



Geography Department



**Core knowledge and homework booklet**

Name:

Class:

Teacher:

## Core knowledge

These core questions cover key facts for each of the units you will study during year 7. It is an important revision skill to return to these throughout the year. You will be tested on these throughout the year and in your end of year exam.

### Ways to revise:

Read through the questions and answers a number of times, cover the answers and write down or read aloud the answers

Use flashcards; write the question one side and the answer on the other side

Ask someone at home to test you on a regular basis

Use quizlet (geographyahs) – join the year 7 class to immediately find the relevant core knowledge to learn (use the QR code below or this link to join the class: <https://quizlet.com/join/KX7D5phh3>)



## 7.2 Ecosystems: Tropical Rainforest

#	Question	Answer
1	What is an ecosystem?	An ecosystem is made up of two parts – Living things and their non-living environments
2	Give an example of a large scale ecosystem	Rainforest, Ocean, Desert, Savannah etc
3	Give an example of a small scale ecosystem	Tree, Hedgerow, Pond, Puddle etc
4	How would the climate be described in a tropical rainforest?	Hot, wet, humid
5	What is a tropical rainforest?	Forest growing in areas which have high temperatures, high humidity and high rainfall all year round
6	Name a tropical rainforest	Amazon (Brazil), Central African Rainforest (Congo), South East Asian Rainforest (Indonesia), Madagascar, Papua New Guinea
7	What are the layers of the rainforest called from the ground upwards?	Shrub layer / forest floor, Lower Canopy, Canopy, Emergent
8	Name a plant adaptation	Drip tips, Buttress roots, Epiphytes, Lianas,
9	Describe how sloths have adapted to live in the rainforest	Algae in hair to camouflage, strong claws to hang from branches, etc
10	Describe how a tree frog has adapted to live in the rainforest	Has sticky pad's on fingers and toes to cling to leaves and branches
11	What is deforestation?	Large scale destruction of forest
12	What is an indigenous person?	Person who is native to a particular land, region or ecosystem
13	What is sustainable management?	Ensuring that resources are used in a controlled and responsible way so that it doesn't have a negative impact on the future
14	What causes deforestation in the Amazon rainforest?	Road building, subsistence farming, commercial farming, mineral extraction, population growth, logging
15	What is the difference between subsistence and commercial farming?	Subsistence farmers grow food for themselves whereas commercial farming sell produce for profit
16	What is the BR163?	A highway / main road cutting through the Amazon rainforest in Brazil
17	What is the aim behind the IBAMA group?	To ensure preservation and maintenance of the Amazon rainforest by stopping illegal deforestation

### 7.3 Ecosystems: Hot and cold environments

#	Question	Answer
1	What is the definition of a desert?	A place which receives less than 250mm of rainfall annually
2	Name a hot desert	Mojave (Death Valley), Atacama, Sahara, Arabian, Namib/Kalahari, Outback
3	Name a desert plant (NB cactus is not good enough)	Prickly pear cactus/ Saguaro cactus/Joshua Tree
4	Name a desert animal	Fennec Fox/ Camel/Thorny Devil/Meerkat/Scorpion
5	State one adaptation for a cactus	Soaks up 1000 litres of water after rainfall Thick waxy skin to prevent water loss Long deep roots to reach groundwater Wide shallow roots to absorb water from the surface after rainfall Fleshy stem to store lots of water Spikes instead of leaves to stop animals eating them and prevent water loss
6	State one adaptation for a camel	Long eyelashes – to keep out sand/dust and sun Fat stored in hump – so can survive periods with no food Fur for insulation (cold nights and hot days) Nostrils can close to keep out blowing sand Broad feet so don't sink into sand
7	How do Bushmen of the Kalahari find water that they need in the desert?	From digging up and eating Tubers
8	Name 1 animal that lives in the Arctic	Polar Bears, Arctic Fox, Arctic Hare, Orca, Walrus,
9	Name a country in the Arctic	Canada, Russia, Greenland, Iceland, Norway, Sweden, Finland
10	What is tundra?	Cold, barren and treeless land
11	Why do Nenets have to migrate?	To find land where reindeers can get to the moss below the snow in order to have enough food for reindeers to survive
12	The Nenet tribe live in 'chums' – what are these?	These are made of reindeer skins. The skins are laid over a skeleton of long wooden poles.
13	Where is the Thar Desert?	Northwest India and Pakistan
14	What is the difference between subsistence and commercial farming?	Subsistence involves farming enough food for themselves whereas commercial involves farming for profit (sell produce)
15	Name one opportunity of developing the Thar Desert	Drilling for oil, mining, renewable energy, tourism, land availability
16	Name one challenge of developing the Thar Desert	Lack of water, difficult to grow crops, waste disposal, lack of infrastructure, extreme temperatures

## 7.4 Map skills

#	<u>Question</u>	<u>Answer</u>
1	Name the 7 continents of the world	Antarctica, Oceania, Africa, Europe, Asia, South America, North America
2	Name 5 oceans of the world	Pacific, Atlantic, Indian, Southern, Arctic
3	What is physical geography?	The study of natural features of a landscape
4	Name a physical feature	Mountain, river, hill, forest etc
5	What is human geography?	The study of man-made features of a landscape
6	Name a human feature	School, building, road, church etc
7	What do we use grid references for?	To help locate somewhere or something
8	What do 4 figure grid references help to locate on a map?	A square – e.g. a village
8	What do 6 figure grid references help to locate on a map?	A particular point on a map – e.g. a church
9	How do we measure straight line distance on a map?	Measure using a ruler and convert using a scale
10	What are contours?	Lines which join places of equal height on a map
11	What is a spot height?	A specific height of land above sea level shown on a map as numbers in black
12	If contour lines are drawn closely together what does this tell us about the height of the land?	It is steep
13	If contour lines are drawn far apart what does this tell us about the height of the land?	It is flat/gentle
14	Why do we use map symbols?	To illustrate attractions/features (without them maps would become cluttered)
15	What are the 8 points of a compass going clockwise?	North, North East, East, South East, South, South West, West, North West

## 7.5 Weather

#	<u>Question</u>	<u>Answer</u>
1	What is the difference between weather and climate?	Weather is the day to day changes in atmosphere. Climate is the average weather for a location.
2	What instrument do we use to measure temperature?	Thermometer
3	What instrument do we use to measure wind speed?	Anemometer
4	What instrument do we use to measure wind direction?	Compass/ Weather vane
5	What instrument do we use to measure atmospheric pressure?	Barometer
6	What instrument do we use to measure rainfall?	Rain Gauge
7	What is a microclimate?	Distinct climate of a particular area which is different to its surroundings
8	Give one factor which influences a microclimate	Shelter, relief, trees, hills and water, buildings
9	How do we measure microclimates?	Use weather instruments to find differences in wind speed/ direction / temperatures in locations
10	What does a climate graph show?	Rainfall and temperature data for a location, usually for each month of one year
11	What is a convection cell?	Movement of air due to temperature differences
12	Name the largest convection cell	Hadley
13	What happens when air is heated by the sun?	Becomes less dense and rises creating low pressure at the surface of the Earth
14	What weather is associated with rising air?	Low pressure, rain and storms
15	Where on Earth experiences the most heating?	Near the equator
16	What type of region is found where air is sinking?	Deserts
17	How does air move between different pressures?	Air moves from high to low pressure

## 7.6 Climate change

#	Question	Answer
1	What is the greenhouse effect?	The process by which carbon dioxide and other gases prevent the Earth's heat escaping to space
2	What has been the general pattern of global climate since 1777?	Global temperatures have increased
3	What are greenhouse gases?	A gas present in the atmosphere which reduces the loss of heat to space
4	Give an example of a greenhouse gas	Carbon dioxide, methane, nitrous oxide
5	How does the enhanced greenhouse effect differ from the natural greenhouse effect?	Humans have added more greenhouse gases so more heat energy is trapped in the atmosphere.
6	What activities do humans do which cause climate change?	Deforestation, keeping cattle for meat & dairy production, burn fossil fuels for transport and electricity
7	What factors can naturally lead to changes in climate?	Changes in solar energy, Earth's tilt, Earth's orbit and volcanic eruptions
8	What type of countries have typically contributed to climate change most?	Higher income countries (HIC)
9	Note down one current impact of climate change	Ice melting (sea ice and glaciers) worldwide, sea level rise, drought, extreme weather
10	Why might food supply be affected by climate change?	Changing rainfall patterns could mean crops don't have enough water to grow Different pests and diseases may lead to a loss of crops
11	How can animals be threatened by climate change?	Their habitat could change which they are adapted to. They may die and become extinct with rapid changes.
12	How could rainforests be impacted in the future?	Tropical Rainforest in South America could turn to Savannah with changes in rainfall
13	What is the Kyoto Protocol?	An international agreement to reduce carbon emissions by stabilising greenhouse gas emissions
14	What can be done to help solve issues with climate change?	Adapt to changes and try to reduce emissions to prevent climate change being more extreme.
15	What is the difference between mitigation and adaptation?	Mitigation deals with causes of climate change whereas adaptation deals with the impacts

## **Homework**

You will be set 4 pieces of homework across the year that relate to the topics you are studying.

Each piece of homework encourages you to do some additional reading and will be completed in this booklet.

Each piece of homework will contain a section which all students must complete as well as above and beyond questions. The above and beyond questions may require additional research to be done.

Peer marking of the homework will take place in lesson time.



# Homework 1: Geography in the News – Tropical Rainforests

*Encouraging wider reading in Geography*

This homework examines Iceland's pledge to stop selling own-brand palm products. To get started read this article on the BBC news website (if you need a paper copy speak to your teacher) <https://www.bbc.co.uk/news/uk-46969920>



**Key term:** Palm Oil – Palm oil is a type of vegetable oil, like sunflower or rapeseed oil. Palm oil is made from the fruits of trees called African oil palms. The trees originally came from west and south-west Africa, but they were introduced to Indonesia and Malaysia in the late 19th and early 20th centuries.

## **All students need to answer these questions:**

What promise did Iceland make in 2018?

---

---

---

---

Why did Iceland make this promise?

---

---

---

---

Why is palm oil controversial?

---

---

---

---

How does this article link to what you have previously studied in geography and/or what you already know? How does this link to other aspects of geography?

---

---

---

---

---

---

---

Using your core knowledge (7.2 – tropical rainforests), state other development activities that occur in the tropical rainforest

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Above and beyond questions:**

What would be the positive and negative effects of banning palm oil in the UK?

---

---

---

---

---

---

---

---

---

---



# Homework 2: Geography in the News – Hot Environments

*Encouraging wider reading in Geography*

This homework looks at the phenomenon of blood rain. To get started read this article on the BBC news website (if you need a paper copy speak to your teacher): <https://www.bbc.co.uk/news/uk-scotland-48037362>



**All students need to answer these questions:**

What is blood rain?

---

---

---

Which desert is responsible for blood rain in the UK? Where is this desert located?

---

---

---

Explain how dust from the desert results in blood rain in the UK

---

---

---

---

---

---

---

---

What happens to sunrises and sunsets in the UK as a result of the dust?

---

---

What problems can blood rain cause?

---

---

How does this article link to what you have previously studied in geography and/or what you already know? How does this link to other aspects of geography?

---

---

---

---

---

Using your core knowledge (7.3 – hot and cold environments), describe how animals adapt to deal with dust / sand in hot environments

---

---

---

**Above and beyond question:**

To what extent is blood rain an issue for the UK

---

---

---

---

---

# Homework 3: Geography in the News – Cold Environments

*Encouraging wider reading in Geography*

This homework examines the impact of melting glaciers on Mount Everest. To get started read this article on the BBC news website (if you need a paper copy speak to your teacher): <https://www.bbc.co.uk/news/science-environment-47638436>



**Key term:** Glacier: a slowly moving mass or river of ice formed by the gathering and compaction of snow on mountains or near the poles.

**All students need to answer these questions:**

Why are climbers' bodies being found on Mount Everest?

---

---

How many mountaineers have died on Mount Everest?

---

---

How many people have climbed Mount Everest?

---

---

Why are glaciers melting on Mount Everest?

---

---

---

---

Why did Nepal's army drain the Imja Lake near Mount Everest in 2016?

---

---

---

How does this article link to what you have previously studied in geography and/or what you already know? How does this link to other aspects of geography?

---

---

---

---

---

---

---

---

Using your core knowledge (7.3 – hot and cold environments), state 4 countries found in the Arctic

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Above and beyond questions:**

What percentage of climbers have died? (you're going to need to calculate this!)

---

---

---

How will melting glaciers in the Himalayas affect people downstream?

---

---

---

---

---

# Homework 4: Geography in the News – Weather

*Encouraging wider reading in Geography*

This homework examines how extreme weather affect UK businesses. To get started read this article on the BBC news website (if you need a paper copy speak to your teacher) <https://www.bbc.co.uk/news/business-47400729>



**Key term:** Extreme weather – a weather event that is significantly different from the usual pattern of weather

**All students need to answer these questions:**

- What three weather events are mentioned in the first paragraph?

---

---

---

- Look at the graph to answer the next 2 questions:

a) What was the UK record winter temperature in 2019?

---

b) Is it easy to predict what next year’s winter temperatures will be like? Why / why not?

---

---

---

- Why are warm winter temperatures an issue for farmers?

---

---

---



How do some businesses protect themselves from the impact of extreme weather?

---

---

---

---

How does this article link to what you have previously studied in geography and/or what you already know? How does this link to other aspects of geography?

---

---

---

---

---

---

Using your core knowledge (7.5 – weather), explain what happens when air rises into the atmosphere

---

---

---

**Above and beyond questions:**

Which are a bigger problem; warm winters or cold winters? Why?

---

---

---

---

---

---



## Optional homework: Ecosystems

You need to research one of the ecosystems (hot desert, cold desert or tropical rainforest) we are studying or will be studying in lessons and display your work as a shoebox model. Include annotations of features to make your ecosystem clear.

You may want to conduct some research on the following areas and incorporate these into your work somehow:

### Location

Country, Continent, Map, Distance to other places

### Climate

Graphs, description, comparison to the UK, explanation of why the climate is like it is

### Wildlife and Vegetation

Pictures, description, comparison to the UK, why do particular species live in the ecosystem, adaptations for survival

### The Future

Are there threats to your ecosystem? Is it being damaged? How could this be avoided?

The geography captain will judge the completed shoebox ecosystems and prizes will be given to the top 3.

