PURPLE MASH DIGITECH SCHEME OF WORK - KNOWLEDGE ORGANISER
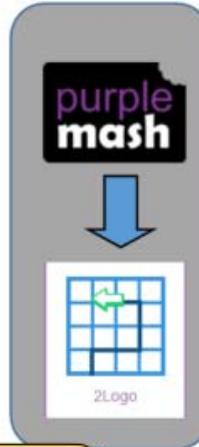
purple mash

2simple

Unit: 4.5 – Logo

Key Learning

To learn the structure of the coding language of Logo.

To input simple instructions in Logo.

Using 2Logo to create letter shapes.

To use the Repeat function in Logo to create shapes.

To use and build procedures in Logo.

Key Resources

purple mash

2Logo

Key Vocabulary

LOGO – a text-based coding language used to control an on-screen turtle to create mathematical patterns.

BK – move backwards a distance of units.

FD – move forward a distance of units.

RT – turn right a given number of degrees.

LT – turn left a given number of degrees.

REPEAT – repeat a set of instructions a specified number of times.

SETPC – set pen colour to a given colour.

SETPS – set the pen thickness.

PU – lift the pen up off the screen.

PD - put the pen back down on the screen.

Key Images

Open, save and share work

Choose the turtle style

Choose a background

Switch the grid on and off

Press and the logo mouse follows the instructions

Reset the mouse to the start position

Change the speed at which the mouse moves.

slow ──●── fast

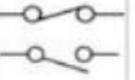Write the Logo instructions here

Key Questions

What is Logo?

Logo is a text-based coding language used to control an on-screen turtle to create mathematical patterns.

Previous knowledge.
New learning

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Some components of an electric circuit

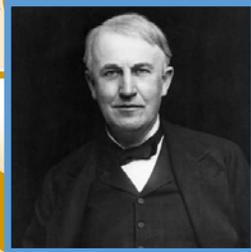|	Wire	cell	switch	buzzer	lamp
Circuit Diagram	—	—|⊢—			⊗
Picture					

What I will learn in this unit.

➢ To be able to identify common appliances that run on electricity

➢ To be able to construct a simple series electrical circuit, identifying and naming its basic parts

➢ To be able to identify whether or not a lamp will light in a simple series circuit, based on whether the lamp is part of a complete loop with a battery

➢ To be able to recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit

➢ To be able to recognise some common conductors and insulators, and associated metals with being good conductors

Diagrams

Battery

Switch   Light

These are complete **circuits** - they have a **battery (cell)** and a **component (bulb)**.
The **wires** are placed in the right places of the **battery** for the **circuit** to work.

These **circuits** will not work as they are incomplete.

- Some **appliances** use **batteries** and some use **mains electricity**.
- **Batteries** come in different sizes depending on how much and for how long the **appliance** is used.
- Common **appliances** that use **electricity**.

toaster   lamp   kettle

laptop   X-box   phone

torch   headlights   television

Switches can be used to open or close a **circuit**. When off, a switch 'breaks' the **circuit** to stop the flow of **electricity**. When on, a switch 'completes' the **circuit** and allows the **electricity** to flow.

Some materials let electricity pass through them easily. These are known as **conductors.** Many metals are good electrical conductors such as copper, iron and steel.
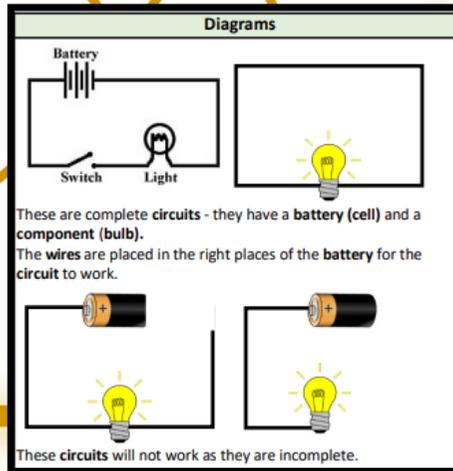
Some materials do **not** let electricity pass through them. These materials are known as **insulators.** Plastic, wood, glass and rubber are good electrical insulators.

Scientist study: Thomas Edison (1847 – America)

Thomas Alva Edison was a **famous American inventor**. He is best known for inventing 'domestic' lightbulbs to go in houses, and the electric power system that allows them to work. He came up with over 1000 successful inventions in his lifetime.

Word	Definition
components	The parts that something is made of
voltage	A collection of cells
batteries	Small device that provides power for some electrical items
cell	Converts energy to electricity
circuit	A complete route which an electric current can flow around
current	A flow of electricity through a wire or circuit
short circuit	An electrical circuit in a device of lower resistance
resistance	A measure of its opposition to the flow of electric current
conductor	A substance that heat or electricity can pass through
insulate	A non-conductor of electricity or heat

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Sculptures are 3D art forms that can be made from different materials including natural, man-made and recycled
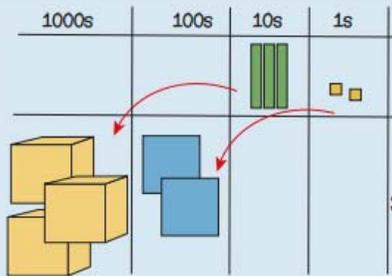
Sculptures need a base and lasting joins
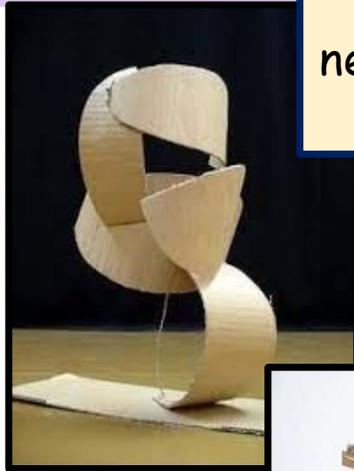
Famous artist!

Antony Gormley
1950-

British sculptor

Created the Angel of the North

Key Vocabulary: 3D form, materials, natural, man-made, recycled, construct, support, bend, shape, manipulate, join

Year 4 Term 4

Panel 1

1000s	100s	10s	1s

32
x100
3200

3000 is one hundred times greater than 30
2 multiplied by one hundred is 200

Panel 2

70 x 6 = ?
If I know 7 x 6 = 42
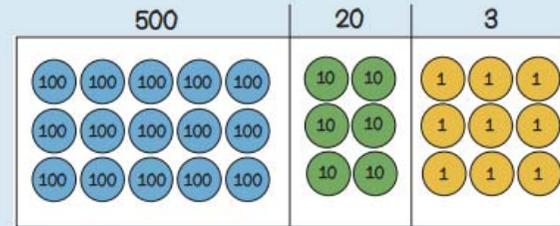then I know 70 x 6 = 420
because it is ten times greater

7 x 6 = 42

70 x 6 = 420
7 x 60 = 420

7 x 10 x 6
= 42 x 10
= 420

multiplier
product
regroup

Panel 3

500	20	3

523
x 3
1569

Panel 4

100s	10s	1s

300
÷100
3
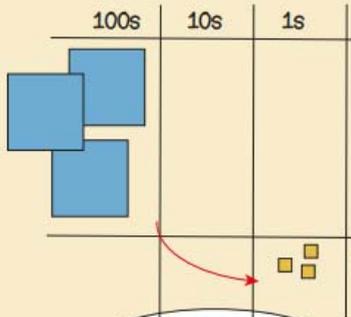
3 is one hundred times smaller than 300

dividend
divisor
exchange
remainder
quotient

Panel 5

252 ÷ 6
= 240 ÷ 6 + 12 ÷ 6
= 40 + 2
= 42

If I know 24 ÷ 6 = 4
then I also know
240 ÷ 6 = 40

40 x 6   2 x 6
0   240   252

252
240   12

Panel 6

426 ÷ 3

1 4 2
3) 4 1 2 6

100s	10s	1s

Panel 7 (Angles)
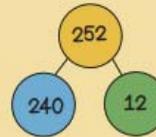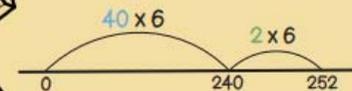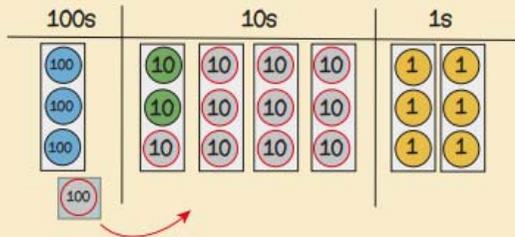
An acute angle is smaller than a right angle

An obtuse angle is greater than a right angle

obtuse angle
acute angle   acute angle

obtuse angle   acute angle

acute angle   obtuse angle

angle
acute
obtuse
right angle

Smallest angle   Largest angle

The greater the amount of turn
the larger the angle

Can Do Maths

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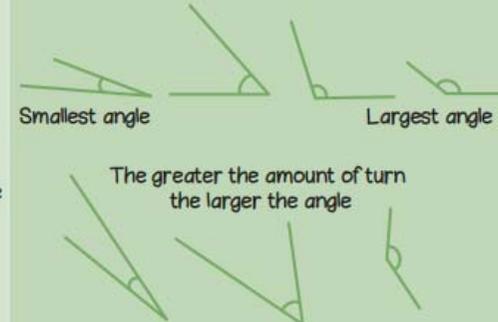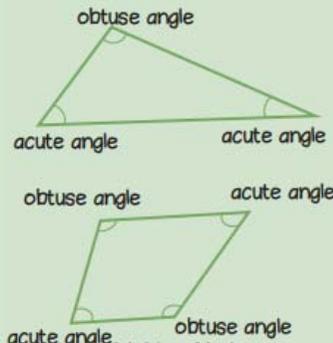
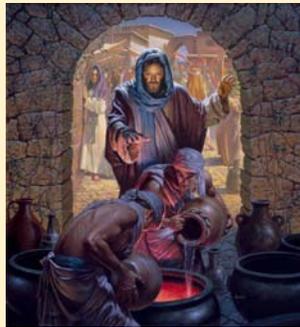|					
Qu'est-ce que tu fais	Je joue au tennis	Je joue au basket.	manger	le jus d'orange	le yaourt
Je joue au cricket.	Je fais du vélo.	Je fais du skate.	le poisson	une pomme	les carottes
Je fais de la danse	Je fais de la natation	Je joue au football	le chocolat	le coca	les pommes frites
Je joue au rugby	0 zéro	boire	les bonbons	Oui, c'est bon pour la santé.	Non, c'est mauvais pour la santé

Which sports do you enjoy?

Which fruits and vegetables do you like?

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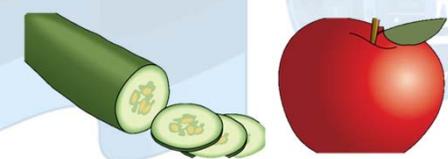
Magic or a miracle?

Jesus feeds the 5000

Jesus turns water into wine

Jesus heals Jairus's daughter

THE EIGHT BEATITUDES OF JESUS

"Blessed are the poor in spirit,
for theirs is the kingdom of heaven.

Blessed are they who mourn,
for they shall be comforted.

Blessed are the meek,
for they shall inherit the earth.

Blessed are they who hunger and thirst for righteousness,
for they shall be satisfied.

Blessed are the merciful,
for they shall obtain mercy.

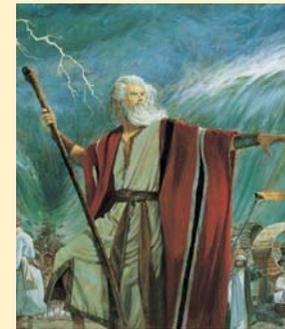Blessed are the pure of heart,
for they shall see God.

Blessed are the peacemakers,
for they shall be called children of God.

Blessed are they who are persecuted for the sake of righteousness, for theirs is the kingdom of heaven."
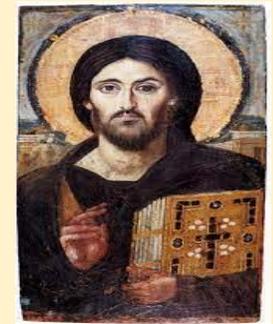
Matthew 5:3-10

Lord Jesus Saves

Moses

Jesus

How can you compare Jesus and Moses?
How do they both inspire the people who follow their faith?

The one who hears God's word but does not do what it says is like a foolish builder who builds his house on sand. That house will be crushed in a storm. The one who hears the word of God and obeys it is like a wise man that builds his house on solid rock. That house will stand up to any storm.

How does this parable of the two houses teach Christians how to live? ←

Are these inspiring words from Jesus?

Questions

What connections are there between Bible stories and real life as a Christian?

How can you define how Christians feel about Easter?

Why do Christians use bread to represent life?

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Knowledge

I understand the facts about smoking and its effects on health, and also some of the reasons some people start to smoke

I understand the facts about alcohol and its effects on health, particularly the liver, and also some of the reasons some people drink alcohol

I can recognise when people are putting me under pressure

I know myself well enough to have a clear picture of what I believe is right and wrong

The Jigsaw! Charter

We take turns to speak

We use kind and positive words

We listen to each other

We have the right to pass

We only use names when giving compliments or when being positive

We respect each other's privacy (confidentiality)

1 - Kind (action = make a heart shape with your hands)

2 - Friendly (action = shake hands with someone)

3 - Safe (action = make a cradle with your arms/ hands like you're holding something precious)

4 - Positive (action = smile)

5 - Honest (action = put your hand on your heart)

6 - Respect (action = high five)

7 - Trust (action = hold out your hand like you are helping a friend climb a mountain)

8 - Team work (action = link arms around the class)

9 - Communication (action = make your hands move like mouths)

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Key Vocabulary

assertiveness

pressure

alcohol

drugs