



Year 2 Knowledge Organisers



Useful Notices

- We ask that the children are reading a minimum of 3x per week at home on **Active Learn**, your class teacher will allocate books (linked to the phonic sound) **every Friday**. We ask that each time your child reads it is documented in their Reading Record, this will be checked by the class teacher. This is a great way to communicate your child's reading progress.
- Link Learning will be sent home **every Friday** on Google Classroom and should be completed by the **following Thursday** and handed in to the class teacher.
- Alongside this, spellings (linked to the phonic sounds) will be handed out **every Friday**, these need to be practised at home ready for the children to complete a '**spelling quiz**' **the following Friday**.
- You will find your child's login information in the front of the yellow reading record.
- Wellies are also to be in school at all times so that children have access to the full curriculum. Please could you ensure your child has a pair of wellies that fit them in school.

Monday	Tuesday	Wednesday	Thursday	Friday
	Y2 P.E day (come in kit)	2L Forest School	Home Learning returned to school	2T Forest School New Home Learning and Reading allocated *Library books allocated

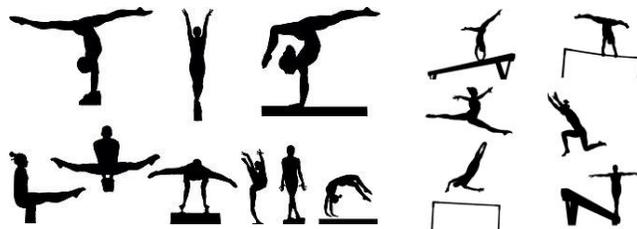
Gymnastics



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Essential Vocabulary	
Jump	Push oneself off a surface and into the air by using the muscles in one's legs and feet
Land	Come down through the air and rest on the ground or another surface
Zig Zag	A line or course having abrupt alternate right and left turns
Mirroring	The reflection or replication of something
Synchronisation	The operation or activity of two or more things at the same time or rate
Sequence	A particular order in which related things follow each other

Links to Prior Learning
<ul style="list-style-type: none"> • Symmetrical balances in Year 1 • Start and finish sequences in Year 1 • Move confidently in different ways in EYFS



Key Knowledge
<ul style="list-style-type: none"> • To take off from one foot and then spring from two into a jump. • How to land safely • What a zig zag pathway is • The importance of changes of level and direction • What a curved pathway is. • Different gymnastic moves that fit nicely into performing in a curved pathway. • What mirroring is • Good ways of transitioning from one move to the next • How to perform in synchrony with a partner

Key Skills
<ul style="list-style-type: none"> • Run and jump through 90, 180 and 270 degrees. • Perform a sequence in different pathways • Demonstrate zig zag and straight pathways in my sequence work • Improve my work by acting upon feedback • Link my movements together well • Travel backwards and sideways as part of a sequence • Perform a variety of moves on floor and apparatus using different pathways.

Key Questions
<ul style="list-style-type: none"> • What helps you land safely? • Can you move in a zig zag way? • What gymnastics moves do you know? • Can you mirror this movement? • Are these movements synchronised? • What did you enjoy about their performance? • What could be better about their performance? • Could you do that move on a different piece of apparatus?



Essential Vocabulary	
Achievements	A thing done successfully with effort, skill, or courage.
Activist	A person who campaigns to bring about political or social change.
Segregation	The action of setting someone or something apart from others.
Prejudice	An opinion that is not based on reason or actual experience
Boycott	a form of protest by refusing to buy or engage with a person or company.
Rebellion	When people refuse to obey orders and fight against authority.
Racism	When someone treats another person badly or unfairly because of their skin colour or race
Civil rights	The rights and freedoms that everyone should have, like the right to be treated fairly, vote, and have equal opportunities

Key Knowledge
<ul style="list-style-type: none"> Emily Wilding Davison was an English suffragette who fought for votes for women in Britain in the early twentieth century. The Suffragettes were part of the 'Votes for Women' campaign that had long fought for the right of women to vote in the UK. Emily Davison was arrested for public demonstrations. Emily Davison died in 1913 after jumping in front of a horse as a form of protest. Rosa Parks was an American civil rights activist. She refused to give up her seat on 1st December 1955. Black people were segregated and discriminated for the colour of their skin.

Key Questions
<ul style="list-style-type: none"> What is equality? Why was Emily Davison significant? Who were the Suffragettes? Why Rosa Parks was significant? What was the bus boycott? What are the similarities and differences between Davison and Parks? What impact did these events and people have on life today?

Links to Prior Learning
<ul style="list-style-type: none"> Builds upon previous learning of changes within living memory.



Rosa Parks



Emily Davison

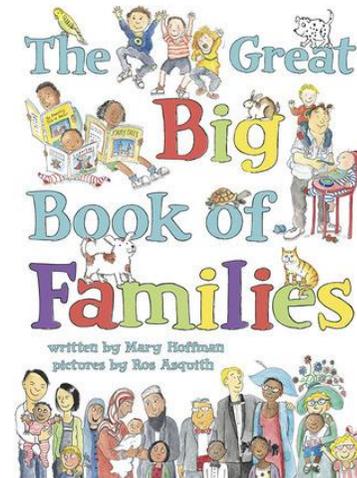
What Makes a Good Friend?

Essential Vocabulary	
lonely	Someone who is alone and have no one to talk to.
friendship	The relationship between 2 people who like, trust, respect each other.
argument	An argument is a disagreement or a discussion where two or more people express different opinions or ideas. It's a way for people to share their thoughts and try to convince others that their point of view is correct
resolve	When we resolve a problem, we try to come up with ideas or actions that can help make things better
actions	Actions are the things we do or the way we behave

Links to Prior Learning
<ul style="list-style-type: none"> • What is the same and different about us? (Nursery) • Who is special to us? (Reception)

Key Knowledge
<ul style="list-style-type: none"> • how to make friends with others • how to recognise when they feel lonely and what they could do about it • how people behave when they are being friendly and what makes a good friend • how to resolve arguments that can occur in friendships • how to ask for help if a friendship is making them unhappy

RSE No Outsiders
<p>The children will discuss diversity and what it means.</p> <p>They will explore all the examples diversity in the book.</p>



Key Questions
<ul style="list-style-type: none"> • What makes a good friend? • How do I make friends with others? • How does it feel to be lonely? • How do good friends behave? • What are arguments and how do we resolve them? • Who do I ask for help when I'm worried about friendships?





Year 2- Indian Printing

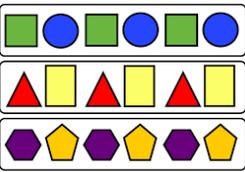


Essential Vocabulary	
India	Is a country in the continent of Asia.
Block printing	A printing technique involving carving a pattern onto a large block, covering that design in ink or dye, and stamping it onto a background.
Relief printing	Is where the design sticks out from the surface. This bit gets covered with ink or paint and makes a print.
Etching	To cut into the surface of something to form lines
Pattern	a repeated decorative design

Key Knowledge
<ul style="list-style-type: none"> • Printing makes a copy. • Indian printing styles have developed throughout the centuries. Each style incorporates the Indian culture, traditions and religious beliefs. • In India, fabrics are made by an ancient method called block printing.

Key Questions
<ul style="list-style-type: none"> • What is printing? • How do you make a print? • What is the difference between block printing and relief printing? • What would you change about your print?

Links to Prior Learning
<ul style="list-style-type: none"> • EYFS- mark making • Year 1 – African printing

Key skills
<p>Lino Block Print</p>  
<p>Relief print</p>  
<p>Rubbings</p>  
<p>Repeated patterns</p>  

Mechanisms – Fairground wheel

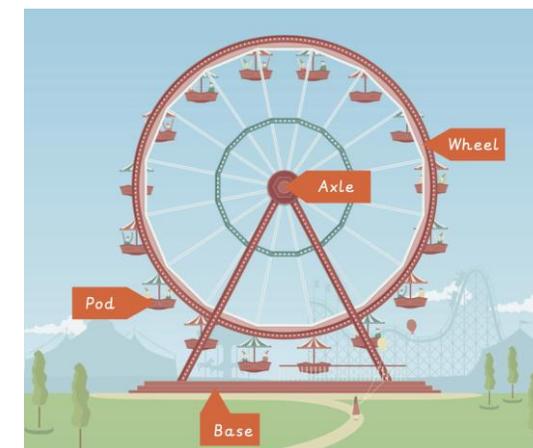
Essential Vocabulary	
Axle	A long straight piece of material which connects to a rotating component.
Ferris wheel	A ride at a fairground which carries passengers around a large vertical wheel.
Ferris wheel pod	The container which carries passengers around the ferris wheel
Mechanism	The parts of an object that move together as part of a machine
Evaluation	When you look at the good and bad points about something, then think about how you can improve it.
Waterproof	Material that does not allow water to pass through it.
Frame	A structure that surrounds something

Links to Prior Learning
<ul style="list-style-type: none"> In Year 1, we learnt that a mechanism are parts of an object that move together We learnt that slider mechanisms move side to side We made a moving story book

Key Knowledge
<ul style="list-style-type: none"> To know that different materials have different properties and are therefore suitable for different uses. To know the features of a Ferris wheel include the wheel, frame, pods, a base, an axle and an axle holder. To know that it is important to test my design as I go along so that I can solve any problems that may occur.

Key Skills
<ul style="list-style-type: none"> Selecting a suitable linkage system to produce the desired motions. Designing a wheel Selecting appropriate materials based on their properties. Selecting materials according to their characteristics Following a design brief Evaluating different designs Testing and adapting a design

Key Questions
Where is the fixed pivot on the ferris wheel?
What allows the ferris wheel to rotate in a circular motion?
What is the difference between a fixed and a loose pivot?
What materials are resistant to water?
What would happen if a ferris wheel did not have an axle?



Place Value - Number

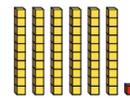
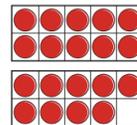
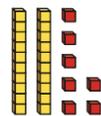
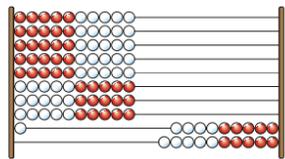
Essential Vocabulary	
Place value grid	A simple pictorial guide to support pupils' understanding of digit value in a number.
Partition	A way of splitting numbers into smaller parts to make them easier to work with
Fewest	The smallest number of...
Greatest	The largest number of...
Fact family	a collection of related addition and subtraction facts, or multiplication and division facts, made from the same numbers.
Number sentence	Mathematical expression of numbers and signs
Number bond	Pairs of numbers added together to make another number

Our Small Steps of Learning	
Step 1	Numbers to 20
Step 2	Count objects to 100 by making 10s
Step 3	Recognise tens and ones
Step 4	Use a place value chart
Step 5	Partition numbers to 100
Step 6	Write numbers to 100 in words
Step 7	Flexibly partition numbers to 100
Step 8	Write numbers to 100 in expanded form
Step 9	10s on the number line to 100
Step 10	10s and 1s on the number line to 100
Step 11	Estimate numbers on a number line
Step 12	Compare objects
Step 13	Compare numbers
Step 14	Order objects and numbers
Step 15	Count in 2s, 5s and 10s
Step 16	Count in 3s

Key Questions
<ul style="list-style-type: none"> • What number comes before/after ? • How do you write ___ in words? • How do you write ___ in numerals? • How many are in each group/bundle? • How many extra are there? • What does each piece represent? • Do you need to count each one individually? • What number is represented? • How many tens/ones are there? • How many ones are there in each ten? • How else can you partition the number? • How does the part whole model link to the number sentence? • What number is the arrow pointing to? How do you know? • How do you know which picture shows the smallest/greatest number?

Links to Prior Learning
<ul style="list-style-type: none"> • Read and write numbers to 20 in Year 1 • Using a part-whole model in Reception and Year 1 • In EYF5, representing numbers in different ways

Key Knowledge
<ul style="list-style-type: none"> • Read and write numbers to at least 100 in numerals and in words • Identify, represent and estimate numbers using different representations, including the number line • Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward • Recognise the place value of each digit in a 2-digit number (tens, ones) • Compare and order numbers from 0 up to 100; use and = signs.



_____ = _____ tens + _____ ones

_____ = _____ + _____

Addition and Subtraction - Number



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Essential Vocabulary	
Total	Including everything added together
Add	Join to something to increase the size, number or amount.
Subtract	To take away from something else to decrease the size, number or amount
Difference	The difference in quantity between two numbers
Bar model	A visual strategy to help solve number problems using different-sized rectangles to represent numbers.
Column	A vertical division of a sum
Addition	The action or process of adding something to something else
Subtraction	The process or skill of taking one number or amount away from another.

Our Small Steps of Learning

- Step 1 Bonds to 10
- Step 2 Fact families - addition and subtraction bonds within 20
- Step 3 Related facts
- Step 4 Bonds to 100 (tens)
- Step 5 Add and subtract 1s
- Step 6 Add by making 10
- Step 7 Add three 1-digit numbers
- Step 8 Add to the next 10
- Step 9 Add across a 10
- Step 10 Subtract across 10
- Step 11 Subtract from a 10
- Step 12 Subtract a 1-digit number from a 2-digit number (across a 10)
- Step 13 10 more, 10 less
- Step 14 Add and subtract 10s
- Step 15 Add two 2-digit numbers (not across a 10)
- Step 16 Add two 2-digit numbers (across a 10)
- Step 17 Subtract two 2-digit numbers (not across a 10)
- Step 18 Subtract two 2-digit numbers (across a 10)
- Step 19 Mixed addition and subtraction
- Step 20 Compare number sentences
- Step 21 Missing number problems

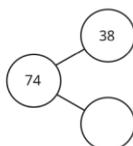
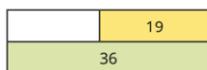
Key Questions

- How many more do you need to make 10?
- If $4 + 5 = 9$, what is the missing number in $14 + = 19$? How do you know?
- If 2 ones plus 3 ones is equal to 5 ones, what is 2 tens plus 3 tens?
- How many tens are there in 100?
- What do you need to add to make 100?
- What can you partition ____ into?
- Does it matter what order you add the numbers in?
- What do you need to add to get to the next 10?
- How many do you need to take away?
- If you know that $4 + 6 = 10$, what is $50 - 6$?
- What do you notice about the positions of the numbers on the hundred square?
- Can you make an exchange? Why?
- What can you exchange 1 ten for?
- Is the question an addition or a subtraction? How do you know?

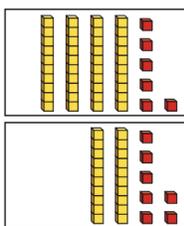
Links to Prior Learning

- Representing number bonds to 5 in Reception
- Using a part-whole model in Reception
- Partitioning numbers into parts in Reception
- Interpreting mathematical statements in Year 1
- Adding and subtracting to 20 in Year 1

• Work out the missing parts.



▶ $46 + 27$



Key Knowledge

- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit number and 1s, a 2-digit number and 10s, two 2-digit numbers and adding three 1-digit numbers

Who is a Muslim and what do they believe?



Essential Vocabulary	
Allah	The one and only God in Islam
Calligraphy	The art of producing decorative handwriting or lettering with a pen or brush.
Mosque	A mosque or masjid is a place of prayer for Muslims.
Qur'an	The Islamic sacred book, believed to be the word of God as dictated to Muhammad by the archangel Gabriel and written down in Arabic.
Fast	To go without all or some kinds of food or drink.
Compass	An instrument containing a magnetized pointer which shows the direction of magnetic north.
Headscarf	A square of fabric worn by women as a covering for the head, often folded into a triangle and knotted under the chin.

Links to Prior Learning
<ul style="list-style-type: none"> • Which stories are special and why? EYFS • Which places are special and why? EYFS • Where do we belong? EYFS

Key Knowledge
<ul style="list-style-type: none"> • I know that the stories of 'Muhammad and the cat', 'The story of the two brothers', 'The crying camel' all give examples to Muslims on how to behave. • Muhammad is the prophet of Allah. • I know what prayer beads, a prayer mat, the Qur'an and stand, compass, headscarf s are and why they are important. • I know about fasting during celebrations and why this is important.

Key Skills
<ul style="list-style-type: none"> • Identify how religion and belief is expressed in different ways. • Identify similarities and differences in features of religious practices. • Recognise symbols and other forms of religious expression from their own experience. How might these matter to their believers? • Retell religious, spiritual and moral stories.

Key Questions
<ul style="list-style-type: none"> • How do Muslims learn from stories? • What can we learn from Calligraphy and Call to prayer? • What do Muslims believe about God? • Can you explain in detail, one belief about God? • Which objects are important to Muslims? • Why are objects important in religion? • Why do Muslims fast during Ramadan? • What other festivals do Muslims celebrate?

Science Knowledge Organiser Year 2 Autumn 1



Links to Prior Learning

Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)
 Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)
 Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans)
 Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans)
 Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 - Animals, including humans)
 Observe changes across the four seasons. (Y1 - Seasonal changes)

Key Questions

- What is a habitat?
- What is a micro-habitat?
- What is a food chain?
- What is a producer/consumer?
- Who is MRS GREN?
- What is a predator?
- What is prey?

Key Knowledge

Explore and compare the differences between things that are living, dead, and things that have never been alive.
 Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
 Identify and name a variety of plants and animals in their habitats, including microhabitats.
 Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

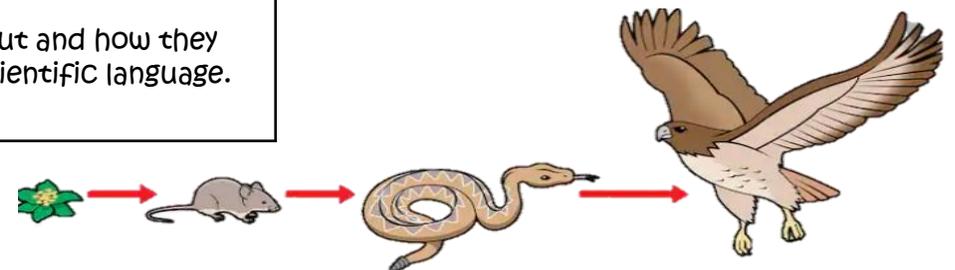
Enquiry Skills – Science Disciplines

- Ask simple questions recognising that they can be answered in different ways
- Observe closely, using simple equipment perform simple tests
- Identify and classify use observations and ideas to suggest answers to questions.
- Gather and record data to help in answering questions.
- Use their observations and ideas to suggest answers to questions.
- Talk about what they have found out and how they found it out. Begin to use simple scientific language.

Essential Vocabulary

habitat	A <u>habitat</u> is a <u>home environment</u> for plants, animals, and other <u>living things</u>
food chains	Every living thing needs <u>food</u> in order to <u>create energy</u> . This process is called <u>nutrition</u> . -Plants achieve nutrition by <u>photosynthesising</u> , using <u>water</u> , <u>Carbon dioxide</u> and <u>light</u> . - <u>Animals cannot photosynthesise</u> . They need to <u>eat food</u> (either plants or other animals) in order to get energy. -Therefore, living things depend upon one another to live.
Micro-habitat	<u>Micro-habitats</u> are <u>small, specific home environments</u> , e.g. individual trees, a pond, under a rock, or a pile of logs.

Living Things and their Habitats



Fiction – Character focus



Essential Vocabulary	
first-class	Something that is considered the best in its category. For example: The football team was first-class.
foghorn	A very loud horn used by ships to alert others to its presence.
heebie-jeebies	A feeling of fear and/or worry. For example: That story gave me the heebie-jeebies.
inference	Something we work out using clues and evidence in a text, rather than being directly told by the author.
predict	Explaining what we think might happen, based on what has happened so far or on clues given on the cover of a book.
coordinating conjunction	A word that joins two main clauses (which both make sense on their own) together, such as and , but , so , or . For example: I love ketchup but I don't like tomatoes.
subordinating conjunction	A word that joins a main clause and a subordinate clause (which does not make sense on its own), such as when , if , because . For example: When you put your shoes on, we can go outside.
expanded noun phrase	Two adjectives separated by a comma to describe a noun. For example: The ugly, hairy troll.

Links to Prior Learning
<ul style="list-style-type: none"> No Outsiders Curriculum – EYFS and Year 1 PSHE: What is the same and different about us? - Year 1 English: Traditional Tales – EYFS and Year 1

Key Knowledge
<p>Our writing will be inspired by Leigh Hodgkinson's story 'Troll Swap'. We will write detailed descriptions of our own troll and child characters, write a set of instructions about how to be a good troll, and even send letters in character.</p> <p>Descriptions help a reader to picture a place or character in their mind and feature expanded noun phrases.</p> <p>Instructions explain how to do something in the best way, step by step. They explain what equipment the reader will need and sometimes include top tips.</p> <p>Informal letters are usually written directly to one reader and often include questions as well as information about something that has happened to the person writing the letter. They follow a special structure, starting with Dear... and ending with Love from...</p>



Key Skills
<ul style="list-style-type: none"> Use punctuation correctly: full stops, capital letters Use expanded noun phrases to describe Use subordination (because) and coordination (and) Use phrases from story language Create and describe characters Create and describe settings Use past tense consistently and correctly Write in the 3rd person (using the pronouns he, she, they, them) Sequence story events with a clear beginning, middle and end

Key Questions
<ul style="list-style-type: none"> Which other stories do you know that feature trolls? What do you expect a troll to be like? How would you expect a troll to behave? If you could swap places with someone, who would it be? Why? Has anyone ever sent you a letter? How can instructions be helpful? What does it mean to be a good role model? What does it mean to be part of a family? What does 'unconditional' mean?

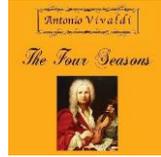
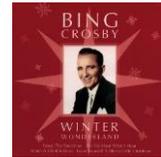
The Music Year Theme: Classical Music (Autumn 1) and Happy Holidays! (Autumn 2)

Essential Vocabulary	
Pulse	The regular heartbeat of the music; its steady beat
Rhythm	Long and short sounds or patterns that happen over the pulse.
Pitch	The position of the note.
Call and response	Two separate musical phrases, the second one responds to the first.
Tempo	The speed of music; fast, slow or in between.
Dynamics	How loud or quiet the music is

Key Questions
Listening <ul style="list-style-type: none"> What is the mood/feeling of pieces of the piece of music? Who is the composer/writer? Which genre is the piece of music?
Singing <ul style="list-style-type: none"> What are the key principles to warming up our voices? Is your voice ready for singing? Why/why not?
Perform (vocal) <ul style="list-style-type: none"> How can you engage with the audience? What were your reflections on the live/recorded performance?

Links to Prior Learning
In Year 1 (Summer term), children learned to sing songs with a pitch range and children created music in response to non-musical stimuli.

Key Knowledge
<ul style="list-style-type: none"> Recognising the varying dynamics in pieces of music such as: Shake Your Sillies Out! Recognising and responding to a leader's directions and visual symbols during singing. Knowledge of various cultures and genres of music such as within Indonesian and Indian Classical.

Wider Opportunities	
Listening suggestions for this term	
	Four Seasons by Antonio Vivaldi
	Flute sonata in B Minor by Bach
	Winter Wonderland by Bing Crosby
Music groups in our local area	
<ul style="list-style-type: none"> Trafford Music Service (choirs and instrument lessons) Sale Youth Choir One Education Music Centre Greater Manchester Music Hub 	

Computing systems and networks – IT around us

Essential Vocabulary	
Information technology (IT)	The use of any electronic devices that can create, process, store, secure or exchange electronic data.
Computer	An electronic device.
Barcode	A machine-readable code.
Scan/ Scanner	To look at all parts of something carefully.

Links to Prior Learning
<ul style="list-style-type: none">• This unit progresses the understanding of technology and how to interact with it.• In Year 1 we explored how technology can help us.• In Year 1 we explored ways that we could use a computer to help us.

Key Knowledge
<ul style="list-style-type: none">• Recognise different types of computers used in school.• Identify that a computer is a part of information technology.• Recognise the features of information technology.• Talk about uses of information technology.• Say how rules for using information technology can help us.• To recognise that choices are made when using information technology.

Key Skills
<ul style="list-style-type: none">• Describe some uses of computers• Identify information technology in school.• To identify information technology beyond school.• To show how to use information technology safely.

Key Questions
<ul style="list-style-type: none">• What is information technology?• Why do we need rules when using information technology?• What choices do we need to make when using IT?• What is a computer used for?• Where can I find information technology?

