Ridgeway Farm CE Academy – Knowledge Organiser

Topic	Spanish – En El Colegio	Theme	Explorers	Year Group	6

En el colegio

phonics

b sound in:
- aburrido

qu sound in:
- porque

accents – Accents indicate the vowel is stressed. As seen in the words inglés and fácil.

ñ tilde – This changes the 'n' to a 'ny' sound like in the English word 'onion'. As in the Spanish word español.

stress placement – Words that end in a vowel, 'n' or 's' are normally stressed on the second to last syllable like in-te-re-san-te, di-ver-ti-do.

vocabulary

The nouns and determiners for 10 subjects.

The 7 days of the week in Spanish.

Mon Tues Wed Thurs Fri Sat Sun

Estudio español a las nueve.

Language to describe what subjects I like/do not like and why.

Me encanta el español porque es divertido.

I like Spanish because it is fun.

grammar

To fully understand the role of gender and plurality in the choice of determiners.

el español 

Singular determiner 'the' for masculine nouns.

la música 

Singular determiner 'the' for feminine nouns.

las ciencias 

Plural determiner 'the' for feminine plural nouns.

The 1st person conjugation of the verb 'estudiar' (to study).

Estudio español. *I study Spanish.*

What I will learn:

- ☐ Objective 1: I will learn the nouns and determiners for 10 subjects in Spanish.
- ☐ Objective 2: I will learn how to create a short phrase in Spanish about a subject I like and do not like.
- ☐ Objective 3: I will learn how to answer the question '¿Qué hora es?' (What time is it?) on the hour in Spanish.
- ☐ Objective 4: I will learn how to say at what time I study a particular subject in Spanish.
- ☐ Objective 5: I will use all my new knowledge from the unit to present to the class in spoken and/or written form.

Prior Knowledge

- I can say simple things about myself (name, age, feelings, where I live).
- I know basic Spanish words like numbers, colours, days and months.
- I understand simple classroom Spanish and can read or write short words.
- I know where Spain is and that Madrid is the capital.

Ridgeway Farm CE Academy – Knowledge Organiser

Topic	Music – Theme and Variations (Pop Art)	Theme	Explorers	Year Group	6

Prior Knowledge

- I know that a film soundtrack includes the background music and any songs in a film.
- I understand that 'major' key signatures use note pitches that sound cheerful and upbeat.
- I understand that 'minor' key signatures use note pitches that can suggest sadness and tension.
- I know that 'graphic notation' means writing music down using your choice of pictures or symbols but 'staff notation' means music written more formally on the special lines called 'staves'.

Musical form: Theme and variations

Theme and variations is a common musical structure, especially in classical music. The structure features a theme at the start of the piece, then once the theme has been played, the composer repeats it but with some form of variation. The theme is then played again but this time with a further variation.

Vocabulary

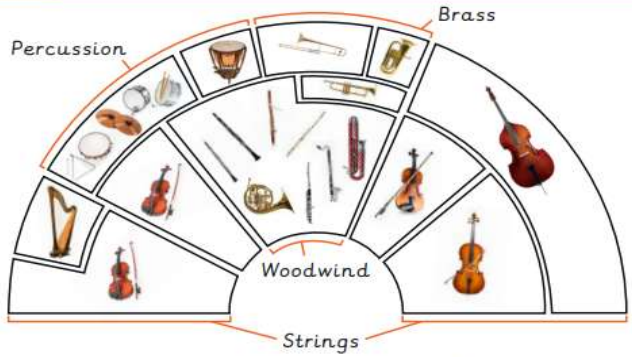
Pop Art

An art movement from the 1950s where artists focused on common objects (comic books, tins of soup, teacups) and showed them in bold, bright colours.

Pulse	Pulse is a steady beat - the heartbeat of the music.
Notation	Written symbols to represent music.
Diaphragm	A dome shaped muscle beneath our lungs, which we use to control our breath when singing.
Melody	Notes of different pitches played in a sequence in order to create a tune.
Phrase	A short musical passage that makes sense on its own.
Rhythm	The pattern of long and short notes in music.
3/4 time	Commonly called 'waltz time' and only has 3 beats per bar.
4/4 time	Known as 'common time' and has 4 beats per bar.

Orchestra

A group of instruments that play together.



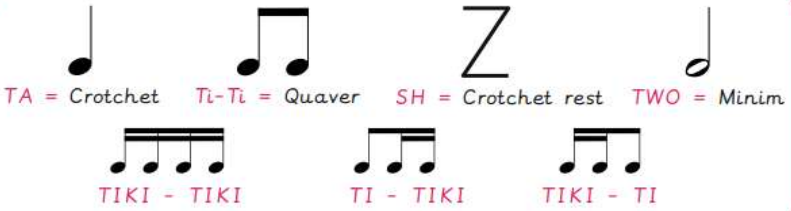
Strings - Instruments that are played by plucking or bowing strings.

Woodwind - Instruments that make sound by blowing air through a reed or small mouthpiece.

Brass - Instruments that are made of metal and the sound is made by blowing air through a cup-shaped mouthpiece.

Percussion - Instruments that are played by striking, beating or shaking the instrument.

Kodaly rhythm names



Ridgeway Farm CE Academy – Knowledge Organiser

Topic	DT – Steady Hand Games	Theme	Explorers	Year Group	6

Prior Knowledge

- I know that, in a series circuit, electricity only flows in one direction.
- I know when there is a break in a series circuit, all components turn off.
- I know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin.
- I know a motorised product is one which uses a motor to function.

Intended Outcomes

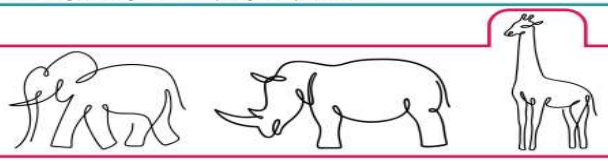
- Explain simply what is meant by 'form' (the shape of a product) and 'function' (how a product works).
- State what they like or dislike about an existing children's toy and why.
- Learn about skills developed through play and apply this knowledge in a survey of one or more children's toys.
- Identify the components of a steady hand game.
- Design a steady hand game of their own according to their design criteria, using four different perspective drawings.
- Create a secure base for their game, with neat edges, that relates to their design.
- Make and test a functioning circuit and assemble it within a case.

Electrical Systems - Steady hand game

Backboard	A background designed for the steady hand game.
Battery	A cell or connected group of cells which store electrical energy.
Bulb	A component which gives light when electricity passes through it.
Buzzer	A component which makes a loud noise as electricity passes through.
Circuit	A collection of components which make an electrical system.
Conductor	A material that allows electricity to flow through it. e.g. metal.
Copper	A metal material that is one of the best conductors of heat and electricity. It is often used to make wires and pipes.
Function	How an object or product operates or works.
Insulator	A material that does not allow electricity to flow through it. e.g. plastic.
LED	A light emitting diode which lights up as electricity passes through.
Magnetic field	The area around a magnet where there is magnetic force.
Net	A 2D flat shape, that can become a 3D shape once assembled.
Pliers	A metal tool used for holding, twisting or cutting wire.
Prototype	A simple model that lets you test out your idea, how it will look and work.
Series circuit	A closed circuit where the current only follows one path.
Side view drawing	An engineering diagram which shows the dimensions (width, depth, length) of the side (left or right) of a product.
Switch	A component which opens and closes to turn the circuit on or off.
Side view drawing	An engineering diagram which shows the dimensions (width, depth, length) of the side (left or right) of a product.
Test	To find out whether something works as it should.
Top view drawing	An engineering diagram which shows the dimensions (width, depth, length) of the top of a product.

Check it out!

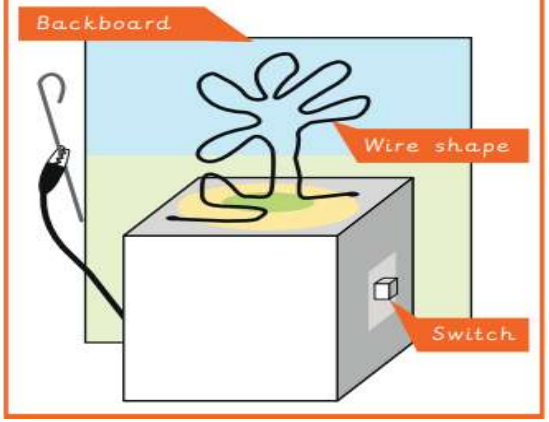
Check out continuous line drawings, such as Picasso's single-line animals for inspiration!



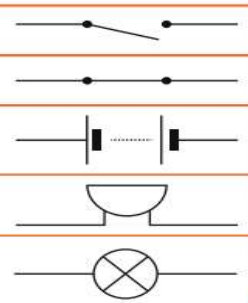
Key facts

Kapow Primary

The more complex your wire shape, the harder your steady hand game will be, especially if the bends are close together.



Circuit symbols:



Ridgeway Farm CE Academy – Knowledge Organiser

Topic	Art – Sculpture and 3D: Making Memories	Theme	Explorers	Year Group	6

Prior Knowledge

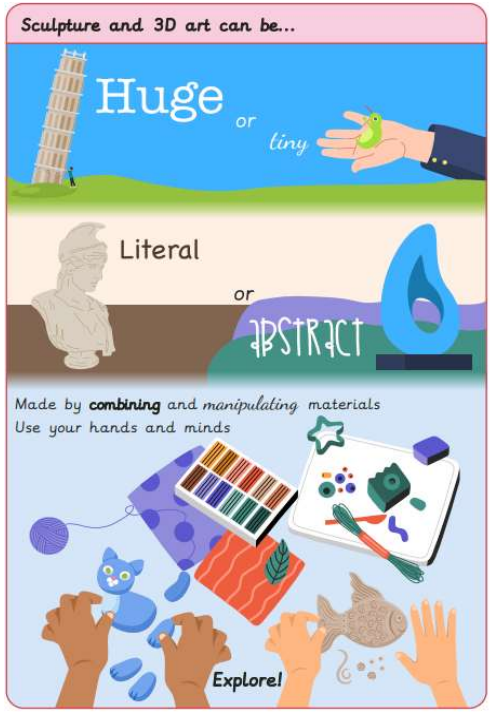
Formal elements:

- An art installation is often a room or environment in which the viewer 'experiences' the art all around them.
- The size and scale of three-dimensional artwork change the effect of the piece.

Knowledge of artists:

- Artists are influenced by what is going on around them; for example, culture, politics and technology.
- How an artwork is interpreted will depend on the life experiences of the person looking at it.

abstract	When something doesn't necessarily look like it does in real-life.
assemblage	A 3-dimensional collage of collected or made items.
composition	Putting different elements together in a pleasing way.
literal	When something is represented exactly as it is.
manipulate	To change how a material looks by handling or using tools.
memory	Something remembered from the past.
relief	In art, refers to artwork that projects from a solid base.
sculpture	Three dimensional art made by carving, modelling, casting or constructing.



Artists

Joseph Cornell

Cornell made 3D art from found objects with personal meaning assembled in a box. He was one of the first artists to create 'Assemblage' art.


Assemblage in the style of Cornell.

- Louise Nevelson
- Joseph Cornell
- Judith Scott
- Yinka Shonibare
- Nicola Anthony
- Louise Bourgeois
- Romare Bearden

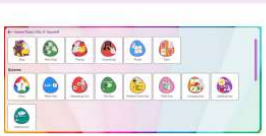
Ridgeway Farm CE Academy – Knowledge Organiser

Topic	Computing - Quizzing	Theme	Explorers	Year Group	6

Prior Knowledge

- The Internet is a global network of networks while the World Wide Web (www) is a collection of information which is accessed via the internet.
- A LAN (local area network) and a WAN (wide area network) connect computers together. A LAN is normally for computers connected less than 1km distance whilst a WAN extends over a large geographical area.

Key Images



Create a quiz using 2Do It Yourself

Create a quiz using Text Toolkit

Choose a question type in 2Quiz

Create a concept map from scratch (blank) or an existing template.

Create a blank database

Key Questions

What factors do you need to consider when creating a quiz?

The intended audience; age and reading ability and interests.
The aim of the quiz; is it for fun like a game, or to make sure that the user has learnt something?

Name three question types in 2Quiz.

- Sequencing
- Grouping and Sorting
- Text based
- Multiple-choice
- Labelling

Apart from the questions, what else does a quiz need to contain?

A title screen and instructions for the user. Feedback for the user (some quizzes). Time limits (some quizzes). Images for interest as well as part of the questions

Key Learning

- To create a picture-based quiz for young children.
- To learn how to use the question types within 2Quiz.
- To explore the grammar quizzes.
- To make a quiz that requires the player to search a database.
- To make a quiz to test your teachers or parents.

Key Resources

purple mash

2Quiz

2DIY

Text Toolkit

2Connect

2Investigate

Key Vocabulary

Audience
People who watch a performance or use a resource.

Audio
Sound (especially when recorded).

Case-Sensitive
Differentiating between capital and lower-case letters.

Clone
To make a complete copy of something.

Cloze
A test in which words are removed from a text and replaced with spaces. The learner has to fill each space with the correct word(s).

Preview
To see what something (or part of something) looks like before committing to it being the final version.

Quiz
An activity in which participants answer questions and receive a score dependent upon correct answers.

Ridgeway Farm CE Academy – Knowledge Organiser

Topic	Science – Evolution and Inheritance	Theme	Explorers	Year Group	6
Key Question	What does it mean to adapt?				

What should I already know?

- Animals can be grouped and classified using classification keys.
- Living things breed to produce offspring which grow into adults. This is called reproduction.
- The basic needs of animals for survival are water, food and air.
- Some animals have skeletons for support, protection and movement (vertebrates).
- Features of habitats and the animals and plants that exist there (biodiversity) .
- Sometimes environments can change and this has an effect on the plants and animals that exist there.
- The role of Mary Anning in paleontology and the discovery of fossils.
- The features of some rocks and the role they play in the formation of fossils

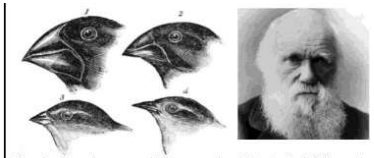
Key Vocabulary

adaptations	Adaptations are characteristics which improve an animal's chances of survival in a habitat.
ancestor	An early type of animal or plant from which a later, usually dissimilar type has evolved.
biodiversity	A wide variety of plant and animal species living in their natural environment.
evolution	A process of change that takes place over many generations, during which species of animals, plants, or insects slowly changes some of their physical characteristics.
inherit	If you inherit a characteristic, you are born with it because your parents or ancestors also had it.
maladaptation	The failure to adapt properly to a new situation or environment.
mutation	Characteristics that are not inherited from the parents or ancestors and appear as new characteristics.
natural selection	A process by which species of animals and plants that are best adapted to their environment survive and reproduce, while those that are less well adapted die out.
palaeontology	The study of fossils as a guide to the history of life on Earth.
variation	A change or slight difference.

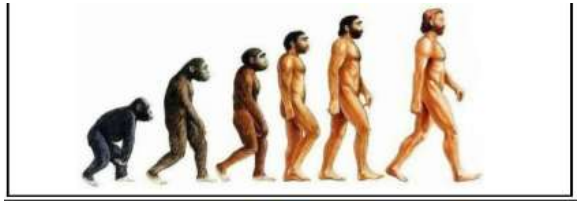
What will I know by the end of the unit?

- Variation is the differences between organisms. All species show variation.
- Characteristics are the features of an organism, used to identify individuals or a group.
- Parents pass on characteristics to their offspring such as hair and eye colour. This process is called inheritance.
- Humans can breed animals such as dogs for desirable characteristics.

What is evolution?	• Evolution is a process of change that takes place over many generations, during which species of animals, plants, or insects slowly change some of their physical characteristics. This is because offspring are not identical to their parents. • Evolution allows animals and plants to better adapt to their environments or habitats so that they can survive. • It occurs when there is competition to survive. This is called natural selection. • Difference within a species (for example between parents and offspring) can be caused by inheritance and mutations. • Mutations in characteristics are not inherited from the parents and appear as new characteristics.
How do we know about evolution?	• Evidence of evolution comes from fossils - when these are compared to living creatures from today, paleontologists can compare similarities and differences. • Other evidence comes from living things - comparisons of some species may reveal common ancestors.
What is adaptation?	• Adaptation is when animals and plants have evolved so that they have adapted to survive in their environments. For example, polar bears have a thick layer of blubber under their fur to survive the cold, harsh environment of the Arctic while giraffes have long necks to reach the leaves on trees. • Plants in desert environments have longer roots and larger stems, so they can absorb and store more water. This allows them to survive in hot, dry environments such as deserts, where there is not much water available. • Some environments provide challenges yet some animals and plants have adapted to survive there • Sometimes adaptations can be disadvantageous. One example of this can be the dodo, which became extinct as it lost its ability to fly through evolution. Flying was unnecessary for the dodo as it had lived for so many years without predators, until its native island became inhabited. • When adaptations are more harmful than helpful, these are called maladaptations.



Charles Darwin, an evolutionary scientist, studied different animal and plant **species**, which allowed him to see how **adaptations** could come about. His work on the finches was some of his most famous.



Ridgeway Farm CE Academy – Knowledge Organiser

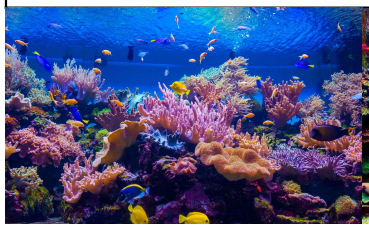
Topic	Geography - Oceans	Theme	Explorers	Year Group	6
Key Question	Why do oceans matter?				

Prior Knowledge

- The Northern Hemisphere is the Northern part of the Earth and the Southern Hemisphere is the Southern part of the Earth.
- The water cycle process is an ongoing cyclic movement of water within the Earth's atmosphere.

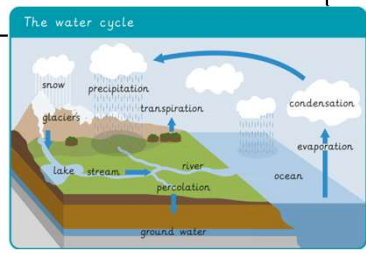
Key Knowledge

- Australia is in the Southern Hemisphere.
- The largest reef in the world is off the North East coast of Australia and can be seen from space.
- Oceans are important for a number of reasons: they are home to many creatures; they provide food and jobs for humans; they are used for fun activities; they give us many medicinal ingredients; they contribute to our climates and weather; they absorb carbon dioxide; they are a source of renewable energy.
- Oceans play an important role in regulating the Earth's climate by absorbing and storing carbon dioxide. This helps slow climate change.
- Coral reefs are beneficial for a number of reasons: a quarter of all marine species are dependent on them for food or shelter; many of these fish are used for food or provide jobs for humans; they provide a barrier from storms and erosion of the sea bed; they provide ingredients for medicines, treating conditions such as asthma, arthritis and cancer.
- Some of the dangers posed to reefs by humans are: coral bleaching, plastic pollution, overfishing and climate change.
- There are a number of actions that humans can take so that we can keep the oceans healthy: try to avoid buying single-use plastic; try to use natural fertilisers in gardens; re-use or re-purpose items; recycle any plastics; be mindful of the seafood you eat; only buy what you need or buy second hand; walk or cycle if you can; educate people about the importance of the oceans.
- There are different time zones depending on where you live in the world.



Key Vocabulary

atmosphere	The atmosphere is the layer of gas that surrounds Earth.
biodegradable	Something that can be broken down naturally and return to nature without having a harmful impact on the environment.
buffer	Something that prevents the interaction of two things.
coral bleaching	When the coral turns white and becomes weak.
coral reef	A coral reef is an underwater ecosystem, consisting of corals that create the reef. Coral are marine invertebrate, and reefs are ridges of jagged material just above or below the surface of the sea.
Ecosystem	An ecosystem is where a community of living organisms live together with non-living aspects of their environment.
Erosion	Erosion is the gradual wearing down and transportation of materials by natural forces.
Geology	Geology is the study of the physical features and history of Earth.
human footprint	How much carbon dioxide is made from us going about our daily lives. The bigger the footprint, the more impact the person has on the planet.
Marine	Having to do with the sea.
ocean current	An ocean current is a continuous, directed movement of seawater generated by a number of forces acting upon the water, including wind.
renewable energy	Renewable energy means using power from things in nature that never run out, like sunlight, wind, water, and heat from the Earth.



Ridgeway Farm CE Academy – Knowledge Organiser

Topic	RE – Kingdom of God	Theme	Explorers	Year Group	6
Key Question	What kind of King is Jesus?				

Prior Knowledge

- Jesus told many parables about the Kingdom of God. These suggest that God's rule has begun, through the life, teaching and example of Jesus, and through the lives of Christians who live in obedience to God.
- Christians believe Jesus is still alive and rules in their hearts and lives by the Holy Spirit, if they let him.
- Christians believe that after Jesus returned to be with God the Father, he sent the Holy Spirit at Pentecost to help the Church to make Jesus' invisible Kingdom visible by living lives that reflect the love of God.

Key Knowledge

- Many Christians try to extend the Kingdom of God by challenging unjust social structures in their locality and in the world.
- Christians believe that Jesus came to Earth to get people into Heaven and to make the world more like Heaven.
- The Parable of the Feast is about inclusivity.
- The Kingdom is compared to a feast where all are invited to join in. Not everyone chooses to do so.
- The Kingdom of God is where God rules – not a geographical territory – but in human hearts and minds, lives and communities.
- Jesus' key teaching in the first three gospels (Matthew, Mark and Luke) is that he is beginning a kingdom where God's rule of love, forgiveness and inclusion will grow.

Key Vocabulary

banquet	An elaborate and formal meal for many people.
Bible	The Christian scriptures, consisting of the Old and New Testaments.
gospel	The teaching or revelation of Christ.
Kingdom	The Kingdom of God is the realm where God reigns supreme, and Jesus Christ is King.
parable	A simple story used to illustrate a moral or spiritual lesson, as told by Jesus in the Gospels.