

CUSP AT EDGE HILL



Science

History

Geography

WHY CUSP?

- CUSP is an evidence-based curriculum strategy, which puts retrieval at the forefront of learning.
- The aim of CUSP is to increase fluency and reduce cognitive load for our pupils.
- CUSP builds on Rosenshine's principles and supports our pedagogical approach to teaching at Edge Hill. Wherever possible, we have aimed to build on our current practice to ensure the transition to CUSP is as manageable as possible.

CUSP LEARNING MODULES

- CUSP modules are designed to be taught in order to support schema formation, through building on the 'big idea'. For Science, this means focusing on the specific domains of Biology, Chemistry and Physics and drawing pupil's attention to which of these domains we are learning about within a topic.
- Essential knowledge and vocabulary is communicated to avoid the split-attention effect. When pupils are exposed to too much information, their attention can be split and is spread too thin.
- In some year groups, there are revisit modules to support retrieval further.

BENEFITS

- Key focus on essential information – reduces workload as less ‘fluff’ is needed in flipcharts. Less time spent planning and finding information.
- Increased retrieval – if pupils are learning key content which is sequenced correctly, they are more likely to store this in their long-term memory, enabling retrieval later.
- Science – ensures coverage of essential substantive knowledge. Misconceptions are avoided and prior misconceptions addressed.

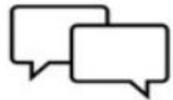
PHASES OF A CUSP LESSON

Retrieval



Connect

My turn



Explain / Example



Our turn



Attempt

Your turn / Going Deeper



Apply / Challenge



This isn't set in stone – there should be parts of our / your turn within my turn
e.g. oral rehearsal of key vocabulary.

RETRIEVAL

- Recap – In the first lesson, draw on prior knowledge from previous year groups and discover what your class can retrieve.
- Give one get one – In pairs, pupils share one (or more) fact in turn from the prior lesson with their partner and vice versa.
- Remember two: show what you know – Pupils independently retrieve two facts from the prior lesson.
- Flickback 4 - Use 4 sentence stems to aid retrieval of knowledge from previous lesson. Pupils complete sentence stems.

RETRIEVAL



Flick back 4

1. When was the Palaeolithic Stone Age?
2. What is a nomad?
3. Why did mammoths become extinct?
4. What did the Cheddar Man teach us?



GIVE ONE

GET ONE



+2

Remember two things – show what you know

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

Should be done on whiteboards for quick AFL – not stuck in books. Misconceptions addressed immediately.

KNOWLEDGE ORGANISERS

HISTORY

INTRODUCE The **Viking and Anglo-Saxon** struggle for the Kingdom of England to the time of Edward the Confessor

Year ____ Term ____

The name **VIKING** could originate from the old Viking word: **Vikinger** sea-raider

Causes of Viking incursion and invasions of Britain

| LOCATION | SETTLEMENTS | SOLUTIONS |
|-----------------------------|--------------------------------|---|
| Denmark Norway Sweden | villages small towns | trade travel raid |
| VIKINGS | Farmers traders warriors | Land hard to farm No metals, like gold or iron |
| WAY OF LIFE | CHALLENGES | CONSEQUENCE |
| | | invaded Britain took resources |

Chronology of Anglo-Saxon and Viking struggle

time study

- AD 793: Lindisfarne raided

825: Raids increased

843: Picts were wiped out by Norwegian Vikings

865: Great Viking Invasion led by King Guthrum

866: York defeated and renamed Jorvik

869: King Edmund killed

878: Wessex king Alfred the Great Vs Viking king Guthrum

878: King Alfred lost, retreated and regrouped

878: Battle of Edington, Alfred the Great defeated the Vikings

878: Alfred and Guthrum fought a truce

1066: Battle of Stamford Bridge

1066: Battle of Hastings
- 1042: Ethelred's son took the throne

1066: William, Duke of Normandy (Viking descendent), then defeated Harold Godwinson to become the king of England.
- 1013: Viking king - Sweyn Forkbeard invaded London

1013: King of England - Ethelred the Unready fled to Normandy (France)

1013: Remember this

1013: King Canute (Canute), Sweyn's son, became the monarch

1013: Strong and powerful Christian king of England, Denmark and Norway

1013: Viking king - Sweyn Forkbeard was the first Viking king of England

1013: Edward the Confessor children - no heir to the throne

1013: Who claimed the English throne?

1013: Harold Godwinson (Anglo-Saxon)

1013: William, Duke of Normandy (Viking descendent)

1013: Harold Hardrada (Viking)

The Vikings were very successful during this period. England had rich pickings with much better land and resources, such as iron ore and precious metals.

Vikings agreed to divide England up, so both sides could live peacefully.

Viking lands were called Danelaw. York was their capital city.

1066 Battle of Stamford Bridge
Harold Godwinson defeated Harold Hardrada.

1066 Battle of Hastings
William, Duke of Normandy, then defeated Harold Godwinson to become the king of England.

CUSPA

GEOGRAPHY

INTRODUCE Rivers

Year ____ Term ____

source

the beginning of a river headwater

melting snow
rainwater runoff
groundwater overflowing
spring

Upper course

start - source becomes very fast-flowing water

narrow river channel

path water takes

V-shaped valleys

rivers cut through rock
rode riverbank and riverbed

waterfalls

rapids

hard rocks stick out of the river

cause fast-flowing and dangerous water

riverbed

pebbles and rocks

Middle course

flatter, middle section of a river

river channel widens and deepens

meanders

shaped bends in the river caused by deposition

new sand and mud settle on the riverbed / bank

erosion

wearing away of riverbed and riverbank

riverbed

sand and mud

Lower course

lower, flatter ground with river flowing into and meeting a lake or the sea - river mouth

rivers widen

deposit sediment
mud and sand

floodplains

area around river covered in times of flood

riverbed

mostly mud

Local River Knowledge

River

your river starts upper, middle, lower?

features:

source

mouth

Rivers of the United Kingdom

River Thames London

River Taff Cardiff

Water of Leith Edinburgh

River Lagan Belfast

source (headwater)

waterfall

tributary - smaller streams that flow into the river

rapids - rocks poking out of a river cause dangerous, fast-flowing water

meander - large river bend

river channel wide and deep

mouth

floodplain low flat ground at risk of flooding

CUSPA

Science study

INTRODUCE Living things and their habitats

Year ____ Term ____

classification

sort into groups action of

to divide or sort into groups

vertebrates animals with backbones

Warm-blooded

Cold-blooded

Mammals

Fish

Birds

Reptiles

Amphibians

invertebrates animals without backbones

Arthropoda

Arachnida (spiders)

Insects

There are more invertebrate groups, but we're studying these four: slugs and snails, worms, spiders, insects

Annelida (worms)

Molluscs (slugs and snails)

flowering plants

plants that reproduce using flowers to make seeds

daffodil

hyacinth

grass

oak tree

non-flowering plants

plants that reproduce using spores and seed cones

ferns

moss

conifers - Scots Pine

biodiversity

Latin: life variety

enormous variety of life on Earth

habitat

Latin: habitare

to live, inhabit, dwell

ecosystem

how living things interact with their habitat and environment

AFFECTED BY

biotic

living things

plants

animals

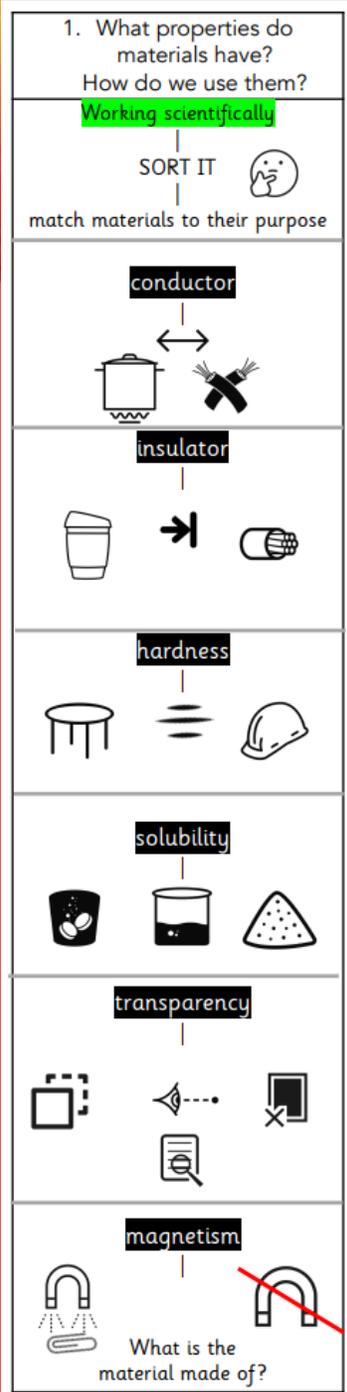
abiotic

non-living

rain or sun

soil

CUSPA



KNOWLEDGE NOTES

- Knowledge notes communicate the content for the lesson as a point of reference.
- Reduced split attention effect, increase participation and independence.
- Aids retrieval of learning from the long-term memory.
- Stuck into books on the left-hand side, over the margin. Date written to the right.
- Learning question at the top to be used for assessment.

Year 5 Properties and changes of materials

Q1 What properties do materials have? How do we use them?

Describing

In pairs, record as many different properties of materials as you can on identical pieces of card. Turn the cards over. Take it in turns to pick a card and describe the property to a partner for them to guess. You must not use the word itself or the opposite property.

Matching

Place all the cards generated for the task above face down. Pick two cards and work with a partner to give examples of materials that possess both of the properties revealed.
(What happens if opposite properties are selected? Discuss.)
Increase the challenge by selecting 3 / 4 / 5 cards / properties and asking pupils to state a use for each material listed.

Creating **I PROF**

The *Mohs scale* details (mineral) hardness. In pairs, create a set of tests that will enable you to design a scale for flexibility. Aim to position four materials along your new scale and justify their positions. Position the same four materials on another pair's scale. Do they sit in the same order? If not, why not?

Comparing

Identify everyday objects that are made from plastic and suggest an alternative material for each object. Justify your choices by referring to the relevant properties.
Environmentally, why is it vital for the world to reduce the amount of plastic used?

Justifying

Imagine that the world was going to run out of one material tomorrow, which material would you NOT want it to be?
Justify your reasons for selecting this *must-have* material.

Reasoning

First extracted at the University of Manchester in 2004, graphene is the world's strongest material. It is also incredibly light.
If you could use graphene for just three things, what would they be? Explain the reasons behind your choices.

THINKING TASKS

- Range of activities / ideas to provoke active learning.
- Many use the Working Scientifically Skills.
- Will be pre-selected in the first instance to reduce workload and ensure coverage of WS Skills.
- Often have a reasoning / problem solving focus.
- Links to real life situations.

SCIENCE LTP

| Year | Autumn | | | | | | | | | | | | Spring | | | | | | | | | | | | Summer | | | | | | | | | | | |
|--------|----------------------------------|---|---|---|---|---|--------------------------|---|---|---------------|----|----|--------------------------|---|---|---|---|---|-----------------|---|---|----|----|----|----------------------------------|---|---|---|---|---|---------------------------|---|---|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Year 3 | Rocks | | | | | | Animals including Humans | | | Revisit Rocks | | | Forces and Magnets | | | | | | Plants | | | | | | Plants Continued | | | | | | Light | | | | | |
| Year 4 | Living things and their Habitats | | | | | | States of Matter | | | | | | Animals including Humans | | | | | | | | | | | | Electricity | | | | | | Sound | | | | | |
| Year 5 | Properties of Materials | | | | | | Animals including Humans | | | | | | Forces | | | | | | Earth and Space | | | | | | Living things and their Habitats | | | | | | Forces Continued | | | | | |
| Year 6 | Living things and their Habitats | | | | | | Light | | | | | | Animals including Humans | | | | | | | | | | | | Electricity | | | | | | Evolution and Inheritance | | | | | |

HUMANITIES LTP

| | Autumn | | | | | | | | | | | | Spring | | | | | | | | | | | | Summer | | | | | | | | | | | |
|--------|--|---|---|--|---|---|--|---|---|--------------------|----|----|--|---|---|---|---|---|-------------------------------------|---|---|---|----|----|---|---|---|--|---|---|-----------------------|---|---|---|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Year 3 | Field work and Map Skills (3wks) | | | Changes in Britain from the Stone Age to the Iron Age (9wks) | | | | | | | | | Counties and regions of the UK (5wks) | | | Stone Age Revisit (3wks) | | | OS Map skills and field work (4wks) | | | Roman Empire and <u>it's</u> impact on Britain (9wks) | | | | | | UK revisit (3wks) | | | | | | | | |
| Year 4 | Britain's settlement by Anglo Saxons and Scots (6wks) | | | | | | Rivers (4wks) | | | Water Cycle (2wks) | | | Vikings and Anglo-Saxon Struggle for the Kingdom of England to the time of Edward the Confessor (6wks) | | | | | | Latitude and Longitude (6wks) | | | | | | Ancient Egypt (7wks) | | | Map Skills - Environmental regions of Europe, Russia, N & S America (5wks) | | | | | | | | |
| Year 5 | Location of Countries of the world including Biomes and Environmental regions (6wks) | | | | | | Ancient Greece - A study of Greek life and influence on the Western World (6wks) | | | | | | Ancient Greece (3wks) | | | Map skills - 4 & 6 Figure Grid Ref (3wks) | | | OS Map Skills and fieldwork (6wks) | | | | | | Maya/Anglo Saxon Comparison (9wks) | | | | | | Biomes revisit (3wks) | | | | | |
| Year 6 | Comparison study: UK, Europe, N America (6wks) | | | | | | How did conflict change our local area in WW2? (6wks) | | | | | | Physical processes: Earthquakes, Mountains, Volcanoes (6wks) | | | | | | The Windrush Generation (6wks) | | | | | | Human and physical geography: economic settlement and trade links. (3wks) | | | Study five Monarchs (6wks) | | | | | | Orienteering: map and fieldwork skills (3wks) | | |

| Year group: 5 | | Discipline: Biology | | Topic: Animals including Humans (3 weeks) | | Term: Autumn 2 | | |
|--|-------------------------------|--|--|--|---|---|---|--|
| National Curriculum links: <ul style="list-style-type: none"> Pupils should be taught to describe the changes as humans develop to old age. Pupils should draw a timeline to indicate stages in the growth and development of humans. They should learn about the changes experienced in puberty. Pupils could work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows. | | | | Prior learning: Year 2: Animals including Humans. Notice that animals, including humans, have offspring which grow into adults. Year 3: Animals including Humans. Skeletons for growth and support. | | Future learning: Year 6: Animals including Humans. Recognise the impact of diet, exercise, drugs and lifestyle on the way their <u>bodies</u> function. | | |
| Key Concept: Describe the changes as humans develop to old age. | | | Common misconceptions: <ul style="list-style-type: none"> An embryo and foetus are the same. Puberty only happens to teenagers. Puberty is when you get spotty. All animals have the same gestation period. | | Scientific Enquiries: Comparative / Fair testing Research Observation over time Pattern-seeking Identifying, grouping, and classifying Problem-solving | | Working Scientifically Skills: <ol style="list-style-type: none"> Asking questions Planning an enquiry Making predictions Observing closely Taking measurements Gathering and recording results Presenting results / learning Interpreting results Drawing conclusions Evaluating an enquiry | |
| Week | Big Question | Disciplinary Knowledge | Vocabulary | Brief overview of learning task | | | | |
| 1 | What is the human timeline? | Identifying, grouping, and classifying 1, 7 | adolescence embryo foetus womb | Retrieval: Discussion about Year 2/3 learning. My turn: Introduce vocabulary with clear definitions. Show KO and briefly discuss each stage. Discuss human gestation, embryo, and foetus stages. Our turn: As a class, discuss development after birth – focus on the differences in diet, movement, communication (speech), independence, appearance (teeth, hair, skin etc.). Your turn: Pupils to choose a stage of development to describe to their partner using differences discussed during our turn. In pairs on <u>wb</u> , order the stages from least change to most change. Discuss as class and ask questions about the different orders that pairs have listed. Pupils to demonstrate their answer to the learning question in a format of their choosing in their books. Going deeper: Explain the connection between embryo, foetus, and womb. | | | | |
| 2 | How do we change into adults? | Identifying, grouping, and classifying Problem-solving 1, 7, 9 | puberty develop mature equipped | Retrieval: Give 1 get 1 - Tell partner one change that takes place during a stage of development in the human timeline. Use KO to scaffold. My turn: Introduce vocabulary with clear definitions. Show KO and briefly discuss puberty, when it occurs, ages it can begin between and the purpose. Discuss starting ages in more detail, <u>girls</u> vs boys. Discuss physical changes that occur for both girls and boys: underarm / pubic hair, body odour, emotional changes, growth rate increases. Discuss changes only girls will <u>experience</u> : breasts develop; ovaries release eggs and menstrual cycle begins; hips get wider. Discuss changes only boys will <u>experience</u> : voice breaks; shoulders widen; underarm, face and chest hair grow; testes and penis develop more; testes begin to produce sperm cells. Address misconceptions of more spots and mood swings, ask for other misconceptions. Our turn: In pairs, explain and conclude why girls and boys need to go through puberty - use key vocabulary. Your turn: Using Venn diagram, table, or labelled diagrams (without breasts/penis drawn on), pupils sort changes discussed into changes for girls, changes for boys, changes for both. Going deeper: Pupils work in pairs to write a short message to a 'chat room' in books, explaining a typical (hypothetical) problem they have relating to puberty. Pupils to swap books and write a response to help with the problem. Precise tier 3 vocabulary should be used. <u>E.g.</u> Question: I have started growing hair under my arms and I don't know why?! Response: That is normal. During puberty, your body develops and changes. One of those changes is that you start to grow hair under your arms. | | | | |

| | | |
|---|---|--|
| Year group: 4 | Topic: Britain's settlement by Anglo-Saxons and Scots (6 weeks) | Term: Autumn |
| National Curriculum links: * The struggle for the Kingdom of England - Britain's settlement by Anglo-Saxons and Scots. | Prior learning: * Y3 - Changes between the Stone Age, Bronze Age and Iron Age. * Y3 - Rome and its impact on Britain. | Future learning: * Y4 - Viking and Anglo-Saxon struggle for the kingdom of England. |
| Substantive concepts: * Invasion * Power * Community Themes: Kingdom, Monarchy, Trade, Migration, Religion, Settlement, Conflict, King | Common misconceptions: * The Scots came from Scotland. (lesson 1) * The Anglo-Saxons only raided Britain. (lesson 2) * The Anglo-Saxons were what the people of Britain were called before the migration. (lesson 2) * Anglo-Saxons were barbarians. (lesson 3) * Anglo-Saxons were ruled by one king. (lesson 4) * All Anglo-Saxons had elaborate burials. (lesson 5) * Anglo-Saxons brought Christianity to Britain. (lesson 6) * Anglo-Saxons were Christians like the Romans before them. (lesson 6) | Disciplinary concepts: * Chronology * Cause and consequence * Change and continuity * Similarity and difference * Evidence * Significance |

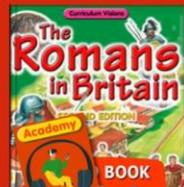
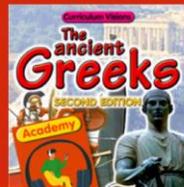
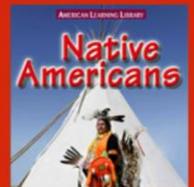
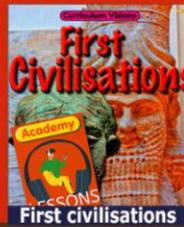
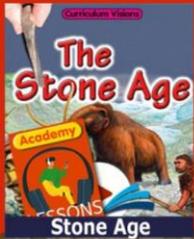
| Week | LO / Big question | Disciplinary Knowledge (Thinking like a Historian) | Vocabulary | Brief overview of learning task(s) |
|------|---|--|---|--|
| 1 | Why did the Anglo-Saxons come to Britain? | Which empire crumbled and left Britain unable to defend itself from invaders? When did that happen? When do historians think the Scots and Picts started raiding southern Britain? What caused the Picts and Scots to start raiding southern Britain? How is the Roman exit connected to the arrival of the Anglo-Saxon in Britain? | Scots (Ireland) Picts (Scotland) Unprotected Anglo-Saxons | Retrieval: Flick back 4 Input: * Introduce the terms POWER, INVASION AND COMMUNITY - may want to display on working wall to add to. Today the focus will be on INVASION. * Use KO and KN to look at events leading to Anglo-Saxons coming to Britain and discuss these. Task: * In pairs, use sequence hexagons to orally rehearse why the Anglo-Saxons came to Britain. * <u>Chn</u> have blank hexagon where they need to complete the information on the outside. Going deeper: Identifying and justifying task. |
| 2 | Where did the Anglo-Saxons come from? | When did the Anglo-Saxons arrive in Britain? What caused the Anglo-Saxons settlement of Britain? How did the three tribes change when they migrated to Britain? | Anglo-Saxons Jutes Angles Saxons Repel Migration | Retrieval: Remember 2 things. Ask <u>chn</u> what they know about INVASION so far and add to working wall. Input: * Introduce the word 'migration' and explain what this means. * Look at map to show where tribes originated (including country flag) and where they then settled. Understand that Anglo-Saxons were a combination of European warrior tribes. Task: |

| | | |
|--|-------------------------------|---|
| Year group: 4 | Topic: Rivers (4weeks) | Term: Autumn |
| National Curriculum links: Human and physical geography Describe and understand key aspects of: <ul style="list-style-type: none"> Physical geography, including climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle. Human geography, <u>including</u>: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water. | | Prior learning: Year 3 - Human and physical features |
| | | Future learning: Year 4 - Water cycle |
| Substantive Concepts (Golden Threads): Physical features - natural environment; shaped by nature Human features - built environment; made by humans | | Common misconceptions: <ul style="list-style-type: none"> Rivers start at the sea (<u>Rivers</u> flow towards the sea or large lakes. They are driven by the non-contact force of gravity.) Rivers are only found in the countryside (Great civilisations have been built around rivers, such as the <u>River Nile</u>). The <u>River Nile</u> flows in a southerly direction (down the page) (The River Nile flows from the mountains of Rwanda and Ethiopia northwards to the Mediterranean (up the page as you look at it)). |
| | | Disciplinary concepts: Place and Space Scale and Connection Physical and human geography Environment and sustainability Culture and diversity |

| Week | LO / Big question | Disciplinary Knowledge (Thinking as a Geographer) | Vocabulary | Brief overview of learning task(s) | | | | | | | | | | | | |
|---------------|-----------------------------------|---|--|--|--|-------|--------|--------------|--|--|---------------|--|--|--------------|--|--|
| 1 | What are the features of a river? | What are the courses of a river? How does the land look different at each river course? How do the courses of a river define its physical features? What pulls people to visit different courses of a river? | Upper course Middle course Lower course Course Source cascading | Retrieval: Flick back 4 My turn: Introduce the topic and explain that we are going to be looking at rivers for the next few weeks. Show vocabulary and explain that we will be looking at the different courses of a river in this lesson. Our turn: Read pages 30 and 31 in the <u>River</u> book together and talk about the features of the different courses of the river. Watch the video clip about the different courses of the river www.youtube.com/watch?v=Sv16XOnNKeU . My turn / Our turn: Show the pictures of the features that appear at the different points in the river and get children to match them to the course of the river where they would be found. Your turn: Children to sort images of a river according to the three stages and annotate with notes on the reasons why each one belongs to that stage. My turn / Our turn: Read through the River Book pages 32 and 33 together, discuss. Your turn: Use <u>The River Book</u> to complete a table with the names of species of plants and animals that live at the different stages of a rivers course. <table border="1" data-bbox="1549 1225 2186 1359"> <thead> <tr> <th></th> <th>Plant</th> <th>Animal</th> </tr> </thead> <tbody> <tr> <td>Upper Course</td> <td></td> <td></td> </tr> <tr> <td>Middle Course</td> <td></td> <td></td> </tr> <tr> <td>Lower course</td> <td></td> <td></td> </tr> </tbody> </table> Going Deeper: Explain how each species is suited to its river <u>habitat</u> | | Plant | Animal | Upper Course | | | Middle Course | | | Lower course | | |
| | Plant | Animal | | | | | | | | | | | | | | |
| Upper Course | | | | | | | | | | | | | | | | |
| Middle Course | | | | | | | | | | | | | | | | |
| Lower course | | | | | | | | | | | | | | | | |

CURRICULUM VISIONS

Ancient history



THE FIRST BRITONS

Cave paintings

Stone Age people thought of dark caves as special places. Here they pointed the animals they hunted, perhaps for similar reasons that people made stained glass thousands of years later.

Being able to draw and paint is a rare skill. But even when you have no written language, you can show in paintings what your life was like and what was important to you (picture 1).

The earliest known European cave paintings that have so far been discovered were probably made by our direct ancestors about 30,000 years ago (picture 2). They show deer, bison and even rhinos. These paintings were made in Spain and France during the last part of the Ice Age, when no one could live in Britain.

Although there is no way of knowing exactly why people made these cave paintings, we know they must have taken considerable skill and effort, so they would have been important things to do. The people did not live in the caves, so they must have been places of special importance, perhaps early kinds of temple that were visited by people whenever they were in the area.

They tell us that the people were very skilled, and that they worked together and chose to do things that were not just a matter of survival. They may have drawn on cliffs and other exposed rocks out in the open as well as in the dark reaches of caves.

but the drawings and paintings exposed to the weather have long since been lost. But a remarkable 350 caves still have paintings.

The paintings must have been made using the light from burning branches. They were never seen as we see them today with our powerful artificial lights.

They used charcoal or the soot from a fire (carbon) to make the pigment (colour) for black, and they crushed coloured stones to make red and yellow. Then they mixed these pigments with natural plant and animal gums, and painted with their fingers, or, for more delicate work, used feathers, bunches of animal hairs, quills and sticks as brushes.

1 A reconstruction of cave painting about 30,000 years ago.

Drinking coloured rocks as paint pigments

Whispering

Burning for light

Daytime view of cave

Burning for light

Crushed end of stick for painting

12 13

This is a reconstruction of what life of Stone Age might have been like.

The Atlantic ocean with its water games and storms

Roof supports of birchwood, seaweed, etc.

The lower parts of the walls were built in soil and domestic waste to help keep out the wind

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CURRICULUM VISIONS



Virtual interactive field trips

Academy lessons are not just courses, but also field trips. Want to explore a place, an area or geographic feature but can't get there? These interactive field trips are just what you need. You are guided around a scene by an expert guide, ranger etc and you can watch videos and look at many points of interest. Each point of interest has a question, more guide information and links to appropriate books.



360 CITIES

360 cities

Search...



EXPLORE

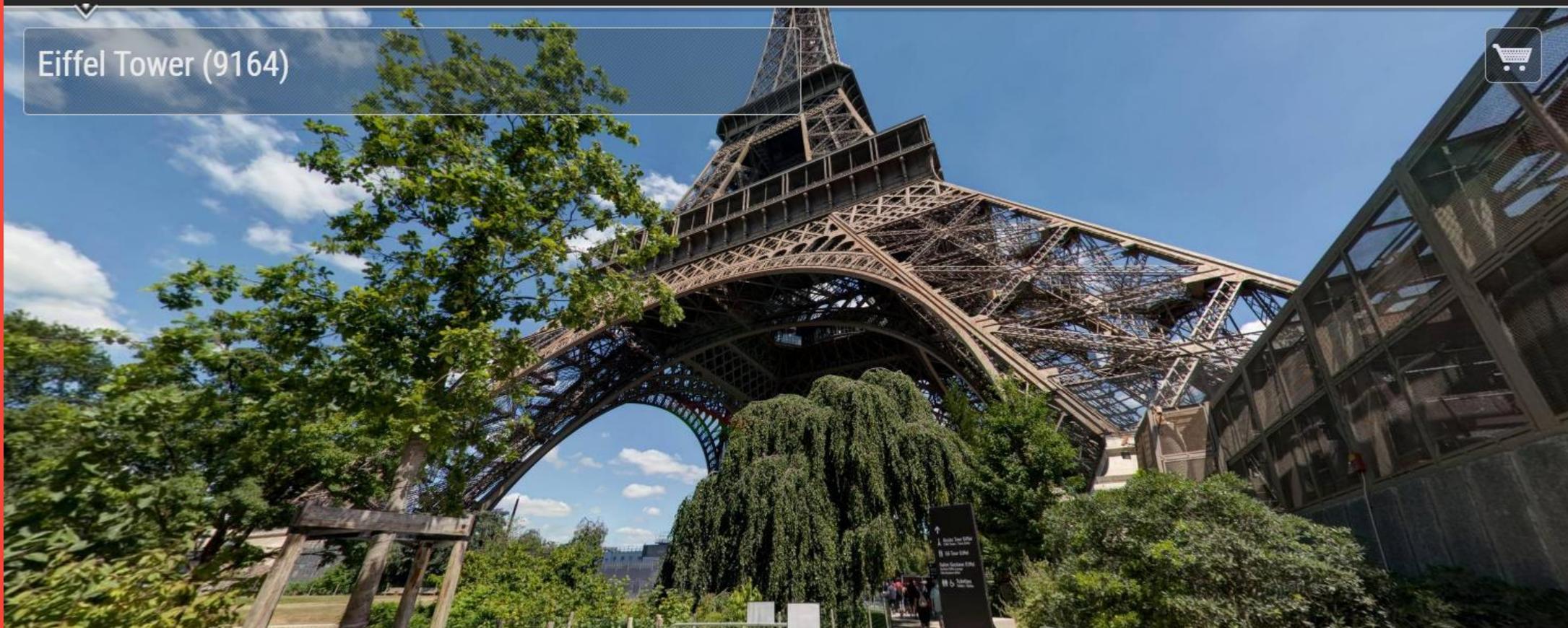
LEARN

SIGN UP/SIGN IN

Paris // France // Europe // The World

Open Map

Eiffel Tower (9164)



EXAMPLES OF WORK

2. What were Palaeolithic times like? How do we know?

Palaeolithic
ancient or old | stone

harsh conditions
world was emerging from an ice age ❄️

palaeolithic times
simple stone, bone and antler tools

nomad
Ancient Greek for roaming, wandering or roving

nomadic lifestyle
small bands of about 25 people would hunt and gather food

people hunted
woolly mammoths
woolly rhinoceroses
deer and hare

Archaeologists think people lived in Britain and on **Doggerland** (land bridge that connected Britain to Europe)

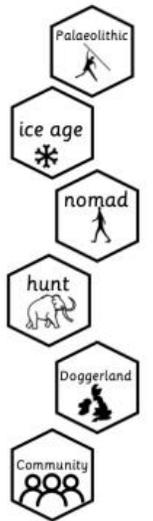


Interpreting 📖
During Palaeolithic times, people hunted animals for food. Looking at this image of a Stone Age man, what else did they use animals for? Why do you think this was important?



Animal skin could be used to create clothing as protection from the harsh conditions.

In **Palaeolithic** times, the conditions were harsh as the world was emerging from an **ice age**...



History

EXAMPLES OF WORK

2. What are the features of a river?

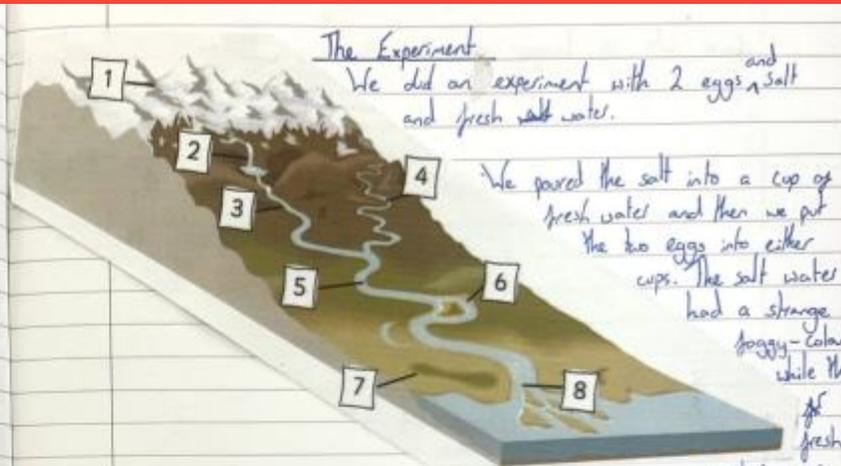
features of a river

- freshwater**
(not seawater - not salty)
- channel**
the physical path of a river
- tributary**
streams that flows into a larger river
- rivulet**
a very small stream
- confluence**
where streams or rivers meet
con + fluence
Latin together + flow
confluence = together flow
- riverbank** - sides of a river
- riverbed** - bottom of a river
- erosion**
slow wearing away of the outside bank of a river
- deposition**
slower moving water
sand and mud can't be carried by the water anymore
deposited on riverbed and bank

Tuesday 27th June 2023



In 100 years time I predict this river will look like this.



The Experiment

We did an experiment with 2 eggs and salt and fresh salt water.

We poured the salt into a cup of fresh water and then we put the two eggs into either cups. The salt water had a strange foggy - colour while the fresh water was very clear. The two eggs had very different reactions.

Key

- 1 = source
- 2 = Water fall
- 3 = rapids
- 4 = tributary
- 5 = river channel
- 6 = meander
- 7 = floodplains
- 8 = mouth

No. 1 The Source
The source is the beginning of the river. It is caused by snow dropping from mountains or lots of heavy rain.

No. 2 The Waterfall
The waterfall takes place when fast-flowing water (from the source) falls down a cliff/hill. Once this water falls to the ground, it causes the stream of water to carry on.

No. 3 The Rapids
The rapids are created when rocks and pebbles stick out of the river. This causes the river to become dangerous and fast-flowing.

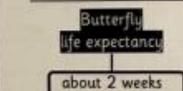
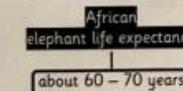
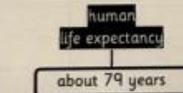
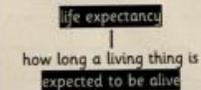
No. 4 The Tributary
The tributary is a small stream or river which

Geography

EXAMPLES OF WORK

Wednesday 21st June 2023

3. How does human and animal gestation and lifespan compare?



Do all animals follow the same pattern of gestation?

1. fertilisation
2. growth in the womb
3. born

Hypothesis: The smaller the mammal, the shorter the gestation period.

| Animal | Gestation | Average Lifespan |
|----------------|--------------|------------------|
| Anteater | 6 months | 14 years |
| Blue whale | 11-12 months | 110 years |
| Cheetah | 3 months | 12 years |
| Rabbit | 31 days | 8 years |
| Otter | 9-10 months | 10 years |
| Human | 9 months | 78 years |
| Walrus | 15 months | 40 years |
| Sheep | 5 months | 10 years |
| Pig | 4 months | 16 years |
| Dolphin | 12 months | 25 years |
| Asian Elephant | 19-22 months | 78 years |
| Dog | 2 months | 10 years |

Conclusion: Our hypothesis turns out to be sometimes true because a dog is smaller than an Asian elephant and a dog has a smaller gestation period. Compared to an Asian elephant. Similar to with the rabbit and otter compared to a blue whale.

Conclusion: Our hypothesis is sometimes true because a cheetah has a 3 month gestation and an anteater has a 6 month gestation but a cheetah is larger than an anteater therefore the hypothesis is sometimes true.

Hypothesis: The larger the mammal, the longer the life span.

Conclusion: Our hypothesis is sometimes true because the blue whale is larger than a rabbit and the blue whale has a longer life span than the rabbit (blue whale - 110 years and the rabbit - 8 years).

Conclusion: Our hypothesis turns out to be sometimes true because the anteater is larger than the a rabbit and sheep but the anteater has a shorter life span compared to a sheep - anteater - 14 years and the sheep is 16 years. A cheetah is bigger than a pig whereas as the cheetah has a smaller life span than - 12 years - than the pig - 16 years.

Learning Ques

How does human and animal life span compare?
The human life span is greater than an anteater, cheetah, rabbit, otter, walrus, sheep, pig, dolphin and a dog. In comparison, the human the blue whale has a greater life span than the 110 years although the asian elephant has an equivalent average life span as humans, which is 78 years but humans are most likely to live longer.

Do all animals follow the same pattern of gestation? No, not all species follow the same pattern of gestation. Animals like tucons, pythens and sea horses do not follow the this particular pattern because tucons and pythens lay eggs in stead. Whereas, sea horses produce 1500 eggs.

Science