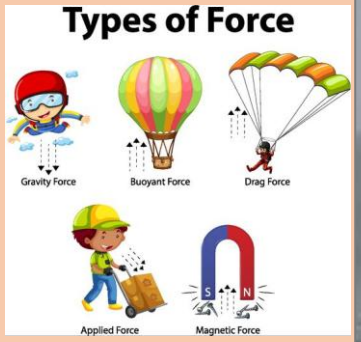
Year 5: Feel The Force

Science:

- Air resistance - the frictional force air exerts against a moving object. As an object moves, air resistance slows it down.
- Water resistance - a type of force that uses friction to slow things down that are moving through water. It is often called drag.
- Friction is force between two surfaces that are sliding, or trying to slide across each other.
- Gravity - a force that pulls everything down toward the centre of the Earth. Gravity also pulls any object with mass toward each other. E.g. the Earth and the Moon or the Moon and the Sun.

The faster an object falls, the bigger the air resistance and so the slower it falls. Air resistance makes an object fall at a slower speed and reach the ground later than it would in a vacuum.
Mechanisms - devices that we create to help us. Most mechanisms are designed to change smaller input forces and motion into greater output force and motion.



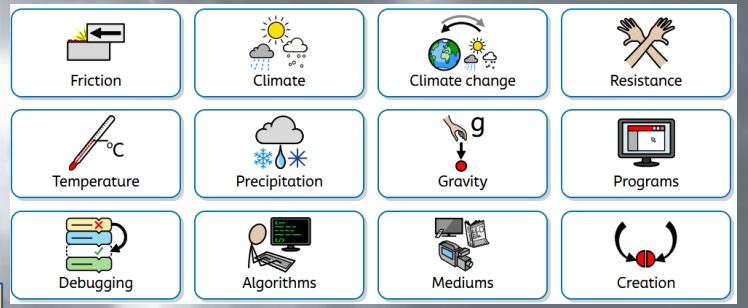
Pulleys - a simple machine that makes it easier to lift or move a heavy object. It includes at least one wheel and a length of rope.
Levers - they have only two parts — the handle and the fulcrum. The handle or bar of the lever is called the "arm" — it's the part that you push or pull on. The "fulcrum" is the point on which the lever turns or balances.
Gears - wheels with teeth that slot together. When one gear is turned the other one turns as well. If the gears are of different sizes, they can be used to increase the power of a turning force.
Galileo Galilei's theory - two objects of the same size but slightly different mass hit the ground at the same time if they are dropped from the same height.

Isaac Newton described gravity as a pulling force that keeps people on the ground rather than floating off. He also noted that gravity keeps the moon in orbit. Newton told the story of seeing an apple fall to the ground from a tree which inspired him to wonder why it fell down, rather than up or across.

RaWV:

Christians believe that: there are various stories of creation (The Big Bang, God, Evolution); one day there will be a new creation, and Christians have responsibility for the Earth from God

Key Vocabulary



Music:

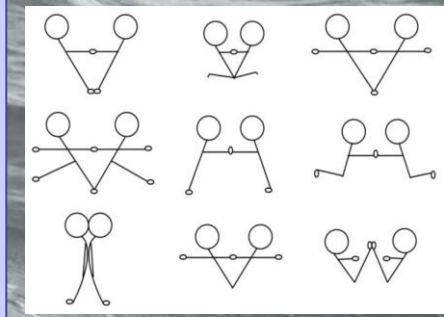
- We breathe from our abdomens when we are singing to allow our lungs to expand without tension and our shoulders should not rise when we breathe in.
- A round in music is a composition in which several voices sing exactly the same melody staggered at different times.
- The te te and tiri tiri rest look very similar! It's important not to get them confused.
- The te te rest looks like this:
- The 'tiri tiri' rest looks like this:
- Mezzo forte = Moderately loud *mf*
- Mezzo piano = Moderately quiet *mp*
- Pianissimo = Very quiet *pp*
- Fortissimo = Very loud *ff*

PE:

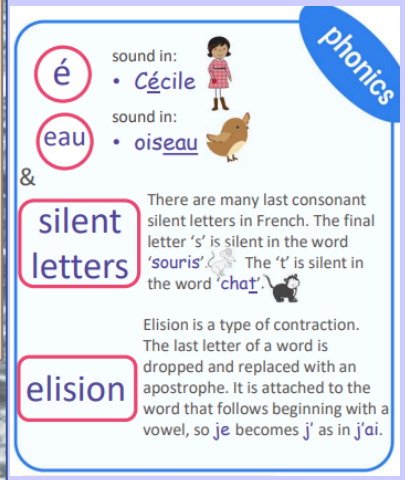
Gymnastics:

- Gymnasts perform such acrobatic feats as somersaults, backflips, handstands, and cartwheels.
- Flexibility allows gymnasts to achieve a wider range of motion in their movements, enabling them to perform various skills with greater ease and efficiency.
- Almost all gymnastic events are performed on special equipment: this is called apparatus.
- A sequence is a combination of two or more skills, performed one after the other.
- A canon is a technique that requires gymnasts to take it in turns to perform a movement.





French:







Geography:

The River Nile is the world's longest river and runs into the Mediterranean.
The Amazon River is situated in Brazil and runs through the Amazon Rainforest.
The River Thames is the longest river in England.
The river Ash is in Ashford and Shepperton.



Rivers carry water and nutrients to areas all around the earth.
They play a very important part in the water cycle, acting as drainage channels for surface water.
Rivers drain nearly 75% of the earth's land surface.
Rivers provide excellent transport links for towns and cities.

estuary: An estuary is an area where a freshwater river or stream meets the ocean.
mouth: A river mouth is the part of a river where the river flows into another river, a lake, a reservoir, a sea, or an ocean.
source: The source of a river is where it begins, usually in high ground.
meander: A meander is a winding curve or bend in a river.
waterfall: Waterfalls form where water rushes down steep hillsides in upland areas and erodes the rocks.
erosion: erosion occurs when the fastest currents in the river carve intensely into the banks.



deposition: rocks and sediments eroded from one part of the river is deposited in another part
tributary: When one stream meets another and merges together, the smaller stream is known as a tributary.
ox bow lake: Ox bow lakes are created when the meander is so deep that it cuts off a piece of the meander.

Causes of flooding:
- Heavy rain –the main cause, filling the rivers with water
- Snow melting –Spring snow melting in mountains
- Steep land –makes the water run down to rivers faster
- Impermeable rock –water won't soak in
- Tributaries –water gets to the river quickly.
- Built up areas (urbanisation)
- Deforestation (cutting down trees) –trees aren't there to absorb water.

Flash floods are a burst of heavy rain that can The river is divided into 3 different parts.

PSHE:

- Culture is the way that people live and food, clothing, language and celebrations are all part of this.
- Discrimination is an unfair treatment of people based on characteristics such as race, age, gender or age.

Art:

Tactile - designed to be touched
Influence - to affect how someone or something develops behaves or thinks
Captivate - attracts and holds the interest
Emulate - to copy something

Using lines, tone and shading can be used to represent things seen, remembered or imagined in three dimensions. Wet media includes paints and ink. Dry media includes pencils, charcoal, oil pastels and chalk. Wet media makes a different mark to that of dry media.

Mix colours to express mood, divide foreground from background or demonstrate tones. Mixing colour can divide foreground from background by using tones.

Collages can be added to a painted, drawn or printed background using a range of media, different techniques, colours and textures. Layers and overlays can create new colours/textures.

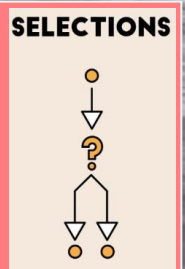
Contemporary are is the term used for art of the present day. Contemporary art is often about ideas and concerns rather than solely the aesthetic (look of the work).



Katsushika Hokusai, Japanese, 1760-1849
Media - Woodblock Printing
Art Movement - Ukiyo-e

He lived in Japan – many of his paintings were inspired by Japanese landscapes. In his early teens, he became an apprentice to a block-cutter, which may have led to his involvement in the Ukiyo-e art movement. Hokusai produced thousands of paintings and prints, as well as illustrations for nearly 270 books. Ukiyo-e is a genre of Japanese art which flourished from the 17th-19th centuries. It literally translates as "pictures of the floating world". Artists would paint on woodblocks, then place washi (a thin piece of paper) on top so that the image would transfer across.

Computing:



- Programs are a defined set of algorithms that are completed in order to achieve a task.
- Debugging is when you find an issue in the program that you have written and repair it.
- Physical systems include robotics, motors and sensors.
- Selection is a set of questions to narrow down options when there is more than one available.

E Safety
Different people have different opinions on what is funny/not funny.
Some people can get upset or be hurt by playful joking and teasing if they do not find this funny.
At school and/or home, you can get support about online bullying by: speaking to your trusted adult, write a note to your trusted adult; call Childline on 0800 1111 or go onto the Childnet website
To block an abusive user, you need to use the website's report section.