KESTEVEN AND SLEAFORD HIGH SCHOOL

Geography Scheme of Learning
Year 9 – Term 5/Ice on the Land

Intent – Rationale

The intent is to teach students about how the climate of the UK has changed in the last 2 million years and the impact of Ice Ages on the landscape. We consider how the environment during the Ice Ages was distinctly different and consider the impact of advancing and retreating glaciers on the UK landscape today. Students will learn to recognise glaciated landforms of erosion and deposition and will be able to describe and explain them. We look ahead and link our knowledge of climate change to glacier retreat and impacts of this on people and the environment.

Sequencing – what prior learning does this topic build upon?	**Sequencing – what subsequent learning does this topic feed into?**
• Causes and impact of climate change (Y7) • Physical features of Antarctica (Y7) -	• Y10 GCSE– evidence for climate change – evidence of glacier retreat • Y10 GCSE– impact of climate change • Y10 GCSE– UK relief and landscapes • Y10 GCSE – Cold environments
What are the links with other subjects in the curriculum?	**What are the links to SMSC, British Values and Careers?**
• Base the content here on what you already know but there will be time in future to liaise further as part of our collaborative work	SMSC SP2, M2 Careers: h) IT and computing skills
What are the opportunities for developing literacy skills and developing learner confidence and enjoyment in reading?	**What are the opportunities for developing mathematical skills?**
• FROM THE LIBRARY *Weathering and Erosion*; C Clifford-551.3 *Earth's Restless Surface;* 551.2 (natural History Museum) *Horrible Geography Freaky Peaks*; A Ganeri-551.2 *Glacial and Periglacial Environments*; David Anderson-910	• Graph interpretation – looking at relationship between rising CO2 concentration levels and temperature. (lesson 7) • Climate data and graph analysis

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A portrait of England; Joanna Ede-910 *National Geographic*-magazine section	

Geography Scheme of Learning
Year 9 – Term 5

Intent – Concepts

What knowledge will students gain and what skills will they develop as a consequence of this topic?
Know The change in climate from the last Ice Age to the present The impact of ice on the physical environment of the UK What glaciers, ice sheets and ice caps are and where they are found How glaciers move How glaciers erode, transport and deposit material Glaciated landforms of erosion and deposition How to recognise glacial landforms on an Ordnance Survey map The impact of retreating glaciers on people and the environment **Apply** Knowledge of processes of glacier erosion, transportation and deposition to explain the formation of landforms Knowledge of evidence of climate change to explain why glaciers are retreating Knowledge of map skills to interpret a glaciated landscape on an Ordnance Survey map and recognise landforms **Extend** Explain how people all over the world pose a threat to ice on the land Evaluate the impact of retreating ice sheets for different groups of people

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What subject specific language will be used and developed in this topic?	What opportunities are available for assessing the progress of students?
• Ice Age - • Interglacial • Quaternary Period • Tundra • Mountain Glacier • Altitude • Crevasse • Glacial • Glacier • Ice cap • Ice sheet • Erosion • Deposition • Abrasion • Freeze-thaw • Plucking • Arête	• Homework – one task per week which includes independent research, learning key terms and spellings and annotated description and explanation of glaciated landforms • Key words knowledge and spelling test • End of topic assessment • Answers to mark on Ordnance Survey map skills

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• Corrie/Cirque e. A smooth hill, shaped like the back of a spoon • Hanging valley • Glacial trough • Drumlin • Erratic • Moraine	

Intent – Concepts

Lesson title	Learning challenge	Higher level challenge	Suggested activities and resources
1/2.Your place….20,000 years ago!	Can I describe what the Ice Ages were and when they took place?	Can I describe and explain the physical landscape during the Ice Ages? Why did the woolly mammoth die out?	Power point 1 Stater: http://www.bbc.co.uk/programmes/p00bxkf6 http://www.bbc.co.uk/programmes/p00bxkhr Video clips – what has happened and what do the discoveries show? Geog. 1 4th edition pages 62-63 http://www.bbc.co.uk/programmes/p00bxkwj (Channel crossing – sea level change) http://www.bbc.co.uk/programmes/p00bxkwj (Lion in Trafalgar Square!)

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			Time traveller diary: You are going back in time 20,000 years ago to an 'Ice Age' in the Quaternary period. • Write a diary entry describing the characteristics and features of the physical landscape around you. Include detail about the ice/glaciers, vegetation (tundra), animals, temperature. What can you feel, smell, hear, see?
2.How has ice influenced the UK's physical landscape?	Can I explain why the woolly mammoth died out?	Can I describe the landforms in the UK today which were formed by glaciation?	Power point 2 Worksheet – why did the woolly mammoth die out? Birth of Britain documentary and questions Pumpkin video – Glaciation in the UK
3. What and where glaciers are found	Can I describe what a glacier is and how it is formed?	Can I explain the location of glaciers in the world today?	Lesson 3.pptx Geog. 1 4th edition pages 64-65 Video clip: snow turning into ice http://www.youtube.com/watch?v=4wNOrFy17WE
4.How do glaciers move and shape the landscape.	Can I describe the processes that cause a glacier to shape the landscape?	Can I explain how different processes of erosion, transportation and deposition shape the landscape?	Lesson 4.pptx Starter – glacier, ice sheet of ice field images Geog. 1 4th edition pages 66-67 Pumpkin video – Processes and landforms How do glaciers shape the landscape? Kerboodle animation https://www.youtube.com/watch?app=desktop&v=loI584OFVpE
5.Glacial landforms shaped by erosion, transportation and deposition	Can I describe a range of landforms formed by glaciation?	Can I explain how a range of landforms have been formed by erosion and deposition?	Lesson 5.pptx Pumpkin video – Processes and landforms Students to produce an information leaflet about a range of glacial landforms using website and Geog. 1 4th edition pages 68-73 http://swisseduc.ch/glaciers/glossary/index-en.html Homework: Write a Glacial Poem or Rap.

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			You may work in pairs if you wish? Try and include some excellent description and clear terminology using words that we have learnt. It does not have to rhyme!
6.Glaciated landforms on Ordnance Survey maps	Can I identify signs of glaciation on an Ordnance Survey map?	Can I explain how landforms of an Ordnance Survey map have been formed by ice?	Lesson 6.pptx Starter: Mix and match task of definitions Donald Campbell discussion – link to Lake Coniston OS Map skills task using Geog. 1 pages 74-75
7.Impact of retreating ice on people and the environment	Can I explain how climate change may affect the movement of glaciers in the future?	Can I evaluate the impact of retreating ice sheets for different groups of people	Lesson 7.pptx Starter: Clips: https://www.youtube.com/watch?app=desktop&v=SC5F_X4n7SY (Barack Obama) https://www.youtube.com/watch?app=desktop&v=nmz-l7xJkQU (retreating Mt. Blanc) Discussion of images showing evidence of climate change (glacial retreat) Geog. 1 4th edition pages 76-77. 'Glaciers and us' questions. BBC News Article 2016 – impact of glacial retreat on people and the environment in La Paz, Bolivia Homework: '*People all over the world pose a threat to climate change.'* *'The ice sheets pose a threat to people all over the world.'* To what extent do you agree?
End of topic assessment			