# Ridgeway Farm CE Academy - Knowledge Organiser

| Topic | History - Ancient Greeks | Theme | Leadership | Year Group | 5 |
|---|---|---|---|---|---|
| Key Question | How did the leadership of the Greeks influence the Western World? | | | | |

## What should I already know?

- ❑ Understand what a civilisation is.
- ❑ Know how to use a timeline and that events in history can be put in order using BC and AD dates.
- ❑ Have learned about another ancient civilisation - Ancient Egypt
- ❑ Know that life was different in the past - People had different homes, beliefs and ways of living.
- ❑ Use sources to learn about the past - pictures, objects, and writing can help us understand history.

Athenian democracy was one of the first in the world. It was a direct democracy in which the citizens themselves voted for laws in the assembly. Modern Britain has a representative democracy where people elect a representative (Member of Parliament) to make decisions on their behalf. Citizens over 18 can vote in Britain; however, in ancient Athens, only adult males born in Athens could vote.

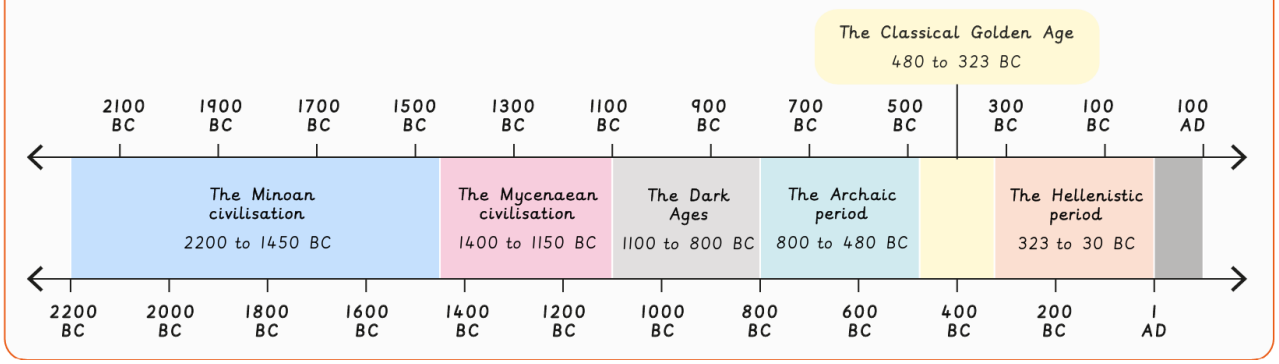
## Key learning:

- ❑ Alexander the Great was a powerful military leader and king of Macedonia. He united all of Greece under his rule and created one of the largest empires in the ancient world.
- ❑ The Ancient Greeks believed in many gods and goddesses, each with their own powers and roles.
- ❑ Gods like Zeus, Athena, and Poseidon were worshipped in temples and honoured in myths and festivals.
- ❑ The Ancient Greeks, especially in Athens, developed the first known form of democracy.
- ❑ The first recorded Olympic Games took place in Olympia in 776 BC. The games were held in honour of the god Zeus and were part of a religious festival.
- ❑ Athens focused on education, philosophy, democracy, and the arts. It had a democratic government.
- ❑ Sparta was a military society, where boys trained to be soldiers from a young age. It had an oligarchy (ruled by a small group). Both were powerful city-states in Ancient Greece but had very different values, lifestyles and governments.
- ❑ In Athenian democracy, free male citizens could vote and take part in making decisions for the city.
- ❑ Ancient Greece is well known for its lasting impact on architecture, philosophy, art, science, mathematics and politics.
- ❑ Many ideas from Greek thinkers, such as Socrates, Plato and Aristotle, still influence modern life today.

## Key Vocabulary

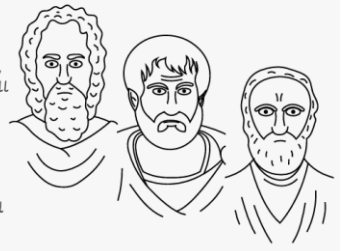
| | |
|---|---|
| Ancient Greece | A civilisation that existed over 2,000 years ago, made up of city-states like Athens and Sparta. |
| City-state | A city and the land around it that had its own government (e.g. Athens, Sparta). |
| Alexander the Great | A famous king of Macedonia who conquered all of Greece and built a vast empire. |
| Macedonia | A region north of Greece where Alexander the Great came from |
| Empire | A large group of lands and people ruled by one leader or country. |
| Gods and Goddesses | Powerful beings worshipped by the Greeks, believed to control different aspects of life. |
| Zeus | The king of the Greek gods and ruler of Mount Olympus. |
| Athena | Goddess of wisdom and war, and the protector of the city of Athens. |
| Olympic Games | Athletic competitions held in Olympia to honour the god Zeus, starting in 776 BC. |
| Athens | A Greek city-state known for its democracy, education and cultural achievements. |
| Sparta | A Greek city-state known for its military strength and strict way of life. |
| Democracy | A system of government where citizens vote to make decisions. |
| Oligarchy | A form of government where a small group of people hold all the power. |
| Citizen | A person with legal rights and responsibilities in a city-state. |
| Philosophy | The study of ideas about knowledge, truth and how to live wisely. |

## Timeline of Ancient Greece




## Philosophy

Philosophy (meaning 'love of wisdom') was developed by the ancient Greeks. Famous philosophers such as Pythagoras, Socrates, Plato and Aristotle still influence our thinking today: Pythagoras created the first maths formula, Socrates developed the Socratic method used to discuss ideas, Plato's ideas on ethics are still debated today, and Aristotle laid the foundations for modern science.

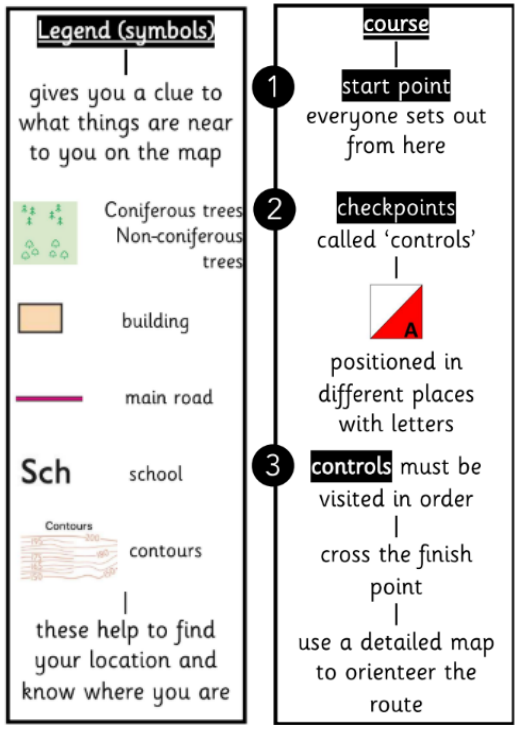


# Ridgeway Farm CE Academy - Knowledge Organiser

| Topic | Geography - Orienteering | Theme | Leadership | Year Group | 5 |
|---|---|---|---|---|---|

## What should I already know?

- ❑ Understand what a map is and how it shows places from above.
- ❑ Use a simple map key to recognise symbols for features.
- ❑ Know the 4 main compass points: North, East, South, and West.
- ❑ Identify physical and human features (e.g. rivers vs. roads).
- ❑ Use basic grid references (letter and number) to find places on a map.
- ❑ Use positional language (e.g. near, next to, above, below) to describe locations.

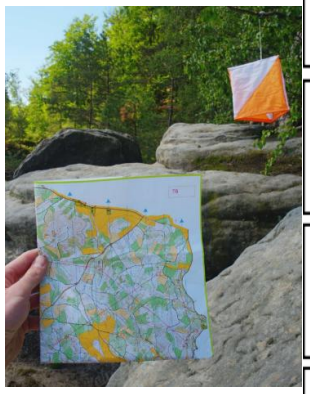


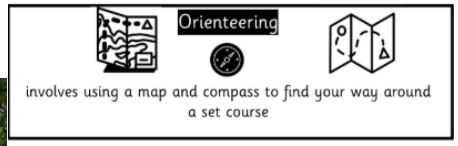


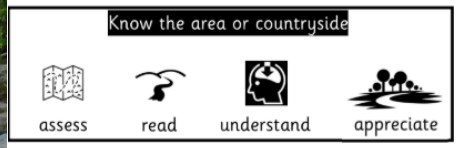


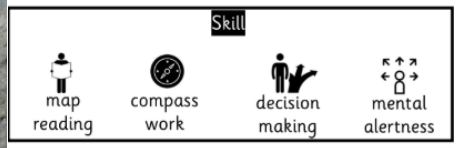
## Key learning:

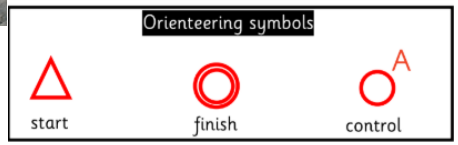
- ❑ A 6-figure grid reference pinpoints an exact location within a grid square by dividing it into tenths (e.g., 342 178).
- ❑ It combines three numbers for the eastings (left to right) and three for the northings (bottom to top) to give a precise position.
- ❑ The 8-point compass includes the cardinal (N, E, S, W) and intercardinal directions (NE, SE, SW, NW). These directions help in giving and following more accurate navigation instructions on a map or in the field.
- ❑ A compass is used to face and follow specific directions such as NE or SW when navigating a planned route. Combining compass use with visible landmarks and pacing helps accurately follow a route across terrain.
- ❑ Maps use symbols (e.g., tree for woodland, blue line for river) to represent features; these are explained in a map key.
- ❑ Understanding common symbols helps identify physical and human features quickly when reading a map.
- ❑ An ordnance survey map is a detailed map produced by the British or Irish government map making organisation.
- ❑ Physical features are natural parts of the landscape like rivers, hills, and forests
- ❑ .Human features are man-made, such as roads, buildings, and bridges, and often relate to land use and settlement.
- ❑ Topography is the physical features of an area of land including natural formations such as mountains, rivers, lakes and valleys, and manmade features such as roads, dams and cities.






## Key Vocabulary

| | |
|---|---|
| Map | A drawing that shows an area of land and its features from above. |
| Ordnance survey | Ordnance survey is the national mapping agency for Great Britain. |
| Grid Reference | A set of numbers that help locate a specific place on a map. |
| 6-Figure Grid Reference | A more precise location using six numbers (e.g., 342 178). |
| Eastings | The vertical lines on a map grid that increase as you move east. |
| Northings | The horizontal lines on a map grid that increase as you move north. |
| Compass | A tool that shows direction using a magnetic needle that points north. |
| Compass Points | Directions on a compass (N, NE, E, SE, S, SW, W, NW). |
| Navigation | The process of planning and following a route. |
| Route | A planned path to follow from one place to another. |
| Landmark | A visible feature (natural or man-made) used to help navigate. |
| Symbol | A small picture or icon used on a map to represent a real-world feature. |
| Map Key / Legend | A guide that explains the meaning of symbols used on a map. |
| Physical Feature | A natural part of the landscape, such as hills, rivers, or forests. |
| Human Feature | A man-made feature, such as roads, buildings, or bridges. |
| Topography | The physical features of an area of land including natural formations such as mountains, rivers, lakes and valleys, and manmade features such as roads, dams and cities.. |
| Orienteering | An outdoor activity that involves using a map and compass to find locations. |
| Direction | The line or course along which something moves (e.g., north, south). |
| Bearing | A measurement of direction using degrees (e.g., 90° for east). |
| Pacing | A method of measuring distance by counting steps. |

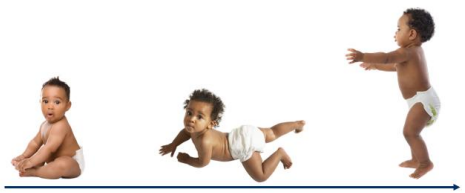
# Ridgeway Farm CE Academy - Knowledge Organiser:

| Topic | Science - Animals including humans | Theme | Leadership | Year Group | 5 |
|---|---|---|---|---|---|

## What should I already know?

- Animals can be grouped into vertebrates (and then further into fish, reptiles, amphibians, birds and mammals) and invertebrates.
- Some examples of life cycles (including those of plants and humans).
- Reproduction and growth are two of the seven life processes.
- How to live a healthy lifestyle.

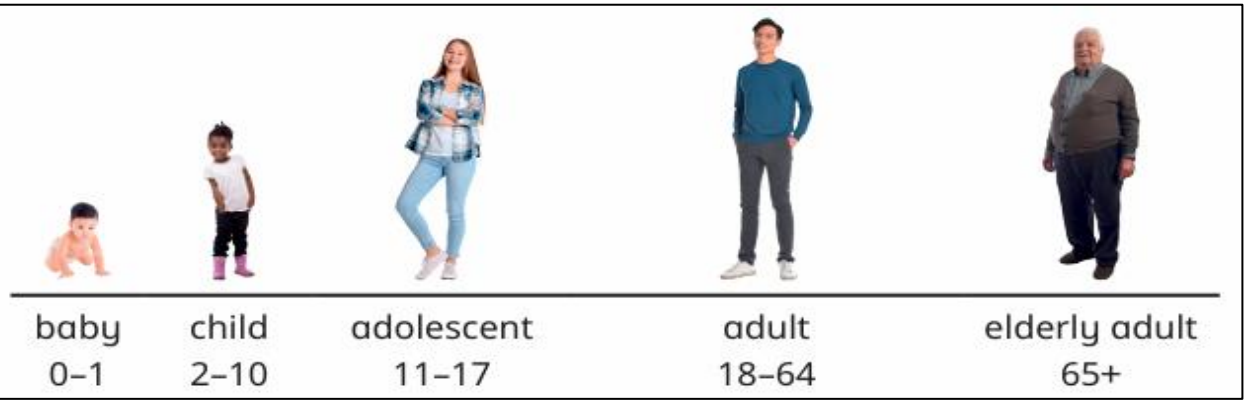
As babies get older, they begin to meet more milestones. These are milestones in the first two years of a person's life




## Key learning:

- The human life cycle has six main stages - foetus, baby, child, adult and elderly adult.
- All humans start their life as a foetus inside their mother's womb.
- After puberty, humans can reproduce.
- Babies are dependent on adults for food, warmth and comfort.
- Most babies and toddlers hit certain milestones in their first two years of life, such as crawling and walking.
- Throughout childhood, children grow and develop at a rapid rate in terms of their mass, height and brain development.
- Hormones are chemicals that are released by your body during puberty which cause physical and emotional changes.
- Puberty is the change that happens in late childhood and adolescence where the body starts to change because of hormones.
- Some changes include growth in height, more sweat, hair growth on arms and legs, under the armpits and on genitals, and growth in parts of the body. Females begin to menstruate.
- A person is classed as an adult from age 18 onwards.
- A person is classed as an elderly adult from approximately 65.
- When a person enters adulthood, their rate of growth slows down and their body is fully developed.
- Gestation is the period of time that a foetus develops in its mother's womb.
- Mammals have different gestation periods. The gestation period of a human is approximately nine months.
- The lifespan of an animal is how long the animal is alive.
- Usually, the longer the gestation period of an animal, the longer the lifespan.
- Humans have a relatively short gestation period compared to their lifespan.

## This is the human life cycle




## Key Vocabulary

| | |
|---|---|
| adolescence | the period of your life in which you develop from being a child into being an adult |
| adulthood | the state of being an adult |
| development | the gradual growth or formation of something |
| foetus | an animal or human being in its later stages of development before it is born |
| gestation | the process in which babies grow inside their mother's body before they are born |
| growth | an increase in something |
| hormones | a chemical, usually occurring naturally in your body, that makes an organ of your body do something |
| independent | If someone is independent, they do not need help or money from anyone else. |
| infancy | the period of your life when you are a very young child |
| life cycle | the series of changes that an animal or plant passes through from the beginning of its life until its death |
| life processes | There are seven processes that tell us that living things are alive |
| mature | When a child or young animal matures, it becomes an adult |
| menstruation | the approximately monthly discharge of blood by non-pregnant women from puberty to the menopause |
| offspring | a person's children or an animal's young |
| organ | a part of your body that has a particular purpose |
| puberty | the stage in someone's life when their body starts to become physically mature |
| rapid | A rapid change is one that happens very quickly |
| reproduction | when an animal or plant produces one or more individuals similar to itself |
| toddler | a young child who has only just learned to walk |
| vertebrate | a creature which has a spine |

# Ridgeway Farm CE Academy - Knowledge Organiser

| Topic | RE: Christianity | Theme | Leadership | Year Group | 5 |
|---|---|---|---|---|---|
| Key Question | R.E. What matters most to Christians and to Humanists? | | | | |

## What should I already know?

- Christians believe in God.
- There are lots of religions.
- People have different beliefs.

## Key Vocabulary

**Rules:** statement of what may, must or must not be done in a particular situation or when playing a game

**Principles:** a moral rule or a strong belief that influences your actions

**Values:** beliefs about what is right and wrong and what is important in life

**Right/good:** morally good or acceptable; correct according to law or a person's duty

**Wrong/evil:** not morally right or honest

**Christian:** based on or believing the teachings of Jesus Christ

**Humanist:** a person who believes in a system of thought that considers that solving human problems with the help of reason is more important than religious beliefs

**Parables:** a short story that teaches a moral or spiritual lesson, especially one of those told by Jesus as recorded in the Bible

**Code of living:** a set of principles some follow when deciding how to behave

## Key Learning

- That we make rules or principles to help us to be good.
- Christians might say that trusting God matters most, and that it helps people to be good. Humanists would disagree.
- For Christians, trusting in God, as seen in Jesus, may matter even more than being good, because it helps a person to be good.
- Humanists believe that humans can be 'good without God'.
- Humanists believe the scientific explanation of how the universe works and reject the idea of the supernatural and God.
- The concepts of fairness, justice, forgiveness and freedom are important to both.
- The values of Christianity include love, forgiveness, peace between people and God, honesty, prayer, worship and fellowship (togetherness).
- Both Humanists and Christians prefer the idea that choices are made out of love and respect, rather than just 'doing as they are told.'

**Key Questions:**

- How should we care for others and the world, and why does it matter?
- What can we learn from religions about deciding right and wrong?
- Does religion help people to be good?

# Ridgeway Farm CE Academy - Knowledge Organiser

| Topic | Computing - Using external devices | Theme | Leadership | Year Group | 5 |
|---|---|---|---|---|---|

## Key Learning

- To understand how a device can be programmed to be used as a game controller.
- To explore the functions available for the Purple Chip and appraise their uses.
- To create a simple quiz program that can be answered using an external device.
- To create a program in which an external device can be used to monitor real world conditions.

## Key Resources

purple mash

2Dos

2Chart

2Code Purple Chip and Purple Chip app

## Key Vocabulary

**Algorithm**
A precise step by step set of instructions used to solve a problem or achieve an objective.

**Host**
The main device that the external devices connect to.

**QR Code**
A machine-readable code consisting of an array of black and white squares, used for storing a URL or other information that can be read by a device's camera.

**Emulator/ Simulator**
In computing this is a piece of software that causes the host device to behave like a different computer system (the guest).

**Input**
Information going into the computer. This could be the user moving or clicking the mouse, or the user entering characters on the keyboard. On tablets there are other forms such as finger swipes, touch gestures and tilting the device.

**Output**
Information that comes out of the computer e.g. sound. prompt, alert or print to screen.

**External device**
A portable computerised device such as a micro-bit, Makey Makey, Crumble board, temperature, pressure or light sensor. Devices such as smart phones can also be used as external devices using their sensors and functions to replicate the functionality of simpler devices. These devices communicate with other devices.

**Sensor**
A device that produces an output signal for the purpose of sensing a physical phenomenon. The input can be light, heat, motion, moisture, pressure or a growing number of other environmental phenomena.

**Prior Learning:**

· Logical decision processing · Repeat, selection, variables · Code, test, debug process

Ridgeway Farm CE Academy - Knowledge Organiser

| Topic | Spanish - Los juegos olímpicos (The Olympic Games) | Theme | Leadership | Year Group | 5 |
|---|---|---|---|---|---|

# Los juegos olímpicos

## phonics

**go** sound in:
- juegos

**co** sound in:
- practico
- tiro con arco

**ci** sound in:
- ciclismo

**accents** Accents indicate the vowel is stressed. As seen in the words olímpicos, trampolín and natación.

## vocabulary

10 Olympic sports and their articles/determiners.

How to write a phrase describing an Olympian by their performance sport.

Practica boxeo.

Es boxeador.

*He practises/does boxing. He is a boxer.*

## grammar

To understand agreement rules better and that nouns can change spelling depending on the gender of the person they are describing.

| Es boxeador. | Es boxeadora. |
|---|---|
| *He is a boxer.* | *She is a boxer.* |

Understanding better that the determiner is often dropped when the sport is used with the verb 'practicar' *(to practise/do a sport).*

Practico esgrima. *I do/practise fencing.*

The conjugation of the high frequency irregular verb 'ser' *(to be)* & regular verb 'practicar' *(to practise/do a sport).*

| es | practica |
|---|---|
| *he/she is* | *he/she practises (a sport)* |

## What I will learn:

- [ ] Objective 1: I will learn to listen attentively to longer passages in Spanish, decoding using cognates.
- [ ] Objective 2: I will learn to understand more of what I hear and read using story ordering to help me decode unknown language.
- [ ] Objective 3: I will learn 10 nouns for Olympic sports with their correct articles/determiners.
- [ ] Objective 4: I will learn how to say, 'I practise' and 'I do not practise' a particular sport using the verb 'practicar' *(to practise/do)* in Spanish.
- [ ] Objective 5: I will learn that nouns can change spelling in Spanish depending on the gender of the person being described.

## It would help if I already know:

- The letter sounds (phonics & phonemes) from 'Phonics & Pronunciation' lessons 1, 2 & 3.
- Language introduced from Early Language and Intermediate units.
- Understand what an article/determiner, noun, verb and adjective is in English and the basic rules of adjectival agreement in Spanish.
- How to decode longer, unknown texts in Spanish.

# Ridgeway Farm CE Academy - Knowledge Organiser

| Topic | Musical theatre | Theme | Leadership | Year Group | 5 |
|---|---|---|---|---|---|

## Year 5: Musical theatre

Musical theatre combines music, songs, spoken dialogue and dance. Musical theatre can also be known as 'musicals' or 'shows' and these are usually performed in theatres, although there are film musicals too.

## Musical timeline

| | |
|---|---|
| Late 16th and 17th centuries | Opera |
| | Operetta |
| | Film musical |
| | Book musical |
| | Jukebox musical |
| Modern day | Rock and hip hop musicals |

## Vocabulary

| | |
|---|---|
| Composer | Writes the music. |
| Librettist | Writes the story. |
| Lyricist | Writes the song lyrics. |
| Director | In charge of the dramatic performance. |
| Musical Director | In charge of the musical performance. |
| Choreographer | Creates the dance moves. |
| Designer | Designs the sets or costumes. |
| Performers | Play the characters in the musical. |
| Character song | Describes how the character is feeling. |
| Action song | Describes what is happening at that point in the story. |
| Transition | A passage of music composed to link one piece of music to another. |
| Score | Written notation to show what notes to play and in what style to play them. |
| Script | Written text of a play or musical. |

Key knowledge:

- To understand that musical theatre includes both character and action songs, which explain what is going on and how characters feel.
- To know that choreography means the organisation of steps or moves in a dance.
- To know that musical theatre uses transitions, which are short passages of music used to move between sections of the musical action.

Prior Learning:

- Singing longer songs in a variety of musical styles from memory.
- Singing and playing in time with peers with accuracy and awareness of their part in the group performance.

# Ridgeway Farm CE Academy - Knowledge Organiser

| Topic | Art: Craft and design: Architecture | Theme | Leadership | Year Group | 5 |
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**Key skills:**

- Develop ideas more independently from their own research.
- Confidently use sketchbooks for purposes including recording observations and research, testing materials and working towards an outcome more independently..
- Work with a range of media with control in different ways to achieve different effects.
- Research and discuss the ideas and approaches of artists across a variety of disciplines.

**Key knowledge:**

**Formal elements:**

- **Shape:** Shapes can be used to place the key elements in a composition.
- **Line:** Lines can be used by artists to control what the viewer looks at within a composition, e.g. by using diagonal lines to draw your eye into the centre of a drawing.

**Knowledge of artists:**

- Artists are influenced by what is going on around them; for example, culture, politics and technology.
- Artists 'borrow' ideas and imagery from other times and cultures to create new artworks.
- Visual designs can represent big ideas like harmony with nature or peace.

| | |
|---|---|
| Architecture | Designing buildings |
| Architect | A person who designs buildings |
| Composition | Putting different elements together in a pleasing way |
| Elevation | In architecture this refers to the angle that a building is being viewed from |
| Legacy | Something lasting to remember a person or event for future generations |
| Monoprint | Printmaking where only one impression can be made |
| Perspective | The angle from which you are looking at something |
| Proportion | How big one element of an artwork appears compared to the whole thing |
| Transform | To change how something looks |

**Friedensreich Hundertwasser (1928-2000)**
**An Austrian artist and architect.**

Most famous for his imaginative, colourful and whimscal architectural work.

The Hundertwasser house in Austria is one of his most famous buildings.

University of Economics, Austria:

**Zaha Hadid**

**Famous buildings**

The Shard, London (Renzo Piano)

La Sagrada Familia, Barcelona (Antoni Gaudi)

Taj Mahal, India (Ustad Ahmad Lahori)

Burj Khalifa, Dubai (Adrian Smith)

Empire State building, New York City (Shreve, Lamb & Harmon)

**Prior Learning:**

- Generating ideas from a range of stimuli, using research and evaluation of techniques to develop ideas and plan more purposefully for an outcome.
- Use of sketchbooks for a wider range of purposes, for example, recording things using drawing and annotations, planning and taking the next steps in a making process.
- Using subject vocabulary confidently to describe and compare creative works.

# Ridgeway Farm CE Academy - Knowledge Organiser

| Topic | Design Technology:: Digital world: Monitoring devices | Theme | Leadership | Year Group | 5 |
|---|---|---|---|---|---|

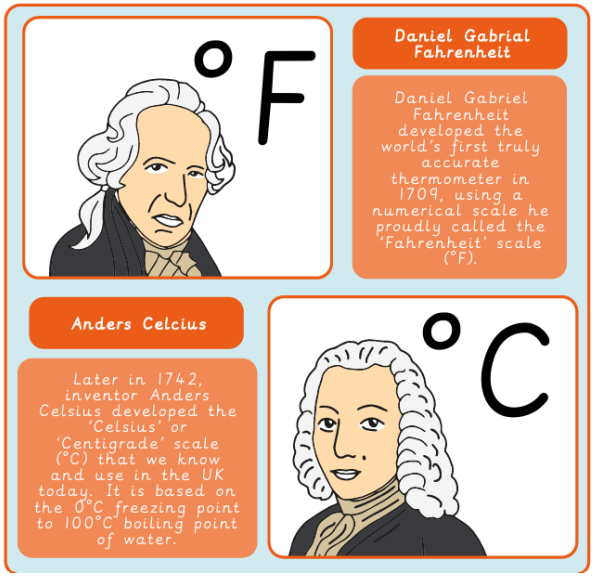
## Key skills:

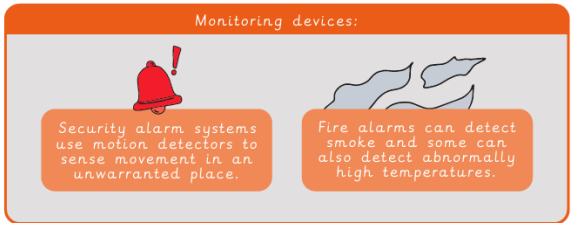
- Describe what is meant by monitoring devices and provide an example.
- Explain briefly the development of thermometers from thermoscopes to digital thermometers.
- Research a chosen animal's key information to develop a list of design criteria for an animal monitoring device.
- Write a program that monitors the ambient temperature and alerts someone when the temperature moves from a specified range.
- Identify errors (bugs) in the code and ways to fix (debug) them.
- State one or two facts about the history and development of plastic, including how it is now affecting planet Earth.
- Build a variety of brick models to invent Micro:bit case, housing and stand ideas, evaluating the success of their favourite model.
- Explain key pros and cons of virtual modelling vs physical modelling.
- Recall and describe the name and use of key tools used in Tinkercad (CAD) software.

| | |
|---|---|
| Boolean | A form of data, which consists of (true) 1s and (false) 0s values. |
| Device | Equipment created for a certain purpose or job. |
| Durable | Lasts a long time with prolonged use without deteriorating very easily. |
| Monitoring device | An electronic device that observes and records something over time using data retrieved from one or more sensors. |
| Sensor | A tool or device that is designed to monitor, detect and respond to changes. |
| Synthetic | Something artificial. Made with substances that are do not occur naturally. |
| Variable | This could be a number or text, that can change each time the program is run and often in combination with selection to change the end result of the program. |
| Versatile | Can be used in a number of ways, or has a variety of functions. |
| Water-resistant | Repels water from entering or absorbing something. |
| Workplane (CAD) | A virtual mat to place and manipulate objects in CAD, to build 3D models. |

## Key knowledge:

- A device means equipment created for a certain purpose or job and that monitoring devices observe and record.
- A sensor is a tool or device that is designed to monitor, detect and respond to changes for a purpose.
- Conditional statements (and, or, if booleans) in programming are a set of rules which are followed if certain conditions are met.





## Prior Learning:

- State and/or describe the advantages and disadvantages of existing products (timers).
- Understand how virtual micro:bit features could be used as part of a design idea.
- Write a program that displays a timer on the virtual micro:bit based on their chosen seconds/minutes.