

Hanslope Primary School Science Knowledge Organiser Spring 2

Year 6: Evolution and Inheritance

What will I know by the end of this unit:

INHERITANCE AND MUTATION

- Living things produce offspring of the same kind.
- Some of a parent's characteristics are passed down to the offspring this is called inheritance.
- This is why we often share similar features with our parents, and some conditions are shared.
- Inheritance is <u>genetic</u>, not environmental. E.g. If two blonde-haired parents dye their hair black, this does not mean they will have a blackhaired child.
- Some features are new to the offspring. These are called <u>mutations</u>. This
 is why we are not exact copies of our parents.
- These changes in offspring over time allow evolution to take place.

EVOLUTION

- Sometimes, changes that offspring have from their parents are advantageous – they allow the offspring to cope better in their environment.
- However, often the changes are not advantageous (called maladaptation). When this is the case, the offspring will find it more difficult to thrive.
- Natural selection can ensure that, over time, the advantageous characteristics survive in the species.
- For example, many polar animals have adapted to possess layers of blubber and/or fur (for warmth) and white outer coats (for camouflage).
- The dodo, with no predators on its island, had adapted in a number of ways that made it unable to survive when humans arrived (maladaptation).

National Curriculum Links:

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

What key vocabulary will I learn:

- <u>Evolution</u> is a change over time. It occurs when there is competition to survive (natural selection).
- Characteristics are passed from parents to their offspring. This
 is called inheritance.
- Offspring are not identical to their parents. Some characteristics are inherited, but some are new in the offspring – these are called <u>mutations</u>.
- <u>Fossils</u> are remains of living things, and provide evidence about living things from the past.
- Animals and plants are suited to their environments, and adaptation leads to <u>advantageous changes</u>.





Hanslope Primary School Geography Knowledge Organiser

Year 6: Where does our energy come from?

How does this link to my previous learning?

- Use basic geographical vocabulary to refer to key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather
- Year 4 unit Why are rainforests important to us?

What key vocabulary will I learn:

- Renewable energy energy that does not reduce in quantity when it is used.
- Non-renewable energy energy that cannot be replenished and will eventually run out.
- Fossil fuel a material formed from the remains of plants and animals over millions of years.
- . Hydropower energy generated by the movement of water.
- Geothermal energy energy generated by the heat from the Earth's core.
- Crude oil a naturally occurring liquid made millions of years ago, found underground.
- Nuclear power energy generated from radioactive materials that create heat.

National Curriculum Links:

- Describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.
- Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

How does this link to my future learning?

 Understand how human and physical processes interact to influence, and change landscapes, environments and the climate; and how human activity relies on effective functioning of natural systems.

- To know why energy sources are important.
- To understand the benefits and drawbacks of different energy sources.
- To understand how energy is generated in the United States.
- To know how energy sources are distributed in an area.
- To explain reasons for choosing an energy source.
- To collect and present data on where to position a solar panel on the school grounds.







Hanslope Primary School Knowledge Organiser Knowledge Organiser

Year Six- Is the resurrection important to Christians?

National Curriculum Links:

 To explore the resurrection of Jesus, the Easter narrative and concepts of life after death

(Believing- Belonging- Behaving- Reflecting and Responding- Making Links)

How does this link to my previous learning?

- Year Five Unit: Was the death of Jesus a worthwhile sacrifice?
- Year Three Unit: Does Easter make sense without Passover?
- Year Two Unit: How should the church celebrate Easter?

How does this link to my future learning?

 Key Stage Three: Further exploration of Christianity, alongside Sikhism and Buddhism.

What key vocabulary will I learn:

- Resurrection- the raising of Christ from the dead
- Reincarnation- the rebirth of a soul into another body
- Funeral- a ceremony or service usually held shortly after a person's death
- Heaven- a place regarded in various religions as the home of God (or the gods) and the angels. A place of good.

- The narrative of the resurrection and Christian beliefs about life after death
- The significance of the resurrection for understanding the nature of Jesus
- How Easter Sunday is celebrated and the reason for the joy of the event
- How a Christian understanding of the resurrection might influence the way that Christians respond to death
- Why many Christians believe that Jesus' resurrection is important
- Resurrection of Jesus (1 Corinthians 15)





Hanslope Primary School PSHE Knowledge Organiser – Year 6

Spring 2: Citizenship

How does this link to my previous learning?

In Year 5, children focused on:

- To develop an understanding of how parliament and Government work.
- · To know what happens when someone breaks the law.
- To know that parliament is made up of the House of Commons, the House of Lords and the Monarch.
- To know that parliament is where MPs debate issues, propose laws, amend existing laws and challenge the government's work

What key vocabulary will I learn:

Concern	Something that makes you feel worried or anxious.
Discrimination	Treating someone differently because of certain factors.
Environment	The local surroundings or place a person lives or works in.
Government	The elected party who govern and make decisions for the country.
Human Rights	Specific rights which belong to every person.
Ministers	The Prime Minister chooses MPs to be Ministers.
Prejudice	Making assumptions about someone based on certain information.
Prime Minister	Leads the government.
Protected Characteristics	The groups identified in the Equality Act.
Un/United Nations	An international organisation founded in 1945 after World War 2 which aims to maintain international peace and security, human rights and better standards of living.

National Curriculum Links:

During key stage 2 pupils learn about themselves as growing and changing individuals with their own experiences and ideas, and as members of their communities.

How does this link to my future learning?

In Key Stage 3, Teaching should develop pupils' understanding of democracy, government and the rights and responsibilities of citizens. Pupils should use and apply their knowledge and understanding while developing skills to research and interrogate evidence, debate and evaluate viewpoints, present reasoned arguments and take informed action.

- Discuss how education and other human rights protect us and how people can influence what happens in parliament.
- Discuss ways to challenge prejudice and discrimination and to identify appropriate ways to share views and ideas with others.
- To know that the prime minister appoints 'ministers' who have responsibility for different areas, such as healthcare and education.



Hanslope Primary School Computing Knowledge Organiser

Year 5: Flat-file Databases

How does this link to my previous learning?

Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

What key vocabulary will I learn:

- . Information Data put into a context that provides meaning.
- Data Facts and statistics collected for reference or analysis.
- Collection The action or process of collecting someone or something.
- Database A structured set of data held in a computer, especially one that is accessible in various ways.
- Search Try to find something by looking or otherwise seeking carefully and thoroughly.
- · Sort The arrangement of data in a prescribed sequence.
- Filter A function that lets you single out a range of data based on the values in a formula.
- Software The programs and other operating information used by a computer.
- Fields Names you give to the columns in a table.

National Curriculum Links:

 Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

How does this link to my future learning?

 Select, use, and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information.

- To use a form to record information.
- To compare paper and computer-based databases.
- To outline how grouping and then sorting data allows us to answer questions.
- · To explain that tools can be used to select specific data.
- To explain that computer programs can be used to compare data visually.
- To apply my knowledge of a database to ask and answer real-world questions.



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Hanslope Primary School Music Knowledge Organiser

Year 6: Dynamics, pitch and texture

How does this link to my previous learning?

This links to previous learning in year 4: Changes in pitch, tempo and dynamics

What key vocabulary will I learn?

- Depict- To represent something using music.
- Conductor- A person who directs the performance of an orchestra or choir, using hand signals.
- · Composition- A piece of music that has been created.
- Improvise- Making up music as it is played or performed.
- Notate- To write symbols to represent music.
- Ensemble- A group of people who perform instrumental or vocal music.

Musical style: Classical

Classical music is music that has been composed by musicians who are trained in the art of composing. The term 'classical music' can also refer to music composed in the classical period 1750 to 1825.

The focus piece for this topic is Fingal's Cave by Mendelssohn (1830) which is a classical piece depicting the sea and waves swirling around Fingal's Cave which is in the Inner Hebrides.



National Curriculum links:

- Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with accuracy, fluency, control and expression.
- Improvise and compose music for a range of purposes using the inter-related dimensions of music
- Listen with attention to detail and recall sounds with increasing aural memory
- Use and understand staff and other musical notations
- Appreciate and understand a wide-range of high-quality live recorded music drawn from different traditions and from great composers and musician
- Develop an understanding of the history of music

How does this link to my future learning?

This links to future learning in Summer 1: Baroque

- Engage in discussion about the sounds of an orchestral piece.
- Have a selection of varied vocabulary in response to what they hear.
- Change dynamics and pitch, differentiating between the two.
- Take the role of conductor or follow a conductor.
- Change texture within their group improvisation and talk about its effect.
- Create a graphic score to represent sounds.
- Follow the conductor to show changes in pitch, dynamics and texture.



Year 5 and Year 6 - Los Países y las Ciudades

How does this link to my previous learning?

I will follow instructions in Spanish and recognise simple commands and classroom objects. I will use speaking frames to support more complex sentence formation. I will use my understanding of cognates to recognise key vocabulary.

Hanslope Primary School MFL Knowledge Organiser

National Curriculum Links:

- listen attentively to spoken language and show understanding by joining in and responding
- explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words

How does this link to my future learning?

I will build on this vocabulary when talking about the weather in the next module and when learning about Latin American countries next year.

What key vocabulary will I learn:

los países y ciudades (countries and cities) Vivo... (/ Live...)

en Francia (in France)

en Inglaterra (in England)

en Irlanda (in Ireland) en Escocia (in Scotland)

en China (in China)

en España (in Spain)

en Alemania (in Germany)

en Italia (in Italy)

en Australia (in Australia)

en Sudáfrica (in South Africa) en Nueva Zelanda (in New Zealand)

en Irlanda del Norte (in Northern Ireland)

en Berlin (in Berlin)

en París (in Paris)

en Londres (in London) en Barcelona (in Barcelona)

en Johannesburgo (in Johannesburg)

en India (in India)

en Canadá (in Canada)

en Estados Unidos (in the United States)

en Rusia (in Russia)

en <u>los</u> Países Bajos (in the Netherlands)

en Brasil (in Brazil)

en México (in Mexico)

en Pakistán (in Pakistan)

en Bangladesh (in Bengladesh)

en Gales (in Wales)

en Portugal (in Portugal)

en Japón (in Japan)

en Roma (in Rome)

en Nueva York (in New York)

Norte (north) Este (east) Sur (south) Oeste (west). Noreste (northeast) Sureste (southeast)

Surgeste (southwest)

Lunes (Monday) Martes (Tuesday) Miércoles (Wednesday) Jueves (Thursday) Viernes (Friday) Sábado (Saturday) Norpeste (northwest). Domingo (Sunday)

What will I know by the end of this unit:

I will be able to:

- Name the countries and cities in Spanish
- Know the rules according to gender of countries
- Know the rule for cities
- Identify the flags for each country
- Recognise cities and countries when written
- Show understanding when hearing the words
- Play games co-operatively in Spanish, practising the words
- Ask someone where they live

I will be able to play more elaborate games with my growing vocabulary.