What is a geographical concept?

A *concept* is a classifier that helps to organise thinking. It is a generalised idea about a class of objects, situations, actions, processes, relationships, qualities or whatever. Many concepts we use in geography relate to familiar experiences such as ‘weather’ or ‘town centre’ or ‘journeys’. Others involve a higher order of abstraction, such as ‘climate’, ‘accessibility’, ‘urbanisation’ and ‘interdependence’. But as Margaret Roberts (2013) explains, implicit in every concept in geography is a complex cluster of knowledge and understanding:

‘*Even apparently simple concrete concepts such as ‘street’ are related to an array of ideas. What are the characteristics of a street? What does it include? Is it the same as a road? What kinds of roads are not streets? What wider uses of the word ‘street’ are there and what connotations does it have? Is the word ‘street’ used in the same way in different parts of the world?’*(p81)

*Generalisations*express relationships between concepts. A generalisation relies on knowing the meaning of the concepts it includes. For example, a generalisation such as ‘Britain’s weather and climate are variable due to Britain’s position in relation to the global atmospheric circulation’ presupposes a grasp of the meaning of ‘weather’, ‘climate’, and ‘variability’ as well as ‘global atmospheric circulation’ etc.

*Models*are conceptual tools that are also used in geography and can be useful aids to understanding. However, school textbooks sometimes refer to human geography models such as Rostow or Burgess and Hoyt; you must be aware that these reflect processes at the time of their construction which can be many decades ago and may not be applicable to today’s world. Read Rawding, C. ‘Putting Burgess in the bin’, *Teaching Geography,*Autumn 2019 which challenges this model of urban development and proposes an alternative.

Why are concepts so important in geography?

Geography is a content-rich subject and concepts provide an underlying structure. Many topics in geography exemplify the same conceptual understanding, so it is important for learners to understand concepts so that they do not see geography as an accumulation of 'content' and ‘facts’. Students need to acquire concepts in geography so they can relate information and ideas to each other and make sense of them. They also need concepts in order to develop higher order thinking, such as to give explanations and to think abstractly.

An effective teacher builds students’ understanding of concepts so that geography becomes accessible to them and they can progress. They make concepts transparent to students, to help them to think geographically and to develop transferable geographical understanding. This will take students beyond learning a set of dislocated facts and move them into the realms of informed geographical thinking. All this relies, of course, on teachers having a good grasp of the key geographical concepts themselves.

What are the big concepts in geography?

For students to think geographically and become effective geographers they must have a good grasp of the subject’s key ideas or ‘big concepts’. These are often described as *threshold concepts*which, once understood, can transform the student’s perception of a subject, and without which the student’s learning cannot progress. However, geographical concepts develop and change so there is no consensus amongst geographers about a fixed list. Some sets of concepts for geography are listed in Roberts (2013) fig 9.2 and Biddulph etc. (2015) p 49. Although there is no definitive list, those that were identified in the 2007 Geography National Curriculum have been widely adopted in schools at key stage 3 and are often described as ‘organising’ concepts.

* The concepts identified in the 2008 Geography National Curriculum were: **Place; Space; Scale; Interdependence; Physical and human processes; Environmental interaction and sustainable development; Cultural understanding and diversity.**

Geography teachers have found that identifying ‘big concepts’ such as these for their curriculum helps them to shape geographical content, focus geographical learning and plan their teaching. The level of sophistication with which students handle these ‘big concepts’ defines their progress in learning geography.

The 2014 National Curriculum does not include a list of key concepts. The ‘big’ concepts of the 2007 curriculum still apply, although they do not always appear explicitly in the current Programme of Study. For example, the concept of ‘environmental interaction’ is implied in ‘how*human and physical processes interact to influence, and change landscapes, environments* ……’ The 2014 curriculum includes more concrete concepts, such as ‘latitude’ and ‘weathering’.

The GCSE specifications are required to have a focus on ‘forming generalisations and/or abstractions, including some awareness … of the subject’s conceptual frameworks’ and students are required to demonstrate ‘geographical understanding of concepts and how they are used in relation to places, environments and processes’. The Eduqas GCSE specifications list in the detailed content sections a number of specific concepts and provide a conceptual framework of six ‘ big concepts’: place; sphere of influence; cycles and flows; mitigating risk; sustainability; and inequality.  The other GCSE specifications are less explicit, yet the content is full of terms, such as globalisation, that demand conceptual understanding

David Lambert sees the main organising concepts of geography to be ***place, space and environment*.** These are high-level ideas that can be applied right across the subject. Beneath these he recognises a multitude of substantive concepts e.g. ‘from river basin to glacial ice; from city to rural fringe; from production to consumption’.

* Read more about how David Lambert sees these three ‘big’ organising concepts and how they define geographical thinking in Jones, M. (ed) (2017), *The Handbook of Secondary Geography,* Sheffield: Geographical Association, pp 26-7.
* Read the support sheet on [*The concepts of place, space and scale*](https://www.geography.org.uk/write/MediaUploads/Teacher%20education/GA_ITE_TTIS_ConceptsPlaceSpaceScale.pdf) and the concepts of [*Environmental interaction and sustainable development*](https://www.geography.org.uk/write/MediaUploads/Teacher%20education/GA_ITE_SFT_Environment_and_sustainability.pdf).

Take time to read what geography educators and teachers have written about geographical concepts and their role in learning, so that you are ready to use them in your planning and teaching. Some of the articles listed below were written in relation to the 2007 National Curriculum, but the principles about concepts in geography are still very relevant to teaching now.

Reading for trainee teachers and NQTs

* Biddulph, M., Lambert, D. and Balderstone, D. (2015) *Learning to Teach Geography in the Secondary School: A Companion to School Experience*, Abingdon: Routledge, 3rd edition, pp 47-52.
* Roberts, M. (2013) [*Geography Through Enquiry: Approaches to teaching and learning in the secondary schoo*l](https://www.geography.org.uk/Shop/GEOGRAPHY-THROUGH-ENQUIRY/9781843773375)*,* Sheffield: Geographical Association, ‘Developing conceptual understanding through geographical enquiry’*,* pp 81-85.
* Taylor, L. ‘Key concepts and medium term planning’, *Teaching Geography,* Summer 2008.

Discussion with a geography ITE trainer or mentor

The readings above will have introduced you to ways of describing and classifying concepts.

Discuss, in relation to some of the recent lessons you have observed or taught, how the following types of concepts have been used:

* *everyday* (spontaneous) and *theoretical* (scientific) concepts
* *concrete* (descriptive) and *abstract* (organising) concepts
* the organising concepts of the 2007 National Curriculum

Choose a topic that you are teaching at the moment. Discuss a list of geographical concepts that you would expect to include in a unit of work about this topic

Why is developing geographical conceptual understanding difficult?

Knowing a word or remembering a definition is not the same as understanding a concept. Refer to Roberts (2013), p 85-6, which addresses the above question in detail, and describes why some concepts are more difficult than others. Remember when you plan lessons that some concepts we teach in geography may be beyond students’ experience; they may only be used in our subject or have different interpretations elsewhere. Students’ understanding of concepts takes time and develops gradually. In your teaching, you should always be checking students’ understanding of concepts. You should also remember that geography is a discipline that is dynamic and the meaning of concepts can evolve in response to changes in the world. Consider how the concepts of biodiversity, globalisation and sustainable development have changed since the start of the millennium.

Trainee teacher investigation: Understanding a geographical concept

Investigate students’ understanding of one of geography’s big concepts. Read these articles for inspiration and undertake a similar investigation in your school for a concept of your choice.

* Picton, O. ‘Shrinking World? Globalisation at key stage 3’, *Teaching Geography,* Spring 2010.
* Walshe, N. ‘Year 8 students’ conceptions of sustainability’, *Teaching Geography,* Autumn 2007.

How do I help students to learn geographical concepts?

Before you can teach a concept successfully, you must thoroughly understand it yourself. When you are confident that you do, the best way help students to learn concepts is through talk and discussion in the geography classroom. Students need to be introduced to several examples, in different contexts because students’ understanding of concepts develops gradually and cannot be rushed. It can sometimes help students to remember concepts if they are related to places. For example, the idea of shanty town can be linked to a study of Brazilian favelas. However, you will need to avoid stereotypes by using different examples subsequently.

To develop their understanding of a concept students need to relate it to their existing ideas. The term ‘scaffolding’ (from Vygotsky’s research) is often used to describe the support teachers give students to help them understand new concepts. Margaret Roberts describes it as a ‘*collaborative, interactive process between teacher and learner involving dialogue*’ that is ‘*aimed at enabling learners to attain higher levels of understanding than they could unaided*’. To do this successfully a teacher needs to understand what the learner is thinking and they need to be aware of misunderstandings. (See the support sheet on [*Scaffolding*](https://www.geography.org.uk/write/MediaUploads/Teacher%20education/GA_ITE_SFT_Scaffolding.pdf))

Roberts stresses that teachers need to listen to students as much as talk to them in order to begin to understand their perspective on their learning. Some ways to do this are to ask them to explain a concept, or ask them to explain what they are doing and why, or to review what they have written. Some questions you could use are:

* Can you write it in your own words?
* What is the main idea?
* Can you distinguish between… ?
* What are some of the non-essential characteristics of… ?
* Can you provide an example of… ?

To demonstrate understanding of a concept, students must show they are able to apply it to a new situation and can accurately use any new geographical vocabulary associated with it. Therefore, the teacher must frequently reinforce the concept, and its associated language. Learning activities that involve card sorting or diagrams that link ideas together can be useful aids to learning. Refer to Roberts (2013) p.89 Fig 9.6 for ideas and [*Active Learning in Geography*](https://www.geography.org.uk/Active-learning-in-geography). One of these activities is [*Concept mapping*](https://www.geography.org.uk/write/MediaUploads/Teacher%20education/GA_ITE_TTIS_Concept_mapping.pdf) which is a way of understanding the structures of students' thinking. Biddulph etc. (2015) has an example of a students’ concept map on p142. Teachers need to know what their students understand at a specific point in time, so that they can assist them to move forward and concepts maps are one way of doing this.

What are misconceptions and misunderstandings in geography?

A misconception is an idea that is wrong because it was based on a failure to understand i.e. a misunderstanding. One of the Teachers’ Standards requires you to ‘*address misunderstandings*’. A teacher should always be alert to all students’ misunderstandings: in their questions and answers; when they ‘listen in’ to students talking to each other; and when they review and mark written work. Never let a misunderstanding pass by, and consider how your teaching could prevent a misunderstanding happening. A trainee teacher should build up, from experience, examples where misunderstanding is likely to occur, so they can take steps to avoid them.

Take opportunities to discuss with your geography mentor, and experienced teachers, where possible misconceptions often occur in geography and how you can plan to avoid them*.*

* Read the support sheet on [*Misconceptions and Misunderstandings*](https://www.geography.org.uk/write/MediaUploads/Teacher%20education/GA_ITE_SFT_Misconceptions.pdf)
* Look at these common misconceptions about places in the PowerPoint [Understanding misconceptions](https://www.geography.org.uk/write/MediaUploads/Teacher%20education/GA_ITE_SFT_Misconceptions.ppt)
* Read *Know What They Know: What errors are they likely to make?*in Enser, M. (2019) *Making Every Geography Lesson Count* Crown House Publishing Chapter 2.