

Skills Exercises

AO2 Understanding and application

Cambridge International AS & A Level Geography 9696

For examination from 2023



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Introduction

Cambridge AS & A Level Geography attracts a variety of learners from many different backgrounds. For some learners Geography is a new subject and an opportunity to explore an area of study that interests them, while developing a set of transferable skills. Other learners have previously studied Geography and are looking to continue developing their knowledge of the subject. Either way, the study of Geography allows learners to experience the diverse and dynamic interactions between humans and the environment and gain the knowledge needed to understand how both physical and human systems work and apply this understanding to real world situations.

Skills and why they are important?

Skills are the key to success. The performance of candidates in Cambridge AS & A Level exams have shown a range of areas where improvement would be helpful. These areas of improvement tend to centre around the assessment objectives (AOs) of the course and we have addressed these AOs in a series of exercises and activities.

- AO1 Knowledge
- AO2 Understanding and application
- AO3 Skills
- AO4 Evaluation

Skills Exercises make use of examination questions and include exercises, activities and worksheets to help skills development and incorporate suggested teaching approaches, such as group work, discussion, structured support and writing in sequence. They do not attempt to cover all possible aspects of the examinations, only those problem areas which have presented consistently over time.

How will these skills be developed?

Skills Exercises aim to help learners develop skills in:

- Using geographical terminology confidently.
- Understanding, applying and interpreting geographical models.
- Describing and interpreting patterns in various forms of data.
- Understanding what a judgement is and how to construct an evaluative answer.

Skills Exercises provide suggestions so you can have confidence that the materials you prepare and use in the classroom are building skills and resilience in your learners. This document should be used alongside the other teaching and learning resources provided on the [School Support Hub](#).

AO2 Understanding and application

To demonstrate understanding and application learners need to be able to do the following in exam answers:

- understand the complex and interactive nature of physical and human environments
- understand how processes bring changes in systems, distributions and environments
- recognise the significance of the similarities and differences between places, environments and people
- recognise the significance of spatial scale and time scale
- apply geographical knowledge and understanding to unfamiliar contexts.

Exercise 1: Explaining geography

Learners must be able to explain geographical situations in detail to show that they have a deep understanding of both processes and outcomes. The first two activities links back to **Exercise 2: Geographical theories and models** in the **AO1 Knowledge Skills Exercises**. The third activity looks at applying knowledge and understanding to real-world examples.

Activity 1: Applying knowledge and understanding to physical theories

For this activity learners will need to have completed **Exercise 2, Activity 2, Worksheet 5: Knowledge of physical geography models and theories** from the **AO1 Knowledge Skills Exercises**. This activity requires learners to apply their knowledge of that theory to the diagram via an exam-style question. This will be in the form of a scaffolded answer, where there are spaces left within a semi-complete answer for the learners to fill in and show their understanding of the theory. Give learners **Worksheet 1: Applying knowledge and understanding to physical theories**. Go through the worksheet with learners to make sure they understand what is required of the task. This activity could be completed as a discussion with peers, or as a teacher-led discussion.

Use **Worksheet 1: Applying knowledge and understanding to physical theories answers** and ask learners to peer assess each other's work. Lead a class discussion to go through learners' responses. Highlight the need for in-depth answers which show a full understanding. Use of figures or other evidence from diagrams such as these is vital for learners to be awarded high marks. Where possible, processes and patterns should be fully explained in detail. Ensure any misconceptions are addressed.

Activity 2: Applying knowledge and understanding to human theories

This activity draws upon two of the AS Paper 2 theories from the **AO1 Knowledge Skills Exercises: Exercise 2, Activity 3, Worksheet 6: Knowledge of human geography theories and models** and requires learners to apply their knowledge of that theory to the diagram. This will be in the form of a scaffolded answer, where there are spaces left within a semi-complete answer for the learners to complete and show their understanding of the theory.

Give learners **Worksheet 2: Applying knowledge and understanding to human theories**. Go through the worksheet with learners to make sure they understand the task. This activity could be completed as either a peer or teacher-led discussion.

Use **Worksheet 2: Applying knowledge and understanding to human theories answers** and ask learners to peer assess each other's work. Lead a class discussion to go through learners' answers. Highlight the need for in-depth answers which show a full understanding. Use of figures or other evidence from diagrams such as these is vital for learners to gain high marks. Where possible, processes and patterns should be fully explained in detail. Ensure any misconceptions are addressed.

Activity 3: Answering 'Explain' questions based on resources

This activity looks at two examples of A Level-style 'Explain' questions. These types of questions usually start with a three or four mark 'Describe' command word, but then develop into a more complex six or seven mark 'Explain' question that is often related to the resource.

This activity first gives a description of the resource, but then expects the learner to explain it. Give learners **Worksheet 3: Answering 'Explain' questions based on resources**. Go through the worksheet with learners to make sure they understand the task. This activity would perhaps lend itself initially to a class-wide discussion, to then be followed up as an attempt to write an answer.

Use **Worksheet 3: Answering 'Explain' questions based on resources answers** and ask learners to peer assess each other's work. Lead a class discussion to go through learners' answers and ensure any misconceptions are addressed.

Learners should ensure that with questions like this, they give the full details of processes that are occurring, and not just mention them by name. Explanation involves indicating to the examiner that learners have a detailed understanding of how the processes work. Often, drawing diagrams is a big help in explaining these processes. This would certainly be effective in the first question and could be used as an extension task to improve learners' answers.

Exercise 2: Understanding systems in geography

Geography is all about systems – the way in which different processes bring about changes in distributions and environments. The activities in this exercise will give learners the opportunity to identify what a system is, and how the systems approach can be applied in both physical and human geography.

Activity 1: Understanding the systems approach

Worksheet 4: Understanding the systems approach is an introductory activity for learners to try and correctly identify the location of different parts of a system on a flow diagram and show an understanding of what each of the terms mean by linking the correct term to the definition. Go through the worksheet with learners to make sure they understand the task. This activity may be completed individually, in pairs or as a small group.

Use **Worksheet 4: Understanding the systems approach answers** and ask learners to peer assess each other's work. Lead a class discussion and go through learners' answers making sure any misconceptions are addressed.

Extension activity: learners attempt to produce their own example of a real-life system using the blank template as a starting point. This may be better completed as a group exercise with many different ideas being fed in.

Activity 2: Applying systems to physical geography

Worksheet 5: Applying systems to physical geography shows a systems diagram of the hydrological cycle. Go through the worksheet with learners to make sure they understand the task. Learners fill in the boxes using the word box provided. This activity could be completed individually or as a paired exercise.

Use **Worksheet 5: Applying systems to physical geography answers** and ask learners to peer assess each other's work. Lead a class discussion and go through learners' answers. Ensure any misconceptions are addressed.

Extension activities:

- Learners add further labels to the irregular transfer arrows. Under what conditions might these flows take place?
- Due to the complex nature of the hydrological cycle several of these terms are often misinterpreted, so it would be useful for teachers to embed definitions with each term used.

Activity 3 : Applying systems to human geography

Worksheet 6: Applying systems to human geography shows a systems diagram of migration. Explain migration systems theory to learners. A migration system can be defined as a 'set of places linked by flows and counter-flows of people, goods, services and information, which tend to facilitate further exchange, including migration, between the places'. The migration systems theory was established by A Mabogunje who considered rural-urban migration in Nigeria as a system of interrelated elements. Mabogunje stressed the importance of feedback mechanisms, through which information about the migrants' reception and progress at the destination is transmitted back to the place of origin. Favourable information would then encourage further migration.

Go through the worksheet with learners to make sure they understand the task. Learners attempt to fill in the boxes. This activity be completed either as individually or as a pair.

Use **Worksheet 6: Applying systems to human geography answers** and ask learners to peer assess each other's work. Lead a class discussion and go through learners' answers. As learners do not have any words to choose from to insert into the boxes, this activity is perhaps more demanding. Learners might therefore benefit from a wider class discussion, as there are multiple ideas within each box. Ensure any misconceptions are corrected.

Exercise 3: Recognising the significance of scale in geography

An understanding of scale, both temporal and spatial, is essential in the study of Geography. Physical and human processes all change both over time and spatially and being able to understand why this occurs is a fundamental skill for all geographers.

The three activities in this exercise focus on time scale in particular, as this is perhaps the less understood scale of the two and is not always as obvious as spatial scales. The first two activities focus on the influence of time in both physical and human geography, and the third activity focuses more on the spatial aspect. However, learners should be aware that spatial and time scales will always work hand in hand.

Activity 1: Understanding timescales in physical geography

Physical geography tends to work over very long time scales, usually in terms of decades to thousands or even millions of years and certainly much slower than in human geography in general. Therefore, it can be difficult for learners to appreciate the significance of time in the creation of landforms.

This first activity on **Worksheet 7: Understanding timescales in physical geography** gives a selection of processes and landforms, each of which has a different timescale in terms of their development. Go through the worksheet with learners to make sure they understand the task. Learners should attempt to place the process or landform in the correct place on the blank timeline. This activity would work best if learners were in small groups to create discussion.

Use **Worksheet 7: Understanding timescales in physical geography answers** and ask learners to peer assess each other's work. Lead a class discussion and go through learners' answers. Ensure any misconceptions are addressed.

Extension activity: learners indicate how long the impacts of events may last, and also the time it may take some of the features to develop further.

Note: the scale is set up to resemble a logarithmic scale – learners will need to appreciate the difference between this and a standard scale.

Activity 2: Understanding timescales in human geography

Timescales in human geography tend to be shorter than in physical geography.

Worksheet 8: Understanding timescales in human geography gives a series of three population pyramids. The focus of this activity is for learners to understand the way in which countries at different levels of development may show different characteristics, and the fact that these may change over time.

Each pyramid represents a point along the demographic transition model (DTM) and shows how a country's population structure may change over time.

Learners should identify which stage of the DTM each pyramid is and describe and explain the patterns shown. Go through the worksheet with learners to check they understand what is required of the task. For this activity learners may work individually or in pairs.

Use **Worksheet 8: Understanding timescales in human geography answers** and ask learners to peer assess each other's work. Lead a class discussion to go through learners' answers. Ensure any misconceptions are addressed.

Extension activity: learners could attempt to apply activity to specific countries and try to identify at what time they were (or will be) structured like that.

Activity 3: Changing spatial scales in geography

While timescales are important in geography, it is also important to appreciate that patterns change spatially as well. In this activity, **Worksheet 9: Changing spatial scales in geography** introduces patterns that change spatially, and patterns that combine both spatial and temporal elements.

The first graph shows how solar radiation varies across the globe. Learners should describe and explain the patterns shown, applying their geographical knowledge and understanding to an unfamiliar context to fill in the table. This focuses purely on spatial scales.

The second part of the activity combines elements of both time and space. The table shows the locations within an urban area, and the time periods leading up to today and in the future.

Learners should attempt to identify what patterns of retail are occurring within each area at the different times. Go through the worksheet with learners to make sure they understand the task.

Learners should complete this activity in small groups.

Extension activity: learners try and apply this to a specific area, perhaps through a combination of secondary research or even primary fieldwork, if time allowed.

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