Enquiry Organiser LKS2 **Year 3**
Spring 1A

# Art and Design – Painting

## Knowledge
I know...

- Georgia O'Keeffe was an artist.
- She began experimenting with painting close up views of flowers.
- She used oil paints in vibrant, bold colours.
- **A colour wheel is** a diagram used in the visual arts to represent the colours and their relationships to one another.
- Tertiary colours are the colours created when mixing a primary colour with a secondary colour.
- Different colours can have very different effects on our emotions.
- Complementary colours work in pairs and can be found directly opposite each other on the colour wheel, for example, purple and yellow.

## Skills
I can..

- Use complementary and harmonising colours [colour wheel].
- Use watercolours with confidence.
- Mix and match colour accurately.
- Use hard edged painting skills.
- Begin to make a range of marks using a paintbrush including single strokes, zig zags, umbrella handles, polos and a string of pearls.
- Begin to evaluate and analyse creative works of my peers.
- Begin to explore the work of a range of artists, describing the differences and similarities between different practices and disciplines, and make links to my own work.
- Begin to express my thoughts and feelings about a piece of art.

## Links back to
I remember... [Y2]

- Vincent Van Gogh was a Dutch artist who is not alive now. He painted "Sunflowers".
- He used water colours and oil paints and he used bright colours.
- Primary colours are red, yellow and blue.
- Secondary colours are made by missing primary colours.
- Tinting makes a paint lighter.
- Shading makes a colour darker.
- Vary tone through blending using coloured pencils.
- Mix a wider range of colours using pencil crayons.

## Vocabulary:

**Watercolour:** a type of paint which is used with water to give transparent colour
**Primary:** colours used to create all other colours and cannot be made (red, yellow, blue)
**Secondary:** a colour created by mixing two primary colours e.g. orange and purple
**Tertiary:** are colours that are created by mixing equal parts of primary colour and secondary colour
**Warm:** are colours that envoke a feeling of warmth, such as red, orange and yellow
**Cool**: are hues that are often associated with water, grass and the sky
**Complementary:**work in pairs and contrast with each other, they can be found directly opposite each other on the colour wheel, for example, purple and yellow
**Contrast:** is the use of different elements to create visual interest and draw the viewer's eye to certain areas
**Hue:** a hue is the pure form of a colour that hasn't been changed in any way. It is not the tint, tone or shade of a colour
**Tint:** making a colour lighter by adding white
**Shade:** making a colour darker by adding black
**Tone:** the lightness or darkness of a colour

## Images:



# History – Stone Age

## Knowledge
I know...

- Hundreds of thousands of years ago [3000BC], the island of Great Britain was connected to Europe by a land-bridge.
- The land bridge was called Doggerland.
- Hundreds of thousands of years ago, humans lived in caves.
- Humans learned to make fire in caves, they used it to cook food and keep warm and deter predators.
- Our human ancestors were nomadic.
- Our human ancestors walked to find food and gathered or hunted it.
- Our ancestors hunted animals and hunted fish using sharp tools.
- Tools were made from stone and bone that was sharpened.
- Our human ancestors drew pictures in caves without any words.
- Skara Brae is a Stone Age village in the Orkney Islands.
- Many Stone Age homes were round.
- Stone Age homes had a hearth in the middle of the home where the fire was lit.
- Stonehenge is a prehistoric settlement of rock.
- *Some* of our human ancestors believed that the Sun and the Moon had special powers.
- The longest day of the year is called Midsummer's Day.
- The shortest day of the year is called Midwinter's Day.
- How to transport large stones in a prehistoric way from one place to another.
- A mammoth was important to Stone Age people and why.

## Skills
I can..

- Sequence some events or objects on a simple timeline without support providing a few dates and/or period labels and terms.
- See how gaps in evidence can influence interpretations. e.g prehistory with no written or recorded information.
- Provide a reason why two accounts of the same event might differ (e.g. recognise and provide a reason why different people might have different views about the X).
- Comment on a range of possible reasons for differences in a number of accounts.
- Draw together information from an increasing range of sources.
- Ask valid questions for enquiries and answer using several sources.
- Use sources of information to make statements or judgements.
- Show awareness and understanding visually, orally and in writing.
- Use a wider range of vocabulary when showing awareness.
- Recognise differences between ways of life in the past. .
- Select what is most significant in a historical account (e.g. describe in some detail some of the most significant features of X).
- Begin to explain why.
- Understand how sources can be used to answer a range of historical questions.

## Links back to
I remember..[Y2]

- Ancient Egyptians lived between 6000BC and 332BC lasting for 5000-6000 years.
- Anglo Saxons and Danes conquered Huntingdon between 900-1000AD.
- Sequencing some events or objects on a simple timeline without support providing a few dates and/or period labels and terms.
- Drawing together information from an increasing range of sources.
- Asking valid questions for enquiries and answering using several sources.

## Vocabulary:

**Land-bridge:** a piece of narrow land to connect separate areas
**Ancestors:** someone who lived a long time ago
**Nomadic:** people who move from place to place and do not stay in the same place
**Tools:** a piece of equipment that you use to help you
**Historical account:** narratives or records that document and interpret past events
**Hunter-gatherers:** people who ate form wild fruits growing near to where they lived
**Stone Age:** a prehistoric period where stone was used in many ways to e.g tools
**Mammoths** a large extinct woolly mammal like an elephant
**Period:** the breakdown of past events to help us understand world history.
**Pre-historic:** means *before* history, *before* humans started to write things down.
**Skara Brae:** is a Stone Age village in the Orkney Islands
**Stonehenge** a prehistoric stone monument in Wiltshire
**Midsummer's Day:** a day in the middle of the summer that is the longest day with most daylight
**Midwinter's Day:** a day in the middle of the winter that is the shortest day with least daylight

## Images:

Progress is **knowing more** (knowledge), **remembering more** (links back to), **being able to do more** (skills)

Enquiry Organiser LKS2 **Year 3**
Spring 1A

## Computing Programming: Sequence in Music (Scratch)

### Knowledge
I know...

- Digital devices must have an input, a process and an output.
- Digital devices accept inputs and produce outputs.
- The difference between an input and output device and can name examples.
- How digital devices can change the way we work.
- A computer network is a group of computing devices that exchange data and resources with each other.

### Skills
I can...

- Follow a process.
- Classify input and output devices.
- Describe a simple process.
- Design a digital device.
- Explain how I use digital devices for different activities.
- Recognise similarities between using digital devices and non digital tools.
- Suggest difference between using digital devices and non digital tools.
- Recognise different connections.
- Explain how messages are passed through multiple connections.
- Discuss why we need a network switch.
- Explain the role of network devices such as a switch server and a wireless access point.
- Identify how devices in a network are connected together.
- Identify devices around me and the benefits of computer networks.

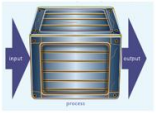
### Links back to
I remember... [KS1]

- That photos can be taken on a range of technological devices.
- Common uses of technological devices in and beyond school.
- You have choices when taking photos. (eg to take a landscape or portrait photo)
- How a photo can be improved.
- How to find out the best lighting levels for producing good quality photographs.
- Photos can be changed and that not all images are real.
- Using an iPad to take a photo.
- Composing and capturing good photos.
- Making suggestions on how to improve my photo.
- Using tools to change an image.
- Saying what the best lighting source is for a photo I retake.
- Using the autofocus to make an object in the photo stand out.
- Identifying someone who can help me, if something happens online without my consent.

### Vocabulary:

**Computer network:** a group of connected computing devices.
**Input device:** putting data into a computer system.
**Output device:** takes the data from a device and converts it so humans can experience it.
**Connection:** linking and joining devices.
**Digital device:** computer or a device with a computer inside that has been programmed for a specific task.
**Network socket:** a socket allowing network.
**Switch:** a device that enables multiple devices on a network to be connected together.
**Server:** a computer that manages the network and stores files.
**Wireless access point:** a device connected to a wider network which sends and receives wireless signals for devices with WIFI connectivity.

### Images:



## Science – Rocks, stones and fossils.

### Knowledge
I know...

- There are 3 main types of rock: sedimentary, metamorphic, igneous.
- Sediment builds up into layers and over a long period of time, hardens into rock.
- Sedimentary rock is usually crumbly and allows water through them.
- Sedimentary rock is made of layers and stuck together with mineral crystals.
- Sedimentary rock contain fossils within their layers
- Metamorphic rock is formed under the surface of the Earth from the metamorphosis [change] that occurs due to intense heat and pressure [squeezing].
- Metamorphic rock is usually hard and may contain tiny crystals or fossils.
- Igneous rocks is formed when magma cools and solidifies.
- Igneous rock is very hard and contains crystals.
- How a fossil is formed:
  - An organism dies and it's skeleton settles on the sea or river bed and is buried by sediment.
  - The sediment surrounding the skeleton thickens and turns to stone.
  - The skeleton dissolves and forms a 'mould'.
  - Minerals crystalise inside the mould and a cast is formed.
  - The fossil is eventually exposed on the Earth's surface.
- Soil is made from minerals, organic matter, water and air.
- There are different types of soil which include sandy soil, clay soil, chalky soil and peat.
- Some soils are permeable like sandy soil and chalky soil.

### Skills
I can...

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.
- Simply explain how a fossil is formed.
- With support create a representation of The Rock Cycle.
- Make observations about rocks.
- Begin to talk about criteria for classifying and use simple keys.
- Test and compare rocks based on their hardness.
- Investigate the properties of rocks [can be scratched with a nail, are porous, or can float in water].
- Record my results in a table.
- Examine what a soil sample is made from.

### Links back to
I remember... [KS1]

- The names of materials
- The properties of materials e.g. fabric, metal, wood
- That materials are suitable or unsuitable for particular purposes
- That some materials are used for more than one thing e.g. metal used for can, spoon
- That different materials are used for the same thing e.g. a spoon (can be wooden, metal or plastic).

### Vocabulary:

**Sedimentary:** rocks made of layers of sediment
**Metamorphic:** rocks made in the Earth due to intense heat and pressure.
**Igneous:** formed when magma cools and solidifies, which it can do above or below the Earth's surface.
**Permeable**: allows liquids (or gases) to pass through.
**Impermeable:** doesn't allow liquids to pass through
**Magma:** hot fluid below or within the Earth's crust from which lava and other igneous rock is formed on cooling.
**Solidify**: to become solid or hard.
**Dissolve:** to become part of a liquid.
**Organic matter:** made up of deacying animals and plants.
**Organism:** a living thing, animal or plant.
**Minerals:** small stone fragments:clay, silt or sand.
**Soil:** made from minerals, organic matter, water and air.
**Sandy soil:** pale in colour with lots of small air gaps and water drains through easily so it feels quite dry.
**Clay soil:** an orange or blueish sticky soil with few air gaps. Water does not drain through easily and puddles tends to stay on top of the soil for a long time when it rains.
**Chalky soil:** light brown in colour, allowing water to drain through it quickly.
**Peat:** unlike other soils as it doesn't contain any rock particle. It is made from very old decayed plants. It is dark, crumbly and rich in nutrients (chemicals plants need to grow).

### Images:


Progress is **knowing more** (knowledge), **remembering more** (links back to), **being able to do more** (skills)

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# Geography – Earthquakes

## Knowledge I know...

- New Zealand [NZ] is a country in the South Pacific Ocean.
- NZ is bordered by the Tasman Sea and the south of the Pacific Ocean.
- NZ is south of the Equator and in the southern hemisphere.
- Christchurch is a city in New Zealand.
- California is a state of the United States, not a country.
- California is bordered by the Pacific Ocean.
- California is north of the Equator and in the northern hemisphere..
- The Earth is composed of four layers: the crust, mantle, outer core and inner core.
- Iron and nickel make up most of the inner and outer core of the Earth.
- There is rock under all surfaces.
- The Earth's crust is very thin and made up of large sections of rock called tectonic plates.
- There are seven major plates: African, South American, North American, Eurasian, Indian and Pacific plates
- Movement in the tectonic plates that form Earth's crust causes earthquakes.
- The shaking and swaying caused by an earthquake are called tremors.
- Earthquakes are not random events, but are a consequence of tectonic plate movement.
- If tectonic plates slide past each other, sometimes the plates stick, pressure builds up and the plates slip. This friction can cause an earthquake.
- A fault line is where the plates slide and friction occurs.
- The fault line in California is called the San Andreas fault.
- In 2004 there was an earthquake in the Indican ocean, off the coast of Indonesia and this caused a huge wave.
- Where the earthquake occurred is called the epicentre and this is on the surface of the earth.
- Where an earthquake starts is called the focus.
- A huge wave caused by an earthquake is called a tsunami.
- The effects of an earthquake travel in seismic waves.
- Charles Richter built the first seismograph to measure the magnitude of earthquakes.
- An earthquake can have effect on people and the environment.

## Skills I can...

- List the layers that make up the Earth and create and label a cross-section of the Earth [using playdoh].
- Compare the Earth's structure to familiar object.
- Analyse and communicate geographical information by constructing labelled diagrams and using appropriate geographical vocabulary e.g. creating a model of the Earth.
- Describe and understand the relevant key aspects of physical geography, including earthquakes.
- Use maps, atlases, globes to locate countries and continents and describe features e.g. plate boundaries.
- Name and locate New Zealand and California on a world map.
- Find the UK, New Zealand and California on a map of tectonic plates.
- Use a world map to find the seven major plates: African, South American, North American, Eurasian, Indian and Pacific plates.
- Observe and collect information e.g. using a Richter Scale.
- Ask and respond to geographical questions about the countries studied.
- Understand that geographers learn about the world by observing and collecting data and information.

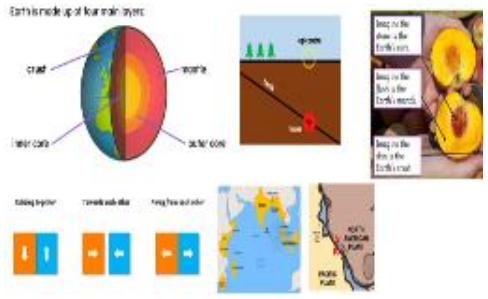
## Links back to I remember...[KS1]

- The seven continents of the world are: North America, South America, Antarctica, Europe, Asia, Africa, and Australia.
- The five oceans of the world are: Atlantic Ocean, Pacific Ocean, Indian Ocean, Southern Ocean and Arctic Ocean.
- Egypt is in the continent of Africa.
- Observing and collecting information and data from, photos and aerial images, diagrams, globes, atlases and maps, GIS and a range of age-appropriate charts and graphs.
- Using aerial photographs and plans to identify several features e.g. rivers, lakes, mountains, hills.
- Identifying the position of the equator, and the northern and southern hemisphere.
- The equator is an imaginary circle around the earth dividing the earth into two equal parts.
- Communicating geographical information by constructing maps with keys, labelled diagrams, age-appropriate graphs and through writing, using appropriate geographical vocabulary.
- Making observations using a range of sources to compare e.g. climate.

## Vocabulary:

**Earthquake:** m**ovement in the tectonic plates that form Earth's crust.**
**Tremors:** shaking a swaying caused by an earthquake
**Tectonic plates:** sections of rock that make up the Earth's crust
**Plate boundary:** the point where two tectonic plates meet is known as a plate boundary
**Earth's crust:** the outermost layer of the Earth
**Mantle:** lies between the outer core and crust and is the largest layer, it is mostly semi-molten lava
**Inner core:** the layer in the centre of the earth that is mostly made from iron and nickel
**Outer core:** surrounds the inner core and is also mostly made from iron and nickel
**Friction:** when tectonic plates slide past each other, plates can stick adding pressure builds up and the plates slip.
**Fault line:** where the plates slide and friction occurs.
**San Andreas fault:** the fault line in California
**Epicentre:** where an earthquake occurs
**Tsunami:** a huge wave caused by an earthquake
**Seismic waves:** how the effects of an earthquake travel
**Focus:** where an earthquake starts
**Seismograph:** a machine that measures seismic waves
**Seismogram:** produced by a seismograph
**Magnitude:** the power of an earthquake
**Richter scale:** a scale of numbers used to tell the size of earthquakes

## Images:



Progress is **knowing more** (knowledge), **remembering more** (links back to), **being able to do more** (skills)