1. What is a mountain?

A mountain is a natural elevation of the Earth's surface. The highest point of a mountain is called the summit or peak. The bottom of the mountain where it meets flat or gently sloping land is called the base. Other features of mountains include the snow line, tree line and ridges.

Himalayas mountain range

2. Name five types of mountains and explain how each is formed.

There are five types of mountain: fold, fault-block, volcanic, dome and plateau. Each is formed in a different way.

> How are mountains formed and how do people use them?

3. Name one UK and give three facts about it.

There are four mountain ranges in the UK that are home to each country's highest mountain: Ben Nevis, in the Grampian Mountains, Scotland; Scafell Pike, in the Cumbrian Mountains, England; Snowdon, in the Snowdonia Mountains, Wales; and Slieve Donard, in the Mourne Mountains, Northern Ireland.

5. What do you need to consider to go mountaineering?

Mountaineering is a sport where people climb mountains. To go mountaineering you will need to pack appropriate clothing based on the weather forecast and likely conditions on your route. Without warning, there can be hazards caused by extreme weather, such as high winds, rain and snow. Depending on where you climb, there could be the risk of an avalanche, mudslides or falling rocks.

4. Can you name and locate key mountains around the world?

Significant mountain ranges include the Himalayas, Andes, Alps, Pyrenees and Apennines.

Mountain	Base	Tree Line	Ben Nevis	Himalayas	Mountaineering
Peak	Snow Line	Ridges	Snowdon	Alpes	Mountain Range

1. Can I explain how and when the first trains and railways developed?

The development of railways progressed from early horse-drawn wagonways with wooden rails to the transformative introduction of steam-powered locomotives in the early 19th century.

2. How did steam locomotives change over time?

Steam locomotives evolved from basic, inefficient machines to powerful, complex engines through innovations in boiler design, cylinder technology, and materials, enabling them to haul heavier loads at greater speeds.

3. How and why did the railway network in Britain grow and change over time?

Britain's railway network grew because people needed a faster way to move heavy goods like coal, and to travel across the country. It changed over time with new inventions like steam engines and different types of trains, making journeys quicker and connecting more towns and cities.
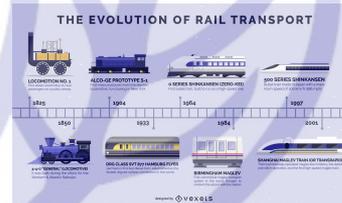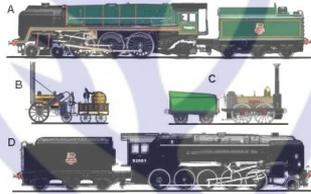
How Did Steam Power Get Britain on Track?

4. What was the impact of the railways on society?

Railways made it much easier and faster for people to travel to different towns and cities for work or holidays, and also helped deliver fresh food and newspapers all across the country. This meant people could see more places, try new foods, and learn about things happening far away.

THE EVOLUTION OF RAIL TRANSPORT

5. How and why did locomotive technology change over time?

Locomotive technology changed over time because people always wanted trains to be faster, stronger, and more efficient.

Carriage	Station	Passenger	Journey	Transport	Railway
Locomotive	Steam Engine	Engine	Network	Society	Invention

Year 4 Science – Summer Term 1: Electrical Circuits & Conductors

1. What is electricity?
Electricity is the flow of tiny particles called electrons and protons. It can come from the mains or from a battery, in nature it can come from lightning.
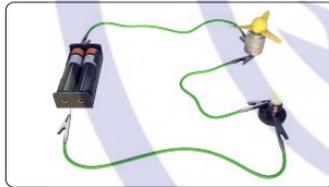

mains electricity

cell

battery

switch   lamp   cell   battery
wire   buzzer   motor

2. What is an electrical component?
Electrical components include cells, wires, lamps, motors, switches and buzzers.

4. How does a series circuit work?
A series circuit must be a complete loop to work and have a source of power from a battery or cell.

incomplete series circuit

How do you build a working circuit?

3. What is a series circuit?
A series circuit has a single path for an electric current to flow through.

complete series circuit

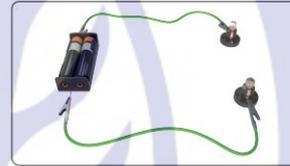## 5. What is the difference between an electrical conductor and insulator?
Electrical conductors allow electricity to flow through them, whereas insulators do not.

6. How could you safely test whether tinfoil is an electrical conductor?
Scientific enquiries can be set up and carried out by following or planning a method.

| Battery	Bulb	Cell	Component	Conductor	Current
Electricity	Insulator	Motor	Series Circuit	Switch	Wire

Year 4 Science – Summer Term 2: Scientific Inquiry

1. What are the key components of a scientific Inquiry?

When you plan a scientific inquiry you must follow these steps:

1) Ask a question
2) Plan a fair test
3) Make a prediction
4) Collect and present the data

How do you plan a scientific inquiry?
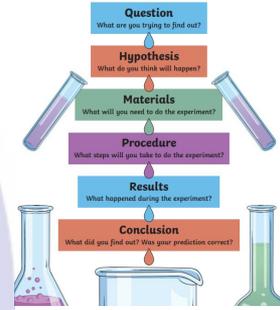
2. Why should you only change one variable in a fair test?

A variable is the thing that you change in an inquiry. A fair test must ensure that only one variable has been changed. This means that you can be sure that your results were caused by your variable.
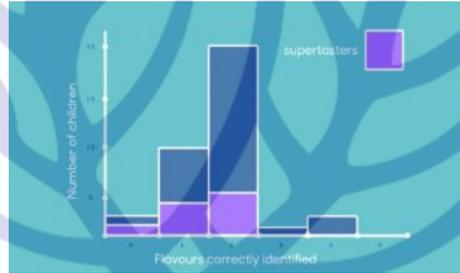
3. Why is it important to be accurate when collecting data?

It is important to be accurate when you collect data. Mistakes could make your results inaccurate.
You should think carefully about the best way to present your data (e.g in a graph, table or picture).

variable	prediction	fair test	method	relevant	observe
question	valid	data	diagram	results	hypothesis

1. What is a timeline?

A timeline sets out important milestones. Age and laws can influence when we can be responsible eg to get married or

2. What is a Bar/Bat Mitzvah?

Bar/Bat Mitzvah is a ceremony for Jewish boys and girls when they reach the age of 12 or 13 and become a Jewish adult responsible for their actions.

3. How do Jews live a good life?

Jews have 613 rules suggesting how they can live a good life helping others

What is the best way for a Jew to show commitment to God?
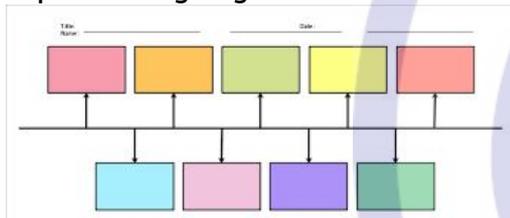
4. How do Jews commitment to God?

Jews show commitment to God in different ways such as sitting separately . Men wear a kippah and married women wear a headscarf.

5. Why is making a commitment important in our lives?

Making a commitment is important in our lives. This can include being responsible for actions and behaviours.

Milestone	Responsibility	Commitment	Bar/Bat Mitzvah	Kippah	Mitzvot
Religion	Ceremony	God	Law	Judaism	Jew

Year 4 Religious Education – Summer Term 2: Christianity

1. What places are special to me and how do they make me feel?

A place we believe to be special can make us feel lots of positive emotions.

2. Why are churches important to Christians?

A church is central to the Christian faith. It is where the community comes together to worship God. It also has other uses such as weddings and funerals.

Do Christians need to go to church to show that they are Christians?

3. How do Christians celebrate Holy Communion?

In Holy Communion Christians remember Jesus by breaking bread and drinking wine. This often happens in church but can also happen anytime Christians gather to thank Jesus for giving his life for them.

4. How do different types of Christians worship?

Christians worship in church but their styles of worship differ. For example a modern Evangelical Christian church is joyous and lively.

5. Do people need to go to church to show they are Christians?

Christians choose to go to church to feel closer to God and worship him. Some Christians choose not to go to church because they worship on their own or because they have Christian friends that are their church.

6. Why is a place special to me?

Different places are special to different people for different reasons.

Church	Holy Communion	Jesus	Worship	Modern Evangelical	Quakers
God	Faith	Christians	Bread	Wine	Community

1. What is a landscape?

A landscape is a piece of art that shows scenery, such as mountains, valleys, trees, rivers, forests or buildings.

2. Can you name three landscape artists and explain how their artistic techniques differ?

Landscape artists use different techniques to create their work. Some will paint a realistic representation of what they see and some will use colour or texture to create a particular mood or atmosphere. Significant landscape artists include Paul Gauguin, Paul Cézanne, Vincent van Gogh and Claude Monet.

3. What atmospheric perspective?

Atmospheric perspective in art creates the illusion of space. It emphasises the distance between objects. As objects recede into the distance, they become less detailed, lighter in tone, and more blurry.

What do you need to consider to design, sketch and paint a landscape?

6. What is an evaluation?

Constructive feedback highlights strengths and weaknesses and provides information and instructions aimed at improving one or two aspects of the artwork, which will improve the overall piece.

4. Which colours are warm colours and which colours are cold?

Warm colours include orange, yellow and red. They remind the viewer of heat, fire and sunlight. Cool colours include blue, green and magenta. They remind the viewer of water, ice, snow and the sky.

5. What is the composition of your landscape?

Composition is a term used to describe the arrangement of the visual elements in a painting. It is important to consider composition when sketching and painting a landscape.

Landscape	Texture	Warm Colours	Composition	Sketch	Mood
Colour	Atmospheric Perspective	Cold Colours	Detail	Paint	Atmosphere

Year 4 Art & Design – Summer Term 2: Lowry Figurines

1. What is a figure drawing?
A figure drawing is a drawing of the human form in any posture using any drawing media.

2. Who was LS Lowry and what was his artistic style?
LS Lowry was a controversial artist who painted urban landscapes and the people who lived and worked there. Critics called his figures 'matchstick men' due to

How do you create a Lowry inspired clay figurine?

4. What techniques are used to make a 3D form from clay?
Techniques used to create a 3D form from clay include coiling, pinching, slab construction and sculpting.

3. What is a statue, statuette and figurine?
A statue is a carved or cast figure of a person or animal, especially one life-size or larger. A statuette or figurine is a smaller sized statue, especially one that is smaller than life-size.

5. What features should Lowry inspired clay figurines have?
A Lowry inspired figurine should have an an elongated form and be painted using dark colours.

6. What is the importance of constructive feedback?
Constructive feedback highlights strengths and weaknesses aimed at improving one or two aspects of the artwork, which will improve the overall piece.

Statue	Feedback	Clay Sculpture	Wire Armature	Figure Drawing	Observation
Statuette	Figurine	Pose	Slip	Paint	LS Lowry

Year 4 Music – Summer Term 1: Blackbird

The Beatles helped to reshape Western Pop music in the 1960s and are one of the most successful bands ever. The Beatles had four members: John Lennon, Paul McCartney, George Harrison and Ringo Starr. In the 1950s and 1960s, slavery had been abolished in America, but racism was still rife and life wasn't equal for African Americans. The civil rights movement challenged this.

1. Listen and Appraise

Themes: Equality, civil rights.

Instruments/Voices: Solo male vocals in the verses, another male vocal in the choruses, acoustic guitar, percussion, birdsong.

Do the words of the song tell a story? Does the music create a story in your imagination? What story?

What does the song 'Blackbird' represent?

3. Perform and Share

Decide how you going to perform this song. It tells an important story. Tell your audience how you learnt this song and why. Record the performance and talk about it afterwards.

2. Musical Activities

Singing: in unison.

Play instrumental parts : with the song by ear and/or from notation using the easy or medium part. You will be using up to 3 notes – C, D + E. *Which part did you play?*

Improvise : using up to 3 notes – C, D + E. Bronze: C | Silver: C, and sometimes D | Gold: C, D + E challenge. *Which challenge did you get to?*

Compose: a simple melody using simple rhythms choosing from the notes C, D + E or C, D, E, G + A (the pentatonic scale).

Themes: equality, civil rights

acoustic guitar	birdsong	civil rights	compose	dynamics	equality
improvise	melody	pentatonic scale	pitch	pulse	unison

Year 4 Computing - Summer Term I: Repetition In Shapes

Code
```
FD 100
LT 90
FD 200
LT 90
FD 100
```

1. How are computers programmed?

A computer can be **programmed** by typing **commands**.

Algorithm
1. Forward 100
2. Turn left 90 ← Start
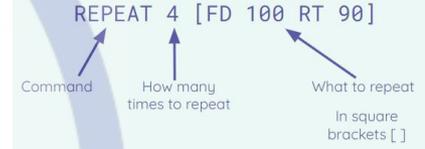3. Forward 200
4. Turn left 90
5. Forward 100

2. What is an algorithm?

An **algorithm** is an ordered set of precise instructions.

3. How do you use the repeat command?

Using the repeat command in a **count-controlled** loop creates **repetition**.

```
REPEAT 4 [FD 100 RT 90]
```
Command

How many times to repeat

What to repeat

In square brackets [ ]

```
repeat 4 [fd 100 lt 90]
```

How can repetition be used to create shapes in Turtle Academy?

4. What is a loop?

When we use repetition in programming, it is called **looping**. We can program a loop to stop after a specific number of times.
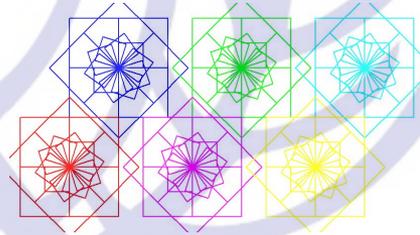
To write a procedure for a triangle:
```
TO triangle
repeat 3 [fd 100 rt 120]
END
```

5. How do you create a procedure?

Decomposing a task into small **steps** makes it easier to create a **procedure**.

6. What are some debugging strategies?

Tracing through the code line by line to check it

Reading the code out loud - make sense?

Decomposing the program into smaller parts to find errors

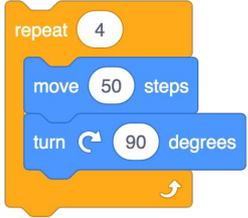Looking at other **patterns** with a similar **code** and checking your changes

algorithm	code	commands	count-controlled	debugging	decomposing
looping	patterns	procedure	programming	repetition	tracing

Year 4 Computing – Summer Term 2: Repetition In Games

1. Why use count-controlled loops?
Count-controlled loops can be used to create repetition with an endpoint.

2. What is an infinite loop?
In an infinite loop, commands are repeated over and over again.
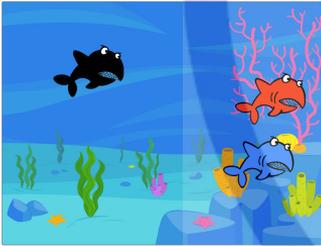
3. How can you make two loops run at the same time?
Two or more loops can run at the same time.

How can repetition be used to create games in Scratch?

4. How do I modify an infinite loop?
Backgrounds, sprites and other game features can improve the appearance of our creations.

5. Can I design a game that includes repetition?
Planning and evaluating can help us to improve our projects.

Game design example:

Sprite name	Sprite 1: Bat 1
How will the sprite move?	Randomly
Will there be any sounds?	Owl sound when clicked
Type of repetition used (✓)	✓ Infinite (forever) ☐ Count-controlled
Write the algorithm for the sprite	Repeatedly: • Make it invisible • Move somewhere random on the screen and wait for 1 second • Make it visible and wait for 1 second
Which backdrops will you use?	Spooky forest
How will the game end?	When all the bats have been caught

6. Can I design a game that includes repetition?
If your algorithm does not work in the way you planned, it is important to debug it.

appearance	algorithms	backgrounds	commands	count-controlled	creations
debug	evaluating	infinite	loops	planning	repetition

1. Changes during exercise
Hotter
Heart beating faster
Deeper breaths

2. Throwing for distance
Hands/feet in opposition
Transfer of weight
Point of release

3. Throwing for accuracy
Hands/feet in opposition
Appropriate weight
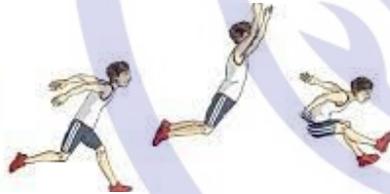Pull back and follow through in direction of throw

What skills, rules and techniques are used in athletics?

4. Take-off
Bend knees
Use arms for power
Head up

Landing
Land on two feet
Use arms for balance
Bend knees

5. Approach phase
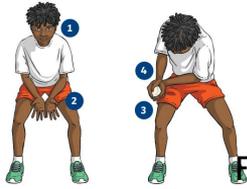Take-off on dominant foot
Controlled pace
Pump arms

6. Team work
Communicate
Positive
Areas of improvement

| accuracy	approach	balance	communicate	distance	dominant
follow through	heartbeat	landing	opposition	phase	take-off

1. Catching
Watching the ball
Hands together
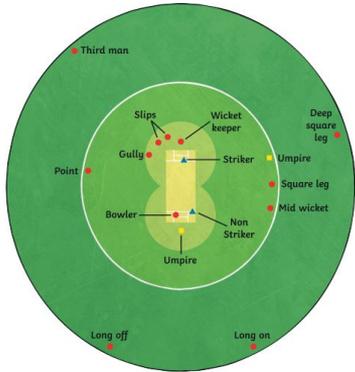Fingers pointing to the floor

2. Throwing
Side on stance
Point at target
Release from high
Follow through in direction of target

3. Striking
Head still, watching the ball
Contact ball with middle of bat
Appropriate foot movement
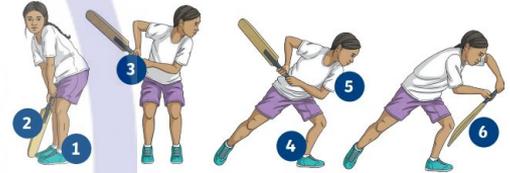
What skills, rules and tactics are used in cricket?

4. Attacking
Identify gaps to hit into
Angle bat/body to hit ball into gap
Follow through in direction of the gap

5. Defending
Place fielders evenly/equally to minimise gaps
Identify batters' strengths and place fielders accordingly

6. Group work
Communicate
Positive
Areas of improvement

Fielding positions diagram labels: Third man, Slips, Wicket keeper, Gully, Point, Striker, Umpire, Deep square leg, Square leg, Mid wicket, Bowler, Non Striker, Umpire, Long off, Long on

attacking	bat/batter	catching	defending	direction	fielders
gaps	improvement	movement	stance	striking	target

Year 4 Physical Education – Summer Term: Rounders

1. Catching
Watching the ball
Two hands together
Cushion ball (soft hands)

Throwing under-arm
Arms, legs in opposition
Swing back and follow through in direction
Appropriate weight

2. Throwing over-arm
Side on stance (in opposition)
Swing back, release from high, follow through
'Rabbit ears' grip

6. Group work
Communicate
Positive
Areas of improvement

What skills, rules and tactics are used in rounders?

3. Fielding team
Communicate
Spread fielders around area (width and depth of area)
Change positions depending on the batter's strengths and weaknesses
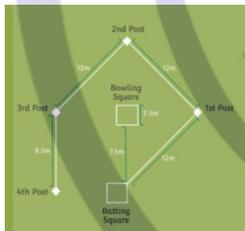
4. Striking
Watch the ball
Side on (non-striking foot at front
Swing back, contact, follow through

5. Striking into space
Look around to see where the space is
Turn body (hips and shoulders) to point in direction of space
Follow through in direction of strike

bat/batter	catching	contact	cushion	depth	direction
fielders	follow through	grip	opposition	space	strike

Year 4 Physical Education – Summer Term: Tennis

1. Forehand
Dominant side
Non-dominant hand tracks ball
Contact with middle of racket

1 & 2. Direction
Stance sideways, directed towards target
Swing and follow through in direction of target
Contact ball at waist height

2. Backhand
Dominant hand at bottom
Use two hands
Contact on non-dominant side of body

6. Partner work
Communicate
Awareness (respond and react)
Plan and apply tactics

3. Ready position
Both hands on racket
Track ball with eyes
Get in position for either forehand or backhand

What skills, rules and tactics are used in tennis?

4. Under-arm serve
No bounce (before hitting)
Ball is hit cross court
Land inside 'service box' or area

5 & 6. Tactics
Move opponent (side to side, forwards and backwards)
Get the ball over (the net) and in (the court)
Return to centre of the court

backhand	contact	cross court	direction	dominant	forehand
hitting	non-dominant	opponent	position	racket	stance

phonics

e sound in:
- appart<u>e</u>ment

eau sound in:
- bur<u>eau</u>

&

silent letters

There are many last consonant silent letters in French. The final letter 's' is silent in the word 'dan<u>s</u>' and 'mai<u>s</u>'. The 't' is also silent in the conjunction 'e<u>t</u>'. Pronounced almost like the English sound 'leh'.

elision

Elision is a type of contraction. The last letter of a word is dropped and replaced with an apostrophe. It is attached to the word that follows beginning with a vowel, so je becomes j' as in j'habite as the 'h muet' in habite acts like a vowel.

vocabulary

The nouns and determiners for house & apartment.

The nouns and determiners for rooms of the house.

Key linguistic structures:

Chez moi, il y a...

In my house there is...

Chez moi, il n'y a pas de...

In my house there is not...

grammar

To fully understand the role of gender in the choice of determiners:

un salon

Singular determiner 'a' for masculine nouns

une cuisine

Singular determiner 'a' for feminine nouns

To understand better how to use the negative in French:

Chez moi, il y a un salon.

Chez moi, il n'y a pas de salon.

1st person conjugation of high frequency verbs.

j'habite

I live

une maison   un appartement   un salon   un bureau   un sous-sol   un garage   un jardin   une chambre   une cuisine   une salle de bains
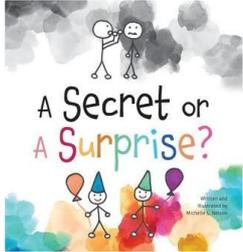
1. Fictional characters can reinforce **gender** stereotypes.

2. Stereotypes can have a negative impact on people.

3. There are different ways to ask for, give or not give **permission** .

6. It is important to recognise the difference between a **secret** and a **surprise.**

A Secret or A Surprise?

Be Internet Legends

gender	Characteristics of males and females that are socially constructed.
permission	The act of allowing someone to do something.
respect	Treating someone in a way you wish to be treated.
secret	Something kept hidden or unexplained.
sharing	To let someone see or have access something.
stereotype	An assumption about what someone will do / act based on a particular group or aspect.
surprise	Something unexpected that happens.

Getting Help - If you are worried about anything, talk to a trusted adult.
Childline www.childline.org 0800 1111 Calls DO NOT show on the phone bill

1. Some jobs get paid more than others.

2. It is important to **prioritise** between needs and wants.

3. Keeping simple records can help track **spending** and **saving.**

4. Managing money can be complex and so using a **bank account** is one way of making it easier.

Be Internet Legends

bank account	The **record** a bank keeps of your money.
needs	Items which are essential to health and well-being (e.g. family, food, clothing, shelter).
persuade	To convince someone to do something.
prioritise	To rank in order of importance.
saving	Putting money away to spend at a later date.
spending	To pay out money.
trustworthy	Honest, reliable - the ability to keep promises.
wants	Non-essential items which enable us to enjoy quality of life (e.g. the latest computer game, going out for a meal).

LLOYDS BANK

NatWest

TSB BANK   TSB

BARCLAYS   HSBC