Cambridge Assessment International Education

Scheme of Work

Cambridge O Level
For centres in Brunei
Geography 2230

For examination from 2022

Cambridge Pathway

Contents

Introduction

This scheme of work has been designed to support you in your teaching and lesson planning. Making full use of this scheme of work will help you to improve both your teaching and your learners' potential. It is important to have a scheme of work in place in order for you to guarantee that the syllabus is covered fully. You can choose what approach to take and you know the nature of your institution and the levels of ability of your learners. What follows is just one possible approach you could take and you should always check the syllabus for the content of your course.

Suggestions for independent study **(I)** and formative assessment **(F)** are also included. Opportunities for differentiation are indicated as **Extension activities**; there is the potential for differentiation by resource, grouping, expected level of outcome, and degree of support by teacher, throughout the scheme of work. Timings for activities and feedback are left to the judgment of the teacher, according to the level of the learners and size of the class. Length of time allocated to a task is another possible area for differentiation.

Guided learning hours

Guided learning hours give an indication of the amount of contact time you need to have with your learners to deliver a course. Our syllabuses are designed around 130 hours for Cambridge IGCSE courses. The number of hours may vary depending on local practice and your learners' previous experience of the subject. The table below give some guidance about how many hours we recommend you spend on each topic area.

Themes / skills	Suggested teaching time (hours / % of the course)	Suggested teaching order
1.1 Population	It is recommended that this should take about 10 hours / 8% of the course.	Year 9
1.2 Food	It is recommended that this should take about 10 hours / 8% of the course.	Year 9
1.3 Settlement	It is recommended that this should take about 15 hours / 11% of the course. Including five hours for geographical investigation.	Year 9
Mapwork skills	It is recommended that this should take about 15 hours / 11% of the course.	Year 9 / Year 10
2.1 Plate tectonics, volcanoes and earthquakes	It is recommended that this should take about 15 hours / 11% of the course.	Year 10

Themes / skills	Suggested teaching time (hours / % of the course)	Suggested teaching order
2.2 Rivers and coasts	It is recommended that this should take about 20 hours / 15% of the course. Including five hours recommended for geographical investigation.	Year 10
2.3 Weathering, climate and natural vegetation	It is recommended that this should take about 10 hours / 8% of the course.	Year 10
3.1 Industry	It is recommended that this should take about 10 hours / 8% of the course.	Year 11
3.2 Energy	It is recommended that this should take about 10 hours / 8% of the course.	Year 11
3.3 Tourism	It is recommended that this should take about 15 hours / 11% of the course. Including five hours for geographical investigation.	Year 11
Revision time should be scheduled in preparation for the exams.		Year 11

Resources

This scheme of work follows the order and titles of the programme content as it appears in the syllabus for examination from 2022.

The main textbooks are: *Geography for Brunei Darussalam,* a series of books published by Marshall Cavendish Education, www.mceducation.com

- Theme A: The Natural World (year 9), 2013 ISBN: 9789991726076
- Theme B: People, Food and Settlement (year 10), 2014 ISBN: 9789991726359
- Theme C: Industry, Energy and Tourism (year 11), 2016 ISBN: 9789991726786

Please note: the content of these textbooks corresponds to the title headings of the syllabus for examination from 2021. The content is the same and the themes can be taught in any order, so are compatible for use with the 2022 syllabus. The table below shows the title changes:

Titles of themes (for examination in 2021)	Titles of themes (for examination from 2022
B. People, Food and Settlement (year 10)	1. Population and settlement (year 9)
A. The Natural World (year 9)	2. The natural environment (year 10)
C. Industry, Energy and Tourism (year 11)	3. Economic development (year 11)

Brunei School Support

The Brunei School Support site https://cambridgeinternational.org/brunei is an online resource bank for Cambridge International syllabuses taken only in Brunei, where you can download specimen question papers, mark schemes and other teaching and learning resources. This scheme of work is available as a PDF and in an editable Microsoft Word format; both are available on the link above. If you are unable to use Microsoft Word you can download Open Office free of charge from www.openoffice.org

Tools to support remote teaching and learning – Click here to find out about and explore the various online tools available for teachers and learners.

Websites

This scheme of work includes website links providing direct access to internet resources. Cambridge Assessment International Education is not responsible for the accuracy or content of information contained in these sites. The inclusion of a link to an external website should not be understood to be an endorsement of that website or the site's owners (or their products/services).

The website pages referenced in this scheme of work were selected when the scheme of work was produced. Other aspects of the sites were not checked and only the particular resources are recommended.

How to get the most out of this scheme of work – integrating syllabus content, skills and teaching strategies

We have written this scheme of work for the Cambridge O Level Geography 2230 syllabus (for centres in Brunei) and it provides some ideas and suggestions of how to cover the content of the syllabus. We have designed the following features to help guide you through your course.

Learning objectives help your learners by making it clear the knowledge they are trying to build. Pass these on to your learners by expressing them as 'We are learning to / about…'.

Suggested teaching activities give you lots of ideas about how you can present learners with new information without teacher talk or videos. Try more active methods which get your learners motivated and practising new skills.

Independent study (I) gives your learners the opportunity to develop their own ideas and understanding without direct input from you.

Syllabus ref.	Learning objectives	Suggested teaching activities
1.1.1 Growth of world population	To explain the reasons for the different birth rates and deaths rates.	Class discussion so as learners understand that the reasons for the variation in birth rates and death rates in c around the world can be separated into social, economic and other factors. Working in groups, learners discuss the reasons for high birth rates in certain parts of the world. They record th on a large sheet of paper. Each group then moves round to the next group to add any ideas that they had not t and continue until they are back to their original place. Class discussion to confirm. This could then be repeated death rates as a starter during the next lesson. Working in pairs, produce two mind-maps to summarise all the factors influencing birth rates in a country and death rates in a country. **Geographical skill:** Using the data in the table in Figure 1.13 on page 10, presen show the life expectancy at birth in the 15 countries shown on the table. **(I)** **Extension activity:** Page 13 – Activity (Green box) **(I)** **Geographical skill:** Learners use a table of data (Fig. 1.17 page 13) to describe the patterns in infant mortality rates, life expectancy and death rate.
Specimen/past papers and mark schemes		
Specimen papers and mark schemes are available to download at https://cambridgeinternational.org/brunei **(F)**		

Extension activities provide your more able learners with further challenge beyond the basic content of the course. Innovation and independent learning are the basis of these activities.

Geographical skills are highlighted to show how they can be integrated in the teaching of the Themes.

Specimen/past papers, **mark schemes and other resources** are available for you to download at: https://cambridgeinternational.org/brunei.

Using these resources with your learners allows you to check their progress and give them confidence and understanding.

Formative assessment (F) is on-going assessment which informs you about the progress of your learners. Don't forget to leave time to review what your learners have learnt, you could try question and answer, tests, quizzes, 'mind-maps', or 'concept maps'. These kinds of activities can be found in the scheme of

Paper 1: Theme 1 Population and settlement

Syllabus ref.	Learning objectives	Suggested teaching activities
1.1 Population		
Textbook: *Geography for Brunei Darussalam Year 10 – Population, Food and Settlement*		
1.1.1 Growth of world population	To study and understand the rapid growth in the world's population	This scheme includes key terms that learners need to understand and learn. We suggest learners keep a **glossary of key terms** to help with revision. It may also be useful for them to include definitions of the various command words they will come across in their examination questions. **Glossary of key terms:** *birth rates, deaths rates, natural increase, life expectancy* and *infant mortality rate* **(I)** Provide learners with key facts and figures about world population growth to illustrate how it has changed over time and how it is predicted to change in the future. Use the current world population statistics: www.worldometers.info/world-population/ to study this data. **Geographical skill:** Learners describe a line graph to show world population growth. They could also draw part of the graph themselves. This should include projections for future population growth. (I) **Extension activities:** Page 2: Think Deeper questions **(I)** **Class discussion** to introduce the fact that world population growth is not consistent in all continents around the world. **Geographical skill:** Learners work in small groups to analyse a choropleth map to show birth rate and death rates on different continents. Each group considers a different continent. Present findings back to the class. **Extension activity:** Textbook page 5: Activity and Think Deeper questions The same website www.worldometers.info/world-population/ will also be very useful in this section as learners can get a real sense of the changing world population as a result of changes in the birth rates and deaths. Using data, learners can work out the natural population change of a wide range of economically developed countries from a list of birth rate and death rate figures. The data should reveal both positive and negative growth of countries selected: www.s-cool.co.uk/gcse/geography/populations **(I)** **Question:** Textbook page 5, learners describe the differences in the birth rate and death rate shown on Figure 1.5 and 1.6 for Cameroon and Germany. Peer marking should take place along with class discussion. **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
	To explain the reasons for the different birth rates and deaths rates	**Class discussion** to help reveal that the variation in birth rates and death rates in countries all around the world can be separated into social, economic and other factors. Working in groups, learners discuss the reasons for high birth rates in certain parts of the world. They record their ideas on a large sheet of paper. Each group then moves round to the next group to add any ideas that they had not thought of and continues until they are back to their original place. Class discussion to confirm. This could then be repeated with high death rates as a starter during the next lesson. Working in pairs, learners produce two mind-maps to summarise all the factors influencing birth rates in a country and death rates in a country. **Geographical skill:** Using the data in the table in Figure 1.13 on page 10 of the textbook, learners present this information on a suitable graph to show the life expectancy at birth in the 15 countries shown on the table **(I)**. **Extension activity:** Textbook page 13, Activity (Green box) **(I)** **Geographical skill:** Learners use a table of data (Fig. 1.17 page 13) to describe the patterns in infant mortality rates, life expectancy and death rate.
	To understand that there are different strategies that can be used to control the rate of population growth around the world and evaluate the effectiveness of these different strategies on population growth	Study the effect of government policies in two very different country situations: *"One Child Policy"* in China As a class, learners read the information on the One Child Policy in China on pages 17–19. Produce a mind-map to summarise the reasons behind the policy, how it was implemented and the consequences of the policy. **(I)** **Question:** Evaluate the effectiveness of the One Child Policy in controlling the rate of population growth in China. *"Three or more policy"* in Singapore As a class, read the information on the Three or More policy in Singapore on pages 19–20. Produce a mind-map to summarise the reasons behind the policy, how it was implemented and the consequences of the policy. **(I)** **Question:** Evaluate the effectiveness of the Three or More policy in controlling the rate of population growth in Singapore.
	To appreciate the differences between overpopulation and underpopulation and	**Glossary of key terms:** *overpopulation, underpopulation* and *population density* **(I)** Provide learners with a list of country sizes and population numbers for a wide variety of countries. Discuss how population density is calculated as a class and why population density varies between countries.

Syllabus ref.	Learning objectives	Suggested teaching activities
	be aware of how population density is measured	**Geographical skill:** Use the data to calculate the population density of the selected countries. **Question:** Explain why some countries have a high population density and some countries have a low population density. Textbook pages 21–22, learners study the causes of overpopulation in an area/country and identify the consequences which have developed from overpopulation – both positive and negative consequences. Use bullet points to show this information. **(I)** Textbook pages 22–23, learners study the causes of underpopulation in an area/country and identify the consequences which have developed from underpopulation – both positive and negative consequences. Use bullet points to show this information. **(I)** Through **class discussion**, learners should understand that the correct population for a country is when the number of people and resources are balanced. Learners work in pairs to draw what they think a set of weighing scales would look like for under-population and over-population in relation to people and resources (see www.overpopulation.org/). Show on mini whiteboards if available. Through whole class discussion, recap on the key words that have been taught so far and emphasise the link between population, resources and the level of technology used to exploit them. Show learners photographs to illustrate the concepts. Countries such as Bangladesh and Iceland could be studied to reinforce the terms. Websites that could be looked at are www.worldometers.info/world-population/bangladesh-population/ and www.telegraph.co.uk/travel/maps-and-graphics/The-worlds-least-densely-populated-countries/ for Iceland. Learners complete a card-sorting activity to classify causes and consequences into under-population and over-population. Record consequences in a table and self-assess as the answers are discussed as a whole class. Sort consequences into those that affect people and those that affect the environment. **Formative assessment (F): Paper 01** 2021 Specimen Paper: Q1a, 1b, 1c, 1d, 1f Past paper Jun 2021: Q1a, 1bi, 1bii, 1ci, 1cii Past Paper Jun 2021: Insert
1.1.2 Migration	To understand population migration	**Glossary of key terms:** *LIC, MIC, HIC, migration, emigration, immigration*, *net migration balance, rural-urban migration, internal migration, forced migration, voluntary migration* and *international migration* **(I)** www.scool.co.uk/gcse/geography/populations/revise-it/migration This website will be a useful link.

Syllabus ref.	Learning objectives	Suggested teaching activities
		A mix and match activity could be devised in which the learners match the key term to the correct definition. **(I)** Show learners photographs of *rural* areas in a Low Income Country (LIC) and then of *urban* areas in an LIC. Learners must identify the factors that would push people away from rural areas and the factors that would pull people to urban areas. This is all completed through visual stimulus and class discussion. Produce this information in a table. **Extension activity:** Explain why rural-urban migration is an important source of migration in both Low Income Countries and Medium Income Countries (LICs / MICs). **Question:** Describe the difference between voluntary and involuntary migration when studying international migration. **Geographical skill:** Learners research international migration and produce a sketch map to locate this international migration. **Geographical skill:** Show a photograph that might prompt a forced migration such as a scene following a natural disaster and discuss.
	To recognise that there are impacts of migration on both the destination country and the country of origin. These impacts can be positive or negative	The migration patterns that need to be considered are: • Rural to urban migration • International migration – including voluntary and involuntary For each type of migration, complete a table to show the impacts on the destination areas and on the areas that have been left behind (origin). Use two colours – one for positive consequences and one for negative consequences. Pages 24–27 of the textbook will help with this task. **(I)**
	Case study: Study of one international migration case study	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies. Learners should know one case study of an international migration. The example in the textbook (pages 29–30) can be used and involves international migration from India to the USA. The following bullet points must be covered. It is very important to highlight that there should be appropriate place-specific reference for the case study. • An annotated sketch map with a written description and reference to the destination and origin countries. • **Geographical skill:** Include a flow line map to show the direction and numbers involved – the thickness of the line will show the number of people migrating and different colours can be used for different years. • Learners can provide some background information/statistics/photographs to highlight/annotate to show the causes of this international migration. • Produce a written report to show the impacts on both destination and origin countries – refer to positive and negative impacts for both areas.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Extension activity: Learners imagine that they are an international migrant and write a letter home to include their reasons for the migration and what conditions are like for them in the destination country. Another learner writes the reply to the letter explaining what benefits/problems migrations such as these, are causing back at home (in the country of origin). This is an excellent opportunity for peer assessment and learners can give feedback on the letter that they are marking. **(I)** Read letters and replies out and discuss at whole class level. Ideas for teaching migration can be found at: www.geography.learnontheinternet.co.uk/topics/migration.html **Formative assessment (F): Paper 01** 2021 Specimen Paper: Q2bi and 2bii 2021 Specimen Paper: Insert
1.1.3 Population structure	To understand that the population structure is different in countries all around the world and can be shown graphically on population pyramids	**Glossary of key terms:** *population structure, dependent population, old dependents, young dependents* and *economically active*. **(I)** Before studying any pyramids, learners must fully understand the basic format of a population pyramid. They should know that male and females are represented, that the age of the population is broken up into different age groups on the y axis and the number (or percentage) of the population is shown on the x axis. This can be drawn on the board. Learners must appreciate the significance and the use of population pyramids and how growth can be predicted in the future using the information in a pyramid. **Geographical skill:** Learners draw a population pyramid for a typical HIC – this activity can be differentiated easily by providing templates where necessary. The population pyramid for Brunei can then be sketched using Figure 2.2 on page 36 of the textbook – learners sketch this pyramid and annotate the points that are made on the figure. This will ensure that learners understand the basic concepts of a population pyramid, before going on to understand the three different shaped pyramids: • Expansive pyramids – also known as triangular population pyramids which show rapid growth (e.g., Angola) • Stationary pyramids – also known as column-like or rocket-shaped pyramids which shown stationary or slow growth (e.g., USA) • Constrictive pyramids – also known as beehive-shaped population pyramids which show negative growth (e.g., Japan)

Syllabus ref.	Learning objectives	Suggested teaching activities
		Textbook pages 37–39, learners sketch the shape of each of these three pyramids and annotate the characteristics/features of each of the pyramids. The information required is contained within the text on these pages, but learners should read this information and annotate (apply it to) the appropriate part of the pyramid. **(I)**
	To understand that population structure will change as countries progress through different stages of development	A useful website for this section of the syllabus http://populationpyramid.net/ Learners must understand that the shape of the pyramid changes for countries at different levels of development. Using the link above, learners study population pyramids from an LIC (e.g., Burkina Faso), an MIC (e.g., India) and an HIC (e.g., Germany). The pyramids should be sketched and annotated. Learners summarise the main points about each of the three pyramids in a table. The population pyramid table on page 44 of the textbook can be used for guidance if required. **(I)** **Extension activity:** Learners consider the implications for each population structure in the future and present. **(I)** **Formative assessment (F): Paper 01** 2021 Specimen Paper: Q1ei, 1eii and 1eiii Past paper Jun 2021: Q1ciii
1.1.4 Quality of life	To identify and understand the different indicators that access the level of development of a country and explain how they are used	**Glossary of key terms:** *development*, *Gross National Income (GNI) per capita, literacy, life expectancy* and *Human Development Index (HDI)* **(I)** Useful link: • Oxfam Education: www.oxfam.org.uk/education • HDI Data: http://hdr.undp.org/en/data • Brunei 2020 HDI report: http://hdr.undp.org/sites/default/files/Country-Profiles/BRN.pdf Introduce learners to how Gross National Income (GNI) can be used to rank countries using a simple game of 'Play Your Cards Right' or 'Higher/Lower'. Working in pairs**,** provide the GNI for a starting country and then learners have to decide whether the next country shown is higher or lower than the first. Follow this up by placing a list of countries in rank order for Gross National Product (GNP). Repeat the activity for 'literacy' and 'life expectancy'. Learners discuss in pairs what they notice about the rank order each time and use this to explain why it is important to use more than one indicator to measure development. This is a good route into the Human Development Index (HDI). Recap on the definition of the HDI from the glossary and how it is used to measure development. **Geographical skill:** Learners use a table of data (Fig. 3.13 page 55 of the textbook) to explain why some countries are considered more developed than others.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Geographical skill: If computers are available, ask learners to research the HDI of 30 different countries, with a wide range of values, and make a note of these. (Figures for HDI are available on page 55 of the textbook but are outdated so recent figures would be better). Use an atlas and on a blank map of the world, learners must produce a choropleth map to show the location of these 30 countries. Learners may need a reminder of how to produce a choropleth map and how to devise a key. **Question:** Describe the pattern that has emerged on the choropleth map. **(I)** **Extension activity:** Explain why HDI might be a fairer way to measure development. **(I)** **Geographical Skill:** Learners can develop their geographical skills and understanding by producing scatter graphs to show the relationships between different indicators of development – for example, literacy and GNI or GNI and literacy rates etc. Learners should describe and explain the relationships shown on the scatter graph. **(I)**.
	To understand how the quality of life is different in LICs/MICs and HICs and the reasons for this	To understand how and why the quality of life is different between LICs / MICs and HICs, a **class discussion** is important. Reasons for differences in the quality of life such as historical, physical, economic, social and political should be introduced to learners. Learners independently research development indicators for two contrasting countries (LIC / MIC and HIC) to produce country fact-files including data tables and graphs of results. Learners then describe and offer explanations for the differences between these countries. This can then be shared with the class. This can be completed independently or in pairs to help those who may find this a challenging activity **(I).** If learners find the research task challenging, there is information in the textbook (pages 56–64). These pages can be used to summarise the reasons for the differences in quality of life in mind-map format by the learners.
	To know the strategies used to improve the quality of life in LICs and evaluate how effective these have been	Textbook pages 64–71, learners produce posters to show how the strategies used by international agreements and international organisations have helped to reduce the quality in life in LICs. Learners work in pairs – one person completes a poster on international agreement strategies and the other person completes the poster on international organisations. When finished they can explain their posters to each other. Each of the pair should have a copy of both posters for revision. **Extension activity:** Following on from the discussion in pairs with regards to the strategies used, evaluate how successful these strategies have been in improving the quality of life in LICs. Use facts/figures and locations from the posters to ensure the conclusion reached by the learner is supported with carefully chosen material.
	To understand the reasons for the high	Research figures for the different indicators of development in Brunei. **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
	quality of life in Brunei compared with the quality of life in LICs and MICs.	**Geographical skill:** Learners use tables of data (Fig. 3.30 page 72 and Fig. 3.32 page 73) to compare the quality of life in Brunei to Bangladesh. **Question:** Describe the differences in the indicators of development data for Brunei and Bangladesh. **Extension activity:** Produce a report to explain why the quality of life in Brunei is high, and why it is classed as an HIC. The question that the learners should be answering is: What are the factors that have led to the high economic development and quality of life in Brunei? **Formative assessment (F): Paper 01** Past paper Jun 2021: Q1di and 1dii Past paper Jun 2021: Insert
1.2 Food		
1.2.1 Food production in Brunei	To understand the agricultural production in Brunei	**Geographical skill:** Learners use the table of data, Fig. 1.22 on page 103, to analyse food production in Brunei. Textbook pages 103–05, learners answer the following questions: 1. Describe the factors (physical and human) that have resulted in a shortage of home-produced food in Brunei. 2. Describe and explain the difficulties that are faced by farmers in Brunei. Learners may want to read through these pages and make bullet points/notes on the key points before attempting the question. **(I)**
	To describe and explain the different strategies that have been used to increase agricultural production in Brunei and evaluate how effective these strategies have been	Individually the learner should make a list of strategies that could be used to increase agricultural production in Brunei. (I) Then, in groups of four, discuss the strategies that could be used and add any that are missing to the list. Complete a table to show the advantages and disadvantages of each of these different strategies. Use the syllabus and pages 108–111 for cross reference to ensure that no strategies have been missed. **Question:** How effective have these strategies been in increasing agricultural production in Brunei? **(I)** Pages 112–113 may give some guidance to learners. **(I)**
	To describe the distribution of the main fishing areas in Brunei	**Glossary of key terms:** *distribution, inland fishing areas*, *marine fishing, aquaculture (fish farming) and sustainable fishing areas* **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
		On a map locate the areas around Brunei where the different fishing areas occur. Write a brief description of each location from the map. Textbook pages 114–115/ Department of Fisheries, Brunei Darussalam. **(I)** **Geographical skill:** Learners use the data in Fig. 1.41 page 119 of the textbook to draw a composite bar graph of the types of fishing boats used in Brunei.
	To describe and explain the physical and human factors affecting the location and development of the fishing industry in Brunei	Read page 116 of the textbook together as a class and discuss the physical and human factors involved in the location and development of the fishing industry in Brunei. Learners produce a mind-map to summarise this information. Use one colour for the physical factors and a different colour for the human factors. **(I)** **Extension activity:** Evaluate which factors, physical or human, are the most important in affecting the location and development of the fishing industry in Brunei.
	To explain the importance of the fishing industry in Brunei	Learners design a poster to illustrate the importance of the fishing (including aquaculture) industry to Brunei. If possible, use the computer to produce the poster and research additional facts and figures too which can be added to the poster. Ideas should include: • the contribution to the economy • the contribution to the people of Brunei • commercial value created • jobs provided to the people • high protein food that is produced. Specific information relating to the fishing farming industry in Brunei is essential. **(I)**
	To explain the challenges facing the fishing industry in Brunei now and in the future	Learners carry out research on this part of the syllabus. Using the computer and perhaps prior knowledge of the learner, research the challenges facing the fishing industry in Brunei including: • increasing production • sustainability. Learners produce a written report to summarise this research. Page 126 of the textbook may help learners. **(I)**
1.2.2 Rice Farming in Southeast Asia	To understand the distribution of rice farming in Southeast Asia	**Geographical skill:** Learners use a base map of Southeast Asia to create their own distribution of the rice farming areas from Fig.2.2 on page 133. **(I)** Using the base map produced, learners describe the distribution of rice farming in Southeast Asia.

Syllabus ref.	Learning objectives	Suggested teaching activities
		As a class, discuss the different factors, physical and economic, affecting the distribution of rice farming in Southeast Asia and show as a mind-map. Learners write these factors into a table, under the correct column. (Textbook pages 134–137 for guidance if necessary.) **(I)** Learners write a short report to explain all the factors that have influenced the distribution of rice farming in Southeast Asia. Include place-specific information and diagrams as appropriate – for example, climate data and a climate graph. **(I)**
	To describe the different methods of rice farming in Southeast Asia	**Glossary of key terms:** *subsistence farming, commercial farming, small-scale farming* and *large-scale farming* **(I)** Using the information in the textbook page 138, read out statements and learners decide which of the four terms above the statement is referring to, e.g., • Small farm size = small-scale • Use of high yielding seeds = commercial • Output only for the family = subsistence
	To explain the importance of rice farming in Southeast Asia	Read pages 145–148 of the textbook together in class and discuss as a group how important rice farming is to the economies and people of Southeast Asia. Learners imagine that they are a rice farmer in Southeast Asia and write a report which would appear in a local newspaper, explaining how important rice farming is. Learners must refer to the benefits that have been brought to the economies of the countries involved, the jobs provided and the increased food supply. **(I)**
	Case study: An area in Southeast Asia where rice farming is important	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies. Learners study one area where rice farming takes place in Southeast Asia. Examples of case study areas could include the Ganges Delta, India or the Kedah Plains, Malaysia. This is very much a research-based case study and so it is suggested that learners work in pairs for additional support. It is very important with any case study that the research is detailed, contains facts and figures and is very place-specific. Learners complete the following for the case study: • Learners produce an annotated sketch map to show the location of the rice farming area that they have chosen for the case study. They also need to add a written description on the location. Learners investigate: • Changes in rice production in the area over time • Method or methods of rice farming used within the area • Management strategies used within the area to increase rice production

Syllabus ref.	Learning objectives	Suggested teaching activities
		Bullet points can be used when researching the information, but the case study should then be written up formally as a point of reference for revision. **Extension activity:** Using the case study that you have researched, describe and explain how rice farming has changed over time and evaluate the importance of rice farming in this area.
1.3 Settlement		
1.3.1 Site and situation	To understand how site and situation may influence the growth of settlements	**Glossary of key terms:** *site* and *situation* **(I)** This website may help with learners' understanding: www.s-cool.co.uk/gcse/geography/settlements/revise-it/site-and-situation In pairs, learners discuss the factors that would influence the site of early settlements and produce a list – for example, water supply, which could be obtained from a stream, river, spring or lake. Learners show this list as a mind-map or table. The list of factors must include: • relief • soil • water supply • building materials. Learners then think beyond the site factors and come up with another mind-map or table listing factors which would influence the location and growth of settlements in terms of physical and economic situation factors. The list must include: Physical situation factors • hills • valleys • rivers Economic situation factors • links to other settlements • communications Provide learners with a simple sketch map of an area with different potential sites for a settlement marked on it. Learners complete a decision-making activity to decide which site they would choose. They rank each site for each factor and come up with a total score. A scale could be included to practise measuring distance.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Learners follow this up with a written description of the chosen site and an explanation of any advantages and/or problems it might have, in the form of a short report. **(I)** **Geographical skill:** Learners use Fig. 1.14 on page 227 of the textbook to draw an annotated sketch map to show the main site and situation factors. **Extension activity:** Learners can follow this up by drawing a simple, annotated sketch map to show the site of a settlement close to where they live. They should conduct research to find out about the reasons for the site and for the situation of this settlement. **(I)** **Formative assessment (F): Paper 01** Past paper Jun 2021: Q2ai and 2aii
1.3.2 Urban land use	To understand the distribution of land use zones in cities	**Glossary of key terms:** *commercial, central business district (CBD), residential, industrial* and *open space* **(I)** Learners should have access to a large number of photographs to show the different urban land uses in a variety of towns and cities from all around the world, including from LICs / MICs and HICs. These can be shown on a PowerPoint or just printed out and given to the learners. As a class, each photograph should be looked at in detail and the key features/characteristics identified. Learners then decide if the photograph is from an LIC / MIC or an HIC and give reasons for their decision. Other members of the class can agree or disagree and contribute to the discussion. Use pages 249 and 254 of the textbook to study the differences in land use in urban land use models between countries at different stages economically. Make a note of the differences between these models and explain why these differences may exist. Reference should be made to the CBD, the residential areas including low-class, medium-class and high-class areas, industrial areas, open space and informal settlements. **(I)** Pages 266–267 of the textbook show a summary of land use in cities in LICs / MICs and HICs. Learners make notes on this. **Geographical skill:** Learners study a land use map of their town/city to list the different ways in which land is used. They could try to draw a land use transect or simplified map.
	To describe and explain the changes that have taken place in urban areas	**Glossary of key terms:** *regeneration, greenfield sites, brownfield sites* and *urban fringe developments* **(I)** Discussion make learners aware that there have been many changes made in urban areas all around the world and that these areas are very dynamic and constantly evolving and being modified. The CBD and inner-city industrial areas are usually the oldest parts of a city, and this has resulted in a great deal of change in these brownfield sites over time and more movement to the greenfield sites on the urban fringe.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Learners use before-and-after photographs of a CBD to start to identify what changes have taken place in it and what reasons might account for those changes. Changes could include improvements such as pedestrian zones, shopping malls, new leisure activities, improved security, use of brownfield sites, etc. For each photograph, learners write a description of the changes, explain why the change took place and explain the advantages and disadvantages they will bring. **(I)** Learners work in pairs to mind-map all the problems of old industrial areas and share as a class to confirm. Show examples (photographs, video-clips, land-use maps, text) of regeneration schemes to include: the changes that took place, why these changes happened and the advantages and possible limitations of the schemes. **Extension activity:** Learners complete independent research to complement lesson information and write a newspaper article to describe and explain the changes to urban areas including the CBD and inner-city/industrial areas. **(I)** Recap on the rural–urban fringe (www.s-cool.co.uk/gcse/geography/settlements/revise-it/the-rural-urban-fringe) and the advantages that it offers as a whole class discussion. In groups, learners identify the types of new development that might take place in this zone, such as airports, motorways, ring roads, business parks, science parks, industrial estates and out-of-town shopping centres. Write a summary of the advantages and disadvantages of each of these new developments for the urban fringe and other parts of the city as well. **(I)** **Question:** Explain the advantages and disadvantages of developing on both greenfield sites and brownfield sites. (I) **Formative assessment (F): Paper 01** Past paper Jun 2021: Q2bi, 2bii and 2biii Past paper Jun 2021: Insert
	Case study: Land use in one urban area	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies. One case study focusing on land use in an urban area is to be selected. This case study can be from an LIC, MIC or HIC. Examples could include Rio de Janeiro, Brazil or Chicago, USA. Learners research this information on their own, but it is advisable that the whole class completes the same case study so that ideas can be shared. You, the teacher, should therefore decide upon the case study and provide appropriate stimulus material and guidance to learners before the research task begins. When researching the case study, make notes and ensure that appropriate place-specific information such as the names of areas and examples/details of specific schemes are included. Areas that have to be covered in the research are:

Syllabus ref.	Learning objectives	Suggested teaching activities
		• Location of the urban area – learners must produce a fully annotated sketch map to show the location of the urban area that they have chosen for their case study and write a description of the area. • Changes in land use in the urban area – how has the area changed overtime? • The effect of the land use changes on the urban area **-** these can be positive and negative effects. Provide map extracts and photographs and learners use this stimulus to describe the characteristics of land use and housing in each zone including the urban fringe development. Learners research and identify change in each zone of the city. Recent land use changes in the city must be identified and discussed further. (For example, a named out-of-town shopping centre, inner city redevelopment, traffic scheme or bypass development, etc.) It is important to include urban fringe developments and the impacts on people and the environment such as loss of farmland, recreation land, air pollution, habitat loss, etc.
1.3.3 Geographical investigation of settlement and services	Introduction	Read Section C: Geographical Investigation on pages 28–30 of the syllabus. Learners need to know the stages involved in a geographical investigation, such as identifying aims and hypotheses, using enquiry skills to collect data, presentation techniques to display data, making analyses of data and reaching conclusions. More information on this is available on pages 4–5 of Enquiry skills for geographical investigation If possible, learners carry out a geographical investigation in their local town/city. Topics for investigation could include: • shopping • traffic • CBD • housing • environmental quality • land use. Paper 02 Jun 2021 past paper, question 4 investigates how the amount of traffic and number of pedestrians change with increasing distance from the CBD. Other examples of geographical investigation past paper materials are available on the **School Support Hub** www.cambridgeinternational.org/support for Cambridge IGCSE Geography 0460, Paper 04 (41,42).

<table>
<tr><th>Syllabus ref.</th><th>Learning objectives</th><th>Suggested teaching activities</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Topics of investigation</th><th>Cambridge IGCSE Geography 0460</th></tr>
<tr><td>Shopping</td><td>0460/42 Nov 2019</td></tr>
<tr><td>Traffic</td><td>0460/41 Nov 2018</td></tr>
<tr><td>CBD</td><td>0460/42 Nov 2019 and 0460/42 Mar 2021</td></tr>
<tr><td>Housing</td><td>0460/43 Jun 2019</td></tr>
<tr><td>Environmental quality</td><td>0460/43 Nov 2018</td></tr>
<tr><td>Land use</td><td>0460/41 Jun 2020</td></tr>
</table>

The Brunei School Support site https://cambridgeinternational.org/brunei contains useful teaching resources such as specimen papers, mark schemes and a guide to Enquiry skills for geographical investigation</td></tr>
<tr><td></td><td>Identify a suitable geographical question for investigation and outline the aims of the investigation</td><td>Use the relevant topic hypotheses to form statements and guiding questions. These can then provide a structure for investigating a geographical concept. For example, ‘The tallest buildings are located in the CBD’ or ‘The newer the housing area, the better the environment’.

Task: Learners are given examples of hypotheses from past papers and asked to suggest additional hypotheses.

Task: In pairs learners write hypotheses for each of the following: Distance from the centre to the urban fringe and
• amount of open space
• building height
• number of people
• number of vehicles
• cost of land
• type of land
• environmental quality.</td></tr>
<tr><td></td><td>Demonstrate an understanding of the different methods which can be used to collect primary and secondary data</td><td>Learners need to have some practical experience of fieldwork methodology.

Useful information on collecting data is on page 9 of Enquiry skills for geographical investigation and page 29 of the syllabus. Useful link: www.geography-fieldwork.org/gcse/urban/cbd/fieldwork/

Learners gather secondary data on their local town/city from: (I)
• maps
• photographs
• published data.

In small groups, learners research suitable recording sheets for one method of data collection per group:</td></tr>
</table>

Syllabus ref.	Learning objectives	Suggested teaching activities
		• pedestrian Count • traffic count • land-use transect • questionnaire • environmental quality survey • survey of building heights. Learners work in groups to choose which is the best recording sheet for each method. Whole class discussion to confirm. Whole class use the chosen recording sheets to collect primary data. This could be a local pilot study or a fieldtrip to a local town/city. Learners then produce a summary table similar to page 11 in Enquiry skills for geographical investigation **Formative assessment (F): Paper 02** Past paper Jun 2021: Q4(a)(ii)(iii), (c)(i)
	Explain and demonstrate a variety of data presentation skills	Learners need to know about the presentation techniques that can be used to present data. These include various types of graphs, maps and diagrams. There is a list of examples on page 30 of the syllabus. Most of these data presentation techniques are included in the teaching of the Themes. **Useful link:** www.geography-fieldwork.org/gcse/urban/cbd/data-presentation/ Learners complete some data presentation techniques using their own data or past paper materials (for example paper 02 Jun 2021: Q4(b)(i) and 4(c)(ii)).
	Apply geographical knowledge and understanding to analyse and interpret data	Learners need to be able to describe the patterns in data presented in graphs and tables of results. Page 14 in the Enquiry Skills for Geographical Investigation outlines the steps for geographical analysis. Learners are given a set of results or past paper materials (e.g., Paper 02 Jun 2021 Q4), and asked to describe trends in the findings and any anomalies that do not fit the trends.
	Use evidence and geographical concepts to reach a conclusion	Learners need to be able to use evidence from the data to make judgements on the validity of the original hypothesis or aims of the investigation. Information on how to make conclusions on page 15 of Enquiry skills for geographical investigation.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Learners practise drawing conclusions using past paper materials, then use the mark scheme to peer mark each other's work or self-assess their own answers. **Formative assessment (F): Paper 02** Paper 02 Jun 2021: Q4(b)(ii), (c)(iii)
	Evaluate the outcomes of a geographical investigation and make suggestions on how it could be improved	Learners need to be able to refer to the reliability of the data collected and give a critical evaluation of the data collection methods chosen. Learners use the table on page 11 of Enquiry Skills for Geographical Investigation which they completed earlier, to help them review the reliability of their data collection. Learners identify the problems they experienced in collecting data and identify what steps could be taken to overcome these.
1.3.4 Urban growth and change	To describe and explain the reasons for urbanisation	**Glossary of key terms:** *urbanisation* and *rural-urban migration* **(I)** **Geographical skill:** Learners use the pie-charts in Fig. 4.2 in the textbook page 269, to describe the trends in the percentage of the urban population in HICs and LICs. Provide learners with graphs to show urbanisation in countries (LICs, MICs and HICs). Through class discussion, describe LIC, MIC and HIC trends and explain the differences between the rates of growth in each. After discussion, learners write a paragraph to summarise the conclusions. **(I)** Give learners a map (or atlas) to locate the top ten cities in the world. **Question:** Describe the location of the 10 largest cities in the world, according to population size. **Class discussion:** Reasons for urbanisation in LICs/MICs and HICs. Learners make notes on the reasons for urbanisation, taking into account rural-urban migration and natural increase using pages 269–270 of the textbook. **Formative assessment (F): Paper 01** 2021 Specimen Paper: Q2a, 2bi and 2bii Past paper Jun 2021: Q2ci and 2cii
	To explain the problems associated with urban growth	Learners produce a mind-map to show the problems associated with urban growth – these must include: • unemployment • poor living conditions • informal settlements

Syllabus ref.	Learning objectives	Suggested teaching activities
		• traffic congestion • urban sprawl • environmental concerns. Learners can research this information independently or refer to the information on pages 270–276 of the textbook for guidance. **(I)** Up to date research should be encouraged and reference to specific places and facts/figures should also be encouraged. These mind-maps can be shared with the rest of the class. **Geographical skill:** Learners use the scatter graph, Fig. 4.5 in the textbook page 274, to describe the relationship between income (per capita) and car ownership. **Extension activity***:* Think Deeper question on page 274 of the textbook. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q2c 2021 Specimen Paper 01: Insert
	To explain the strategies used to overcome problems in urban areas	Individually, make a list of strategies that could be used to overcome the problems identified in the mind-map. **(I)** Share these with the class and include additional ideas if necessary, after group discussion. Learners write a report explaining these strategies and how they will help to overcome the problems associated with urban growth – the strategies that should be referred to are: • traffic management strategies, • housing policies • air pollution control. Consider the successes and limitations of each of these three policies. Up to date research should be encouraged but there is a great deal of information in the textbook (pages 279–283) if notes are required for guidance. **(I)**
	To explain the reasons for counter-urbanisation and the effects of counter-urbanisation	**Glossary of key terms:** *counter-urbanisation* **(I)** In pairs discuss the reasons for counter-urbanisation. Ensure that notes are made on this to keep for revision - reasons must refer to increasing: • affluence • mobility • environment (textbook pages 284–285). **(I)** Learners produce two information sheets – one to show the effects of counter-urbanisation on urban areas and one to show the effects of counter-urbanisation on rural areas. These information sheets should refer to both positive and

Syllabus ref.	Learning objectives	Suggested teaching activities
		negative effects and refer to physical changes, social changes and economic changes in regard to the urban and rural areas. Guidance is provided in the textbook and can be used if needed (285–286). Different colours of font should be used to show positive/negative effects and the information sheets should include pictures as well as the required information. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q2d
	Case study: A study of one rapidly growing city in Southeast Asia	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies One rapidly growing city has to be chosen in Southeast Asia (examples could include Singapore or Jakarta, Indonesia) and the following information has to be researched on this city: • Location of the city - learners produce a fully annotated map to show the location of the case study and write a description of this location. • Reasons for the rapid growth of the city – this will depend on the example chosen and may involve considering natural increase and rural-urban migration or perhaps internal migration and/or international migration. • The effect of this rapid growth on the people and the environment within the city – the effects must be positive and negative. The case study should be carefully selected to ensure that all parts of the syllabus requirements are covered. Specific case study material must be chosen, and specific detail included in the research. It is highly recommended that all learners use the same example to support each other. This case study could be presented as a fact file or on a PowerPoint, which learners could share with the class but keep for revision. **Extension activity:** Describe and explain the reasons for the rapid growth in the city and evaluate the impact of this growth on people and on the environment within the city. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q2d

Paper 2: Mapwork skills

<table>
<tr><th>Syllabus ref.</th><th>Learning objectives</th><th>Suggested teaching activities</th></tr>
<tr><td colspan="3">Textbook: Geography for Brunei Darussalam Year 9, Chapter 1 – Map Skills</td></tr>
<tr><td>Syllabus pages 26–27</td><td>Introduction</td><td>Learners need access to a variety of topological maps to develop and practise their map work skills. Map extracts are available with 2230/02 past papers such as:

<table><tr><th>Map location</th><th>Scale</th><th>Past paper 02</th></tr><tr><td>Norway</td><td>1:25 000</td><td>Jun 2021</td></tr><tr><td>Dominica</td><td>1:25 000</td><td>Specimen Paper 2021 (Map extract also used in Jun 2017)</td></tr><tr><td>Jamaica</td><td>1: 50 000</td><td>Nov 2019</td></tr></table>
Specimen/past papers, mark schemes and Principal Examiner Reports for Paper 02 are available to download at the Brunei School Support site https://cambridgeinternational.org/brunei

www.ordnancesurvey.co.uk/mapzone has resources, links, quizzes, and games, which include 1:25000 and 1:50 000 map extracts.

Throughout this scheme of work there will be many definitions that your learners should know. It is suggested that learners keep a map skills glossary of these key terms to help with revision.</td></tr>
<tr><td>Syllabus page 26</td><td>Use grid references</td><td>Learners use pages 3–6 of the textbook and/or the OS Map Zone website www.ordnancesurvey.co.uk/mapzone/map-skills/grid-references/page-one to learn how to use a co-ordinate reference system to give and read four-figure and six-figure grid-references to locate places.

In pairs, learners use the map extracts in the textbook, Figs. 1.7 (page 5) and 1.8 (page 6) to set a short quiz. Learners then swap their quiz with another pair and peer mark each other’s answers.

Map skills glossary: eastings, northings, four-figure grid reference, six-figure grid reference</td></tr>
<tr><td></td><td>Give directions</td><td>Learners use page 7 of the textbook to draw a sixteen-point compass which they use to identify directions (such as north, north-north-east,north-east, etc.,) from and to different points in the classroom.</td></tr>
</table>

Syllabus ref.	Learning objectives	Suggested teaching activities
		Learners use page 8 in the textbook, a map extract, and a protractor to give a bearing from grid north (0°) to and from different points on a map extract. Useful website and handout: www.ordnancesurvey.co.uk/mapzone/map-skills/compasses-and-directions/page-four www.ordnancesurvey.co.uk/mapzone/assets/doc/map-skills/Compasses-and-Directions-en.pdf **Map skills glossary:** *compass* and *bearing* **(I)**
	Measure horizontal distances	Learners use textbook pages 9–10, syllabus page 26 and/or the following website to learn how to measure straight line or curved distances: www.ordnancesurvey.co.uk/mapzone/map-skills/measuring-distance/page-one. Learners use two different map extracts (1:25 000 and 1:50 000) to practise measuring horizontal distances, both straight lines and curved. **Map skills glossary:** *curved-line distance* and *straight-line distance* **(I)**
	Calculate differences in height	In pairs, learners study a map extract and list the different ways that height is shown. Volunteers explain to the class what each of the key terms mean: *contours, contour interval, spot height* and *trigonometrical station.* Learners add the definitions to their map skills glossary. **(I)** Learners then use a map extract to write three exam questions on differences in height, using six-figure grid references to identify the locations. Examples of this type of exam question can be found on the following 2230/02 past papers: Past paper Jun 2021: Q1(c)(v) Specimen Paper 2021: Q1(b)(ii)
	Understand cross-sections	Learners study the textbook (page 12) and/or watch a video clip to learn how to construct a cross-section before attempting to draw their own using a map extract. https://youtu.be/y3hPFCW9f7M (video 1.40 mins) https://youtu.be/Viup5Tpd9r0 (video 3.23 mins) **Map skills glossary:** *cross section* **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
	Use scale to describe features	Learners in groups are given the same 1:25 000 or 1:50 000 map extract and a set of cards with a different named feature on each card. Learners use the map scale to describe the feature's size and shape in real terms. The groups then swap map extracts and cards and repeat the exercise. **Map skills glossary:** *scale* **(I)**
	Use a map key	Learners in groups are given a set of map extracts from different parts of the world and on different scales (1:25 000 and 1:50 000). After comparing the keys on the maps, they choose map symbols that are common to all the maps and produce a set of flashcards (using index cards) to test each other or the whole class. There is an example of a map key on page 5 of the textbook.
	Identify the difference between physical and human landscapes	**Map skills glossary:** Learners add definitions of the terms *physical landscape* and *human landscape* to their glossary, then study a map extract to identify both human and physical landscapes. **Note:** The remainder of this map skills scheme of work deals first with physical landscapes (landscape features, drainage features, coastal features) and then human landscapes (communications, settlements, and land use).
	Identify and describe physical landscape features	Learners use a map extract, for example the Dominica 1:25000 map extract from the 2230/02 Specimen Paper to study relief (height, slope and the shape of the land). Learners use small paper sticky tabs (or strips of sticky note) to add labels to the map of basic landscape features such as river valleys and uplands. Then, more tabs are added to identify a steep slope, a gentle slope and a flat area. **Extension activity:** Use page 11 in the textbook to label (with tabs) a convex and concave slope on the map extract. Learners use pages 12-13 in the textbook (Figs.1.20-1.23) to search for each of the following features on the map extract: conical hill, ridge, spur, valley. For each feature, record a four-figure grid reference to show its location and write a description of the feature using adjectives such as broad, flat, steep-sided, deeply cut, gently sloping. **Extension activity:** Research the following landscape features and draw a labelled sketch for each one: plateau, scarp, flood plain. Learners add a definition of these features to their map skills glossary. **Map skills glossary:** *relief, gentle slope, steep slope, ridge, spur, conical hill,* and *valley* **(I)**
Syllabus page 27	Describe drainage features	Learners use the map extracts shown in Fig 1.24, in the textbook page 14, to draw diagrams of dendritic, trellis and radial drainage patterns.

<table>
<tr><th>Syllabus ref.</th><th>Learning objectives</th><th>Suggested teaching activities</th></tr>
<tr><td></td><td></td><td>In pairs, learners use a map extract, for example the Dominica 1:25000 map extract from the 2230/02 specimen paper, to look for drainage features such as rivers, streams and lakes, and drainage patterns such as dendritic, trellis, radial.

Individually, learners write a description of the drainage of one area in the map extract, commenting on drainage features, drainage density, drainage pattern, and gradient or size of stream in relation to relief. (I)

Note: In Theme 2 subsection 2.2.1 learners study rivers and their valleys.

Learners use map extracts (see examples below) to describe the shape and form of river channels.
<table>
<tr><th>River</th><th>Map location</th><th>Scale</th><th>Specimen/past paper 02</th></tr>
<tr><td>Layou</td><td>Dominica</td><td>1:25 000</td><td>Specimen Paper 2021</td></tr>
<tr><td>Rio Grande</td><td>Jamaica</td><td>1:50 000</td><td>Nov 2019</td></tr>
</table></td></tr>
<tr><td></td><td>Describe physical coastal features</td><td>Learners use either a map extract (see below), or page 15 in the textbook, to draw a sketch map of an area of coastline (1:25 000 or 1:50 000) to show a variety of coastal features. Learners then, swap sketch maps and write a description of the coastline features shown on another learner’s sketch map.
<table>
<tr><th>Map location</th><th>Scale</th><th>Specimen/past paper 02</th></tr>
<tr><td>Dominica</td><td>1:25 000</td><td>Specimen Paper 2021</td></tr>
<tr><td>Jamaica</td><td>1:50 000</td><td>Nov 2019</td></tr>
<tr><td>Isle of Arran, UK</td><td>1:25 000</td><td>Jun 2019</td></tr>
</table>
Note: Learners study the characteristics of coastlines in Theme 2 sub-section 2.2.3.</td></tr>
<tr><td></td><td>Describe communication networks</td><td>Learners make brief notes on the communication networks shown on the map extracts Fig.1.30–1.32 in the textbook pages 16–17, in terms of their type and density and in relation to physical and human features.

Learners draw sketches to illustrate different street patterns: radial, grid and irregular, from page 17 of the textbook.

Map skills glossary: radial pattern, grid pattern and irregular pattern (I)</td></tr>
<tr><td></td><td>Describe settlement patterns and draw sketch maps illustrating these patterns</td><td>Learners use page 18 of their textbook to draw sketch diagrams of linear, nucleated and dispersed settlements.

Learners use the Dominica 1:25000 map extract, from the 2230/02 specimen paper, to complete a table to describe several settlements, for example: Mahaut, Bon Repos, Warner, St. Joseph, Layou and Tarou, in terms of size, shape (linear, nucleated, dispersed) and density.</td></tr>
</table>

Syllabus ref.	Learning objectives	Suggested teaching activities
		Extension activity: Learners draw sketch maps of one or more of the settlements from the Dominica map extract. **Map skills glossary:** *linear settlement, nucleated settlement,* and *dispersed settlement* **(I)**
	Describe urban morphology	Learners use a map extract, for example the Portsmouth map extract from past paper 02 Nov 2018, to describe the urban morphology (street lay out, housing density, amount of open space) of different areas of a town or city. **Map skills glossary:** *urban morphology* **(I)** **Formative assessment (F): Paper 02** Past Paper Nov 2018: Q1(g) Past Paper Nov 2018: Map Extract Past Paper Nov 2018: Insert
	Explain the site and growth of individual settlements	**Map skills glossary:** *site* and *situation* **(I)** **Note:** Learners have studied site and situation and growth of settlements in Theme 1, 1.3.1. Learners apply this knowledge and understanding using a map extract, for example by comparing the settlements of St. Joseph and of Layou on the 2021 Specimen Paper map extract of Dominica, in terms of site, situation and growth.
	Describe land use	Learners write a list of all the land use shown on either a 1:25000 or a 1:50 000 map extract. In pairs learners compare the land use shown on the 1:25 000 map with the 1:50 000 map. A quick quiz (answers on a sticky note) asking for the main land use in particular grid squares, using four-figure and six-figure grid references to reinforce this map skill. **Map skills glossary:** *land use* **(I)**
Specimen/past papers and mark schemes		
Specimen/past papers and mark schemes are available to download at https://cambridgeinternational.org/brunei **(F)** Specimen/past papers and mark schemes for Cambridge IGCSE Geography 0460 and Cambridge O Level Geography 2217 are available to download at www.cambridgeinternational.org/support **(F)**		

Paper 1: Theme 2 The natural environment

Syllabus ref.	Learning objectives	Suggested teaching activities
2.1 Plate tectonics, volcanoes and earthquakes		
Textbook: *Geography for Brunei Darussalam Year 9 – The Natural World*		
2.1.1 Plate tectonics	To understand the terms plate and plate boundary	**Glossary of key terms:** *structure of the earth, mantle, core, continental crust*, *oceanic crust, plate and plate boundary* **(I)** Introduce a structure of the earth diagram. Learners label each layer and complete a card-sorting activity to match names to descriptions of each layer. **(I)** Explain the two types of crust (continental and oceanic), the differences between them and how the crust is broken into plates. The types of crust and their differences can be summarised in a table. Page 39 of the textbook can be used for reference.
	Identify the major plates and their boundaries	Introduce a map of plate boundaries with the names of the plates shown in the syllabus clearly labelled on the map. Learners mark different countries on to the map focusing on countries with plate boundaries going through them – e.g., Iceland (I). Fig. 1.3 on page 40 shows these major plates.
	To understand how plates move	On the map that was completed above (showing names of plates), add arrows to show how the plates are moving. As a class, discuss the rates of plate movement and make notes on the theories of plate movement including mantle, convection currents, slab pull, ridge push. These can be researched and completed independently and learners can share this research with the rest of the class, who can add any pieces of information that they may have missed. (I) Page 41 of the textbook can be used if required.
	Describe and explain the different types of plate boundaries	In pairs, learners identify examples of places where plates are moving together, moving apart or moving side to side. This information can be recorded in a table. Build on this information to introduce different types of plate boundaries – constructive/divergent, destructive/convergent and conservative plate boundaries. Show animations/video clips for each type of plate boundary. www.s-cool.co.uk/gcse/geography/tectonics/revise-it/tectonic-plates **Geographical skill:** Learners annotate a block diagram of each of the three types of plate boundaries and write an explanation of what happens at each type of boundary. **(I)** Pages 41–45 of the textbook contains the relevant information.

Syllabus ref.	Learning objectives	Suggested teaching activities
	Identify the features associated with plate boundaries	Through class discussion, learners are made aware of the fact that there are different features linked to different plate boundaries. Learners research the following features which occur at plate boundaries. They explain how they are formed and identify which plate boundary they are associated with: (I) • Fold mountains • Mid-oceanic ridge • Subduction zone • Ocean trench **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q3ai, 3aii and 3aiii
2.1.2 Volcanoes	To understand the distribution of volcanoes	**Glossary of key terms:** *Pacific Ring of Fire* **(I)** As a class, study Fig. 2.3 on page 50 of the textbook and discuss where the location of the Pacific Ring of Fire would be. **Geographical skill:** Using the distribution map in the textbook page 50, learners write a paragraph describing the distribution of volcanoes and how this links with the direction of plate movement. **(I)**
	To understand the main types of volcanoes and the features of a volcano	**Glossary of key terms:** *volcano, strato-volcano/composite cone, shield volcano, crater, vent* and *magma chamber* **(I)** Learners work in small groups to reproduce a fully annotated diagram of a composite volcano. They are shown a diagram to work from for a short period of time and then work as a team to draw the diagram from memory with as much information as they can remember. Using a photograph, learners annotate a diagram of a composite volcano and write a description of the key features. **(I)** **Extension activity:** Learners construct a model of a composite volcano. **(I)** Show a photograph of a shield volcano – learners produce a labelled sketch of a shield volcano. **Question:** Describe how the shield volcano is different from the composite volcano. Explain the key reasons for this. **Extension activity:** Learners research examples of shield and composite volcanoes and their locations. **(I)** **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q3bi

Syllabus ref.	Learning objectives	Suggested teaching activities
	Describe and explain the factors affecting the impact of volcanoes	Textbook pages 61–66 (and additional research), learners write a paragraph on how each of the following factors affect the impact of volcanoes on people and the environment: • types of volcanic eruption • types of volcanic products • geographical location • prediction • evacuation plans. Through class discussion, explain the difference between short-term impacts and long-term impacts of volcanic eruptions. As a class, make a list of primary impacts and secondary impacts when discussing short-term impacts. Be fully aware of the differences between these. Refer to people and the economy when explaining long-term impacts. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q3bii
	To understand that volcanoes have also positive impacts	'Think, Pair, Share' activity – learners have one minute to try to think of any benefits of volcanic activity and record on a mind-map. Then they work with a partner and share ideas – take feedback from the pairs and discuss. Confirm with a whole class discussion using photographs to illustrate the benefits of volcanic activity in different parts of the world. Learners add further detail to their mind-maps in a different colour to record specific examples. Pages 69–71 of the textbook contain relevant information. Mind-maps must include reference to the following impacts: • soils • minerals • geothermal power • domestic heating • tourism • health spas. **(I)** **Extension activity:** Explain the benefits of living in volcanic regions. Encourage learners to develop their answers and include examples to support their ideas. **(I)** **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q3biii
	Case study: The study of one volcanic eruption and the impact it has had on people and the environment	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies One case study of a volcano anywhere in the world. The textbook refers to Mount St. Helens, USA and Mount Merapi, Indonesia (pages 72–74). One of these can certainly be used. The learner must produce a newspaper article to include: • An annotated map to show the location of the volcano and a written description of the volcano • A fact file – key facts about the volcano (e.g., type/material emitted from it) – provide place-specific detail

Syllabus ref.	Learning objectives	Suggested teaching activities
		• A plate boundary map – ensure plates are identified and named • A plate boundary diagram and explanation • A write-up of the impacts on people (short- and long-term) • A write-up of the impacts on the environment (short- and long-term) • The management strategies used to mitigate effects Ensure that there is a great deal of specific information relating to the volcano/facts and figures etc. **Formative assessment (F): Paper01** Specimen Paper 01: Q3c
2.1.3 Earthquakes	To understand the distribution of earthquakes	**Glossary of key terms:** *earthquake* and *fault line* **(I)** Provide learners with a map of the plate boundaries and the location of earthquakes. Ask learners to write a paragraph describing the distribution of the earthquakes. Mark on the direction of plate movements at the boundaries. Write another paragraph describing the distribution of earthquakes in relation to the types of plate boundary. Discuss the major fault lines (e.g., San Andreas fault) where earthquakes occur, and carry out additional research on these fault lines. **(I)** **Formative assessment (F): Paper 01** Past paper Jun 2021: Q3b
	To identify the main features of earthquakes and how to measure the magnitude and intensity	**Glossary of key terms:** *epicentre, focus, shock waves, aftershocks, tremors, tsunami, Richter scale* and *Mercalli scale* **(I)** Learners produce a simple diagram with labels to show the key features of an earthquake – the focus and the epicentre. Through class discussion recap on the terms added to the glossary: *shock waves, aftershocks, tremors* and *tsunami.* Provide a copy of the Richter scale, or use Page 86 from the textbook, and discuss the effects at each of the different readings on the scale. Write a summary of the Richter Scale to keep for revision. (I) **Extension activity:** Using the copy of the Richter Scale diagram and an earthquake trace from a seismograph, learners work in pairs to place cards describing earthquake events at appropriate points on the earthquake trace according to the Richter scale. Learners will need to explain and justify their decisions. Learners independently research the Mercalli Scale and produce a poster showing the effects of the earthquake from 1–12 along the scale. **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
		Extension question: Describe the difference between the two scales (Richter and Mercalli) and state the advantages and disadvantages of measuring earthquakes with each scale. (I)
	To learn the factors affecting the impact of earthquakes and tsunamis on people and the environment	**Geographical skill:** Learners use the data table Fig. 5.4 in the textbook page 87, to make a ranked list of the earthquakes in order of magnitude. Textbook pages 87–89, learners write bullet points on the factors affecting the impacts of earthquakes and tsunamis on people and the environment. Use the following headings for guidance: • distance from the epicentre • depth of focus • type of soil • population density • time of day. Class discussion, recap on the differences between short-term impacts and long-term impacts and primary and secondary impacts from the volcano's section and relate these to earthquakes. Notes can be made on this discussion. Learners use textbook pages 90–91 and 94–95, to produce a colourful and fully-annotated poster to identify the different impacts of earthquakes – learners must refer to short-term and long-term impacts and within short term, primary and secondary impacts. When referring to long-term impacts, reference must be made to people and the economy. **Geographical skill:** Learners use the photographs on page 93 of the textbook to describe the destruction caused by a tsunami. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q3ai, 3aii and 3aiii Past paper Jun 2021: Insert
	The different strategies used to reduce the impact of earthquakes and how effective these strategies have been.	Explain why it is so important that different strategies are developed to reduce the impact of earthquakes. As a class, come up with a list of different strategies that may be used. Learners use pages 100–107 of the textbook to produce an information leaflet (which could be completed on the computer so that photographs can be inserted whenever it is appropriate to do so) to explain the strategies that can be used to reduce the impacts of earthquakes under the following headings: • building and infrastructure design • education • monitoring • warning systems

Syllabus ref.	Learning objectives	Suggested teaching activities
		• drills. For extra guidance during this task, show learners photographs of examples of how buildings and structures have been adapted in different parts of the world to withstand earthquakes to increase learners' understanding of this applied knowledge. The class can also practise an earthquake drill to fully understand how to act and behave during an earthquake event. **Question:** Evaluate the effectiveness of the strategies used to reduce the impact of earthquakes. You can refer to pages 109–111 of the textbook for guidance. **(I)** **Formative assessment (F): Paper 01** Past paper Jun 2021: Q3ci and 3cii
	Case study: Study one earthquake and its impact on people and the environment	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies One case study of a major earthquake (anywhere in the world) should be chosen by the learner. The textbook refers to the Bam earthquake, Iran, which could be used. Learners must produce a newspaper article to include: • An annotated map to show the location of the earthquake and description of the earthquake – refer to the epicentre • A fact file – key facts about the earthquake – provide place-specific detail • A plate boundary map – ensure plates are identified and named • A plate boundary diagram and explanation • A write-up of the impacts on people (short- and long-term) • A write-up of the impact on the environment (short- and long-term) • The management strategies used to mitigate effects Ensure that there is a great deal of specific information relating to the earthquake/facts and figures etc. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q3d Past paper Jun 2021: Insert
2.2 Rivers and coasts		
2.2.1 River systems	To understand the features of rivers and their valleys	Study the figures on page 124 of the textbook which show the features of rivers and their valleys and through class discussion identify the different stages of a river – upper, middle and lower courses. **Geographical skill:** Learners produce a sketch of the photograph of a river in its upper course from Fig. 1.18 on page 125 of the textbook. Learners label the characteristic features of the river in the upper course.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Textbook pages 125–127, learners describe and explain how the width, depth, gradient and velocity changes as a river flows downstream. **(I)** Using annotated sketches, describe and explain how the characteristics of a valley and the shape of the cross-section changes in the upper, middle and lower courses. **(I)**
2.2.2 River processes and landforms	To understand the processes of river erosion, transportation and deposition	**Glossary of key terms:** *erosion, transportation*, *deposition* and *load of a river* **(I)** Learners illustrate the processes of erosion, transportation and deposition by drawing a simple cartoon to show the processes in a familiar context. **(I)** Learners complete card-sorting activity to define the four processes of erosion: • Hydraulic action • Corrasion/abrasion • Attrition • Corrosion/solution Notes must be added so that learners can use them for revision. If additional notes are required, pages 135–136 of the textbook can be used. As a class, discuss the difference between vertical erosion and lateral erosion and make notes on this. (Page 135) **Geographical skill:** Learners draw and fully-annotate a sketch diagram to show the four types of transportation (pages 136–137 of the textbook) and the link to the size of the material transported. **(I)** • Traction • Saltation • Suspension • Solution Define *load of a river* and study photographs to show how the size and shape of load will change downstream. Learners describe changes and work in pairs to suggest reasons for this. In pairs, discuss why and under what conditions a river might deposit material and note down ideas – discuss and confirm in whole class discussion. (Pages 137–138 of the textbook.) **Extension research:** Mark on a blank map of the river course where erosion, transportation and deposition will occur. **(I)**
	What are the landforms which	**Glossary of key terms:** *waterfalls, gorges, meanders, oxbow lakes, levees, floodplains* and *deltas* **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
	result from the work of river processes?	Learners work in pairs and divide up the task equally to produce a presentation to describe and explain the formation of the river landforms listed above. For each river landform, there should be: • **Geographical skill:** A fully-labelled photograph and a labelled sketch map of this photograph • A named example (if appropriate) • Annotated diagrams and an explanation to show how the feature is formed and developed overtime. **(I)** Pages 142–155 of the textbook can be used for reference and the following link may also be helpful: www.geography.learnontheinternet.co.uk/topics/river.html **Geographical skill:** Learners interpret the satellite image in Fig. 3.17 on page 150 of the textbook by describing the main features of the river shown. Learners should refer to page 34 on how to use a grid to divide and describe the position of these features.
2.2.3 Geographical investigation of rivers	Introduction	Read Section C: Geographical Investigation on pages 28–30 of the syllabus. Learners need to know the stages involved in geographical investigations of rivers, such as identifying aims and hypotheses, using enquiry skills to collect data, presentation techniques to display data, making analyses of data and reaching conclusions. More information on this is available on page 5 of Enquiry skills for geographical investigation If possible, learners carry out a geographical investigation on a local river. Topics for investigation could include: • width • depth • cross-sectional area • velocity • gradient • bedload • river features. Useful teaching resource: Specimen Paper 02 Q4 investigates how the river's width, depth and bedload change downstream. Other examples of geographical investigation past paper materials are available on the **School Support Hub** www.cambridgeinternational.org/supportfor Cambridge IGCSE Geography 0460 Paper 4. These provide useful teaching resources.

<table>
<tr><th>Syllabus ref.</th><th>Learning objectives</th><th>Suggested teaching activities</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Cambridge IGCSE Geography 0460: past papers</th><th>Topic</th></tr>
<tr><td>0460/42 Mar 2021</td><td>• Velocity
• Angle of slope/gradient</td></tr>
<tr><td>0460/41 Nov 2020</td><td>• Velocity
• Gradient</td></tr>
<tr><td>0460/42 Jun 2019</td><td>• Wetted perimeter
• Velocity</td></tr>
<tr><td>0460/42 Nov 2018</td><td>• Velocity
• Bedload</td></tr>
<tr><td>0460/43 Nov 2018</td><td>• Cross-sectional area
• Sinuosity</td></tr>
<tr><td>0460/42 Jun 2018</td><td>• Gradient
• Bedload</td></tr>
<tr><td>0460/42 Mar 2018</td><td>• Cross-sectional area
• Bedload</td></tr>
</table>
The Brunei School Support site https://cambridgeinternational.org/brunei contains resources such as specimen papers, mark schemes and the booklet Enquiry Skills Guide for Geographical Investigations. The following link could be used for virtual fieldwork: https://schools.theriverstrust.org/apps/9c103d0a46374a5a93eb07bedfac4215/explore
</td></tr>
<tr><td></td><td>Identify a suitable geographical question for investigation and</td><td>Use the relevant topic hypotheses to form statements and guiding questions. These can then provide a structure for investigating a geographical concept. For example, ‘River velocity becomes faster as distance downstream increase’ or ‘The angle of slope of the riverbed becomes less as distance downstream increases.</td></tr>
</table>

Syllabus ref.	Learning objectives	Suggested teaching activities
	outline the aims of the investigation	There is information on identifying aims and hypotheses for a river investigation on pages 6 and 8 of Enquiry skills for geographical investigation. Learners are shown a copy of the Bradshaw Model www.bbc.co.uk/bitesize/guides/zcjprdm/revision/5 and write a hypothesis for each variable.
	Demonstrate an understanding of the different methods which can be used to collect primary and secondary data	Learners need to have some practical experience of river fieldwork methodology, even if it is in the classroom. To collect data in a sound and logical way learners need to be aware of: • sampling • pilot surveys • health and safety There is information on collecting river data on pages 10, 12 and 21 of Enquiry skills for geographical investigation***.*** **Useful links:** www.internetgeography.net/fieldwork/river-fieldwork-techniques/ www.geography-fieldwork.org/gcse/rivers/river-processes/fieldwork/ Learners collect secondary data on their local river from the internet: **(I)** • maps • photographs • published data. Learners work in groups to research one method of data collection per group. There are numerous 'YouTube' clips which will help them learn how to describe their river fieldwork method: • width and depth • velocity • gradient • bed load – size and shape. Each group presents to the whole class a demonstration of how to collect river data including the equipment used and a recording sheet. The rest of the class complete a summary table which includes method, equipment needed, description of technique and potential problems.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Formative assessment (F): Paper 02 2021 Specimen Paper 02: Q4(a), 4(b), 4(d)(ii) 2021 Specimen Paper 02: Insert
	Explain and demonstrate a variety of data presentation skills	Learners need to know about the presentation techniques that can be used to present river data. These include various types of graphs, maps and diagrams. There is information on presenting river data on page 13 of Enquiry skills for geographical investigation and a general list of data presentation techniques on page 30 of the 2230 syllabus. Learners complete a variety of river data presentation techniques from past paper materials, for example Specimen Paper 02: Q4(c)(i) and 4(d)(ii). Learners complete worksheet E and worksheet H from pages 23 and 26 of Enquiry skills for geographical investigation **Extension task:** This website contains river data for 6 sites along the River Goyt that learners can present using various techniques: www.geographyalltheway.com/igcse_geography/gcse-rivers/igcse_river_fieldwork.htm
	Apply geographical knowledge and understanding to analyse and interpret data	Learners need to be able to describe the patterns in river data presented in graphs and tables of results. Page 14 in Enquiry skills for geographical investigation outlines the steps for geographical analysis. Learners are given a set of results or past paper materials, for example Specimen Paper 02 Q4, and asked to describe trends in the findings and any anomalies that do not fit the trends.
	Use evidence and geographical concepts to reach a conclusion	For information on how to make conclusions see page 15 of Enquiry skills for geographical investigation. Learners can practise drawing conclusions using past paper materials, for example Specimen Paper 02: Q4(c)(ii), 4(d)(iii) and Worksheet J from page 28 of Enquiry skills for geographical investigation then use the mark schemes to peer mark each other's work or self-assess their own answers.
	Evaluate the outcomes of a geographical investigation and make suggestions on how it could be improved	Learners need to be able to refer to the reliability of the river data collected and give a critical evaluation of the data collection methods chosen. Learners use the table they completed earlier on river fieldwork techniques to help them review the reliability of the data collection methods. Learners identify the problems they might experience in collecting river data and identify what steps could be taken to overcome these.
2.2.4 Coastal processes and landforms	What are the processes of coastal erosion,	**Glossary of key terms:** *longshore drift* **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
	transportation and deposition	Through class discussion, recap on erosion from rivers and the four types of river erosion (hydraulic action, corrasion/abrasion, attrition, corrosion/solution) – place these erosion types in the context of the coast. Produce mind-maps to show these four types of coastal erosion. Through class discussion, inform learners that although the four types of erosion are the same for rivers and coasts, this is not the same for transportation. Introduce the concept of longshore drift. Learners sequence diagrams to show how the longshore drift process operates. Add descriptions to each stage and write a short explanation of the process. **(I)** Use page 166 of the textbook for guidance. Discuss deposition on the coast as a class and use page 167 of the textbook for guidance. This may be read through together. Bullet points can be made on this. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q4c
	How do coastal processes create landforms?	**Glossary of key terms:** *headlands, bays, caves, arches, stacks, stumps, cliffs, wave-cut platforms, beaches, spits* and *bars* **(I)** **Geographical skill:** Learners describe the appearance of the coastline in the aerial photograph in Fig. 5.4 on page 172 of the textbook. Learners work in pairs and divide up the task equally to produce a presentation to describe and explain the formation of the coastal landforms listed above this box. Pages 170 – 180 of the textbook can be used for reference. For each landform there should be: • **Geographical skill:** A fully- labelled photograph and a labelled sketch map of this photograph • A named example of the landform (if appropriate) • an explanation of how the feature is formed: erosion, deposition or deposition and transportation • annotated diagrams and an explanation to show how the feature is formed and developed overtime. **(I)** **Geographical skill:** Learners draw a field sketch from the photograph in Fig. 5.15 on page 178 of the textbook by following the instructions in the green activity box underneath the photograph. **Geographical skill:** Learners use the topographic map in Fig. 5.18 on page 180 of the textbook to identify and describe the coastal features. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q4b
2.2.5 Flooding	To understand the causes of river and coastal flooding	**Glossary of key terms:** *flooding* **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
		Class discussion with learners to explain that there are very different causes of river flooding and coastal flooding and that these should not be mixed up. In pairs make a list of reasons to suggest why a river may flood and then divide these up into physical factors and human factors. Refer to pages 184–186 of the textbook for guidance in order to make notes on the physical causes of river flooding: • excessive/monsoon rainfall • sedimentation • snowmelt • floodplains. Repeat the activity for human causes of river flooding – refer to pages 187–189 of the textbook to make the notes on the human causes: • deforestation • urbanisation • river modification. In pairs, draw a mind-map to illustrate the factors affecting coastal flooding including: • typhoons • storm surges • severe storms • relief of the coastal area. Learners should refer to page 191 of the textbook and complete some additional research. All learners should get a copy of this for revision. **Geographical skill:** Learners use the isoline map in Fig. 6.2 on page 184 of the textbook to describe the pattern of rainfall shown. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q4d
	To understand the impact of flooding on people and the environment	Show photographs to learners to illustrate the impact of flooding on people and the environment and discuss as a class the consequences that this flooding has on: • human lives and health • property • infrastructure

Syllabus ref.	Learning objectives	Suggested teaching activities
		• economy • food supply. Use pages 191–193 of the textbook to make bullet point notes on this. **(I)** **Extension activity:** Learners write headlines and short newspaper articles to show the impact of flooding on people and the environment using the photographs as a stimulus. **(I)**
	To be aware of the different strategies used to reduce the impact of river flooding and their effectiveness	In a class discussion, introduce ways in which rivers can be managed (this could be a card-sorting activity) focusing on: • modifying river channels • modifying catchment area • flood preparedness. For each of the three strategies listed above, learners write a short description of how each reduces the flooding hazard with possible advantages and disadvantages of each strategy. Pages 195 – 198 of the textbook contain this information. **(I)** **Extension activity:** Provide learners with the following scenario: information on a river that has flooded and a budget to spend to reduce the flooding from occurring in the future. Learners must then decide how the river hazard is going to be managed, write a report and read this to the class. Through class discussion, learners can agree or disagree with how the budget was spent. Discuss how you could measure the effectiveness of the strategies used to reduce the impact of river flooding as a class. **Question:** Which strategy is the most effective when used to reduce the impact of river flooding? Give reasons for your answer.

	Case study: A river flood event and its impact on people and the environment	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies
		
		Learners should study one river flood event and focus on its impact on people and the environment. This flood event can be in an LIC/MIC or HIC. (Examples in the textbook refer to Bangladesh and the USA – pages 199–203.)
		
		Learners create the following:
		• An annotated map to show location of the flood event and a written description of the location
		• A fact file – containing key facts about the flood event:
		  ○ place-specific detail
		  ○ the causes of the flood event – physical or human factors of a combination of both?
		  ○ a write-up of the impacts on people (short and long term)
		  ○ a write-up of the impacts on the environment (short and long term)

Syllabus ref.	Learning objectives	Suggested teaching activities
		○ the management strategies used to mitigate effects. Decide on the case study of the flood event and provide stimulus material to learners before independent research begins. This is not a case study of a country but a flood event within a country – in other words affecting one part of the country. This case study can be produced in any format (word document/PowerPoint/paper). **(I)**
2.3 Weathering, climate and natural vegetation		
This is a new topic from 2022 and is not in the textbook. There is useful information relating to this section on the here: www.geographyalltheway.com/igcse_geography/gcse-weathering/weathering_erosion.htm		
2.3.1 Weathering	To learn the different types of weathering	**Glossary of key terms:** *physical weathering, chemical weathering* and *biological weathering* **(I)** Present to learners a PowerPoint to show the different types of weathering: • freeze-thaw • exfoliation • hydrolysis • carbonation • vegetation root action • animal burrowing. On the PowerPoint there should be photographs to show the different weathering types with notes to explain each type of weathering. Learners make sketches on the different weathering types, classify these into either physical, chemical or biological weathering and use the PowerPoint to make notes on these types. Learners need to have all this information for their revision. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q4a and 4b Past paper Jun 2021: Q4ai and 4aii
	To understand the factors affecting the type and rate of weathering	As a class, produce a mind-map to show the factors which affect the type of weathering and the rate of weathering: • temperature • rainfall • geology • vegetation • relief.

Syllabus ref.	Learning objectives	Suggested teaching activities
		This will need a lot of input from you (through photographs, written extracts, PowerPoint, etc.) before learners begin their own independent research which they can produce in any format. **(I)** **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q4ci and 4cii 2021 Specimen Paper 01: Insert Past paper Jun 2021: Q4aiii
2.3.2 Tropical equatorial and tropical monsoon climates	To understand the distribution of tropical equatorial and tropical monsoon climates	**Glossary of key terms:** *tropical equatorial climate* and *tropical monsoon climate* **(I)** **Geographical skill:** Use Fig. 2.2 on page 228 of the textbook to describe the distribution of tropical equatorial and tropical monsoon climates. **(I)** As a class, read through the information on page 228 to ensure that the learner has all the information on the location of these two climates and add additional notes if required.
	To describe and explain the characteristics of tropical equatorial and tropical monsoon climates	Working in groups, and using resources provided by the teacher or the textbook pages 230–233, learners produce two fact files (one for the tropical equatorial climate and one for the tropical monsoon climate) to show the characteristics of both climates and the factors influencing these characteristics. The characteristics will include: • temperature – mean annual temperature, maximum and minimum temperature and the temperature range • rainfall – total annual rainfall and seasonal variation in rainfall. The factors that have to be explained are: • latitude • cloud cover • air pressure zones and winds • altitude. This can be completed on a PowerPoint or on paper or indeed any other appropriate format. **Geographical skill:** Provide learners with rainfall and temperature data for two locations – one for each of the climate types – and learners draw the climate graph and fully annotate it to show the characteristics of each type of climate. Learners may need a reminder on how to draw a climate graph with rainfall shown as a bar graph and temperature shown as a line graph. **(I)** Page 234 of the textbook will help to recap climate graphs. **Geographical skill:** Label these two locations on a map of the world and explain the reasons for the variation in rainfall and temperature within these two different areas. **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
	To understand the climate of Brunei	**Geographical skill:** Learners use the data from the following website https://en.climate-data.org/asia/brunei-234/ to construct a climate graph for different locations in Brunei. Learners work in groups of five and compare their completed graphs. Learners design a poster showing the climate of Brunei – learners can use their own knowledge and information from pages 239–242 to produce this poster. The following aspects of the climate must be referred to: • temperature • rainfall • winds • relative humidity • cloud cover. **Extension activity:** Write a report to show how the climatic features change over the course of a year in Brunei. **(I)**
2.3.3 Typhoons	To understand the causes of typhoons	**Glossary of key terms:** *typhoons*, *low pressure areas* and *eye of the typhoon* **(I)** **Geographical skill:** Learners use a satellite image of a recent typhoon in Southeast Asia to label its main features. Read through the textbook, or any other material provided, and produce a mind-map on the factors leading to the formation of typhoons (Pages 246–248). The following factors must be referred to: • latitudes 6–20 degrees N and S of the Equator • tropical seas and oceans • winds • low pressure areas • high humidity.
	To describe the sequence of weather associated with typhoons	Produce a series of labelled diagrams to show the sequence of weather that does occur with typhoons and also a written description of this weather sequence: • heavy rain • strong winds • dense clouds • thunder • lightning. **Extension work:** Activity in the green box on page 250.
	To understand the impacts of typhoons	Class discussion to highlight that the impacts of typhoons include the following: • flooding

Syllabus ref.	Learning objectives	Suggested teaching activities
	on people and the environment	• storm surges • landslides • damage to infrastructure. Textbook pages 250–251 can be referred to. Show photographs to learners of the devastation caused and discuss the short- and long-term impacts of the typhoon. Learners write a newspaper article to describe and explain the impact of typhoons on human lives and health. Specific examples should be referred to. This can be based upon independent research or pages 250–256 of the textbook.
	Case study: A major typhoon event and the impact on people and the environment	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies Learners should study one major typhoon event and its impact on people and the environment. This typhoon event can be in a LIC/MIC or HIC. Learners must focus on the following: • An annotated map to show the location of the typhoon and description of the area • A fact file – key facts about the typhoon event – provide place-specific detail • The causes of the typhoon • A write-up of the impacts on people (short and long term) • A write-up of the impacts on the environment (short and long term) • The management strategies used to mitigate effects Decide on the case study of the typhoon event (example of Typhoon Morakot in Taiwan in the textbook can be used, pages 254–256) and provide stimulus material to learners before independent research begins. This case study can be produced in any format (Word document/PowerPoint/paper). **(I)**
2.3.4 Natural vegetation of tropical rainforests and mangroves	To describe the distribution of tropical rainforests and mangroves	**Glossary of key terms:** *tropical rainforests* and *mangroves* **(I)** **Geographical skill:** Learners use the world map shown in Fig. 4.2 on page 260 of the textbook to plot the distribution of the tropical rainforest and mangroves onto copies of an outline world map. **Question:** Describe the distribution of tropical rainforests and mangroves using the map that you have completed. **(I)** The information on pages 260–261 should also be studied together in class and additional notes made on the distribution if required.
	What are the characteristics of tropical rainforests and mangroves?	**Glossary of key terms:** *adaptations* **(I)** On a table describe the characteristics of the vegetation in both areas. General comments are important but there also must be reference to the structure of both the tropical rainforests and mangroves. Page 262–263 of the textbook will be useful here.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Sketch pictures or print off photographs to show the adaptations of the vegetation in both locations. These sketches/photographs must be fully annotated. Particular emphasis must be given to the adaptations relating to climate and soils. **Extension activity:** What are the similarities and differences between the tropical rainforest and the tropical mangrove forest? Refer to location, the characteristics of the vegetation and the adaptations to the environment. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q4d
2.3.5 The tropical rainforest as a resource	To explain the values of the tropical rainforest as a resource	In a class discussion, highlight the importance of tropical rainforests as a resource and make a list together of the resources that it provides. Split up ideas into socio-economic resources and ecological resources. Before this can be done, you may need to recap on the meaning of the terms socio-economic and ecological. Textbook pages 275–278, learners make bullet points on each of the headings shown in the syllabus for both socio-economic and ecological resources. These are: **Socio-economic resource** • Timber • Food • Medicine • Tourism **Ecological resource** • Reducing soil erosion • Reducing flooding • Acting as the “green lungs of the Earth” • **Geographical skill:** Learners use Fig. 5.7 on page 277 of the textbook to construct a flow diagram to show how trees and plants act as the “green lungs of the Earth.” • Regulating climate • Providing natural habitats **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q4e
	To understand the causes and effects	Learners analyse headlines and other resources such as photographs, statistics, clips and other sources to mind-map the causes of rainforest deforestation. The website below may also be useful: http://kids.mongabay.com/lesson_plans/lisa_algee/deforestation.html

Syllabus ref.	Learning objectives	Suggested teaching activities
	of deforestation of the tropical rainforest	Learners write a short newspaper report which includes maps, clearance rates, photographs and reasons for clearance in the tropical rainforests. Provide place-specific reference. Discuss the reasons why the deforestation continues. **(I)** Whole class discussion to ensure that all causes listed on the syllabus have been included. (Pages 282 – 285 of the textbook) Provide a card-sorting activity on the effects of clearance Learners sort these into groups, identifying local and global effects, then the effects on people and finally on the environment. Ensure that all the effects of deforestation in the syllabus are included. (Pages 285 – 288) **If you feel that more notes are required, the textbook will provide all the necessary guidance.** **Extension work:** Write a letter to the editor of a geographical magazine to explain why rainforest clearance should stop immediately. **(I)** **Formative assessment (F): Paper 2230/01** 2021 Specimen Paper 01: Q4f
	To describe and explain the strategies used to conserve and manage tropical rainforests and evaluate their success	Learners research and mind-map ways to manage rainforests and write their findings up as a report for a geographical journal. Include examples and photographs to illustrate the strategies being studied. Strategies must refer to those listed on the syllabus such as: **(I)** • reforestation • controlled and selective logging • protected areas and ecotourism • fire control • education. Useful information can be found in the textbook on pages 289 – 294 and on the following website: www.wwf.org.uk/what_we_do/forests/ **Question:** How effective have these strategies been in conserving and managing tropical rainforests? Refer to specific examples in your answer.
	Case study: Study one area of tropical rainforest and demonstrate how it is being managed	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies Learners study one area of tropical rainforest and look at how it is being managed. You should choose the area to ensure that all learners are supported. Newspaper articles/photographs should be shown to the class with general discussion before the independent research task takes place. Kalimantan, Indonesia is the case study in the textbook

Syllabus ref.	Learning objectives	Suggested teaching activities
		and you may decide to use this area. The following website contains very useful and relevant information on Kalimantan: https://wwf.panda.org/discover/knowledge_hub/where_we_work/borneo_forests/borneo_deforestation/? Learners must: • record the specific location – draw an annotated sketch map and include a written description of the area • describe the characteristics of the flora (vegetation) and fauna (wildlife) • describe the resources that are used from this part of the tropical rainforest • describe and explain the threats to the rainforest for both the people and the environment • discuss the management strategies that are used to conserve this area of the tropical rainforest. This can be produced in any format and should include photographs, maps and up-to-date factual material regarding the example chosen.

Paper 1: Theme 3 Economic development

Syllabus ref.	Learning objectives	Suggested teaching activities
3.1 Industry		
Textbook: *Geography for Brunei Darussalam Year 11 – Industry, Energy and Tourism* In this section there will be a lot of information required on Brunei. Useful websites for up-to-date information on Brunei are: www.cia.gov/the-world-factbook/countries/brunei/ https://data.worldbank.org/country/brunei-darussalam?view=chart https://borneobulletinyearbook.com.bn/ www.deps.gov.bn/SitePages/National%20Statistics.aspx		
3.1.1 Classification of industry	Classifying industry into different sectors	**Glossary of key terms:** *primary, secondary, tertiary* and *quaternary* **(I)** Complete a 'heads and tails' game (matching key words and definitions) activity to define the primary, secondary, tertiary and quaternary sectors. Ask the class which job they would like to do when they leave school. The class then decide together which of the four sectors each job is in, and a tally is kept. A graph can be drawn to display this information – the class can decide on the most appropriate graph to use. **Question:** Using the information from the tally, name the most popular sector of employment for the class in the future? Make some suggestions as to why this might be the most popular sector. **(I)** **Geographical skill:** Learners use the data for Australia and Sierra Leone in Fig. 1.6 on page 8 of the textbook to construct a divided bar. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q5bi and 5bii
	To understand the different employment structures and why they change overtime	**Glossary of key terms:** *employment structure* **(I)** **Useful link:** www.geography.learnontheinternet.co.uk/topics/empstruct.html Select one HIC and provides the current employment structure. Discuss the employment structure as a class and provide learners with data tables and pie charts or divided bar charts for this same country with different employment structures over time. Repeat this activity for an LIC / MIC.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Question: Describe the changes in the employment structure of the LIC / MIC and HIC over time and explain the changes. Make links back to the indicators of development to illustrate and explain. **(I)** **Extension activity:** Learners work in pairs to research other examples of employment structures for LICs / MICs and HICs. In pairs, learners describe the differences and try and explain these differences based on their knowledge of development gained so far. Learners in their pairs write up as a short presentation which they can share with their peers. Pages 3–9 can be used for guidance. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q5ai, 5aii and 5aiii
	To understand the employment stricture in Brunei	Current Brunei data can be found on the World Bank or the CIA factbook websites: https://databank.worldbank.org/source/world-development-indicators/preview/on www.cia.gov/the-world-factbook/countries/brunei/#economy Using textbook page 13–14 and up to date figures, learners write a short report describing and explaining the employment structure in Brunei. **(I)** **Question:** How does the current employment structure in Brunei compare with the tally that was completed by the class for future employment by learners? This question can be answered through class discussion. **Extension question:** Do you think the employment structure of Brunei will change in the future? And if so, how do you think this will change? **(I)** **Geographical skill:** In pairs learners use the data for Brunei in Fig. 1.15 on page 14 of the textbook to construct a pie chart for one country each, then compare the employment structures of the two countries.
3.1.2 Location of secondary industry	To know the factors affecting the location of secondary industry	**Glossary of key terms:** *raw materials, capital, energy, market, energy* and *Multinational corporations (MNCs)* **(I)** Through class discussion, produce a mind-map to describe and explain the factors affecting the location of secondary industry. Refer to pages 16–19 of the textbook for guidance. Use the factors listed below: • raw materials • capital • energy • market • labour • land • transport

Syllabus ref.	Learning objectives	Suggested teaching activities
		• government policy • technology • multinational corporations (MNCs). **Extension question:** Which factors are the most important in the location of secondary industries today? Do you think this has changed over time? **(I)** **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q5ci and 5cii 2021 Specimen Paper 01: Insert
	To know the factors affecting the development of secondary industry in Brunei	Learners complete a research project, with initial guidance from you to explain the factors affecting the development of secondary industry, specifically in Brunei. This guidance may have to be quite extensive and detail should be gathered from the list of websites relating to Brunei at the beginning of this section, but learners can also use pages 23–24 of the textbook for additional guidance. Local newspaper articles and research on the internet can be used to produce this study. It must contain specific detail and refer to examples. **(I)** Factors that affect the development of secondary industry in Brunei are listed below and must be referred to in the research project: • designated industrial sites for foreign direct investment (FDI) • foreign ownership • tax incentives • legal and regulatory framework • infrastructure • Free Trade Agreements. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q5d
	Case study: An industrial zone or factory in Brunei	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies Leading on from the research project above and the general factors involved in the development of secondary industry, learners must study one industrial zone or factory in Brunei. This can be an industrial zone such as Sungai Liang Industrial Park or Pulau Muara Besar Industrial Park or a named factory such as Brunei Methanol Company, Brunei LNG, Golden Corporation fish processing plant. The following bullet points must be part of the case study: • **Geographical skill:** Learners do a search of their chosen study location in Google Maps. Then, draw a sketch map of the industrial zone or location of the factory. On the map, they mark on the main industries and major roads that serve the industrial zone or factory. They then provide a written description of the area.

Syllabus ref.	Learning objectives	Suggested teaching activities
		• The nature of the industry. • The advantages of the location for secondary industry. This can be presented in a variety of ways – PowerPoint, leaflet, Word document or on paper. These links may be helpful and give guidance to the teacher/learner: **Sungai Liang Industrial Park** https://en.wikipedia.org/wiki/Sungai_Liang www.dare.gov.bn/land/Sungai-Liang-Industrial-Park-%28SPARK%29 www.bruneiembassy.org/investment-opportunities-c.html **Pulau Muara Besar Industrial Park** www.dare.gov.bn/land/Pulau-Muara-Besar-Industrial-Park www.bruneiembassy.org/investment-opportunities-c.html https://thescoop.co/2019/03/01/hengyi-refinery-to-be-operational-by-end-of-2019/ www.youtube.com/watch?v=2WZJMQEXHEw
3.1.3 Industry and the environment	To understand the causes of industrial pollution	Textbook pages 54–62, learners read through the information as a class and make bullet point notes on the causes of industrial pollution. The causes of industrial pollution on the following elements must be referred to: • air • water • visual • noise. Remember that this section of the syllabus is only focusing on the *causes* of industrial pollution – so only refer to the causes when reading through these sections in the textbook.
	To understand the impact of industry on the environment	**Glossary of key terms:** *smog, acid rain* and *effluent* **(I)** Using the same pages of the textbook, produce notes on the impacts of industry on the environment. The following impacts must be referred to: • smog • acid rain can be linked to air pollution • effluent can be linked to water pollution. This time the focus is on the *impacts* of industry on the environment and the relevant points should be extracted from the textbook.

Syllabus ref.	Learning objectives	Suggested teaching activities
	To identify the strategies used to reduce the impact on the environment and their success	Learners read through pages 63–67 of the textbook and discuss the strategies used – think about those strategies that would be the most effective/the least effective, etc., and give reasons for these ideas. This can be written in a paragraph or just discussed as a group. Produce a poster to show all the different strategies that can be used to reduce the impact of industry on the environment. Use the strategies listed below to include on the poster: • legislation • green taxes • incentives • pollution permits • Pollution control boards • monitoring and reporting • cleaner fuels • cleaner production • emission control • recycling. This should be very colourful but also contain all the required factual information. **Question:** How successful are the strategies used to reduce the impact of industry on the environment? Are any strategies more successful than others? Give reasons for your answer. **(I)**
3.2 Energy		
3.2.1 Energy production and consumption	What are the main features of world energy production and consumption?	**Glossary of key terms:** *hydroelectric power (HEP), nuclear power*, *solar, biofuels, thermal power* and *renewable* and *non-renewable energy sources* **(I)** In groups of three/four divide up the energy sources shown below and each learner in the group researches two/three of the energy sources. Learners make bullet points and add sketches/photographs on the different energy sources they are researching. Present these to the rest of the group and photocopy/photograph each of the energy sources research so as everyone in the group has notes on all eight energy sources to revise from: • coal • oil • natural gas • hydroelectric power (HEP) • nuclear power • solar • wind

Syllabus ref.	Learning objectives	Suggested teaching activities
		• biofuels. Write a definition to show the difference between renewable and non-renewable energy sources. Put the energy sources (listed above) into a table under renewable and non-renewable energy headings. **(I)** **Geographical skill:** Provide learners with figures about each energy source and how it contributes to the world energy supply. Learners present this information as a pie chart or divided bar graph and describe what it shows. **(I)** **Question:** Are the figures likely to change in the future, and if so why and how? **Extension activity:** Research data to show how energy sources are used in LICs / MICs and HICs – compare and contrast the two graphs and give reasons for the differences. **(I)** **Geographical skill:** Learners use the compound line graph, Fig. 1.12A and B on page 79 of the textbook to answer questions 1–4 in the 'Activity' shown. **(I)** **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q6ai,6aii and 6bi
	What are the reasons for the siting and development of different types of power stations?	Draw three mind-maps to show the different factors influencing the siting of each of the following power stations: • thermal power • HEP • nuclear power stations. The following factors must be referred to: • relief • communications • raw materials • water • waste • safety • access to electric grid/demand. Provide learners with photographs of each of the three types of power station and the class can then discuss the factors involved in the siting of these in turn. When completing the mind-maps, learners must refer to the factors listed above for each of the three mind-maps. Information can also be found on pages 82–96 of the textbook.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Question: For each of the three different types of power stations, evaluate which factors are the most important in influencing the siting of the power station. **(I)** A card-sorting activity with the advantages and disadvantages of developing each of the three types of power stations could be used, and then this information written up in a table for revision. **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q6bii and 6biii
	What are the features of and the changes in the production of oil and natural gas in Brunei?	This website will be very useful for accessing up to date information on energy in Brunei: https://borneobulletinyearbook.com.bn/category/energy/ **Geographical skill:** On a blank outline map of Brunei, label the location of the oil and natural gas fields. Figure 1.35 on page 99 can be used for reference. **Question:** Describe the distribution of the oil and natural gas fields from the map that you have labelled. Use page 99 of the textbook if necessary. **(I)** **Extension activity:** Research how oil and natural gas production has changed overtime in Brunei. Write a report to show these changes. **(I)**
	To understand the importance of the oil and natural gas industry to Brunei	**Glossary of key terms:** *diversification* **(I)** Design a poster to show how important the oil and natural gas industry is to Brunei. Research up to date information and break this information up into social and economic development benefits on the poster. **Question:** Explain how the future prospects of the oil and natural gas industry in Brunei will be involved in relation to diversification of the economy. (Pages 103–104 of the textbook). **(I)** **Formative assessment (F): Paper 01** 2021 Specimen Paper 01: Q6c Past paper Jun: Q6ai, 6aii and 6aiii
	Case study: Study of the Seria oil refinery in Brunei	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies Through class discussion, research and photographs, learners must study the Seria oil refinery in Brunei and produce an information leaflet covering the following points: • location of the Seria oil refinery – draw an annotated map and write a description • nature of the industry

Syllabus ref.	Learning objectives	Suggested teaching activities
		• the advantages of the location for oil and natural gas production • benefits to the society and economy of Brunei. Useful websites for gaining information on the Seria oil refinery in Brunei: www.bsp.com.bn/main/default.aspx/ www.youtube.com/watch?v=0ExmJ8aFY7k https://youtu.be/N8b9E92NeSE video on school visits in 2020 (good after 1min) https://youtu.be/Q5ZErSTaOl0 video image of site https://borneobulletin.com.bn/preparing-solar-powered-future/ 2021 https://solarbrunei.com/2015/11/19/tenaga-suria-brunei-bruneis-very-own-solar-farm/ 2015 https://earth.google.com/web/ https://earth.google.com/web/@4.61404811,114.34108584,5.62494794a,1644.30400673d,35y,-74.48069283h,45.0037616t,-0r Google Earth link for satellite view
3.2.2 Environment-al impact of energy production, transport-ation and use	To understand the consequences of the use of fossil fuels	**Glossary of key terms:** *fossil fuels* **(I)** In groups of three, each learner researches two or three of the consequences of the use of fossil fuels from the syllabus. Share this research with the group and produce bullet points that can be provided to everyone in the group to ensure that everyone has notes on all the consequences of the use of fossil fuels for revision. This research should be completed on the computer looking at photographs/graphs to provide visual information. The consequences of the use of fossil fuels must include: • carbon dioxide • air pollution • impact on health • visibility • depletion of resources • changes to the landscape • safety issues around transportation of fuels. There is a great deal of information contained within pages 107–121 of the textbook so these pages may also be referred to as well as any additional research (ignore the sections on acid rain and global warming in this part of the syllabus as that will come later in more detail).
	To understand how acid rain is formed and its effects on the environment	**Glossary of key terms:** *acid rain* **(I)** **Question:** Name the sources of pollutants which contribute to the formation of acid rain and their human and natural sources. Use page 108–109 of the textbook for assistance. Write a report on the effects of acid rain on the environment concentrating on:

Syllabus ref.	Learning objectives	Suggested teaching activities
		• forests • soils • lakes • streams • buildings. All the information to complete this report can be found in the textbook pages 109–110, but additional research is always encouraged if possible. **(I)**
	To understand the impact of global warming on people and the environment	**Glossary of key terms:** *greenhouse gases, global warming, enhanced greenhouse effect and carbon footprint* **(I)** Through class discussion, research, and by reading the textbook page 111, learners make a list of the sources of greenhouse gases including: • water vapour • carbon dioxide • methane • nitrous oxide. **Geographical skill:** Draw an annotated sketch to show the enhanced greenhouse effect. Use Fig. 2.9 on page 112 of the textbook for help if required. **Extension question:** "Processes carried out by people are the only contributors to global warming." To what extent do you agree with this statement? **(I)** Using the information on pages 114–115 of the textbook (and additional research if possible), learners produce a poster to show the impact of global warming. The following impacts must be included on the poster: • ice melting • sea level rise • changes in weather patterns • effects on flora and fauna. **Question:** What is a carbon footprint? **Formative assessment (F): Paper 01** Past paper Jun: Q6bi, 6bii and 6biii
	To understand the concept of carbon footprint and ways	www.carbonfootprint.com/calculator.aspx Use the website to work out individual carbon footprints within the class. Share this information as a group and discuss reasons for the variation in carbon footprints within the class.

Syllabus ref.	Learning objectives	Suggested teaching activities
	that it can be reduced	Through class discussion, make a list of ways in which the carbon footprint could be reduced – think about this from the point of view of an individual and the government of a country. **Geographical skill:** Learners use the data in Fig. 2.23 on page 122 of the textbook to draw a bar graph. They can peer mark using a check list provided by the teacher. Learners write a report that could be published in a newspaper to show the ways that a carbon footprint can be reduced. Pages 122–124 of the textbook can be used for guidance, as well as additional research. The following strategies must be included in the report: • "Reduce, Reuse, Recycle" • improving public transport • limiting air travel • carbon offsetting by tree planting. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q6biv
3.2.3 Alternative sources of energy	To know the different types of alternative energy sources and how they are produced	**Glossary of key terms:** *alternative energy sources, geothermal* and *tidal energy* **(I)** **Geographical skill:** Learners use data from the multiple line graph, Fig. 3.1 on page 126 of the textbook to compare the CO2 emissions of various types of energy. Activity questions 1–3. Work in groups of five and each learner researches a different type of alternative energy from the list below: • biofuels • geothermal • solar • tidal • wind. Learners present findings to the group and ensure that everyone has a copy of each energy source for revision purposes. **Extension work:** From what you have learnt about alternative energy so far, explain the reasons for supporting the use of alternative energy, but also refer to any disadvantages that may arise through developing and using alternative energy. (Pages 127–128 of the textbook). **(I)**
	To understand the growing significance of alternative energy sources	As a class, discuss the reasons for the changes in global energy use over time. Make notes on the reasons for changes in global energy use. Refer to page 129 of the textbook for assistance if required.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Present learners with information relating to the energy mix of different countries – a variety of countries should be included from LIC / MICs and HICs. As a class discuss the differences in the energy mix and write this up in a paragraph. **Extension activity:** Add an additional paragraph to explain reasons for the different energy mix between countries. **(I)**
	To understand the advantages and disadvantages of alternative energy sources for people and the environment	Draw two mind-maps to show the advantages and disadvantages of the five alternative energy sources for people and the environment (biofuels, geothermal, solar, tidal, wind) One mind-map would contain the advantages (use two different colours – one for people and one for the environment) and the second mind-map would contain the disadvantages (using the same colour for people and for the environment as in the first mind-map) Refer to the list of advantages/disadvantages below. This can either be researched or the information can be extracted from pages 130–150 of the textbook. **Advantages** • Renewability • Energy security • Reduction in local environmental impact. **Disadvantages** • Locating • Intermittent nature • Scaling up • Relocation of environmental impact. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q6c
	To be aware of how energy can be conserved at different scales	**Glossary of key terms:** *conservation* and *Research and Development* **(I)** **Question:** Why is energy conservation so important? Using textbook pages 151–153 and additional research, learners make bullet points on how energy can be conserved at different scales through the following energy conservation strategies: • public transport • the use of technology • education • planning.

Syllabus ref.	Learning objectives	Suggested teaching activities
	Case study: Tenaga Suria Brunei solar power plant	General ideas for delivery of case study content are outlined in Appendix 2 Teaching Case Studies Learners complete a research task on the Tenaga Suria Brunei solar power plant and produce an information leaflet covering the following points: • location of the Tenaga Suria Brunei solar power plant – draw an annotated sketch and write a description • nature of the industry • benefits of the power plant to the society of Brunei • benefits of the power plant to the economy of Brunei • the role it plays in alternative energy Research and Development (R & D). **The following websites would be very useful here for the teacher/learner** https://youtu.be/N8b9E92NeSE video on school visits in 2020 (good after 1min) https://youtu.be/Q5ZErSTaOl0 video image of site https://borneobulletin.com.bn/preparing-solar-powered-future/ 2021 https://solarbrunei.com/2015/11/19/tenaga-suria-brunei-bruneis-very-own-solar-farm/ 2015 https://earth.google.com/web/ https://earth.google.com/web/@4.61404811,114.34108584,5.62494794a,1644.30400673d,35y,-74.48069283h,45.0037616t,-0r Google Earth link for satellite view
3.3 Tourism		
3.3.1 The growth of global tourism	To understand the reasons for the growth of global tourism	**Glossary of key terms:** *tourist, tourism, disposable income, package holidays* and *advertising* **(I)** www.youtube.com/watch?v=V5dSfTnWEFw This weblink should be interesting to set the context for this topic. **Geographical skill:** Using statistics to show the growth of world tourism over time, learners produce a line graph to show the trend. **(I)**. Learners describe the growth in tourism from the graph using years and figures to support**. (I)** Using the textbook and the points listed below, explain the factors affecting the growth of global tourism: • disposable income • leisure time • education • development of attractions and facilities • accessibility • package holidays • advertising.

Syllabus ref.	Learning objectives	Suggested teaching activities
		Pages 162–166 of the textbook and the website below can help explain these factors. www.s–cool.co.uk/a–level/geography/tourism/revise–it/growth–in–tourism **Geographical skill:** Learners use the compound line graph, Fig. 1.2 on page 161 of the textbook to answer Activity 1 and 2 on page 162. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q5a, 5bi and 5bii
	To understand the advantages and disadvantages of the growth in global tourism for people and the environment	Class discussion to understand that the advantages and disadvantages of the growth in global tourism will be different in HICs and in LICs / MICs. Learners discuss all the advantages of tourism and produce this on to a mind-map. As a class, classify the advantages into those that benefit people and those that benefit the environment. Repeat the same activity for disadvantages. Using the information from the mind-maps and the relevant information from the textbook pages 167–173, learners work in pairs and discuss the advantages and disadvantages that would impact people and the environments of HICs. Learners write these findings up in two paragraphs – one to describe the advantages in HICs and one to describe the disadvantages for people and the environment of HICs. Repeat all stages of the same activity explained above but this time refer to LICs / MICs. **Extension question:** Why do you think the advantages and disadvantages of the growth in global tourism are different between LICs / MICs and HICs? **(I)** Learners can develop their ideas further on how tourism impacts people and the environment through a role-play activity. In groups of four of five, learners conduct a role-play where they discuss the views of different groups of people affected by tourism in a LIC / MIC and HIC – for example, learners could take on one of the following roles: a tourist, local farmer, local craftsman, hotel worker, representative from an environmental group, etc. Learners write up the viewpoint of the role that they have undertaken and as a group with four or five different viewpoints read these speeches to the rest of the class. The class can then ask the learner more questions about their role and why they agree/disagree with tourism. **Extension activity:** Is tourism a good or bad thing? Learners explain and justify their own viewpoint. **(I)** **Formative assessment (F): Paper 01** Past paper Jun 2021: Q5cii and 5ciii Past paper Jun 2021: Insert

Syllabus ref.	Learning objectives	Suggested teaching activities
3.3.2 Sustainable tourism	What is sustainable tourism?	**Glossary of key terms:** *sustainable tourism* **(I)** Discuss sustainable tourism as a class. Look at a wide range of photographs to show tourism in general. Think about the negative impacts of tourism and why it is therefore important to have sustainable tourism. Write a paragraph to describe sustainable tourism in different contexts, including ecological and cultural. Write a second paragraph to describe sustainable tourism in different environments, including coastal and mountainous. **(I)** **Geographical skill:** Using the pictogram, Fig. 2.9 in the textbook page 187, learners in groups use the think pair share approach to produce a list of the advantages and disadvantages of this method of data presentation. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q5di
	To understand the need for strategies to encourage and develop sustainable tourism	Produce a mind-map to show all the different strategies that can be used to encourage and develop sustainable tourism. The strategies that have to be included are: • limiting tourist numbers • raising awareness • biodiversity conservation and protection • private and public collaboration • eco-friendly practices • use of local labour and resources. All the relevant information can be extracted from the textbook pages 176–183, but additional research is always encouraged. **Extension research:** Which of these strategies will be most effective in encouraging and developing sustainable tourism? Give reasons for your answer and support it with specific examples. **(I)**
	To study the success of sustainable management strategies used to manage environments and the input of different stakeholders to that success	**Glossary of key terms:** *stakeholders* **(I)** Through class discussion, make a list of the different stakeholders who may be involved in sustainable management strategies and the reasons why this would be the case. Textbook pages 184–188, learners make notes on the inputs of the different stakeholders listed below: • governments • local councils or authorities • hoteliers • local business

Syllabus ref.	Learning objectives	Suggested teaching activities
		• travel agents • tourists • international conservation agencies • local communities. **Extension question:** Why are these stakeholders so important to the success of the sustainable management strategies used to manage environments? Support your answer with examples. (I) **Formative assessment (F): Paper 01** Past paper Jun 2021: Q5dii
3.3.3 Tourism in Brunei	To identify the attractions of Brunei for tourists	**Glossary of key terms:** *natural* and *cultural tourist attractions* **(I)** **Geographical skill:** Learners use data from the following website: https://tradingeconomics.com/brunei/tourist-arrivals to draw a histogram to show tourist arrivals to Brunei for the past 10 years. They can peer mark using a check list provided by the teacher. Draw a table with two columns and make a list of all the natural tourist attractions in Brunei and all the cultural tourist attractions in Brunei. Be very specific and use place names. Pages 192–193 contain a great deal of relevant information but you can also produce a PowerPoint of all these attractions and learners can discuss as a class why they are so attractive to tourists. **Formative assessment (F): Paper 01** Past paper Jun 2021: Q5ci
	To understand the need to promote tourism in Brunei and the methods that are used	Class discussion on why Brunei needs to promote tourism and learners can write these ideas up as a paragraph. Draw a mind-map to explain the methods below which are used to promote tourism: • familiarisation trips • trade shows • advertising • role of embassies abroad • role of Royal Brunei Airlines. Learners can use their own knowledge, and research the methods further or refer to pages 194–196 of the textbook to complete the mind-map. **Extension work:** Which of these five methods will be the most effective in promoting tourism in Brunei and why? Give reasons for your answer. **(I)**

Syllabus ref.	Learning objectives	Suggested teaching activities
	To appreciate the impact of tourism on Brunei	Using the learners' own experience and through class discussion, list the positive and negative impacts of tourism on Brunei. They should then sort these impacts into the following categories: • People • Economy • Environmental impact Learners can produce this information in a table. If you feel more explanation is required, additional notes can be made using pages 197–200 of the textbook.
	To understand all the different strategies used to control the impacts of tourism on Brunei	Class discussion to explain why strategies are needed to control the impacts of tourism on Brunei. Learners then write a paragraph to summarise these reasons. Learners should understand that there are different strategies used to control the impact on the people of Brunei and the impact on the environment of Brunei. Produce a poster to show the strategies used to control the impacts of tourism on Brunei. Use different colours to represent aspects relating to people and to the environment. Refer to pages 200–203 of the textbook and ensure that the following points listed below are covered on the poster: **Strategies to control the impact on the people** • Selective marketing • Tourist code **Strategies to control the impact on the environment** • Maintaining trails • Enacting laws • Increasing environmental awareness • Eco-developments **Websites to view with regards to tourism in Brunei:** www.sumbiling.com/?wix-vod-video-id=839e3ba2884543d581bfd9d0c6816e8b&wix-vod-comp-id=comp-jwa5manb **Example of ecotourism in Brunei:** Sumbiling Eco Village Watch the first 11 minutes of this video: www.channelnewsasia.com/news/video-on-demand/tapestry-the-heart-of-asean/shaping-a-better-future-9998614 https://youtu.be/6gLqDhOyHsQ Iban culture https://youtu.be/rAZPRDo4XFA https://youtu.be/4N9Aq4Z644U

<table>
<tr><th>Syllabus ref.</th><th>Learning objectives</th><th>Suggested teaching activities</th></tr>
<tr><td></td><td>Case-study: Study one area in Brunei where tourism in important</td><td>Learners must study one tourist area in Brunei where tourism is important. Learners must refer to the following points:
location of the area – include an annotated map and a written description
list the tourist attractions of the area – think about the natural and cultural attractions
advantages of tourism to the area
disadvantages of tourism to the area
the importance of this tourist area to the local people and the local economy.
Learners can produce this study in any format. Learners should include up to date and relevant information about the area they have chosen. Learners should include a wide variety of photographs to show the tourist area and ensure that the case study is place specific and does not just refer to the whole country of Brunei. One area has to be chosen by the learner.

The following link may be useful when choosing the area in Brunei for the case study: https://borneobulletinyearbook.com.bn/category/attractions-activities/</td></tr>
<tr><td>3.3.4 Geographical investigation of tourism</td><td>Introduction</td><td>Read Section C: Geographical Investigation on pages 28–30 of the syllabus.

If possible, learners carry out a geographical investigation at a local tourist destination.

Learners need to know the stages involved in a geographical investigation of tourism, such as identifying aims and hypotheses, using enquiry skills to collect data, presentation techniques to display data, making analyses of data and reaching conclusions. More information on this is available on page 5 of the Enquiry skills for geographical investigation.

This video describes the enquiry skills for a geographical investigation: www.youtube.com/watch?v=-Id1Xk1Hav8

Task: Learners watch the first two minutes of the video and try to remember and list the five stages of a geographical investigation in order.

Give learners a copy of 0460/43 Nov 2019 Q2 and pages 7–11 of the Insert and do a quiz to identify one sub-question for each stage of a geographical investigation, first in order, then mixed up. This past paper is useful to refer to and use for teaching each of the learning objectives in this sub-section 3.3.4.
<table>
<tr><th>Cambridge IGCSE Geography 0460</th><th>Location of fieldwork</th><th>Hypotheses</th></tr>
<tr><td>0460/43 Nov 2019
Q2</td><td>Mauritius</td><td>The physical landscape attracts more tourists to Mauritius than the human landscape. Tourism is good for the development of Mauritius.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Syllabus ref.</th><th>Learning objectives</th><th>Suggested teaching activities</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>0460/42 Jun 2019
Q2</td><td>UK</td><td>Cars are the main category (type) of vehicle in the town throughout the day. The percentage of tourist coaches varies during the day.</td></tr>
<tr><td>0460/41 Jun 2018
Q2</td><td>Lake District, UK</td><td>Most of the shops and services in the town centre are for tourists. Tourism creates more benefits than problems for local people.</td></tr>
<tr><td>0460/43 Jun 2017
Q2</td><td>Bagan, Myanmar</td><td>More tourists come to Bagan from Asia than from other parts of the world. People in different age groups come to visit Bagan for different reasons.</td></tr>
<tr><td>0460/04 Specimen 2016
Q2</td><td>Pescasseroli, Italy</td><td>People of different ages visit the National Park for different reasons. Tourism has a positive effect on the village of Pescasseroli.</td></tr>
</table>

The Brunei School Support site https://cambridgeinternational.org/brunei contains resources such as specimen papers, mark schemes and a guide called Enquiry Skills for Geographical Investigation
</td></tr>
<tr><td></td><td>Identify a suitable geographical question for investigation and outline the aims of the investigation</td><td>Use the relevant topic hypotheses to form statements and guiding questions. These can then provide a structure for investigating a geographical concept. For example, ‘The amount of traffic is greater in summer than winter because of tourism’ or ‘The advantages of tourism in Brunei are greater than the disadvantages.’

In groups, learners brainstorm possible places, ideas, topics they could use as the basis of a geographical investigation of tourism in Brunei.

Learners write their answers on post-it notes and stick them on a whiteboard or wall. Select from the post-it notes and invite learners to try to write suitable hypotheses.</td></tr>
<tr><td></td><td>Demonstrate an understanding of the different methods which can be used to collect primary and secondary data</td><td>Learners need to have some practical experience of tourism fieldwork methodology, even if it is in the classroom, a homework task, a pilot study or a fieldtrip to a local tourist destination.

To collect data in a sound and logical way learners need to be aware of:
• sampling
• pilot surveys
• health and safety.

Learners use the internet to collect secondary data about a local tourist destination:
• maps
• photographs
• published data.</td></tr>
</table>

Syllabus ref.	Learning objectives	Suggested teaching activities
		Learners work in small groups to devise a questionnaire for use at a local tourist destination. This should be done on flip chart or poster size paper if possible. The questionnaires are then shown to each group to vote on the best one to use. Learners contribute to a class discussion on why this is the best one to use to collect reliable data. Learners in small groups are given several examples of environmental quality surveys (EQAs) and asked to select the best one to compare different tourist destinations in Brunei.
	Explain and demonstrate a variety of data presentation skills	Learners need to know about the presentation techniques that can be used to present tourism data. These include various types of graphs, maps, and diagrams. There is a general list of data presentation techniques on page 30 of the syllabus. Learners complete a variety of tourism data presentation techniques from past paper materials. For example: 0460/43 Nov 2019 Q2(b)(iii) and (iv), 2(d)(i).
	Apply geographical knowledge and understanding to analyse and interpret data	Learners need to be able to describe the patterns presented in graphs and tables of results. Page 14 in Enquiry Skills for Geographical Investigation outlines the steps for geographical analysis. Learners use their copy of 0460/43 Nov 2019 Q2 and are asked to describe trends in the findings shown in Figs. 2.3, 2.4 and 2.5, as well as any anomalies that do not fit the trends.
	Use evidence and geographical concepts to reach a conclusion	For information on how to make conclusions see page 15 of Enquiry skills for geographical investigation Learners can practise drawing conclusions using past paper materials, for example 0460/43 Nov 2019 Q2(b)(v) and 2(d)(ii), then use the mark schemes to peer mark each other's work or self-assess their own answers.
	Evaluate the outcomes of a geographical investigation and make suggestions on how it could be improved	Learners need to be able to refer to the reliability of the river data they collected earlier and give a critical evaluation of the data collection methods chosen. Learners try to assess the reliability of the data collection methods they used during a pilot study or fieldtrip. If they were unable to undertake any fieldwork, learners could try to identify the problems they might experience in collecting tourism data and identify what steps could be taken to overcome these.
Specimen/past papers and mark schemes		
Specimen papers and mark schemes are available to download at https://cambridgeinternational.org/brunei **(F)** Specimen/past papers and mark schemes for Cambridge IGCSE Geography 0460 and Cambridge O Level Geography 2217 are available to download at www.cambridgeinternational.org/support **(F)**		

Appendix 1 Teaching and learning

Introduction

The scheme of work suggests many ways for teachers to make learning varied and interesting for their classes. The scheme of work encourages teaching which involves learners in tasks which require them to be *active* in their learning through research and investigation, discussion, working in pairs and groups. We suggest learners present the results of these activities in different ways such as creating mind maps, newspaper articles, writing reports and creating power point displays. Approaching learning in this manner forces learners to consider not only the content but the process. It gives learners greater involvement and control over their learning. This encourages them to stay focused, which will often give them greater enthusiasm for their studies. It also asks learners to work in ways which reflect the sort of activities they will be required to carry out when they eventually move into the world of work. For example, it is likely that they will be asked to investigate an issue, work in groups, solve problems and report back their findings. Active learning is also fun and brings variety and additional interest into learning. If many of the approaches suggested in the scheme of work are new to you, then begin with a few until you are confident with them.

Resources for learning

The most important resource for this course remains the series of books published by Marshall Cavendish Education, *Geography for Brunei Darussalam:*

- *Theme A: The Natural World (year 9),* 2013 **ISBN:** 9789991726076
- *Theme B: People, Food and Settlement (year 10),* 2014, **ISBN:** 9789991726359
- *Theme C: Industry, Energy and Tourism (year 11),* 2016, **ISBN:** 9789991726786

The scheme of work suggests many ways in which these textbooks can be used but there are also suggestions for other material to be prepared such as cards, photo sets, newspaper articles, fact files, websites and so on. In departments where there is more than one teacher of geography, a lot of time and effort can be saved by sharing prepared materials. If there is only one teacher, we suggest you slowly build up the resources over a period of time. The scheme of work suggests the use of mini whiteboards. If these are not available, they can be made from a clear plastic wallet and white sheet of paper. Ideas about using mini whiteboards can be found using a web search.

Mini Whiteboards: Old Fashioned Technology That Works Perfectly Today (busyteacher.org)

www.bing.com/videos/search?q=mini+whiteboard

Working together

Working in pairs

A good way of getting learners used to working together is by using **card activities.** The cards are prepared in advance and can be shared between different classes. Card activities can begin with just simple pairs of learners but can involve larger groups over time. Card activities can include:

- **definition and meaning** where learners match cards featuring specific terms with their corresponding meanings/definitions on another set of cards.

- **classification** where learners are given a number of cards and asked to put them in appropriate groups. For example, classifying the reasons for the selection of a site into physical and economic, or grouping known locations in the world where tectonic plates are moving, into piles indicating the different kinds of tectonic activity (e.g., moving apart, towards each other)
- **event matching** where, learners match the record of an event to the type of event. For example, learners are given a copy of the Richter Scale and are asked to place cards describing different events against the appropriate position on the scale
- **sequencing** where a series of cards describes the various stages of a process such as a volcanic eruption (or the formation of rainfall) and learners put the cards into the correct sequence.

Working in groups

Asking learners to work in groups requires careful management by the teacher.

- It is often useful for you to decide on the composition of the group and stay with that group membership for a few activities to see how well it works before making any changes.
- Members of the group should each be given different tasks such as leading the group, keeping notes for the group, ensuring the group is aware of how much time they have, reporting back to the class. These roles can be rotated within the group over several activities.
- The task or tasks given to a group should be very clear.
- A time limit should be given to each activity and groups advised when the time is nearly over to ensure they finish their task.
- You should move around the groups listening to and encouraging the groups.
- The group activity can be finished with each group briefly feeding back to the whole class a summary of their discussion or findings or decision.

Keeping a record of learning

Learners are used to making their own notes on a topic from a textbook and this is still an important way of keeping a record of learning for final revision before an examination. However, this traditional form of note-keeping can be supplemented by other methods which can be fun, challenging and interesting. These alternative methods bring variety to learning, make learners more active in managing their learning and help learners to understand what they are studying better. Suggestions in the scheme of work include the following approaches.

Mind maps

A mind map is a diagram in which information is represented visually, usually with a central idea placed in the middle and associated ideas arranged around it. It is hierarchical and shows relationships between all the pieces of information and the whole.

Mind maps are a very different way of recording information. They challenge learners to think carefully about information, present it in a structured and orderly way and to think more about context, meaning and the relationships of ideas rather than simply copying notes from a textbook. When completed, learners can see

at-a-glance the way that the parts of a topic fit together. Mind maps can be colourful, very individual and fun to complete.

To get started with mind maps, give learners a half-completed mind map and ask them to complete it using information in their resource. There are many websites which demonstrate examples of mind maps.

mind maps in geography - Bing images

Geography Mind Map® Examples - Mind Mapping (mind-mapping.co.uk)

Fact files

A fact file is an organised collection of the most important information on a particular topic. You can either provide or suggest a template and learners then research the information to complete the file. Suggested headings, boxes for the text, a little bit of structure and design can help guide learners on the type of information they need to find and the amount they need to write for each item. Again, a web search will provide many examples.

example of a fact file - Bing

Report writing

In this exercise learners convert collected information into a longer piece of written work. This is good practise for the final parts of the questions on Paper 1 where candidates are required to produce a longer answer. You can suggest how to structure the report or provide learners with a completed report so they can discuss how it has been put together and if it contains all the information relevant to the topic.

Newspaper articles

A newspaper article can be either long or short. Learners can be asked to choose a suitable title and are then given guidance on what the article should contain. Learners can reveal what they think are the most important aspects of the topic by what they emphasise in their articles. At the end of the lesson, the different articles can be compared.

Posters

Whilst it is good to see colourful and well-illustrated posters, you should emphasise that the purpose of the poster is not simply its artistic merit but how it can convey information visually, through the use of writing of different sizes, the use of colour, drawings and photographs. A well-mounted display of posters brings colour and interest to a classroom.

Bullet points

Bullet points break a text down into items and sometimes this is the best way to commit certain aspects of a topic to memory. It helps with sorting and categorising, as in the section above on groupwork.

Appendix 2 Teaching case studies

Introduction

Case studies are a very important part of this syllabus. They are the building blocks of geography. When geographers look at several case studies on a topic such as the processes at work in a river, the landforms on coasts or the shape of towns, they begin to see patterns and similarities and they also note the differences. This is how the study of a subject begins. In an examination syllabus, a case study adds detail and more interest to the learning.

The use of case studies in a syllabus must be very carefully managed by the teacher

This management begins with **the selection** of a case study, one that is very appropriate to the topic being studied, that meets the requirements of the syllabus and that is neither too simple nor too complicated. Where possible case studies should also be no earlier than 1980 as a case study from the recent past or in the lifetime of a learner is likely to be most relevant and engaging. There are proposed case studies in the scheme of work as well as suggestions on how each case study can be approached. It is very important that learners all work to the same case study on a topic. That way they can support each other and discuss the case study together.

The teacher manages the case study by the careful selection of **the resources** which are to be used by the learners. You can state the specific websites or textbook pages to be used; provide a small pack of photographs, diagrams and briefing notes or begin the case study with a class briefing using any visual aids they choose.

The next stage of management is to give clear instructions as to what **information** learners need to extract from the materials provided and how long they should spend on the case study. For example, in the case study of a volcanic eruption, the scheme of work states the following information is required

- an annotated map to show the location of the volcano and a written description of the volcano
- a fact file – key facts about the volcano (e.g., type/material emitted from it) – provide place-specific detail
- a plate boundary map – ensure plates are identified and named
- a plate boundary diagram and explanation
- a write-up of the impacts on people (short- and long-term)
- a write-up of the impacts on the environment (short- and long-term)
- the management strategies used to mitigate effects

This guidance is important for learners to ensure they collect the right information and do not spend too long gathering information which is too detailed or irrelevant. This guidance is given for all the named case studies in the scheme of work.

It is also useful for learners to be asked to **produce case studies in different ways**. Case studies can be in the form of a report, a newspaper article, a mind map, a fact file, a leaflet or a power point presentation. For the first one or two case studies, you/the teacher may choose to present a half-completed case study and ask learners to complete the study using resources directly linked to the topics to be completed. The scheme of work indicates different ways of completing a case study.

It is a useful and important exercise for the class to come together to **finalise the results** of the case study. Individuals or groups can make presentations in any form they choose such as a short talk, a leaflet or a Power Point display. There can be a class discussion and learners can add final comments to their own study.

Finally, where a case study is asked for in the **examination,** it is very important that learners are quite specific by giving very clear information about names, locations, facts and figures and, where appropriate, dates.

Case studies in this syllabus

Case study topic	Suggested study in scheme of work
1.1.2 One international migration case study	Migration from India to the United States
1.2.2 An area in SE Asia where rice farming is important	Ganges Delta, India; Kedah Plains, Malaysia
1.3.2 Urban land use	Rio de Janeiro, Brazil; Chicago. USA
1.3.4 A rapidly growing city in SE Asia	Jakarta, Indonesia or Singapore
2.1.2 A volcanic eruption and its impact on people and the environment	Mount St. Helen's, Washington, USA **or** Mount Merapi, Java, Indonesia
2.1.3 An earthquake and its impact on people and the environment	The Loma Prieta earthquake, USA or Bam earthquake, Iran or San Simeon earthquake, California, USA.
2.2.5 A flood event and its impact on people and the environment	Bangladesh river flooding or Mississippi river flooding, USA
2.3.3 A typhoon and its impact on people and the environment	Cyclone Nargis in Myanmar or Typhoon Morakot in Taiwan
2.3.5 An area of tropical rain forest and how it is being managed.	Kalimantan, Indonesia
3.1.2 An industrial zone or factory in Brunei	Study of one industrial zone or factory in Brunei
3.2.1 Seria oil refinery, Brunei	Seria oil refinery
3.2.3 Tenaga Suria Solar Power plant.	Tenaga Suria Solar Power plant.
3.3.3 An area of Brunei where tourism is important.	Study of one tourist area in Brunei

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