



# Ridgeway Farm CE Academy – Knowledge Organiser

Topic	Spanish – Yo En El Mundo	Theme	Creation	Year Group	6
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**phonics**

**b** sound in:  
• hablo

**v** sound in:  
• Navidad

**z** sound in:  
• utizar

**accents** Accents indicate the vowel is stressed. As seen in the words día and inglés.

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

**silent letters** 'H' is always silent in Spanish as seen in the word verb hablo. It is pronounced ablo.

**vocabulary**

The vocabulary required for personal details:

 **Me llamo Carmen. Tengo trece años. Vivo en Ciudad de México en México. Hablo español.**

*I am called Carmen. I am thirteen years old. I live in Mexico City in Mexico. I speak Spanish.*

More challenging and authentic language connected to celebrations, religions and the the protection of our planet to widen the range of language.

**grammar**

To accurately use the 1st person conjugation of high-frequency verbs.

**me llamo** 'I am called' from the verb 'llamarse' (to be called)

**tengo** 'I have' from the verb 'tener' (to have)

**vivo** 'I live' from the verb 'vivir' (to live)

**hablo** 'I speak' from the verb 'hablar' (to speak)

**voy** 'I go' from the verb 'ir' (to go)

Prior Knowledge	Key Objectives
<ol style="list-style-type: none"> <li>1. I know how to describe myself and others physically in terms of height and character using the verb 'ser' (to be).</li> <li>2. I know how to describe myself and others physically in terms of hair colour and type using the verb 'tener' (to have).</li> <li>3. I know how to describe myself by eye colour using the verb 'tener' (to have).</li> <li>4. I know how to describe a Viking's typical daily routine using time phrases.</li> </ol>	<ol style="list-style-type: none"> <li>1. I will learn more about the 4 characters in the unit and the Hispanic world.</li> <li>2. I will learn more about the different celebrations celebrated in the Hispanic world.</li> <li>3. I will learn more about 2 different religious celebrations celebrated in the Hispanic world.</li> <li>4. I will improve my cultural awareness of Madrid in Spain and Lima in Peru.</li> <li>5. I will learn how the 4 characters are responsible global citizens by doing more to protect the planet.</li> </ol>



## Ridgeway Farm CE Academy – Knowledge Organiser

Topic	Music: Composing and Performing a Leavers' Song	Theme	Creation	Year Group	6
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### Prior Knowledge

- I can sing with control and confidence.
- I can name rhythms correctly.
- I can copy rhythms accurately with a good sense of pulse.
- I can show creativity in a finished musical product.

### Musical style: Pop music



Exploring pop songs about new beginnings. Pop music is short for 'popular music' and this style of music generally has a simple, memorable melody.

### Vocabulary

**Lyrics** The words of a song.

**Tempo** The speed of the music.

- **Presto** - To perform at a very fast tempo.
- **Allegro** - To perform at a quick, lively tempo.
- **Largo** - To perform slowly.
- **Accelerando** - To perform with a gradual increase in speed.
- **Ritardando** - To perform with a gradual decrease in speed.

**Arrangement** Adapting a piece of music that already exists. Usually so that it can be played by different instruments.

**Chords** Two or more notes that are played at the same time and work in harmony.

**Chord progression** A group of chords played in a particular order.

**Melody** The combination of pitch and rhythm which forms a tune.

**Dynamics** The volume of the music.

- **Crescendo** - Gradually increasing volume.
- **Diminuendo** - Gradually reducing volume.
- **Forte** - To play loudly or strongly.
- **Piano** - To play quietly or gently.

**Verse - chorus structure** A structure common in pop music, with two repeating sections: the verse and the chorus. The verse usually has different lyrics on each repetition.

**Rhyming pattern** The arrangement of the rhyming lines in a poem or song.

**Backing track** A pre-recorded musical accompaniment.

### Rhyming patterns

**AABB** - Lines 1 and 2 rhyme and lines 3 and 4 rhyme.

**ABAB** - Lines 1 and 3 rhyme and lines 2 and 4 rhyme.

**ABBA** - Lines 1 and 4 rhyme and lines 2 and 3 rhyme.

**ABCB** - Lines 2 and 4 rhyme and lines 1 and 3 rhyme.

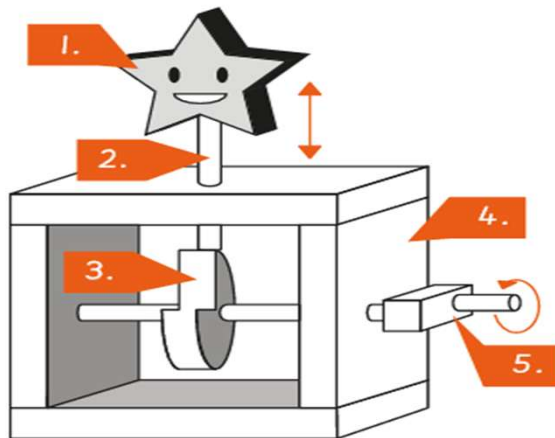


## Ridgeway Farm CE Academy – Knowledge Organiser

Topic	DT – Mechanical Systems: Automata Toys	Theme	Creation	Year Group	6
Prior Knowledge			Intended Outcomes		
<ul style="list-style-type: none"> <li>To produce a suitable plan for a product.</li> <li>I can assemble the components necessary for all of my structures/mechanisms.</li> <li>I can hide mechanical elements with more layers using spacers where needed.</li> <li>I can use appropriate materials.</li> </ul>			<ul style="list-style-type: none"> <li>To attempt a partial assembly of my toy using an exploded-diagram.</li> <li>To develop a design idea with some descriptive notes.</li> <li>To explore different cam profiles and choose three for my follower toppers with an explanation of my choice.</li> <li>To create neat, decorated follower toppers with some accuracy.</li> <li>To measure and cut panels that fit with some inaccuracies to conceal the inner workings of the automata.</li> <li>To decorate and finish the automata to meet the design criteria and brief.</li> </ul>		

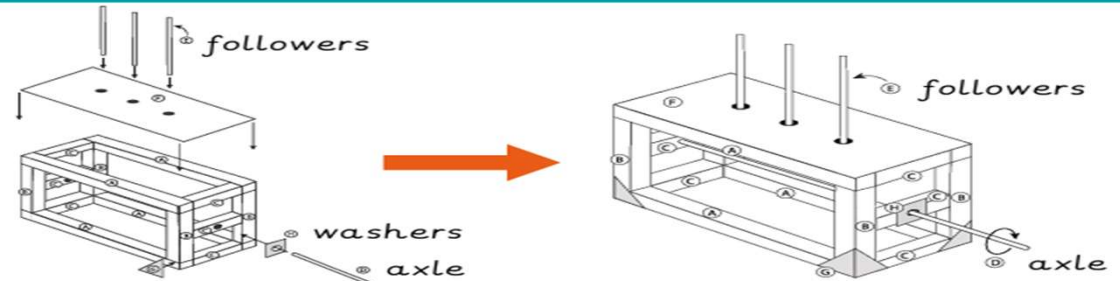
### Automata toy components:

1. Character.
2. Follower.
3. Cam.
4. Frame.
5. Axle attached to handle.



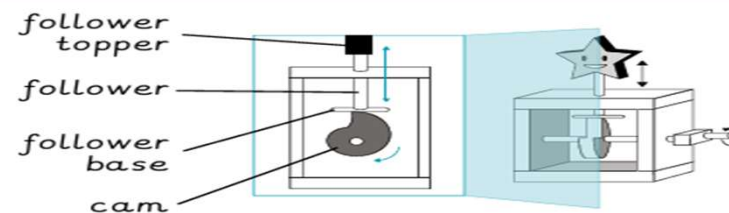
Automata toys use a mechanical system of cams, axles and followers to create movement in a character or object.

### Exploded diagrams



Exploded diagrams communicate how the parts of a product fit together. They help when making the product.

### Cross-sectional diagrams



Cross-sectional diagrams help designers to communicate how a product works by showing the inside. Imagine a cut down the middle.





## Ridgeway Farm CE Academy – Knowledge Organiser

Topic

Art and Design: Craft and Design – Photo Opportunity

Theme

Creation

Year Group

6

### Prior Knowledge

#### Formal Elements

- I know that shapes can be used to place the key elements in a composition.
- I know that lines can be used by artists to control what the viewer looks at within a composition.

#### Making Skills

- I know how to use sketchbooks to research and present information about an artist.

Arrangement	The composition of visual elements
Digital	Art made using electronic devices and computers
Layout	The arrangement of different elements within a given space
Macro	Very close-up photography, usually of very small subjects that are hard to see without using a magnifying tool
Monochrome	The use of one colour
Photography	The process of producing an image using a device that captures light
Photomontage	A collage of photographs that are arranged or modified
Photorealism	A drawing or painting so detailed it looks like a photo
Prop	Objects that are in photographs to enhance a scene
Saturation	The intensity or strength of a colour

### The difference between using a normal lens and a macro lens setting.



Normal lens



Macro lens



### Artists

Hannah Hoch

Edward Weston

Derrick O Boateng

Chuck Close

### Features of a camera





## Ridgeway Farm CE Academy – Knowledge Organiser

Topic

Art and Design: Craft and Design – Photo Opportunity

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### Editing



Colour  
saturation



Colour  
replacement



Special  
effects

### Tips tips to take a great photo!

Hold the camera or  
device steady

Check your subject is  
in focus

Try moving closer or  
further away from your  
subject rather than  
zooming in

Try taking your picture  
from a different angle

Check your background!

Don't always have your  
subject directly in the  
middle play with  
composition

Make sure your subject  
is in frame





## Ridgeway Farm CE Academy – Knowledge Organiser

Topic

Computing - Binary

Theme

Creation

Year Group

6

### Prior Knowledge

- There are a range of software tools for creating quizzes to improve grammar skills.
- A quiz can be made to teach children how to interrogate a database.
- A range of questions can be used to produce a quiz linked to a curriculum area.

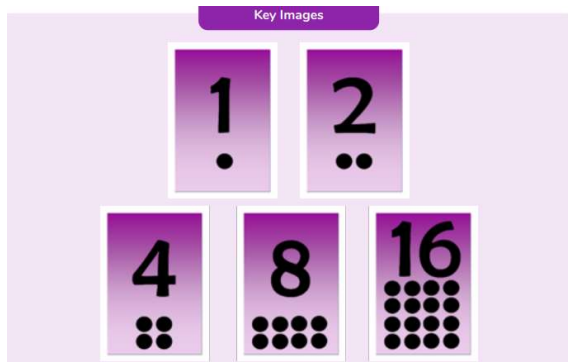
### Key Learning

- To examine how whole numbers are used as the basis for representing all types of data in digital systems.
- To recognise that digital systems represent all types of data using number codes that ultimately are patterns of 1s and 0s (called binary digits, which is why they are called digital systems).
- To understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics.

### Key Resources



### Key Images



### Key Vocabulary

#### Base 2

A number system in which there are two separate integers that can be used to make all numbers. This is also called the **binary** system.

#### Bit

A single 0 or 1 is called a bit. This word comes from 'Binary Digit'.

#### Base 10

A number system in which there are ten separate integers that can be used to make all numbers. This is also called the **decimal** and the **denary** system.

#### Digit

A single integer used to show a number.

#### Integer

Any whole number. This includes negative and positive numbers but not fractions or decimals.

#### Transistor

A transistor is a tiny switch that is activated by the electronic signals it receives.

#### Switch

An act of changing to or adopting one thing in place of another.

Words used to describe numbers of bits and the computer memory space used:

**Nibble** - 4 bits

**Byte** - 8 bits.

**Kilobyte (KB)** - 1024 bytes

**Megabyte (MB)** - 1024 KB

**Gigabyte (GB)** - 1024 MB

**Terabyte (TB)** - 1024 GB

### Key Vocabulary

#### Machine code

The code that signals to a computer which transistors should be on or off. Machine code is written in binary.

#### Switch

A component that can be one of two states at any time: on or off.

#### Variable

A variable is used in programming to keep track of things that can change while a program is running. A variable must have a name. The value of the variable is the information to store.

**Megabyte (MB)**  
1024 KB.

**Terabyte (TB)**  
1024 GB

**Nibble**  
4 bits.

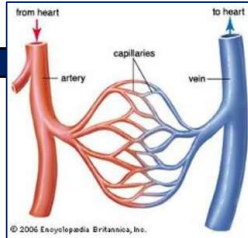
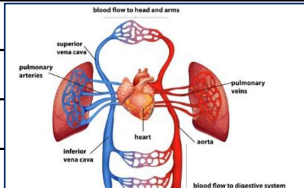
#### Transistor

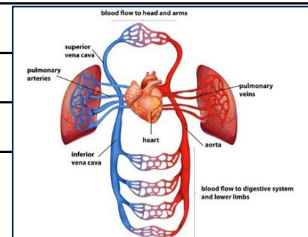
A tiny switch that is activated by the electronic signals it receives.





## Ridgeway Farm CE Academy – Knowledge Organiser

Topic	Science – Animals including Humans	Theme	Creation	Year Group	6	
Key Question	How do you keep your heart healthy?					
What should I already know?			Key Vocabulary			
<ul style="list-style-type: none"><li>The basic needs of animals for survival (water, food, air).</li><li>The importance of exercise, hygiene and a balanced diet.</li><li>Animals get nutrition from what they eat.</li><li>Some animals have skeletons for support, protection and movement.</li><li>Respiration is one of the seven life processes.</li></ul>			arteries	a tube in your body that carries <b>oxygenated</b> blood from your <b>heart</b> to the rest of your body		
			atria	The top two chambers of the <b>heart</b> .		
			blood vessels	the narrow tubes through which your blood flows. <b>Arteries, veins</b> and <b>capillaries</b> are <b>blood vessels</b> .		
			capillaries	tiny <b>blood vessels</b> in your body		
What will I know by the end of the unit?		circulatory system	the system responsible for circulating blood through the body, that supplies <b>nutrients</b> and <b>oxygen</b> to the body and removes waste products such as <b>carbon dioxide</b> .			
What is the circulatory system?	The <b>circulatory system</b> is made of the <b>heart</b> , blood and the <b>blood vessels</b> . <b>Arteries</b> carry <b>oxygenated</b> blood from the <b>heart</b> to the rest of the body. <b>Veins</b> carry <b>deoxygenated</b> blood from the body to the <b>heart</b> . <b>Nutrients, oxygen</b> and <b>carbon dioxide</b> are exchanged <b>via</b> the <b>capillaries</b> .		deoxygenated	blood that does not contain <b>oxygen</b>		
Blood	There are 4 key components that make up blood: white blood cells (protect the body from infection), red blood cells (make up 40-45% of blood), plasma (transports other components of blood around the body) and platelets. (seal a wound to a blood vessel). Blood delivers oxygen and nutrients to the cells of the body; it protects the body from infection and keeps the body at the right temperature.		heart	the <b>organ</b> in your chest that <b>pumps</b> the blood around your body		
The Heart	The heart is composed of four chambers; the right atrium, the right ventricle, the left atrium and the left ventricle. How often your heart pumps is called your pulse.		lungs	Two <b>organs</b> inside your chest which fill with air when you breathe in. They <b>oxygenate</b> the blood and remove <b>carbon dioxide</b> from it.		
			nutrients	substances that help plants and animals to grow		
Choices that can harm the circulatory system	Some choices, such as smoking and drinking alcohol can be harmful to our health. Tobacco can cause short-term effects such as shortness of breath, difficulty sleeping and loss of taste and long-term effects such as lung disease, cancer and death. Alcohol can cause short-term effects such as addiction and loss of control and long-term effects such as <b>organ</b> damage, cancer and death		oxygenated	blood that contains <b>oxygen</b>		
			plasma	part of the blood that carries nutrients		
			red blood cells	part of the blood that carries oxygen and removes waste products		
Why is exercise so important?	Exercise can tone our muscles and reduce fat; increase fitness; make you feel physically and mentally healthier; strengthens the <b>heart</b> ; improves <b>lung</b> function; and improves skin.		veins	A tube in your body that carries <b>deoxygenated</b> blood to your <b>heart</b> from the rest of your body.		
			ventricles	The bottom two chambers of the <b>heart</b> .		
			white blood cells	part of the blood that fights viruses and bacteria		
						





## Ridgeway Farm CE Academy – Knowledge Organiser

Topic	RE	Theme	Creation	Year Group	6
Key Question	What do religions say to us when life gets hard?				
Key Vocabulary		What should I already know?			
afterlife	(in some religions) life after death	<ul style="list-style-type: none"> <li>Christians believe that people go to Heaven after death.</li> <li>When people die, God judges us according to the decisions made in life.</li> <li>Christians, Hindus and Muslims have different beliefs.</li> </ul>			
death	The end of the life of a person or organism.				
dharma	Is a person's duty – the right thing to do in any given situation.				
		Key Knowledge			
funeral	a ceremony or service held shortly after a person's death, usually including the person's burial or cremation	<ul style="list-style-type: none"> <li>Christianity, Hinduism and Islam teach about some form of life after death, which can bring comfort to people as they face suffering, or if they are bereaved.</li> <li>Some people believe that death is the end of life, and that there is no afterlife.</li> <li>Christians and Muslims believe that God makes a judgement of people according to their life choices and that, if the good outweighs the bad, they will go to Heaven or Paradise.</li> <li>Hindus believe in a cycle of life: birth, death and rebirth, with our actions in this life, our 'karma' effecting our future incarnations.</li> <li>Depending on people's beliefs, there are ceremonies that mark the end of life on Earth.</li> <li>Religions help people to live, even when times are tough. For example, through prayer, giving a sense of purpose, a guide to deciding what is right and wrong, membership of a community who care for each other, opportunities to celebrate together.</li> </ul>			
Heaven	a place regarded in various religions as the abode of God (or the gods) and the angel				
judgement	The evaluation of evidence to make a decision.				
Karma	The law of cause and effect, the idea that every action we take will have consequences either positive or negative.				
Moksha	Escape from the cycle of being – life, death and rebirth that happen as a result of Karma.				
Paradise	(in some religions) heaven				
reincarnation	being born into another life				
soul	A non-physical part of a human being that lives on after the death of the physical body.				
spirit	The non-physical part of a person which is the seat of emotions and character; the soul.				

