt, 2017; Firth, 2011, 2012, 2018; Lambert, 2018; Maude, 2016, 2017, 2018; Morgan, 2014b; Young *et al.*, 2014), although it is not an uncontested or unproblematic focus (Catling, 2014a; Maude, 2017; Uhlenwinkel, 2017).

The notion of 'powerful knowledge' refers to 'the language, norms and ways of thinking' such as the core ideas and conceptual understanding of school subjects like geography (Butt, 2017, p. 17). It is recognised that subjects such as geography are not static but evolve and have historical antecedents. They are sanctioned by their academic communities who provide a sense of and limits to what counts as knowledge in the subject (Morgan, 2014b). In England, 'powerful knowledge' has been of interest particularly in the geography education community, where debates about what is 'powerful' about and within geography are linked to examining what should be included in the school geography curriculum (Dolan, 2019). To an extent, this concerns justification of the subject as much as internal debates about what should be the focus of geography education in primary and secondary schooling.

In primary geography there has been limited debate about the idea of knowledge and what conceptions of knowledge should underpin, or provide the content for, the geography curriculum (Dolan, 2019). One approach to the debate has been to argue that children bring into school their own powerful geographical knowledge from their experience and that this is important in enabling the development of their geographical understanding in the primary curriculum (Catling and Martin, 2011). Where governments, or others, attempt to define what might be the 'essential knowledge' that children should develop through schooling, it has been suggested that a clear distinction needs to be drawn between 'inert knowledge', meaning factual information, and 'applied knowledge' which focuses on understanding geographical patterns, relations and generalisations which build on previous experience and new encounters to enable us to make sense of the world in new ways (Scoffham, 2011, p. 126). Applied knowledge is argued to be 'powerful knowledge' and proposes that children's evolving understanding of a subject like geography must be built around its key 'big ideas' and main concepts and aspects of study (GA, 2009; Martin, 2013a; Young et al., 2014). This is not to say that factual information is unimportant; indeed, encountering and knowing factual information in the context of geographical aspects such as river studies, earthquakes

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and volcanoes, tourism and trade is very helpful in enabling understanding of these areas of the subject and the underpinning of ideas such as scale, environmental processes and place, which provide coherence to geography. To investigate and examine them without information and examples would create a fruitless geography education.

Discussion of the knowledge that primary children should learn in their geographical studies is important and will continue; it is never concluded. It is being usefully developed in geography around the idea that what is important is not so much the teasing out of the key ideas or areas of content, let alone the relevant information, as to how such knowledge can help primary and secondary age children (Maude, 2016, 2017, 2018) apply their geographical knowledge to understand the world. This realigned focus within the notion of 'powerful knowledge' may be more helpful for thinking about the knowledge that matters in primary geography. Maude proposes five types of knowledge that he considers powerful for geographical learners of all ages. These are summarised as follows.

- Knowledge that provides children with 'new ways of thinking about the world', helping them to engage with geographical ideas such as, place, environment and interconnections during their investigations and build their understanding of geographical aspects such as, weather, energy, city, country and resource.
- Knowledge that provides children with powerful ways to analyse, explain and understand the world, using geography's analytic and explanatory concepts, such as spatial distribution and environmental processes, to help children apply what they learn to begin to make geographical generalisations, such as that trade occurs between people and companies at local and international levels.
- Knowledge that gives children some power over their own knowledge, in that importantly it encourages them to question, evaluate and critique what they come across and learn about the world.
- Knowledge that enables children to follow and participate in debates on significant local, national and global issues, fostering their opportunities for an increasingly full engagement in conversations and consultations as citizens.
- Knowledge about the world, which builds on, deepens and takes them beyond their personal knowledge to stimulate their curiosity about elsewhere and foster their sense of wonder at the world, helping them see their own and others' connections and interdependence.

Maude is arguing that it is not the particular knowledge in the subject that makes its knowledge powerful, but that it is what you do with what you learn and understand. It is about applying knowledge, and it concerns taking a creative and critical stance in gaining and using it. This links with a much bigger debate about the purpose of primary education (Alexander, 2010) and, indeed, the role of geography in primary schooling. It connects with the section above on contexts for learning.

Reflective task

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Reflecting on the sections on 'Contexts for learning' and 'Debating knowledge for the primary geography curriculum', consider these two questions and the subsequent request.

- What types of knowledge do you think it is important for primary children to understand through their geographical studies?
- How will this knowledge help them become successful and creative learners?

Suggest three ways in which you would want children to undertake their studies in geography and explain why you have selected these.

National requirements for geography in the primary curriculum

National frameworks or guidance set out what governments want children to learn through the curriculum. In some countries the primary school curriculum may be set by the state or locally. You need to be aware of such requirements or if there is none, and it is a matter for the school to decide. It is important, therefore, that you find out about the national or local curriculum requirements or guidance for geography in primary education. Examples of national curricula and guidance websites are listed in Appendix 1.

Some governments require all or only state-financed primary schools to include geography as a named subject in their curriculum, such as in England (DfE, 2013; Lambert and Hopkin, 2014). Other countries specify a curriculum area such as social studies or social sciences for inclusion in primary children's school curriculum. Geography will be found, if included, in a social studies/sciences curriculum area, although which aspects of geography are listed may be briefer than in a single subject specification. Indeed, the social studies/sciences curriculum may include a number of subjects, such as history, economics, civics and sociology, alongside geography, or it may be organised around a variety of themes, such as those put forward by the National Council for Social Studies in the USA, which include 'people, places and environments', 'global connections' and 'production, distribution and consumption', all of which involve geographical studies (Brophy *et al.*, 2013; NCSS, 2010), although these may or may not have taken account of the geography standards set out separately by geography educators for the states and schools in the USA to use to guide geography curriculum construction (Heffron and Downs, 2012). The geography standards in the USA provide greater detail than the geography national curriculum for schools in England. In whichever national context, it is important to know what is specified and whether this must be taught or is for guidance, although guidance from national or state education departments might imply core consideration for a primary school's curriculum.

Furthermore, it is important that you seek out advice about understanding and teaching primary geography. Some local and national governments provide these, but they will be supplied by national associations of geography teachers. As an example, in the UK the Geographical Association promotes geographical education at all levels. It recognises the importance of primary geography, particularly through the professional development provision on its website and through its publications. Its manifesto, A Different View (GA, 2009), affirms geography's place in the school curriculum, argues for its value, emphasises links with children's experience and of learning in the real world out of the classroom, focuses on the world today and about alternative futures, and is inspirational in illustrating the power of geography in our lives. The various geographical and geography education societies in the USA make the point in their joint booklet, Why Geography is Important (Adams, 2012), that geography really does matter in our lives. This publication argues that geography helps us to understand and appreciate a range of matters, including globalisation, diversity, location, uses of geospatial technologies, energy, climate change, environmental hazards, resource management, infrastructure, employment and national and international security. It concludes by giving geography a personal context, stating that geographic knowledge is fundamental to reaching our personal and societal goals, and in attaining a higher quality of life (Adams, 2012, p. 15).

There may well be national and commercial texts and websites that provide advice about teaching geography with primary children. These may provide topics and structures for different year groups or refer simply to the primary stage of schooling, leaving you to make decisions relevant to your school and class. They can guide you to relevant resources and provide lesson outlines and/or suggested teaching approaches, including links with other subjects. You can complement national advice by searching internationally for further advice – for instance, from global and national organisations that are engaged in charitable and commercial international and global activities. Some are listed at the end of this chapter.

Pre-school or early years learning

Pre-school, or early years, provision for children focuses on a number of aspects of early childhood. These include developing their social skills and lives, initiating their awareness of the capabilities and skills involved in school learning and providing a stimulating and well-provided indoor and outside environment in which their learning may take place through play, story telling and reading and organised engaging activities and provided resources. Early education is underpinned by a set of values to foster positive ways in which children can live their lives. For example, in Australia, these values include the creation of a mutually respectful and responsible society and an equality-based future for all that is mutually caring and empowering (DEEWR, 2009, 2010). They can lead to the development of the following outcomes for pre-school education.

- Holding a strong sense of identity.
- Being connected to and contributing to their world.
- Having a strong sense of well-being.
- Being effective communicators.
- Being confident and involved learners.

Such statements of values and outcomes about pre-school children 'being, becoming and belonging' as people in society promote a perspective that applies across societies, nations and education in early childhood. Elements of geographical understanding and appreciation support learning in all these outcomes, although the second may appear to have the most obvious subject connections. In England (DfE, 2017) and Wales (Welsh Government, 2015) in the UK, the statutory frameworks for 3-5-year-olds' learning include 'Understanding the world' and 'Knowledge and understanding of the world', which contain geographical elements about the children's own local area and its features, similarities and differences with other places, directions and maps, and changes in the environment. Through such experiences to help children begin to develop their awareness and understanding of the world, they are initiated into aspects of geographical experience and learning, even though geography may never, of course, be mentioned directly. For such young children geography is an implicit aspect of their lives and inevitably part of their learning.

Sustainable schools initiatives

Increasingly, schools around the world are engaged in sustainable initiatives. Sustainability education is intended to help children understand the need to care for and manage the natural and human created environment, as well as to support schools and their communities to become sustainable. This can be for people and families as much as for the places where they live. It involves also developing a global awareness and perspective. Many primary schools have developed whole-school approaches, often linked with the geography and science curriculum to help children learn through real-life learning experiences. Sustainability initiatives have also been used by governments to improve schools' resource and facilities management. These include the water, waste, energy, products and materials used within the school, as well as landscape design. Sustainability is a key aspect of geography, and there are good examples of ways in which primary schools and teachers have used practical approaches to stimulate children's creativity to identify practical ways that sustainability can be improved and demonstrated within the school and communities. Geography contributes strongly to these.

Fostering citizenship

Geography has a long history of considering ways in which it engages with citizenship linked, for instance, with children's evolving identity, their activities in and connections to local and more distant communities, and their consideration of, respect for and interactions with others (Stoltman, 1990). This means that geography is particularly suitable for developing citizenship understanding and involvement with primary children. In considering how people relate as citizens to their localities and to activities that directly affect places, geography examines people's environmental attitudes and behaviour, and explores the results of their decisions that affect places (Boyle-Baise and Zevin, 2014). However, citizenship is broader than its environmental interests. It is more than local; it is global as well. Citizenship recognises and appreciates that children are growing up in diverse local, national and global communities. Children begin in geography to learn respect for diversity and difference, as well as to seek what is shared and common between peoples and communities. As a subject it can help children develop their sense of belonging and their identity, which are often linked to place and communities. Primary children can begin to recognise that others may hold different perspectives and views from their own, and learn to discuss and respect these, even if they disagree.

Learning outside the classroom

Outdoor education is popular and well developed in many parts of the world, although it is neglected in others. The UK, the USA and Australia are generally recognised as international leaders in outdoor education and related fields such as nature tourism. This has come to be thought more important for schools to take up since in their home lives increasing numbers of children spend less time outside (Louv, 2005; Pickering, 2017). Primary school outdoor education includes such activities as fieldtrips, museum visits and time spent away from school for a couple of days or for up to a week or more. Such activities are important for geographical and environmental education, alongside history and science education. The importance for geographical learning and teaching lies in the opportunities that fieldwork provides as a highly motivating and engaging approach to learning and understanding geography.

Developing children's general capabilities and skills

Internationally, the view is that all subjects must contribute to teaching the general capabilities and skills children need to enhance their learning. Indeed, general capabilities and skills are essential in all subjects, because all subjects make use of them in various ways. Such capabilities and skills are:

- literacy capability;
- numeracy skills and competence;
- information and communication technology (ICT) skills and application;
- critical and creative thinking;
- personal and social capability;
- ethical behaviour in relation to oneself and others;
- intercultural understanding.

Developing these capabilities and skills should be through the context of the specific ideas, skills and content of the subject. This applies for geography whether as a stand-alone subject or within social studies/sciences.

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Practical task

Select one of general capabilities and skills. Identify a number of aspects of that capability and skill, consulting sources if you need to do so.

Have a particular age group of primary children in mind.

How do you think you could develop your chosen capability and skill through geography teaching?

List some activities and approaches in geography that you think will help your group of primary children to develop that capability and skill.

Key points

This chapter has:

- noted the opportunities and challenges for geographical learning and teaching in primary schools;
- illustrated the enjoyment that can come through and from geographical learning;
- identified a number of developments, initiatives and priorities that influence or affect geography in primary schools.

Moving on

Keep abreast of the curriculum initiatives by government and other agencies and organisations concerning developments in primary geography. Look out for reports in the press. Make a note of geography curriculum developments and changes. Use your own and other nations' websites to help you. Several are listed in Appendix 1.

Further reading

- Many books, chapters, journal articles and websites will help you to develop your understanding and appreciation of primary geography and its teaching. The following texts debate, stimulate interest in and provide ideas for teaching and learning geography with early years and primary age children.
- Brophy, J, Alleman, J and Halvorsen, A-L (2013) *Powerful Social Studies for Elementary Students* (3rd edn). Belmont, CA: Wadsworth Cengage Learning.
- Catling, S (2011) Children's Geographies in the Primary School, in Butt, G (ed.) *Geography, Education and the Future.* London: Continuum, pp. 15–29.
- Catling, S (ed.) (2015b) Research and Debate in Primary Geography. Abingdon: Routledge.
- Dolan A (2019) *Powerful Primary Geography: A toolkit for 21st century learning.* Abingdon: Routledge.
- Geographical Association (2009) *A Different View: A Manifesto from the Geographical Association*. Sheffield: Geographical Association. Available at: www.geography. org.uk/adifferentview

Gersmehl, P (2014) Teaching Geography (3rd edn). New York: The Guildford Press.

Marsh, C and Hart, C (2011) *Teaching the Social Sciences and Humanities in the Australian Curriculum.* (6th edn) Melbourne: Pearson.

- Martin, F (2006) *Teaching Geography in Primary Schools: Learning How to Live in the World.* Cambridge: Chris Kington Publishing.
- Maude, A (2018) Geography and powerful knowledge: A contribution to the debate. *International Research in Geographical and Environmental Education*, 27(2), pp. 179-190.

Palmer, J and Birch, J (2004) Geography in the Early Years. London: RoutledgeFalmer.

- Reynolds, R (2014) *Teaching Humanities and the Social Sciences in the Primary School* (3rd edn). South Melbourne: Oxford University Press.
- Scoffham, S (ed.) (2010) *Primary Geography Handbook*. Sheffield: Geographical Association.
- Scoffham, S (ed.) (2017b) *Teaching Geography Creatively* (2nd edn). Abingdon: Routledge.

See the magazine *Primary Geography*, published by the UK's Geographical Association (GA) three times a year, available to primary school members of the GA (see the GA website).

Useful websites

Association of Geography Teachers of Ireland: http://agti.ie/

Australian Geography Teachers' Association (AGTA) – GeogSpace: www.agta.asn.au Canadian Council for Geographic Education: www.cangeoeducation.ca

Geographical Association: Early Years and Primary Area (UK): www.geography.org. uk/eyprimary

Geography for Kids: www.kids-world-travel-guide.com/geography-for-kids.html Geography Teachers Association of Singapore: https://gtasg.wordpress.com/ National Council for Geographic Education (USA): http://ncge.org/; www.natgeo

kids.com/uk/category/discover/geography/

National Council for the Social studies (USA): www.socialstudies.org/ National Geographic Society (USA): www.nationalgeographic.com/ Social Sciences online (New Zealand): http://ssol.tki.org.nz/ South African Geography Teachers Association: http://sagta.org.za

CHAPTER 2 VALUING GEOGRAPHY

The importance and nature of geography

Chapter objectives

This chapter enables you to:

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- appreciate what geography is about and why it is relevant to us all, including primary age children;
- become aware of the key ideas that are important in understanding geography and what it studies;
- recognise and give examples of geography in everyday life from your own experience;
- consider geographical thinking, living geographies, topicality and geography, and geographical significance;
- appreciate the aims of and focus for geography in early childhood and primary education for children from 3 to 11/12 years of age;
- make links to your national, local and school geography curriculum requirements and/or guidance.

Introduction

This chapter considers what geography is about in order to develop your understanding of the subject. It shows how you are already involved in geography, explores geography and its 'big ideas', and considers geographical thinking and significance. It examines ways in which geography helps us understand topical events and issues in our world, outlines the contribution geography makes to children's learning about the world, and indicates what might be some aspects of geography that pre-school children can explore, and the range and topics in geography that 5/6 to 11/12-year-old children can be introduced to during their schooling. It will be helpful for you to have available your national, local and/or school geography curriculum requirements or guidance for pre-school and primary school children.

Whether we recognise it or not, geography is very much part of our daily lives. We begin by considering this.

Everyday geographical encounters

Geography is such a commonplace aspect of daily life that generally we overlook it because our use of the environment, our connections with people and places, the goods that we consume, and the decisions we make about how we go about our daily business are so obvious and mundane that we scarcely take notice of them, until something untoward happens. Daily life is largely habitual and might be termed 'routine geography'.

Our 'routine' geography seems invisible, like much else we take for granted, until brought to our attention (Dorling and Lee, 2016; Moran, 2008; Perkins and Thorns, 2012). Yet, this *everyday geography* (Martin, 2006a) is not habitual for young children; it is novel, fascinating, wondrous and important. We need to be conscious of it. It is the 'stuff' of geography for pre-school and primary age children, easily dismissed as parochial – yet it is exactly the opposite. From our earliest years we are constantly interconnected with our local and wider world. Consider these two scenarios.

A bite to eat

At lunchtime you head for a café. You fancy a salad and tea. You add rice to your mixed salad. You collect a bottle of water from the cooler. You head to the drinks counter to buy fair trade tea. You add a chocolate bar and pay the Romanian cashier, find a seat and chat with friends, of whom one is Kenyan.

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What is the everyday geography? A commercial outlet; produce on sale, delivered by truck from a wholesaler; you are unsure where the food originates, since there are few clues on the labels; some state it is locally sourced, while other unseasonal ingredients must come from abroad or be hot-housed; yet other goods carry a national Fair Trade label; electrical energy used to cool the salad bar and refrigerators and provide light; manufactured, recyclable, containers; tap and bottled water; waste food disposal; migrant workers; and friends. Just to have this lunch you are linked to many other people, activities and places.

E-news time

You get home and turn on your smart device to check the news stream. First up is a report on major flooding in northern New Zealand, the actions taken by residents and shopkeepers, the initial impact on streets and towns, and expected further flooding and flood damage. Next you note the state of a refugee camp in the Middle East and the concerns about water, food, hygiene and shelter as well as children's education; these are illustrated by ground and aerial photographs and maps. A local update covers the city council's decision about your shopping centre redevelopment, which sounds positive since it will increase your shopping choices. You switch to your social media contacts and check the latest postings from a friend travelling in South America.

What is the everyday geography? Communicating global information into our living rooms; how a natural phenomenon looks and is responded to as a natural hazard; how political conflict impacts on people and creates population movement and relocation; who decides about change at a local scale; what redevelopment is and what impact it might have on whom; the use of maps and film to communicate images of places and the lives and activities of people there, about which you have concerns; a friend's travel in and reports about places you have not yet visited in other parts of the world. Current and topical events and social communications affect us directly or indirectly whether locally or in or from a distant part of the world.

These scenes are commonplace geography, reflecting situations, events and activities that are part of people's everyday lives and the diet of news media. Martin's notion of 'ethnogeography', or everyday geographies, describes them (Martin, 2006a, 2006b, 2008).

Ethnogeography reflects the view that all learners are geographers because they all live in the world. They all negotiate and interact with a variety of landscapes (human and natural) on a daily basis {.} They will have built up a knowledge base about the world, near and far, through a range of direct and indirect experiences. What they don't perhaps recognise is that this knowledge is useful geographical knowledge and a point from which deeper conceptual understanding can be developed.

(Martin, 2006b, p. 180)

Everyday and personal geographies matter. They are the context and ingredients of our daily decisions about what we do, how and why we do it, our understandings of the world, and of our feelings and views. It is not just our own daily geographies that matter, but also those of people around the world. Hurricane damage to banana crops in the Caribbean not only cuts the income of the farmers, but it also raises the price in our supermarkets. We pay more or do not buy them, with consequences to the supplier and the supply chain.



Practical task

What is your everyday geography? Make notes about two or three contexts in the style of the scenarios given. Try to identify as many everyday geography connections as you can. You might consider the following.

- Your journeys to the shops, work or out for an evening.
- Your digital phone, tablet or other smart device use.
- Where you live and what that place means to you.
- Your uses of energy, water and waste disposal.
- Travelling and visiting places nationally and abroad, wherever in the world.
- How you treat places and the environment, such as through care and recycling.

What is geography?

Bonnett (2008, p. 121) describes geography as a fundamental fascination, as an exploration and about giving order and meaning to the world. Geography helps us make sense of the planet we live on and discover all we can to understand our 'home' (Matthews and Herbert, 2008; Martin, 2005; Holt-Jensen, 2018; de Blij, 2012; Boyle-Baise and Zevin, 2014;

Dorling and Lee, 2016). It is a wide-ranging discipline, providing structure to what we observe and find out, through investigation, analysing and structuring information and the use of our imagination. We order the myriad information about the world we encounter to appreciate what is vital about the natural and human processes that create, modify, adapt and influence what goes on – whether earthquake occurrences and their impact; where and how our food is grown, manufactured and reaches us; or how and why various goods are made and what value they have for us and the people who made them. We use logic and imagination to decide how to organise the information so that we can explain it and make sense of what other places and environments are like, perhaps through pictures or words, and what it may be like to live in those places, developing our appreciation of how people live and what effects change may have on them.

Geography is a creative discipline (Catling, 2015c; Hawkins, 2017; Scoffham, 2017b); it is not, simplistically, only about facts about the world. Of course, without information there can be no creativity. It was information mapped about the location globally of volcanoes and earthquake events that led, with other evidence, to the theory of plate tectonics, the notion that it is the interconnected movement of massive plates riding the crust of the Earth that causes volcanic eruptions and earthquakes, be these in the Caribbean, Italy or China. This explanation initiated the idea of 'continental drift' to describe and explain the movement of the continents across the globe over hundreds of million of years. It helps explain how the Earth is an active, dynamic planet (Thomas and Goudie, 2000; Holden, 2011; McGuire, 2012; Stewart, 2018).

Research into how people use their local environment to go about their daily business provided the information to understand that we hold all sorts of knowledge about places cognitively and that we use our 'mental maps' to work creatively for us. This research has investigated how we find our way about, and how we use that information for shopping, leisure and other activities. This is encapsulated in the theory of mental mapping to explain our behaviour in familiar and novel environments, providing insight into how children and adults understand and make use of places. Without the information and the capacity to think innovatively there would not be such an interesting and insightful way to account for these phenomena (Downs and Stea, 1977; Kitchen and Freundschuh, 2000; Amedeo et al., 2009), nor to understand and account for the importance and roles of spatial knowledge and thinking in our lives (National Research Council, 2006; Plumert and Spencer, 2007; Montello et al., 2014; Ness et al., 2017). The spatial dimension and dynamic in geography is argued to be one of geography's central ideas, if not its core concept. It is certainly important, as we notice when we think about it in our daily lives and in helping us to piece together and understand the world about us (Brooks, 2017; Stewart, 2018).

The 'big ideas': key concepts in geography

Central to understanding geography's way of thinking are a number of 'big ideas' or key concepts. While different geographers debate their importance or how they might best be described, they serve modern geography well in helping to understand how the world works, what we do in and to it, and what the effects of natural and human actions are and might be. Figure 2.1 states geography's key concepts and core method of enquiry.

Geography's key concepts need some explanation. At one level they are all obvious ideas, concepts of which we have some everyday understanding. In geography, that 'everyday' understanding is useful, but they have more specific meanings within geography of which we must be aware (Lambert and Morgan, 2010).

Place

Places are physical entities – the city, town or village where we live – and can be as small as a room in our home or the local area where our home is sited, the size of the national region, which includes our home town, or as large as our country or continent. Places are identifiable through their location and extent, their features and boundaries, and their land- and



Figure 2.1 Geography's 'big ideas' or key concepts (modified from North, 2008a)

urbanscapes and cultures. They have physical and human characteristics that we can represent in words, pictures and maps, and through art forms, music and drama. Places are unique, be they neighbourhoods or national parks, but their essential characteristics may be similar to those of other 'like' places, such as other seaside resorts, agricultural villages, industrial estates or national parks. Places are dynamic, in which small or major changes result from human decisions and actions, such as changed shop use and as in conflicts over developments, or can be generated by the effects of natural hazards and people's responses to them, such as earthquakes, hurricanes and floods. Their characters are influenced in these ways by human and natural processes (de Blij, 2009; Cresswell, 2015).

Places enable us to develop a sense of belonging, whether to a country (being Brazilian), a region (being a 'Northerner') or locally, which support our sense of identity and give meaning to our lives. Each of us develops images of places from our direct and indirect encounters with them. From personal experience we develop our perceptions of and feelings and viewpoints about places. In this way we develop a sense of place, how we connect and identify with (or disconnect from) places familiar to us, such as home and our favourite places (or places we avoid). Places are real and they exist in our images of them, arising from our experience. Different people hold very different ideas and have very different feelings about the same places (Holloway and Hubbard, 2001). These perspectives make places fascinating and underline the concept of place as central to geography.

Space

For geographers, one understanding of space concerns where features, sites and places are located. Geographers examine the distribution of features and consider the patterns they show to see how and why they create networks and of what sort these are. Studying spatial layout explores the interactions between features and places and how they affect each other. Geographers are particularly interested in the natural, social, economic and political processes that help to explain distributions and networks. Such processes may be fluid rather than fixed (Massey, 2005), as may be their outcomes over time. Spatial locations, distributions, patterns and processes result from natural processes and events, and from human decisions and activities that create the structures we see or that we perceive to be there. In looking at spatial processes, geographers investigate what may be causing changes and impacts, such as shifts in weather and climatic patterns, perhaps making some places drier and others more humid, or the creation of new road or air transport networks and faster broadband links, and how these are altering and shortening travel and communication 'distance'.

Scale

Geographers study features, places and environments at a range of scales from the immediate (a room or floor layout), to the local neighbourhood and community, to the regional, national, continental and global (Herod, 2011). Scale affects what happens in places, what we observe and the way we see things. Depending on who is looking, we may see scale differently; a place that a young child perceives to be large may seem to be a small place to an adult very familiar with it.

At local, regional and global scales we see distributions and patterns in different contexts (Sheppard and McMaster, 2004). This enables us to identify relationships and to make generalisations that can be very different from one scale to another. Thus, while we would use a road atlas or website to examine the route to take across the country, we will want to look at the detail of the road network locally to get to a particular address, which using GPS for navigation enables, enlarging or reducing scale appropriately. Digitally based mapping enables us readily to move between different scales related to our needs. Observing weather movements and patterns at different scales helps weather forecasters to predict how the weather will change and what we can expect nationally and locally. This can help them to see causes and effects for different regions in a country and help us to prepare, for example, for a hot and sunny or stormy weekend.

Interconnection

Interconnection concerns the interrelationships we have at different scales between places, features, events and people. It includes the connections between people in their local community and its facilities and services, as well as the global trade links that encourage, for instance, coffee to be grown in various places and traded for others to drink around the world (Massey, 2005; Dorling and Lee, 2016). Interconnection exhibits our interdependence locally and globally. Interconnections are significant in our lives and are major influences on places and their characteristics through such activities as sales and goods delivery to our homes. The connections we have and use include digital communications that may be local or to other parts of the world, railway and shipping networks to transport people and goods, and family links where people have migrated from one place to another whether for work or as refugees. Interconnections are essential in the generation of and our access to and uses of electricity and other sources of energy supply. Interconnections occur in the natural world within the processes at work, such as in ecological systems and the water cycle. Interconnectivity is both natural and people generated and managed in our physical and social environments.

The environment: physical and human processes

Environments have been created through the actions and events in and the interconnections between different aspects of our world: its geology – the rocks beneath our feet; its atmosphere – our climates and weather; its hydrology systems – river and oceanic processes, the water cycle; the biosphere – plants and living creatures; and human activities and changes – agriculture and urban development. From the Earth we source raw materials such as water, minerals and food. The Earth holds, absorbs or recycles our waste. Different environments fascinate and inspire us, in wild, rural and urban places, providing for pleasure and relaxation, but equally they can challenge and concern us as in volcanic environs, along coasts as sea levels rise, in urban slums and at decayed industrial sites.

Environmental processes encompass these natural or physical world processes, such as our daily weather and climatic systems and characteristics, the changes created by river and sea floods, and the types and outcomes of volcanic eruptions and earthquakes (Anderson *et al.*, 2007; Holden, 2011, 2012). Human processes examine contexts and activities such as the manufacture of goods, transport and travel, the types and development of settlements, nations and states, our planning for and responses to natural hazards, and how we change our physical environments. They examine how decisions are made, how people respond and the consequences of change, socially, economically, politically and environmentally (Jones, 2011; Cloke *et al.*, 2014). Understanding such processes and the changes created helps explain the locations, distributions and patterns we see in places and the environment at different scales and their interconnections, which allow us at times to make predictions.

The world is dynamic and constantly changing. Change is key to understanding the natures and results of the actions and effects of environmental processes over space and time in our planet's physical and human environments, through their interconnections and interactions (Castree *et al.*, 2009). Change occurs at different scales from local improvements to people migrating within and between nations as a result of conflicts. It can be for better or for worse for people and the natural environment. Change does not occur evenly nor have the same impact on places. An increase in rainfall can be helpful where it ameliorates long-term dry conditions, but equally it can lead to flooding and be damaging for agriculture elsewhere by creating over-wet conditions for crops. Change can help or hinder the sustainability of places. Studying physical and human process and people–environment relationships helps us understand this.

Environmental impact and sustainability

Environmental impact examines the interactions within and between natural and human environments, focused on people's effect on each other and the environment, and the natural environment's impact on itself and people (Goudie, 2013; Huggett, 2003). This connects with human and physical processes but emphasises the effect rather than the processes at work and causing change. It considers how people perceive, make use of and adapt to or adapt the environment, and examines their values and views to understand how and why people do what they do in environments. It takes into account what natural and human factors may have an impact, be these population changes, climate movements, the introduction of newer technologies or changes in the economy of a place or region. It recognises both benefits and hazards, and considers how people prepare to respond whether by taking preventative measures such as building flood defences or through mitigating actions by encouraging new industries and services as others decline in an area.

Sustainability concerns natural environments, communities and economies (Moseley *et al.*, 2014; Robertson, 2017). It examines environmental quality, looking at how and why places are managed and damaged or improved, the provision and distribution of goods and wealth, and their effect, matters of cultural continuity and change, and issues of social justice concerning access to goods and services, where and why this is and with what effect. There is evident overlap with environmental impact studies, but the emphasis lies in ways to maintain or rehabilitate and restore the environment to sustain life and lives. One aspect is to find ways to sustain and even improve good environments, while its concern is also to tackle what causes unsustainability in places, essentially how people damage, exploit and degrade environments in rural and urban areas, and to look at ways in which to bring such places 'back to life'. This involves considering economic, social, cultural and political causes, and ways to address these challenges.

Environmental impact and sustainability together consider the future, how things might change, what we would want such changes to be and what may be the preferred but most probable outcomes. Central to the idea of environmental impact and sustainability is 'stewardship' of the environment, to ensure that it is passed on to future generations in a better state than it is held by the current generation. This brings to the fore the question of environmental justice in the contexts of social and natural environments and their interplay with each other. For example, how we respond to the causes and effects of climate change or highly extractive fishing or open-cast mining can be considered in terms of just dealings, the justice of what is undertaken where and with what effect, and the mitigations of impacts on people and the natural world. It builds on the notion that we borrow the world from our children and we have a responsibility to care for it as we use it, not to exploit and denude their future.

Cultural awareness and diversity

The world is diverse, with a wonderful range of environments and an exhilarating variety of peoples who have created their communities through beliefs, social structures and norms, varied ways of living, relationships with those outside their culture, and how they see themselves. Geographies are imbued with the contexts of cultures (Anderson, 2010). Cultures influence the varied ways in which similar and different environments are perceived, modified, adapted to and used by people, communities, commercial companies and nations. Cultural interests and variations can be seen through the variety of shops and commercial areas in cities reflecting different interests and styles, through population balances in communities and through social activities and celebrations. It is important to appreciate the concepts of similarity and difference in the context of culture. These two notions, like commonality and diversity, are important in geography and can be unintentionally linked to perceptions about 'others', those whose lives and living may not be like 'our own', be this in relation to poverty and wealth, landscapes, architecture, social activities or food preferences. Yet our societies are inherently diverse and differing, and we cannot know ourselves without knowing others. Building on Martin's (2012) argument, culture involves relational awareness and understanding since we cannot appreciate cultural norms and values, variations, similarities and differences other than through comparison. Comparisons open up possibilities and opportunities for understanding – for example, identity and belonging, people's senses of place and ecological and environmental values - and for recognising that there are varied ways in which we can interact in and support diversity in our social and physical environments (Horton and Kraftl, 2014). Geography helps us to recognise, appreciate and value such diversity as fundamental to our being and living, and to see the significance of its inclusivity within our own and others' societies.

Cultural awareness is the starting point for intercultural understanding and for appreciation of the diversity of people and their lives around the world. It concerns ourselves as much as anyone else, and explores ideas such as identity, our sense of ourselves and our communities at various scales, and our appreciation and valuing of others elsewhere, even those not even known. Geographers consider how our communities and nations function and work in relation to cultural influences and examine international relations and their impacts. The development of geography's big ideas or key concepts has been enabled and supported through the subject's key methods of investigation in the real world and by examining data and other information gathered about it in numbers and words, through mapping or by photography, and aerial, satellite and digital imaging. Central in this is geographical enquiry supported by the key skills that geography uses.

Geographical enquiry and skills

Geographers gather information through many and varied investigations, known as geographical enquiries (Roberts, 2013). Physical geographers almost always use scientific processes of investigation. Some human geographers use similar approaches when studying large-scale phenomena such as populations, and gathering and analysing statistical data to look for explanations. Other human geographers, perhaps exploring aspects of neighbourhood geographies, may use more qualitative approaches where they are trying to find out what people think and feel, how people are affected by changes or what people might want undertaken to improve an area. Inevitably, geographers will engage in fieldwork, working in the real world to gather the data they need, using a variety of techniques from land use mapping and interviews to traffic counts and time-lapse photography to air pollution lichen studies, river flow measurement and chemical weathering analysis. A wide variety of techniques are used in geographical studies.

Geographical enquiries involve working through the stages of an investigation, from observations, questions and directions of study about a concern or problem to analysing data and identifying possible solutions. Geographers decide how best to gather and record relevant information, how to analyse and evaluate it, how to assess the benefit of what has been found, and how most effectively to communicate it through articles and books, the press and television, and in conference presentations.

Geography uses a variety of skills or literacies. Graphicate literacies are as essential as textual literacies. The term 'graphicacy' encompasses the visual skills geographers and others use to gather, interpret and explain evidence (Balchin and Coleman, 1965). It includes using and making maps and photographs and visual observation, as well as skills in reading and understanding, and making sketches, diagrams, charts and graphs, and in annotating maps, photographs and drawings, be these on paper or in digital forms. Geography also uses literary documents such as reports and government policies. To facilitate these and to enhance numeracy skills and work with virtual and dynamic models, computer software and related technological skills are used to aid weather recording, traffic counts, chemical analysis and much more. Such literacies are essential to investigations in geography and to communicate its ideas to a wide variety of audiences.

Thinking geographically

The reason for developing primary children's awareness and understanding of key geographical concepts and skills is to foster their capability in thinking geographically. It is not simple and straightforward to state what geographical thinking looks like, but various attempts to identify its meaning exist (Morgan, 2013; Catling, 2015a; Örbring, 2017; Lambert, 2017; Brooks et al., 2017). Perhaps the most helpful outline is: 'An essential educational outcome of learning geography is to be able to apply knowledge and conceptual understanding to new settings: that is, to 'think geographically' about the changing world' (GA, 2009, p. 9). Here, the word 'knowledge' seems to refer to the topics of geography, such as settlements, river studies and trade and agriculture. Geography uses the key concepts outlined above of the human and physical processes involved, the different scales at which they can be appreciated, the interconnections involved, the spatial locations, distributions and patterns identified, the places where they occur and the environmental impacts that are noted, as well as their sustainability and cultural awareness and diversity - to understand these topics. The use of geography's key concepts and its enquiry mode provide insights into, appreciation of, explanations for and, possibly, predictions about how we understand the world at a range of scales and in different contexts. Geographical thinking is the capability to transfer our understanding from one topic or context and scale to another to note the processes and interconnections that would normally be missed without geographical insight (Jackson, 2006; GEG, 2013; GA, 2012).

This means that while younger primary children might examine their local environment by investigating local features and considering why selected features are where they are located, older children might look at the patterns among selected features, such as housing and shops, which they then apply in looking at another area through maps and photographs and, perhaps, fieldwork. They might then apply their understanding of these ideas of place, space and physical and human processes to investigate weather features, processes and patterns locally and nationally. It will be a matter of encouraging them to understand the key concepts and to apply them in new studies. This provides the power in geographical thinking and, indeed, to geographical knowledge, that power residing in the ways geography not only helps us to understand the world but also to think through what impacts we have on our planet and each other, and how we respond to these to ensure our sustainable future. Geographical knowledge enables geographical thinking (Brooks *et al.*, 2017).

Practical task

The café in 'A bite to eat' above illustrates several geographical 'big ideas' or key concepts. It is a distinctive type of place with particular features and layout. The goods and the person serving at the till indicate local or wider world interconnections, and the products on sale are the result of the physical and human processes of farming, commerce and transport. There are diversity and cultural dimensions. Recycling and energy use link with sustainability and the environmental impact of people's actions.

Use the 'E-news' scenario at the start of the chapter or write a similar scenario of your own. Make a chart with two columns, listing the scenario in the left-hand column. In the right-hand column note which of the key concepts are most appropriate to help understand the situation outlined in that scenario. Give your reasons for why you selected them.

The role of geography

Geography is a living and topical discipline. Its content is not just the stuff of the everyday, such as shop locations, countryside tourism and parking issues; it is also about matters that have wider regional, national and global impacts, such as access to food, water, energy and hygiene, and about the effects of climate change. It is important, therefore, to appreciate what makes something geographically significant. This is where the value and importance of geography lies.

Living geography

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The term 'living geography' extends the idea of everyday geographies noted earlier. It draws on and focuses geography's key concepts (Owens and North, 2008; Mitchell, 2009). It emphasises developing the context of children's geographical awareness and engagement to enhance their knowledge and understanding beyond what they already encounter. It builds from children's daily experiences but takes them into 'new areas of the world' to develop and deepen their geographical thinking. Living geography's characteristics include:

- focusing on but beyond people's everyday geographies children's and adults';
- examining what is relevant to and affects people, daily and longer term, directly and indirectly;

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- being interested locally but set in and connected to the wider world context at a range of scales (regional, national, international, global) to broaden children's understanding of the world by applying geographical concepts and enquiry;
- investigating environmental processes, changing environments and the impacts of change on people, places and environments;
- developing critical awareness and understanding of sustainability;
- encouraging children's curiosity about and enquiries into the world;
- exploring current times and being future-oriented, looking at what is and could, should and might occur;
- involving creative and critical responses to everyday matters and issues.

Living geography is active and pertinent. It is about 'being alive' to the world as it is. It focuses on what is topical and significant for us, and what has daily meaning and impact in our lives. It introduces us to geography's key concepts through this liveliness and immediacy.

Topicality

Geography examines topical matters and concerns to provide insight into our own and the wider world. Geographical topicality can be at the level of the personal and everyday, about the weather or travel to work; about local matters and concerns, such as street closures to create pedestrian zones and play streets in residential areas; or about national to global actions and events that affect us directly or indirectly, such as the effect of government decisions to increase airport facilities and the debate about carbon impacts on global climate change. The events, people and places reported and commented on in the local and national news provide us with our daily sense of the world, perhaps about such matters as vehicle-polluted streets and the number of surveillance cameras in our towns. Using and understanding topical reports keeps us informed. However, important topical matters may pass all too quickly through the 'news', providing a shortterm and superficial perspective. To that extent what we understand as topical is determined for us, at local, national and international scales.

Topicality cannot be considered uncritically. We must question the particular information, perceptions and understandings of the world we take from the news and why and how these topical events are put before us (de Blij, 2012). While topical issues bring geography alive, we should be concerned about the images of places and peoples that are portrayed and wonder what is excluded or unconsidered. We should use topicality to evaluate our own perceptions and understanding of the world. For example, what do we really know and presume about people's lives in the countries south of the Sahara in Africa? How does the 'newsworthy' focus on deprivation and hardship create single rather than multiple perspectives on these millions of people? When we hear about a redevelopment in our neighbourhood, how do we react? Do we look for the range of arguments, hear the variety of points of view put forward, and consider what might be for the better beyond our own interests? We may support or challenge this change, but is it through emotional reaction or considered thought?

Geography's interest in the topical provides opportunities to investigate the topic and the ways information is communicated, who makes the decisions, and how we think about and respond, or not – the 'stuff' of critically effective environmental citizenship (Dower and Williams, 2002; Hicks and Holden, 2007; Joubert, 2009; Hayward, 2012; Kraftl *et al.*, 2012). Geography gives us clarity and keeps us informed. It alerts us to our preferences, biases and prejudices, providing opportunities to reconsider.

Geographical significance

To gain the most from geographical studies, we need to appreciate what is significant to study. Geographical significance concerns understanding what is most appropriate to focus on in geography and to whom and at what scale matters are significant. No geographical features, places or events are in themselves significant. Significance is an attribute that individuals or groups ascribe to such geographical phenomena and events. In terms of what is topical, it would seem that a particular event and place, such as Cyclone Debbie, which hit Queensland in Australia in early 2017, and Hurricane Maria, which devastated much of Puerto Rico in the Caribbean during late 2017, were given significance by the media. It reported them because of the destruction caused to these places, through floods and very high winds, and the consequent disruption to people's lives; they were devastating for those who lived through them and were ascribed significance by the governments of Australia and the USA because of the damage caused to these places. For geographers, these events were globally significant because they illustrate key geographical concepts, including place, environmental impact and sustainability, physical and human processes, scale, and cultural awareness and diversity. Other matters are significant regionally or locally. In a national park in South Africa a planning application might generate local debate because it is about encroachment and the loss of a conserved natural environment in a sensitive area. Nationally, it may be considered of geographical significance because of its connections with the place, environmental impact and sustainability, physical and human processes, international connections and scale. Geographers would examine how these concepts help understand what is happening, might happen and the effect in such situations.

them		
1.	How and why are place and location significant?	
	 Why is this location worth considering? What does it say about the role of location? 	
2.	How, why and to what extent is the scale significant?	
	 At what scale is it? Is it significant at local, national or global scales? What makes the scale important to note? 	
3.	How and why does it have meaning for people? How might it be revealing through its representation of how individuals and groups of people think about a place or event?	
	 How does it contribute to personal or collective perceptions, meanings, images and representations of places and environments? Is the meaning significant locally and/ or more widely? What different meanings do different people (including from the past) attach to it? 	
4.	How does it help understand the way natural environmental systems and places are created and function, shaped and change, and why this happens?	
	 How do functions and change help us identify patterns in the world and the processes at work creating and changing them? Why do places and environments develop the characteristics they have? 	
5.	What types and levels of impact does it have on people, places and environments, and why?	
	 How does it change the physical and/or human environment? What effect is there on people's lives and activities, indeed, on their perceptions of places and environments? What actions and changes does it lead to? 	

Questions about features, places, environments and events and/or changes in

 Table 2.1
 Questions to use in considering geographical significance (adapted from Catling
 and Taylor, 2006, p. 37; Taylor and Catling, 2006, p. 124)

We must consider carefully what makes an aspect of the social or physical environment significant and worthy of geographical study. The questions in Table 2.1 can be used to consider the geographical significance of a place or event.

We make daily decisions about where we will shop, meet friends or spend our holiday. Local and national politicians decide about housing developments, aid to support people caught up in disaster events and areas, and trade agreements and subsidies. These decisions may affect us as much as our own personal decisions. They interweave our everyday geographies, are our 'living geographies', and are matters of environmental topicality that we know to be significant, although we don't always recognise them as aspects of geographical studies. Our holiday decisions and plans to expand an airport are geographically significant because they affect others, not just ourselves. Geographical significance is not simply about 'us'; it concerns everyone it impacts on, whether it makes the news media or not.