

# Year 6 Knowledge Organiser: *The Art of Evolution*

Cross-curricular subject links: English: Darwin's Dragons; Art: Sketching; History: Historical Enquiry

Curriculum Driver: Discovery, Success, Inspiration  
 Trips/Enrichment: Charles Darwin Exhibition at Wollaton Hall  
 GARP/GASP: How have Mary Anning and Rosalind Franklin's achievements and discoveries affected the world?

## Subject/Conceptual knowledge/skills:

### LEAPS:

- I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
- I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
- I can research how living things have changed on Earth.
- I can understand that some characteristics are passed down to the offspring.
- I can research how a variation in offspring over time can make animals more or less likely to survive.
- I can research the work of Mary Anning and Charles Darwin or others.

## Core Knowledge:

In science, **evolution** refers to how organisms change over time (typically millions of years) as a result of **inherited adaptations** that make it easier to survive, depending on where they live.

Evolution happens as the result of a process called **Natural Selection**. Natural Selection happens because all organisms within a species have random differences, or mutations, between them. A good example of a random mutation in humans is how we all have different-sized ears and noses.

Living things are **adapted** to their habitats. This means that they have special features that help them to survive.

When living things reproduce they pass on characteristics to their **offspring**. This is known as **inheritance**. All living things produce offspring of the same kind, but normally offspring are not identical to their parents; there are **variations** that make them different.

**Mary Anning** (1799-1847) was a famous English fossil hunter. The cliffs near where she lived in Dorset, England, are rich in fossils from the Jurassic Period. Anning's first fossil discovery was a marine reptile that swam in the time of the dinosaurs.



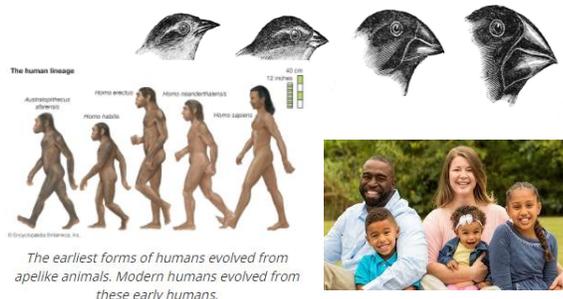
**Charles Darwin** (1809 - 1882) was an English naturalist who changed the way humans viewed themselves and the world around them through his amazing ideas on evolution and natural selection. In 1831, when Darwin was a young man of 22, he travelled to the Galapagos Islands aboard the HMS Beagle. While he was there, he started studying the local fauna, and in so doing started developing the **Theory of Evolution**

## Vocabulary

Words	Meaning
offspring	the young animal or plant that is produced by the reproduction of that species
inheritance	when characteristics are passed on to offspring from their parents
variations	the difference between individuals within a species
characteristics	the distinguishing features of qualities that are specific to a species
adaptation	a trait changing to increase a living thing's chances of surviving or reproducing
habitat	a specific area or place in which certain animals and plants can live
environment	contains many habitats and includes areas where there are both living and non-living things
evolution	adaptation over a long amount of time

## Key Visuals

Living Things	Habitat	Adaptive Traits
polar bear	arctic	Its white fur enables it to camouflage in the snow.
camel	desert	It has wide feet to make it easier to walk in the sand.
cactus	desert	It stores water in its stem.
toucan	rainforest	Its narrow tongue allows it to eat small fruit and insects.



## Books/associated reading:

- Amazing Evolution - Anna Claybourne
- The Story of Life - Catherine Barr
- What is Evolution? - Louise Spisbury



### Subject/Conceptual knowledge/skills: PSHE

Rights and Responsibilities - Individual Liberty  
Fundamental British Values

### LEAPS

- Define the terms 'fact', 'opinion', 'biased' and 'unbiased', explaining the difference between them;
- Describe the language and techniques that make up a biased report;
- Analyse a report also extract the facts from it.
- Know the legal age (and reason behind these) for having a social media account;
- Understand why people don't tell the truth and often post only the good bits about themselves, online;
- Recognise that people's lives are much more balanced in real life, with positives and negatives.
- Explain some benefits of saving money;
- Describe the different ways money can be saved, outlining the pros and cons of each method;
- Describe the costs that go into producing an item;
- To understand what the term 'interest' means
- Recognise and explain that different jobs have different levels of pay and the factors that influence this;
- Explain the different types of tax (income tax and VAT) which help to fund public services;
- Evaluate the different public services and compare their value.
- Explain what we mean by the terms voluntary, community and pressure (action) group;
- Describe the aim, mission statement, activity and beneficiaries of a chosen voluntary, community or action group.
- Explain what is meant by living in an environmentally sustainable way;
- Suggest actions that could be taken to live in a more environmentally sustainable way

### Core Knowledge

Having individual liberty means being able to make certain choices, like what we like to do in our spare time, what we eat and who we choose to be friends with.

A biased report is one that expresses a certain opinion or point of view and ignores or criticises the opposing view. An unbiased report gives opposing points of view equal 'weight' without expressing a clear opinion, one way or another.

You must be 13 years old to have a social media account.

Often, people present a misleading representation of themselves online.

Interest: When you save in a savings account or an ISA you are basically lending money to the bank/building society for them to use so they give you a small amount of money (usually on an annual basis) for doing this.

Different jobs are paid differently. As well as earning different rates of money, people also pay different amounts of money in tax according to how much they earn. There are two types of basic tax:

- PAYE - income tax which is paid according to how much a person earns
- VAT - a fixed tax on goods and services (currently 20%)

Taxes go to the government to be spent on our public services.

### Subject Key Vocabulary

Media influence, stereotypes, fact, opinion, biased, unbiased, self-esteem, emotional needs, friendship media, influence, social norms, internet safety, peer influence, relationships, money, saving, interest, tax, VAT, voluntary, community, pressure, action groups, community, citizenship, responsibility, environmentally sustainable, democracy, elections, council

### Subject/Conceptual knowledge/skills: RE

The Gospel  
Salvation  
Easter

Big Question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?

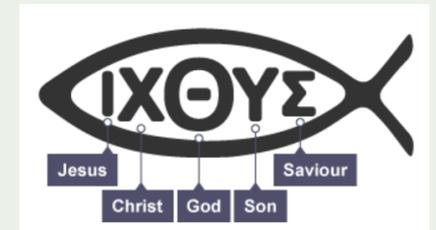
### LEAPS

- I can explain how the influence people have had on me has affected what I see as important.
- I can explain some of the reasons people use to suggest that Christianity is a strong religion today, and how some people counteract these reasons.
- I can give my opinion as to whether Christianity is a strong religion now and say why I think this.

### Core Knowledge

Jesus is God incarnate (God in the flesh); he is God the Son. As part of the new covenant, Jesus defeats death through his crucifixion and resurrection. This is known as salvation.

The ichthys symbol in Greek letters spells out 'Jesus Christ, God's Son, Saviour.' The word is also a **monogram**, as ichthys is the Greek word for 'fish'.



### Subject Key Vocabulary

Festivals, symbolism, impact, motivation, Ichthys, influence

## Subject/Conceptual knowledge/skills:

Art: Generating Ideas, Making, Knowledge and Understanding, Evaluation.

Skill: Sketching  
Artist:

## LEAPS:

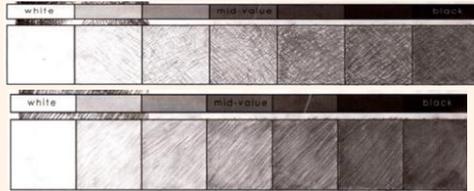
I can independently take action to refine my skills to improve my work.

I can describe, interpret and explain the work, ideas and working practices of some significant artists taking account of the influence of the different historical, cultural and social contexts in which they worked.

I can adapt my work according to my views and describe how I might develop it further.

## Core Knowledge

Artistic techniques: Recap on blending Hatching and Cross-hatching: **Used to create tonal or shading effects by drawing** (or painting) closely spaced parallel lines. Varying in length, angle, distance and tone to create texture. This method is used with mediums that do not allow blending (e.g. pen and ink).



Stippling (Art movement - Pointillism): The practice of applying small strokes or dots of colour to a surface so that from a distance they visually blend together.



**Leonardo da Vinci** was an Italian painter, sculptor, architect and engineer whose paintings and drawings are recognised world wide. Da Vinci was an expert in using the contrast of light and shadow to create illusions. He also had an interest in nature and mechanisms. In addition to this, he often thought of new inventions and kept notebooks with notes and drawings of these ideas. Most of his inventions were never made. Some of his ideas were a helicopter, a tank, a calculator, a parachute, a telephone and evolution. Born: April 15, 1452, Italy  
Died: May 2, 1519



Self Portrait by Leonardo Da Vinci



Head of a girl by Leonardo Da Vinci

## Subject Key Vocabulary

record, first-hand observations, refine, improve, skills, processes, shade, tone, light, sketch, record, technique, proportions

Subject/Conceptual knowledge/skills: PE Invasion games- Handball - Attacking and defending, Communication, strategies and tactics  
Dance - Control, Expression, Movement, Pattern, Sequence, Technique

## LEAPS

**Handball** - I can confidently demonstrate a range of ball skills and can link these together effectively.  
I can keep possession of a ball during games situations.  
I can consistently apply and demonstrate co-ordination, control and fluency skills.  
I can take part in a range of invasion/competitive games with a strong understanding of tactics and composition  
I can modify competitive games.  
I can apply knowledge of skills for attacking and defending effectively.  
I can run, jump, throw and catch in isolation and combination.  
I can refine and adapt skills into technique.  
I can apply knowledge of skills for attacking and defending effectively.

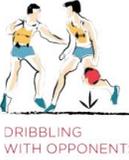
**Dance** - I can exaggerate dance movements and motifs (using expression when moving)  
I can perform with confidence, using a range of movement patterns.  
I can demonstrate strong movements throughout a dance sequence.  
I can combine flexibility, techniques and movements to create a fluent sequence.  
I can move appropriately and with the required style in relation to the stimulus.  
*e.g using various levels, ways of travelling and motifs.*  
I can begin to show a change of pace and timing in their movements.  
I can dance with fluency, linking all movements and ensuring they flow.  
I can modify parts of a sequence as a result of self and peer evaluation.  
I can use more complex dance vocabulary to compare and improve work.

## Core Knowledge

Handball - The aim of the game is to beat the opposition by scoring more goals.

Dribbling -

- After receiving the ball and before dribbling, a player holds the ball with both hands
- The ball should be dribbled in one hand at hip level
- The angle of the bounce depends on the speed that the player is moving at; the faster the run the more the angle becomes obtuse
- If an opponent comes close, the ball should be shielded using the body



## Dance

**Canon**

When each person starts the dance slightly after the person before.

Can you think of some examples?

**Contrast**

Two people or groups do opposite types of movement to each other

- High / Low
- Fast / Slow
- Using arms / Using legs

Can you think of any more?

**Variation**

Two people or groups do the same movement but in a slightly different way.

- Jolty / Smooth
- Sharp / Silky
- Pulsing / Graceful

Can you think of any more?

## Subject Key Vocabulary

Collaboration, expression, choreograph, timing, extension, tension, synchronisation

**Subject/Conceptual knowledge/skills:**

**French: Me in the World**

Speaking, listening, reading and writing

**LEAPS:**

- I can present to an audience about familiar topics (e.g. role-play, presentation or read / repeat from a text or passage).
- Reading
- I can read aloud with expression.
- I can read and understand the main points and more specific details from a variety of simple texts in different but authentic formats
- I understand the main points in passages of language spoken.
- I understand and can identify longer and more complex phrases and sentences (e.g. descriptions, information, instructions) in listening exercises and am able to answer questions based on what I hear.
- I can write longer sentences and short paragraphs from memory or using supported materials
- I can use verbs in the correct form.
- I can identify and correctly use adjectives.

**Subject Key Vocabulary**

Je m'appelle. = I am called...  
J'habite = I live... Je parle = I speak  
le français = French l'anglais = English  
Ma fête préférée est le Mardi Gras = My favourite festival is Mardi Gras  
Ma fête préférée est Noël. = My favourite festival is Christmas.  
Ma fête préférée est Pâques = My favourite festival is Easter  
Ma fête préférée est le jour de l'an = My favourite festival is New Year's day.  
Ma fête préférée est le 14 juillet = My favourite festival is the 14th of July (Bastille Day)  
Parce que = because  
Il y a des défilés de chars = There are parades of floats.  
À plus tard! = See you later! / See you soon!  
À la prochaine! = Until next time  
Qu'est-ce que tu vas faire pour protéger notre planète? = What are you going to do to protect our planet  
Je vais utiliser moins de papier = I am going to use less paper.  
Je vais utiliser moins de plastique = I am going to use less plastic  
Je vais utiliser moins d'eau. = I am going to use less water

**Subject/Conceptual**

**knowledge/skills:** History

Chronology; Knowledge and understanding of events, people and change in the past; historical interpretations; Historical enquiry

**LEAPS:**

- I can use words and phrases such as century and decade.
- I can use timelines to place and sequence local, national and international events.
- I can describe main changes in a period in history using words such as social, religious, political, technological and cultural.
- I can name dates of many significant events from past studies and place it correctly on a timeline.
- I can describe the main events and people related to the period studied.

**Core Knowledge**

- The Victorian period in Britain was between 1837 and 1901.
- There was a great divide between the rich and poor.
- If a child committed a crime they would receive the same punishment as an adult.
- In 1829, a politician called Sir Robert Peel introduced the first English police force in order to improve public order in London.
- For the first time in history, prisons became the main form of punishment in this period. They were awful places.
- Transportation: Many criminals were sent to Australia for hard labour. The law allowing this was eventually changed in 1857.
- Hard labour was a common punishment. Many Victorians believed that having to work very hard would prevent criminals committing crime in the future.
- The crank and the treadmill: Prisons often made prisoners do pointless tasks such as turn a crank up to 10,000 times a day. Or walk for hours on giant circular tread mills.
- In 1854, special youth prisons were introduced to deal with child offenders. These were called 'Reformatory Schools'.
- Other forms of punishment included fines, hanging or being sent to join the army.

**Subject Key Vocabulary**

Timeline, century, decade, sequence, national, international, time period, social, religious, political, technological, cultural, dates, events