

# GEOGREVISE

by internet geography

#### STEP 1 - REVIEW YOUR LEARNING

Before you start your revision, you need to be clear about what it is you need to revise. This means going over everything covered in the unit you have studied then deciding how much you understand. This will give you an idea of what areas you need to focus your revision on. Complete the glacial landscapes in the UK personal learning check list (PLC) to check what you feel confident about and what you need to work on.

#### STEP 2 - REVISION

#### **Technique 1 - Revision Cards**

- 1. Make notes on an area of study. This could involve highlighting information in a revision book or writing information out. High performing students avoid copying huge chunks of text. They read the information then summarise it.
- 2. Once you have gathered notes summarise your notes on revision cards blank postcards or post-it notes are good for this. You can then stick them all around your bedroom, toilet, bathroom etc! See an example here: https://www.internetgeography.net/revision-techniques/
- 3. Read your cards through regularly. Once you're confident about knowing the information write key words about the topic on a card. Then revise from these. As your knowledge base builds up you will need fewer prompts to remember information. BRAIN SCIENCE ALERT: By displaying this information and regularly reading it you will create stronger connections between the neurons in your brain which will help you retain information.

**Technique 2 - Mind Maps** A mind map is a spider diagram that contains information in the form of pictures and text. Mind maps can be used to plot information relevant to the different topics in geography. To find out more on mind mapping see this page: https://www.internetgeography.net/revision-techniques/

**Technique 3 - Asking questions when taking notes** This technique involves you asking questions when making notes. The example below considers the main features of earthquakes.

	What	When	Why	Where	Who	So what?
Earthquakes						

Question cues you can use are what?, when?, why?, where?, who? and how? There are more - can you think of any?

#### **Technique 4 - Change the form of information**

Your text books contain a lot of information. Some people can read this information and remember it! If you find it hard to retain information that you read, then do something with it. For example, take a piece of text and transform it into a diagram.

#### Technique 5 - Teach It!

Another useful method of learning information is to try and teach someone else what you have learnt.

A good method to use is to write down the key points of what has been learnt over a set period e.g. 3 lessons and try to teach the other person, who questions everything he or she cannot clearly understand.

Try also setting a test on what you have taught. The other person's answers will clarify your own thinking!

#### **Technique 6 - What would you tell your brother?**

Simplify some text about the topic you are revising and write down what you would tell someone younger than you.

#### Technique 7 - Condense it

Read a paragraph of text and condense it into one sentence.

#### Technique 8 - Condense it with a friend

Complete technique 5 and/or 6 with a friend. Compare your answers and discuss your choices.

Resources to support revision for this unit are available here: www.internetgeography.net/topics/coasts/

#### **STEP 3 – RETRIEVAL PRACTICE**

#### Improve learning by reducing forgetting using retrieval practice

Retrieval practice involves retrieving and using knowledge. Through thinking about and using what we know we strengthen learning. Low stakes quizzes, flashcards and quick writing can be used to improve learning. This booklet contains questions for retrieval practice from p6. Ask a friend or parent to quiz you using the questions.

#### STEP 4 – EXAM QUESTIONS

Once you're feeling confident have a go at completing some past exam papers. Your teacher will be able to provide you with these.

## GEOGREVISE – AQA GLACIAL LANDSCAPES IN THE UK

# Glacial Landscapes in the UK PLC

Red = Not confident at all Amber = Some confidence Green = Very confident



	Red	Amber	Green
Ice was a powerful force in shaping the physical landscape of			
the UK.			
I know the maximum extent of ice cover across the UK during the			
last ice age.			
I know the processes of freeze thaw weathering			
I know the erosional processes of abrasion and plucking			
I know how glaciers move and transport (rotational slip and			
bulldozing)			
I know why glaciers deposit sediment (till and outwash)			
Distinctive glacial landforms result from different physical processes.			
I know the characteristics and formation of landforms resulting			
from erosion including:			
corries			
arétes			
pyramidal peaks			
truncated spurs			
glacial troughs			
ribbon lakes			
hanging valleys			
I know the characteristics and formation of landforms resulting			
from transportation and deposition including:			
erratics			
drumlins			
types of moraine (lateral, medial, terminal and ground)			
I know an example of an upland area in the UK affected by			
glaciation.			
I know the major landforms of erosion and deposition for a named			
example of an upland area in the UK affected by glaciation.			
Glaciated upland areas provide opportunities for different economic	activities,	and	
management strategies can be used to reduce land use conflicts.			
I can give an overview of economic activities in glaciated upland			
areas including tourism, farming, forestry and quarrying			
I can identify conflicts between different land uses in a glaciated			
upland area.			
I can identify of conflicts between development and conservation			
in a glaciated upland area.			

Using an example of a glaciated upland area in the UK used for tourism I can show:		
the attractions for tourists.		
social, economic and environmental impacts of tourism.		
strategies used to manage the impact of tourism.		

## GEOGREVISE AQA Glacial Landscapes in the UK



#### **Retrieval Practice**

#### **GLACIAL EROSION AND WEATHERING**

- 1. Which ice sheet covered most of the UK around 25,000 years ago?
- 2. How long ago did ice cover most of the UK?
- 3. What caused glaciers to flow slowly from Highland to lowland areas?
- 4. Identify the two main ways glaciers erode the land.
- 5. Describe how plucking causes erosion.
- 6. Describe how abrasion causes erosion.
- 7. What is the name of a scratch formed in bedrock by abraision?
- 8. Identify the main type of weathering associated with glacial environments.
- 9. Explain the process of freeze thaw weathering.
- 10. Give one piece of evidence of freeze-thaw weathering.
- 11. Give one difference between erosion and weathering.

#### **GLACIAL MOVEMENT AND SEDIMENTS**

- 1. How does glacial ice form?
- 2. As the weight of ice accumulates what causes it to slowly move down the mountainside?
- 3. Identify the cracks that form in a glacier as it moves over an uneven valley floor.
- 4. What is this basal flow?
- 5. What is internal deformation?
- 6. What is glacier advance?
- 7. What is glacier retreat?
- 8. What is sediment deposited by a glacier commonly known as?
- 9. Identify the large amount of eroded rock fragments that carpet the glacial valley floor.
- 10. What is the name of the endpoint of a glacier?
- 11. When a glacier moves forward it pushes piles of rock debris in front of it. What is this process known as?
- 12. What pours off the snout of a glacier and can carry debris far away?
- 13. When meltwater from a glacier carries sediment away what is it deposited as?
- 14. A glacier that is in retreat is still transporting material on its surface. Explain why

#### LANDFORMS RESULTING FROM ICE EROSION

- 1. What is a Corrie?
- 2. Explain how a corrie is formed.
- 3. Draw a cross-section to show the formation of a corrie.
- 4. What is formed when two corries develop side-by-side or back to back.
- 5. Identify the landform created when three or more corries form on the sides of the same mountain.

- 6. Give a named example of a pyramidal peak.
- 7. In the UK the deepest corries are found on the north east side of mountains. Why is this?
- 8. What is often formed when ice within a corrie melts?
- 9. How does the appearance of a river valley change following glaciation?
- 10. What is a hanging valley?
- 11. How are hanging valleys formed?
- 12. What is a truncated spur?
- 13. What is a ribbon lake?
- 14. How are ribbon lakes formed?

#### LANDFORMS RESULTING FROM ICE TRANSPORTATION AND DEPOSITION

- 1. What is the name for a rock that has been deposited by a glacier in an area of different geology?
- 2. What is the name for an egg-shaped hill, formed from till, that are molded and streamlined by the movement of ice?
- 3. What is a basket of eggs topography also known as?
- 4. What is moraine?
- 5. What is the name of the elongated ridge of till that builds up at the edge of a glacier where it meets the valley side?
- 6. Identify the type of moraine formed by the joining of two glaciers.
- 7. Identify the type of moraine that forms a series of ridges behind the terminal moraine.
- 8. Identify the uneven till deposits found on the bed rock beneath a glacier.
- 9. What type of moraine is found at the snout of a glacier, formed by bulldozing?
- 10. Which type of moraine is most likely to remain intact following ice melt.

#### LAND USE IN GLACIATED UPLAND AREAS

- 1. Identify four land uses in glaciated upland areas in the UK.
- 2. Which type of animals are commonly reared in glacial upland areas?
- 3. What type of trees are commonly found in glacial upland areas?
- 4. Give an example of a type of rock quarried in an upland area.
- 5. Give three leisure activities popular in upland glacial areas.

#### WHAT ARE THE LAND USE CONFLICTS IN UPLAND AREAS

- 1. Identify two different land users that can experience conflict in upland glaciated areas.
- 2. Describe the conflict that exists between the two groups.
- 3. Define the term conservation
- 4. Describe one example of a conflict between development and conservation in glaciated upland areas.
- 5. Identify a glaciated upland area you have studied.
- 6. Give a social impact of tourism in the area you have studied.
- 7. Give an economic impact of tourism in the area you have studied.
- Give an environmental impact of tourism in the area you have studied 8.
- 9. Identify one impact of tourism and explain the management strategies used to reduce its impact.

### **Answers**

#### **GLACIAL EROSION AND WEATHERING**

- The Arctic ice sheet 1.
- 25,000 years ago 2.
- 3. Gravity
- 4. Plucking and abrasion
- 5. Meltwater beneath the glacier freezes and bonds to the bedrock of the glacier. As the glacier moves forward it loose piece of rock are plucked from the bedrock.
- 6. Rocks trapped and frozen to the base of the glacier scratch the bedrock. Melt water beneath the glacier lubricate the ice allowing it to move forward.
- 7. A striation
- 8. Freeze-thaw weathering
- 9. Water enters a crack in the rock. It freezes and expands by 9% and enlarges the crack. When the ice thaws the water seeps further into the cracks and re-freezes. After repeating this cycle rock fragments break away.
- 10. Scree slopes / blockfields
- 11. Weathering occurs in situ (the same place) whereas erosion involves movement to a new location.

#### **GLACIAL MOVEMENT AND SEDIMENTS**

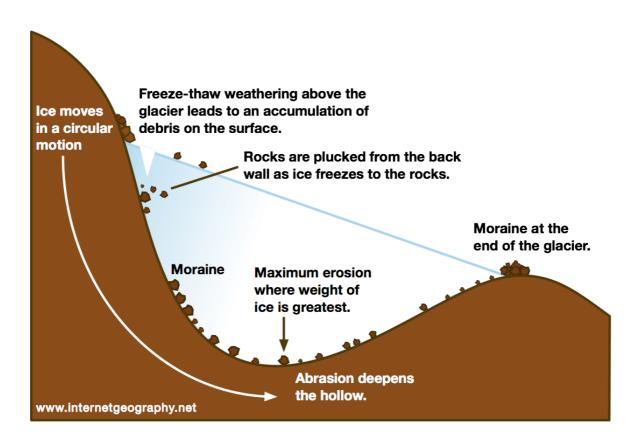
- 1. Snow accumulates and is compressed, layer on layer, into granules of ice.
- 2. Gravity
- 3. Crevasse
- 4. Meltwater below the glacier enables it to slide forward and flow downhill.
- 5. Internal deformation involves the slipping and deformation of individual ice crystals.
- 6. Glacier advance is when the glacier moves forward caused by the accumulation of snow being greater than the amount of melting (ablation) leading to the growth of the glacier.
- 7. Glacier retreat is when the amount of melting (ablation) is greater than the accumulation of snow leading to the glacier shrinking.
- 8. Till
- 9. Ground moraine
- 10. Snout
- 11. Bulldozing
- 12. Meltwater
- 13. Outwash plain
- 14. Despite retreating the glacier continues to flow downhill under gravity and therefore transport material.

#### LANDFORMS RESULTING FROM ICE EROSION

- 1. A corrie is a deep, armchair shaped hollow found in the side of a mountain where a glacier
- 2. Corries are formed when snow accumulates in a hollow in the side of a mountain. If the snow does not melt during the summer further snowfall leads to the accumulation of snow, which, over time, becomes compressed forming ice. Freeze-thaw weathering supports the formation of ice by removing air. The accumulated ice begins to flow from the hollow. As this happens plucking removes rocks and debris which freezes to the base of the glacier. As

the glacier moves this material abrades the hollow causing it to get wider, deeper and steeper. On the back wall of the corries, above the ice, freeze-thaw weathering causes the top of the ice to be covered in rock debris. Over time, the back wall retreats backwards, cutting deep into the side of the mountain.

3.



- 4. An aréte
- 5. Pyramidal peak
- 6. The Matterhorn in the European Alps
- 7. It is where the least sunlight is received.
- 8. Corrie lake, cwm or tarn.
- 9. Valleys become u-shaped with flat floors and steep sides.
- 10. It is a smaller, tributary valley left at a higher level than the main trunk valley.
- 11. Smaller glaciers in tributary river valleys also form glacial troughs, however, they are on a much smaller scale. With less downward erosion, when the ice melts it leaves the tributary valley at a higher level than the main valley.
- 12. Vertical cliffs formed from the remains of an interlocking spur, eroded by a glacier.
- 13. Long, narrow and very deep fresh water lake.
- 14. They are formed from a localised increase in vertical erosion, often involving rotational slip scooping out the bedrock. This can occur because of a band of weaker, more easily eroded rock crosses across a valley or where a valley becomes narrower increasing the depth and power of the glacier. It could also occur where a tributary glacier joins the valley increasing the erosion rate due to the greater mass of ice.

#### LANDFORMS RESULTING FROM ICE TRANSPORTATION AND DEPOSITION

- 1. Erratic
- 2. Drumlin
- 3. Drumlin swarm
- 4. Poorly sorted, angular till deposits deposited by melting ice.
- 5. Lateral moraine
- 6. Medial moraine
- 7. Recessional moraine
- 8. Ground moraine
- 9. Terminal moraine
- 10. Lateral moraine as they are less likely to be eroded by meltwater.

#### LAND USE IN GLACIATED UPLAND AREAS

- 1. Farming, forestry, quarrying and tourism.
- 2. Sheep
- 3. Coniferous trees
- 4. Lake district slate, Pennines limestone and Highlands granite
- 5. Hiking, cycling, climbing and nature watching (credit any other appropriate activity)

#### WHAT ARE THE LAND USE CONFLICTS IN UPLAND AREAS

- 1. Answers could include farming and tourism, quarrying and conservation, tourism and conservation.
- 2. **Farming and Tourism:** tourists often use paths that cross farmland occasionally leaving access gates open resulting in animals escaping. Loose dogs can worry sheep. Litter can be hazardous to livestock.
  - **Quarrying and Conservation:** quarrying can spoil the natural landscape, destroy habitats and damage the natural environment. Quarry traffic causes noise, congestion and increases air pollution.
  - **Tourism and conservation:** tourism can lead to pollution, litter and footpath erosion leading to a negative impact on the natural environment.
- 3. The protection of plants, animals, and natural areas, especially from the damaging effects of human activity
- 4. Energy development and conservation, reservoir construction and conservation and forestry and conservation.
- 5. Examples could include The Lake District, Snowdonia, Scottish Highlands and the Isle of Arran.
- 6. Social impacts will relate to the impact on people. It may include congestion, overcrowding, local people being outpriced on the housing market and poorly paid, seasonal jobs.
- 7. Economic impacts will relate to money. Answers may include boost to the local economy through spending in hotels, shops and restaurants and a wider range of services can be supported.
- 8. Economic impacts will relate to the natural environment. Examples will include pollution, footpath erosion and impact on ecosystems and habitats.
- 9. Impacts may include traffic congestion, footpath erosion, seasonality of employment, footpath erosion and accidents. Answers will explain how these have had a negative impact.