



KNOWLEDGE ORGANISERS YEAR 6

Badgers - Spring 1 - Curriculum Plan

English

In English, we will be looking at the Shakesperian play - "The Tempest" and creating our own playscripts.

We will then study "The Lost Thing" by Shaun Tan and we will be creating our own version *fantasy* narrative.



RE

Our RE Topic is titled "What difference does the resurrection mean to Christians?" - the children will learn about Jesus being resurrected and salvation.



Design

As designers, we will be creating developing functional automata toys for a window display using cams, followers and axles to create movement.



Music

We will be moving on to looking at rhythm and looking for patterns in music. The children will be composers of their own pieces.



Geography

In Geography, we will be focussing on *What is it like to live in a desert?* They explore the characteristics of hot desert biomes, with a focus on the Mojave Desert.



PSHE

With Mrs. Ghirardelli, we will learn about safety and the changing body. They will learn to stay safe online and then the effects that alcohol and tobacco has on our bodies.



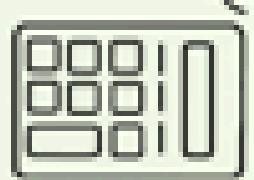
Maths

In Badgers, we will be focusing on fractions, decimals and percentages. As well as looking at formal methods of multiplication & division.



Computing

We will continue to practice our arithmetic through morning starters.



French

The Badgers will be learning about pets in French and to say whether they have a pet at home. They will be able to name different animals.



English

Play Scripts Knowledge Organiser



Does your play script include...

a cast list?	
a short description of the setting?	
the speakers names on the left with colons?	
written detailed dialogue without speech marks?	
a structure that uses scenes?	
brackets for stage directions?	
a variety of punctuation used for effect?	
extended stage directions using adverbs, adjectives and prepositional phrases?	

Examples of Extended Stage Directions

(slouches down roughly into his high-backed chair)

(walks cautiously towards the mysterious knocking sound)

(crouches down on the ground, lifts the puppy's ear and whispers softly)

(looks suspiciously into the full-length mirror in front of him)

Prepositional Phrases

...a bright crystal chandelier hung **over the table**...

...she sneaks the book gently **into her coat pocket**...

...the lights **above the stage** dim and flicker...

Word Bank

across	answer	arrive	appear
bewildered	breath	breathe	cheerful
consider	continue	defiant	disappear
down	glamorous	heard	mention
minute	notice	position	promise
question	relieved	spotless	stomp
strange	surprise	tiptoed	through

Expanded Noun Phrases

...those ballet shoes...

...his worn school jumper...

...the tiny, marble statue...

...a loud, booming noise...



Adverbs

accidentally
angrily
 anxiously
cautiously
 completely
enthusiastically
 frantically
gracefully
 hungrily
joyously
 loudly
madly
 merrily
nervously
 occasionally
quickly
 repeatedly
sadly
 shyly
solemnly

Key Features

cast list

short description of setting

speakers names are on the left with colons

detailed dialogue without speech marks

structured using scenes

brackets for stage directions

a variety of punctuation used for effect

extended stage directions using adverbs, adjectives and prepositional phrases

Working in Mr Luton's Garden

Cast

Thomas Luton: A grumpy, old man who likes to live alone.

Jacob Masters: A nine year old boy who has just moved to a new house.

Act I Scene 4

Thomas's lounge. He is all alone, sitting in a high-backed armchair and facing a marble fireplace. Opposite him is a large, broken window. Suddenly, a soft knocking sound begins offstage - as if someone is knocking on the front door.

Thomas: (slouches down into his chair and grunts angrily) Here he is, the little scamp. (shouts) Come in!

(Slowly, Jacob enters and shuffles reluctantly across the room. He is dressed in denim shorts, worn black trainers and a bright red t-shirt. His hands are in his pockets and his chin is touching his chest.)

Thomas: (stands and stamps his foot indignantly) What do you want?

Jacob: (raises his head slowly to look up at Thomas) I'm here to work off the cost of your front window, Mr Luton.

Thomas: (grabs his wooden cane from beside his chair and begins to walk across the stage) Well don't dally about. Let me show you where the garden tools are. I could really use your help to clear out my back garden because my strength isn't what it used to be.

Jacob: (takes his hands out of his pockets and begins to follow Thomas) I promise I won't let you down. I'm really sorry, Mr Luton.

Thomas: (turns around, smiles down at Jacob. He ruffles his hair with his free hand) I know you are boy. It was a great hit with your cricket bat but you've got to learn to aim Jacob.

Year 6: Narrative



What should I already know?

- Include an introduction
- Include a beginning which sets the scene and introduces the characters
- Include a build up - make tension and suspense
- Include a dilemma
- Include a resolution
- Include an ending
- Introduce speech between characters
- Very length of sentences for effect
- To be able to include all the appropriate requirements from the year 5 banding sheet for writing

Dominika's Daring Discovery

Diagrams/WAGOLL

“why won’t you stop training me like a child?” she bellowed in the direction of the house through gritted teeth, but out of respect, she didn’t. Even though she was 12 years old and almost four years older than her little brother, it was like her parents thought they were both still infants.

Defiantly, she trudged down the road and round the corner towards the old garage, while bickering down to the next building, every hair bunched in the snarled, the gnarled, the stressed, the tortured, the bashed, the bashed she shouldn’t be there, because she had a stack of wooden crates, which had open slots to one right through, she felt she was still easily visible after walking a moment until she was turned his back, Dominika climbed inside another wooden crate with a load of stones and pulled the lid shut over the top of her head, moved another crate with (had noticed the engine and tail tube, and noticing turned inside her to check that she could prove it).



“Dominika, you’re not meant to be where you aren’t,” came a voice from inside one of the big sheds, crackling buildings. Dominika was startled - hardly surprised and those prangs again - and she dashed quickly out of sight, just in time as a shaggy-looking man emerged from underneath an open overhead door.

“I’m not a child and won’t be where you expect,” came a voice from inside one of the big sheds, crackling buildings. Dominika was startled - hardly surprised and those prangs again - and she dashed quickly out of sight, just in time as a shaggy-looking man emerged from underneath an open overhead door.

In the centre of the crate, Dominika explained that she was not only the engine, but to her shoulder bag too extremely large, didn’t know, specified engine, she pulled out towards her. It felt warm, before she could examine it very further in the darkness, the motion of the bickering man to a halt and she was turned back into an upright position. She heard what she thought was the top crate, being ‘laid off’ the top of her head and onto the ground, in desperation, just that she was about to be exposed. Then, an apposite voice spoke again.

“Dominika was just outside, Dominika, passed instructions and just under the lid and could see the two men, crackling engines, which was followed by mixed voices - a bickering argument that they were arguing.

“You won’t get away with this,” voices who shout from the other man as he threw his arms in the air. “These things are mine, you’ll be sorry.”

Vocabulary

Title	The name of the piece of work.
Narrative	short story
Plot/Setting	whether there is the plot of writing which gives the reader information about that piece of work.

Picture	real, imaginary
Aim/Setting	Time or mood
Character	Problem
Environment	Setting & problem
Motivacy	A brief statement about the main points.
Dialogue	Speech using inverted commas

Character	Main character - makes sense in this context
Background	background character - doesn't make sense on its own
Context	Right or category e.g. advertisement
Setting	Set in
Response	Reactions etc.

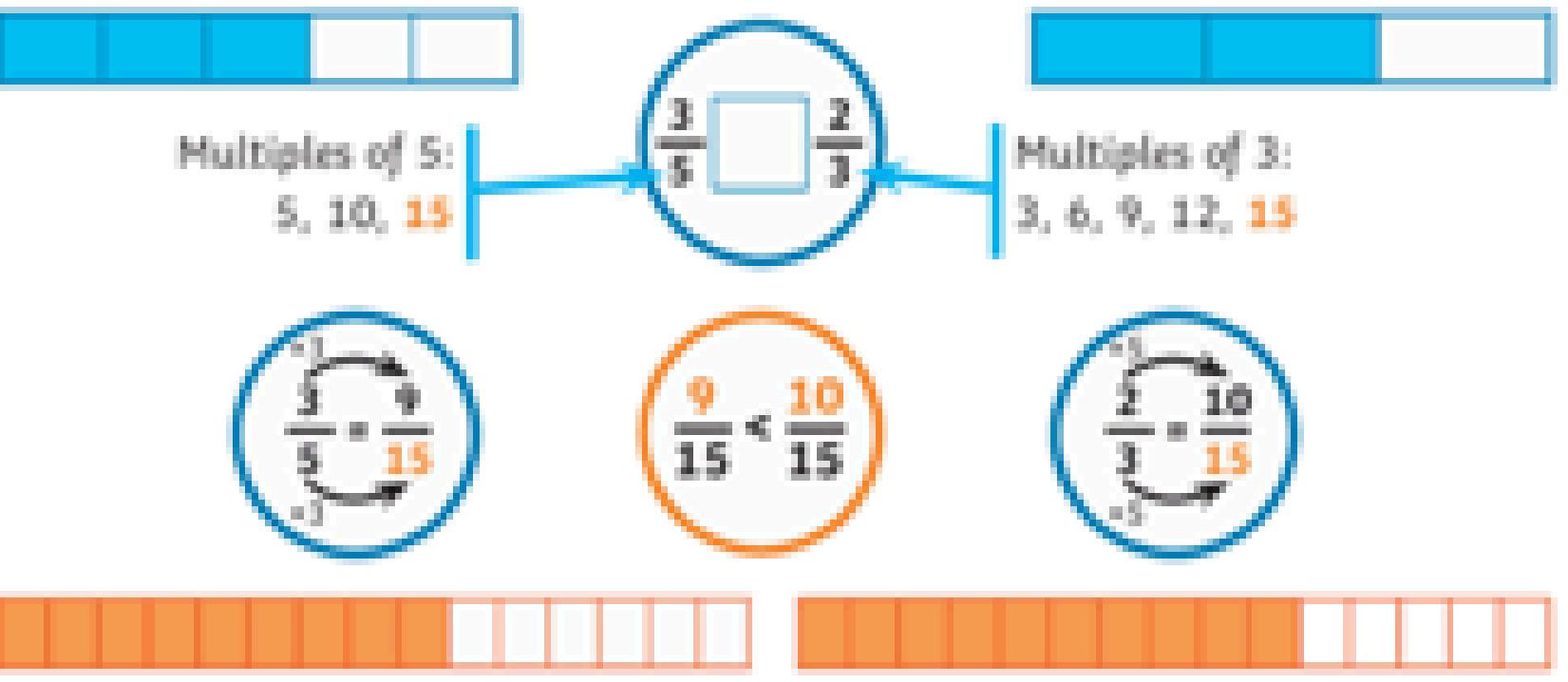
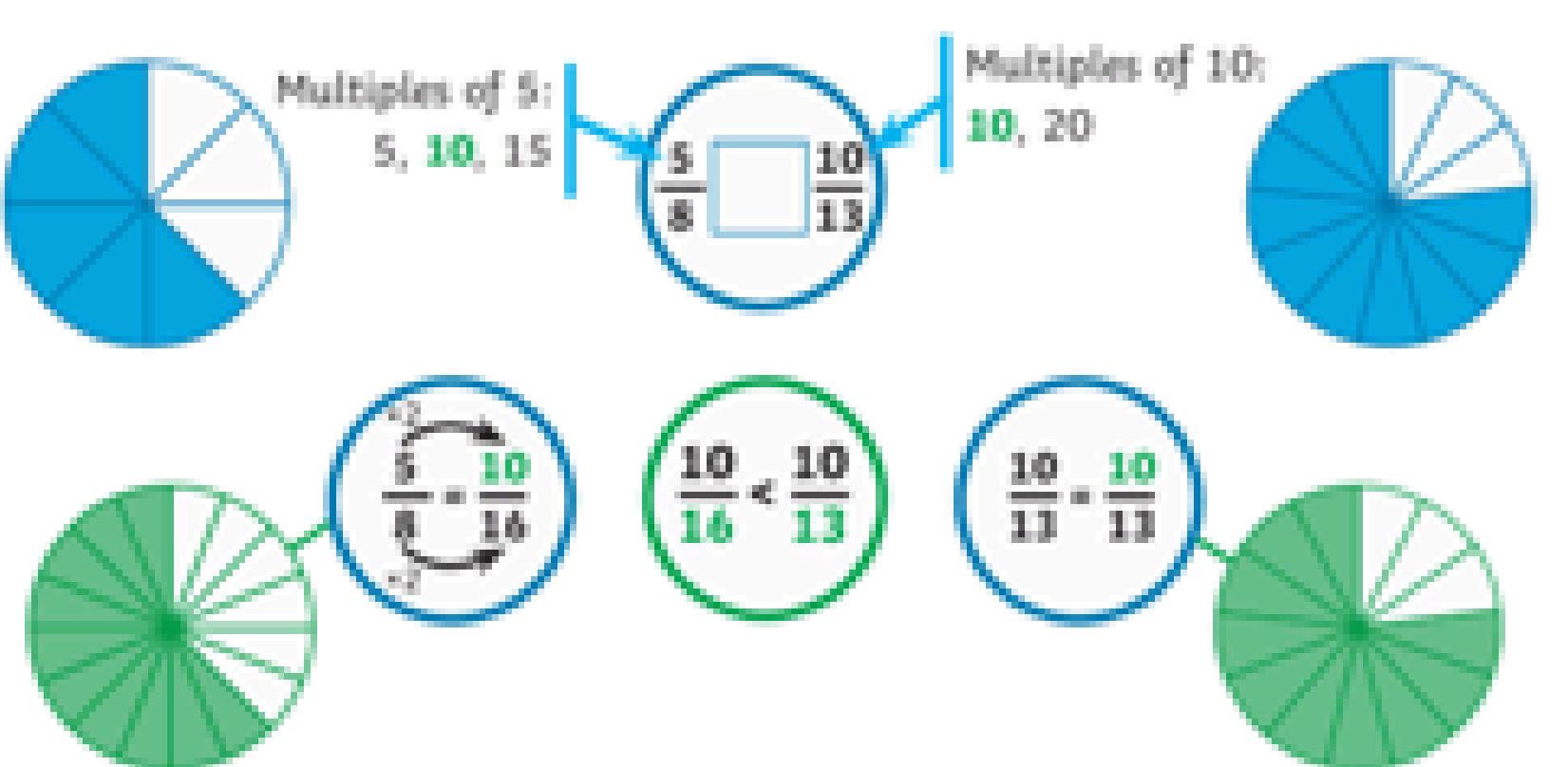
Narrative writing skills

- Plan and structure stories
- Write in full sentences
- Improve punctuation
- Product well written stories

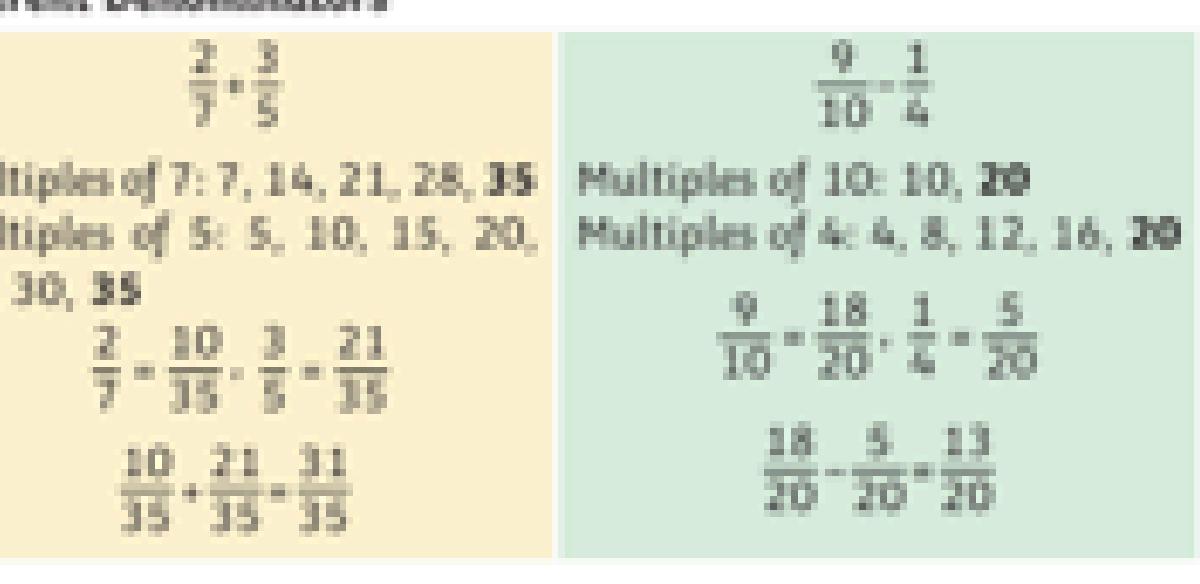
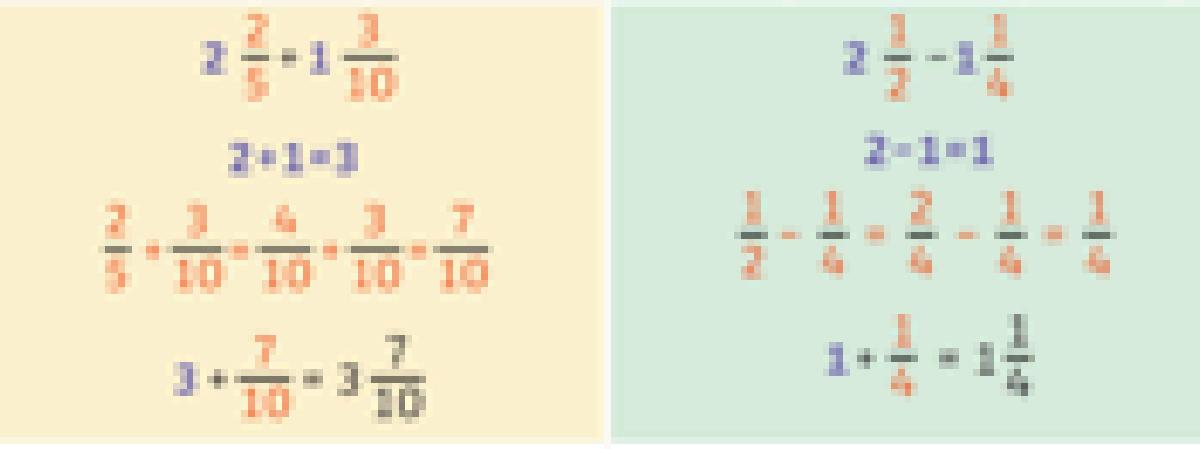
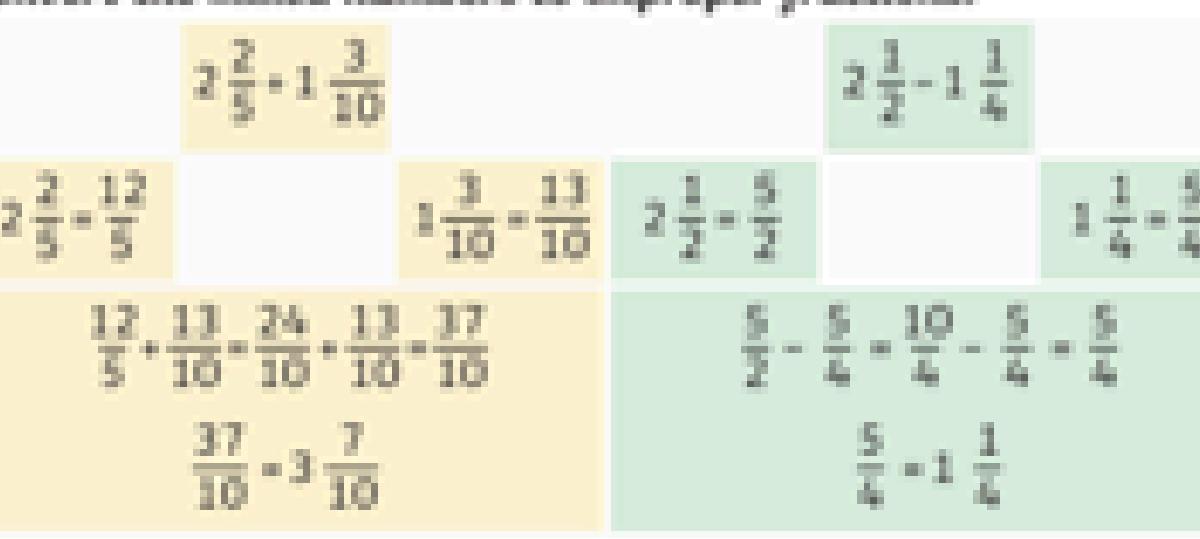


Maths

Fractions

Knowledge Organiser		
Key Vocabulary	Simplify Fractions	Compare and Order Fractions
numerator		<p>Use the Common Denominator</p>  <p>Use the Common Numerator</p> 
denominator		
proper fraction		
improper fraction		
factor		
highest common multiple		
lowest common multiple		
equivalents		
common numerator		
common denominator		
decimal equivalent		
simplify		
simplest form		
mixed number		
whole number		
mixed number		

Fractions

Knowledge Organiser		
Adding and Subtracting Proper Fractions	Adding and Subtracting Mixed Numbers	
<p>Same Denominators</p>  <p>Different Denominators</p>  <p>Multiples of 7: 7, 14, 21, 28, 35</p> <p>Multiples of 5: 5, 10, 15, 20, 25, 30, 35</p> $\frac{2}{7} + \frac{3}{5} = \frac{10}{35} + \frac{21}{35} = \frac{31}{35}$ $\frac{9}{10} - \frac{1}{4} = \frac{18}{20} - \frac{5}{20} = \frac{13}{20}$	<p>Add or subtract the whole numbers and fractions separately.</p>  <p>Convert the mixed numbers to improper fractions.</p>  $2\frac{2}{3} + 1\frac{3}{10} = \frac{8}{3} + \frac{13}{10} = \frac{80}{30} + \frac{39}{30} = \frac{119}{30} = 3\frac{19}{30}$ $2\frac{1}{2} - 1\frac{1}{4} = \frac{5}{2} - \frac{5}{4} = \frac{10}{4} - \frac{5}{4} = \frac{5}{4} = 1\frac{1}{4}$	
<p>Multiplying Proper Fractions</p> <p>Multiplying Fractions by Fractions</p> $\frac{1}{2} \times \frac{1}{3} = \frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$	<p>Dividing Fractions by Whole Numbers</p> <p>$\frac{2}{5} \div 2 = \frac{1}{5}$</p> <p>Multiplication and division are the inverse of one another so $\div 2$ is the same as $\times \frac{1}{2}$</p> $\frac{2}{5} \times \frac{1}{2} = \frac{2}{10}$	
<p>Multiplying Fractions by Whole Numbers</p> 		

Multiply up to 4-digit by 2-digit

1	X	X	
1	5	4	
X	2	6	
9	2	4	
3	0	8	0
4	0	0	4
1	1		

Start with the ones.

$$154 \times 6 = 924$$

$$154 \times 20 = 3080$$

$$3080 + 924 = 4004$$

Order of Operations

B	Brackets	$10 \times (4 + 2) = 10 \times 6 = 60$
O	Order	$5 + 2^2 = 5 + 4 = 9$
D	Division	$10 \div 6 \div 2 = 10 \div 3 = 13$
M	Multiplication	$10 \times 4 \times 2 = 10 \times 8 = 2$
A	Addition	$10 \times 4 + 7 = 40 + 7 = 47$
S	Subtraction	$10 \div 2 - 3 = 5 - 3 = 2$

Four Operations

Short Division

Start from the left.

	4	4	0	5
12	5	2	8	6
	4	8	6	0

$$\begin{array}{r} 5 \div 12 = 0 \text{ r}5 \\ 52 \div 12 = 4 \text{ r}4 \\ 48 \div 12 = 4 \\ 6 \div 12 = 0 \text{ r}6 \end{array}$$

Long Division

	1	2	0	r	3
14	1	6	8	3	
	1	4	0	0	
	2	8	3		
	2	8	0		
			3		

Common Factors

Factors of 48

1	2	3	4	6	8	12	16	24	48
---	---	---	---	---	---	----	----	----	----

Factors of 30

1	2	3	5	6	10	15	30
---	---	---	---	---	----	----	----

Common factors: 1, 2, 3, 6

Common Multiples

Multiples of 3

3	...	18	21	24	...	39	42
---	-----	----	----	----	-----	----	----

Multiples of 7

7	14	21	28	35	42
---	----	----	----	----	----

Common multiples: 21, 42...

Primes

A prime number has only 1 and itself as factors: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 33, 37, 41, 43

A composite number has factors other than 1 and itself.

Squares and Cubes

Square numbers result from a number being multiplied by itself (e.g. $5 \times 5 = 25$):
1, 4, 9, 16, 25, 36, 49, 64, 81, 100

Cube numbers result from a number being multiplied by itself twice ($2 \times 2 \times 2 = 8$):
1, 8, 27, 64, 125

Mental Calculations and

Estimation

Order of calculations:

$$50 \times 34 \times 2 = 50 \times 2 \times 34 = 100 \times 34 = 3400$$

Money: £8.99 + £3.49 = £12.48

Use £9 + £3.50 = £12.50 and subtract 2p

Estimate on a number line



Subdivide line to estimate: 17

Reason from Known Facts

$$90 \div 10 = 9 \text{ so } 90 \div 20 = 4.5 \text{ and } 90 \div 5 = 18$$

$$16 \times 9 = 144 \text{ so } 1.6 \times 9 = 14.4$$

$$4352 \div 17 = 256$$

$$\text{so } 256 \times 18 = 4352 + 256 = 4608$$

$$3786 + 2850 = 6636$$

$$\text{so } 4786 + 2850 = 7636$$

$$\text{and } 2786 + 3850 = 6636$$

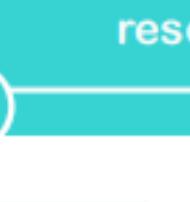
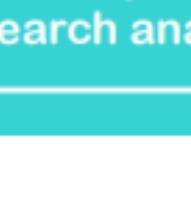
$$\text{and } 8636 - 3786 = 4850$$

Science



Knowledge Organiser: Year 5 - Changes of Materials

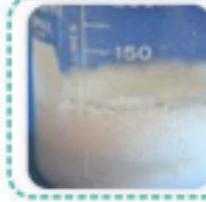


Careers connected to changes of materials: laboratory technicians, technical associates, research analysts, chemistry teachers.



Lesson Sequence

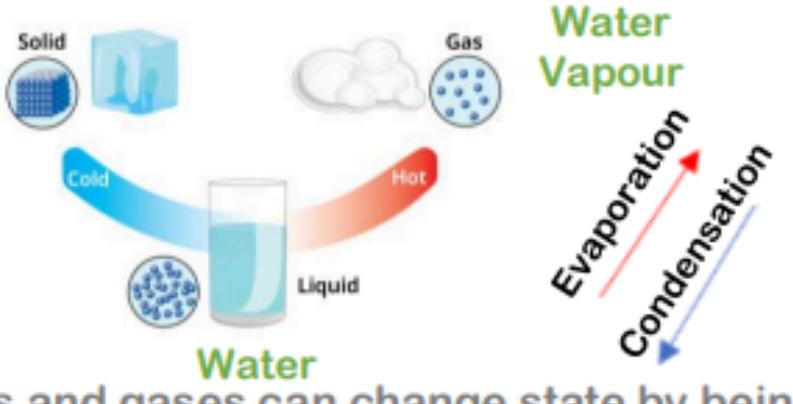
-  1. Use evaporation to recover the solute from a solution
-  2. Recognise and describe reversible changes
-  3. Observe chemical reactions and describe how we know new materials are made
-  4. Investigate rusting reactions
-  5. Investigate burning reactions
-  6. Investigate chemical reactions - acids and bicarbonate of soda

Evaporation



If a solid has **dissolved** in water (for example in a salt solution), **heating** it causes the water to **EVAPORATE**, leaving the solid (salt) behind.

Changes of State



Solids, liquids and gases can change state by being **heated** or **cooled**.

Irreversible Changes






These are **CHEMICAL** changes – they **cannot** be reversed as a new material has been made.

Reversible Changes



liquid chocolate
– cool –
solid chocolate



solid lolly
– heat –
liquid lolly



mixture of rice and flour
– sieve –
both separated



dissolved sugar
– evaporation (heat) –
solid sugar

These are **PHYSICAL** changes – they **can** be reversed as no permanent change has been made.

Rocket Words

	solute	a substance that can be dissolved in liquid
	solvent	a substance that can dissolve in a solute
	reversible	a change to a substance that can be undone or reversed
	evaporate	the process where a liquid changes to a gas
	chemical change	a type of change in which a new substance is formed
	effervescence	fizzing or bubbling
	fair test	an experiment that only changes one variable
	corrosion	the reaction of a metal with oxygen
	combustion	an irreversible change where a fuel uses oxygen to burn and releases energy
	extinguish	to put out a fire
	reaction	process in which substances are converted into different substances
	carbon dioxide	gas which makes up around 0.04% of our atmosphere

Being a Christian: UKS2 Knowledge mat (U2.5 Y6)

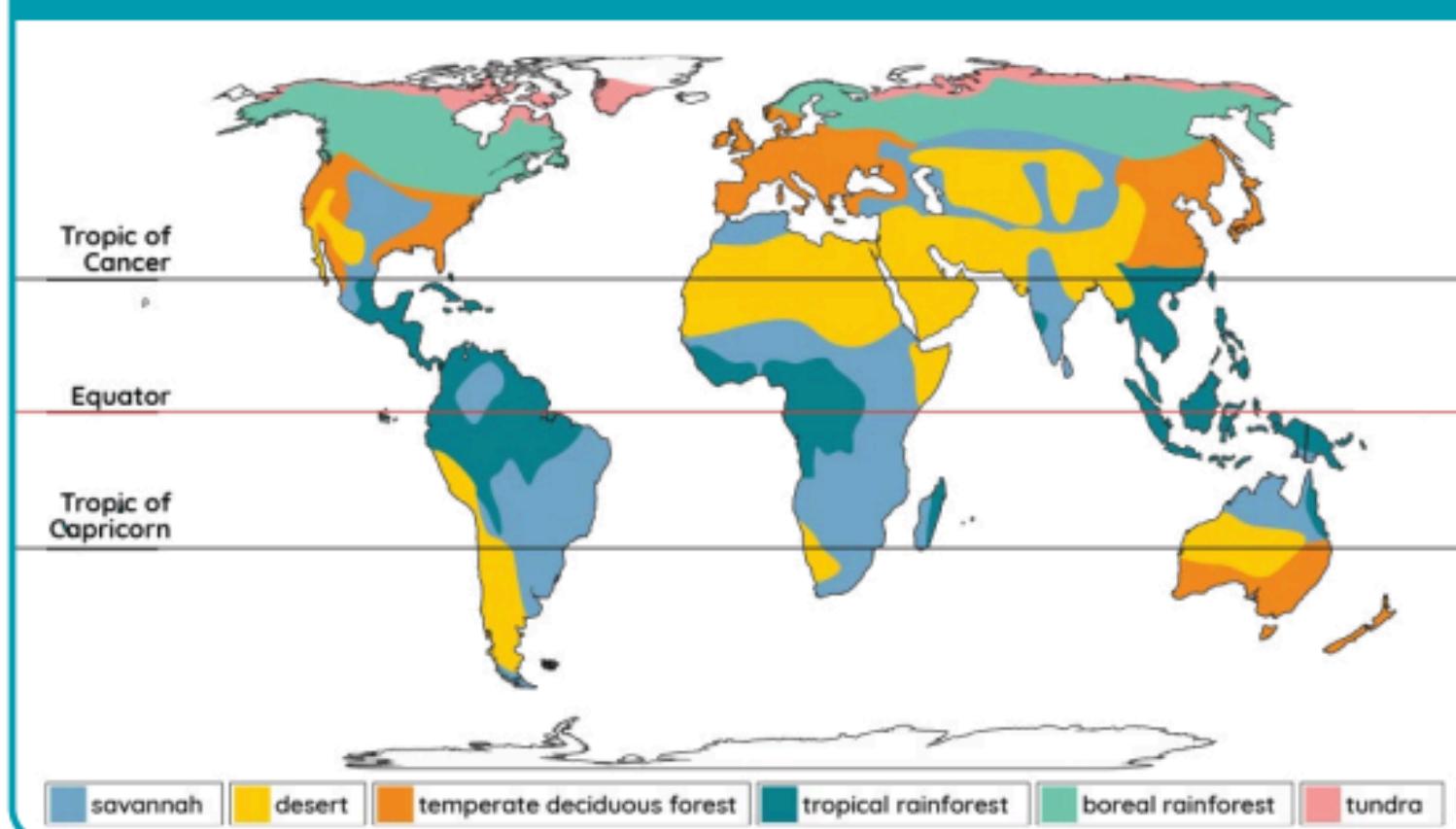
Subject Specific Vocabulary	
Holy Week	A very important week for Christians precedes Easter. Sticky Knowledge –Salvation: What do Christians believe Jesus did to save people? (Link to 1.5 and L2.5)
Last Supper	The last meal that Jesus shared with his disciples.
Garden of Gethsemane	The place where Jesus was betrayed by Judas.
Good Friday	The day Jesus was crucified and died on a cross.
Crucifixion	An ancient form of execution where people were bound or nailed to a cross.
Resurrection	Christians believe that this is when Jesus rose from the dead to everlasting life.
Salvation	Christian belief that Jesus died to save others. That he sacrificed himself.
Romans	The people in charge whilst Jesus was alive. They saw Jesus as a troublemaker.
Pilate	The Governor of Judea and the person who sentenced Jesus to death.
Martyr	A person who is killed because of their religious beliefs.



Geography

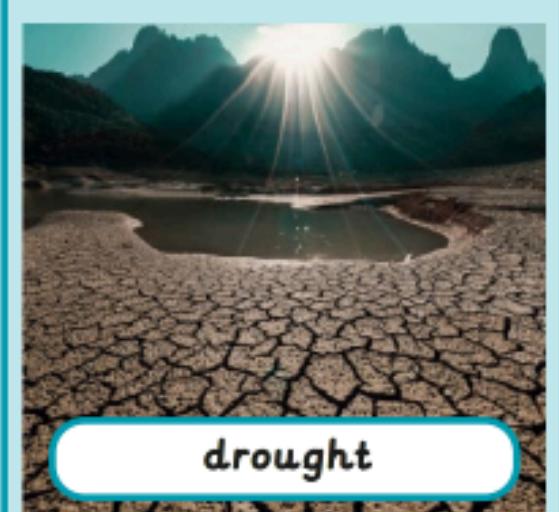
Would you like to live in the desert?

Where are hot desert biomes located?

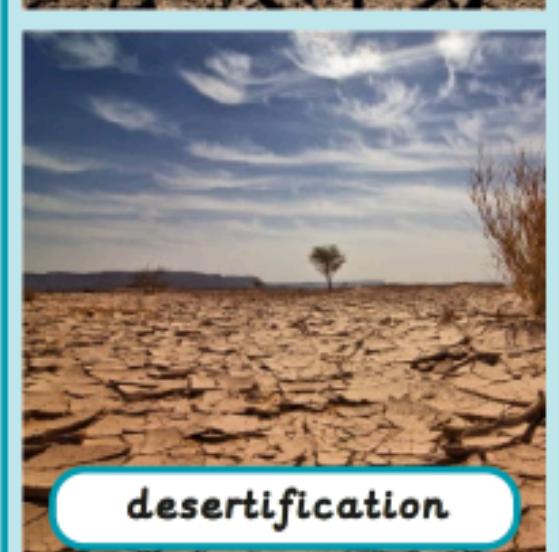


A hot desert biome is hot, dry and arid, although temperatures can drop at night and occasional heavy downpours can occur.

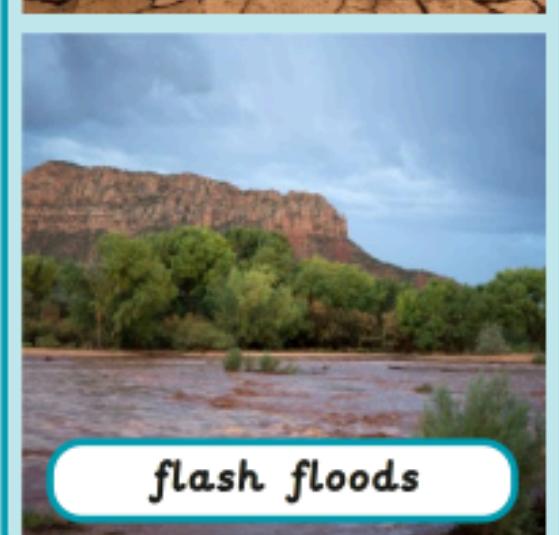
Threats and dangers:



drought



desertification



flash floods

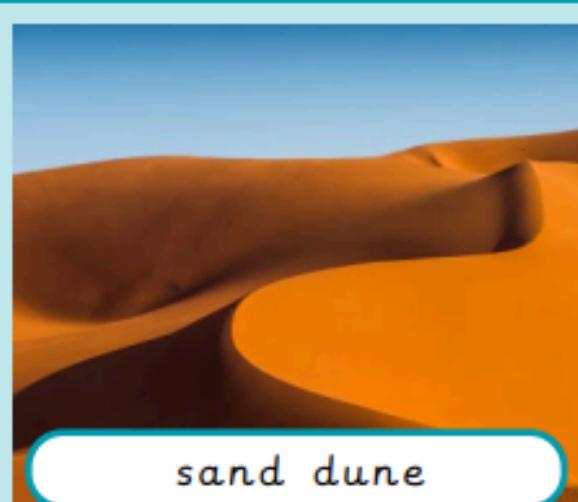
How do people use the Mojave Desert?

- Protecting areas of natural beauty in national parks.
- Recreational purposes like hiking or quad biking.
- Ranching and farming.
- Military bases and training.
- Mining precious minerals.
- Generating renewable energy.
- Living in settlements.



arid	Too little rain to support lots of vegetation.
barren	Land that cannot grow vegetation.
biome	An area of the world with a similar climate and landscape, where similar plants and animals live.
climate	Long-term weather conditions in a specific region.
desert	Any stretch of land with little to no rainfall and extremely sparse vegetation and wildlife.
mining	The process of digging up valuable minerals from the Earth's crust.
rainfall	The amount of rain falling in a place over a particular time.
ranching	Keeping animals on a large farm, particularly in the Americas.
renewable energy	Energy generated from a continuous source, such as wind or water.

Physical features in the Mojave Desert:



sand dune



natural arch



mushroom rock



mesa



salt flat

French



Language
French

Teaching Type:
Intermediate Language

Unit:
As-tu un animal ?

Unit Objective:
To say what pet you have and do not have in French

By the end of this unit we will be able to:

- Know the nouns and indefinite articles for 8 common pets.
- Ask somebody if they have a pet and give an answer back.
- Say in French what pet we have/do not have and give our pet's name.
- Start to use the simple conjunctions **et** (and) and **mais** (but) to make more complex and interesting sentences.

Skills we will develop:

To work on creating longer, accurate yet authentic pieces of spoken and written French using the conjunctions 'et' and 'mais'. Incorporating the personal details previously learnt with our new knowledge. Moving to phrase level and creating extended sentences.

Activities we will complete:

A number of different activities to learn the 8 nouns and indefinite articles for the pets using a variety of speaking, listening, reading and written tasks (including crosswords, word banks and word puzzles). After recycling and revisiting **J'ai...** (I have) learning how to say **je n'ai pas de/d'**... (I don't have) plus the pet in French. Learning how to use the structure **qui s'appelle** and complete more demanding listening and reading tasks. There will a class survey and an extended final written task, in the form of an email reusing language we have previously learnt.

Grammar we will learn & revisit:

Indefinite articles, high frequency verbs & negative.

Revisiting 1st person singular conjugations of high frequency verbs **je m'appelle, j'ai, je suis** and **j'habite**. Indefinite articles/determiners **un** and **une**. Negative structure **je n'ai pas de/d'...**

It will help if we already know:

- The letter sounds (phonics & phonemes) from 'Phonics & Pronunciation' lessons 1 and 2 and vocabulary from the Early Learning units.
- Vocabulary from 'Presenting Myself' and 'My Family' units.
- The difference between a definite and indefinite article/determiner.
- That nouns in French have gender and this has an impact on the determiner.



Phonics & pronunciation we will see:

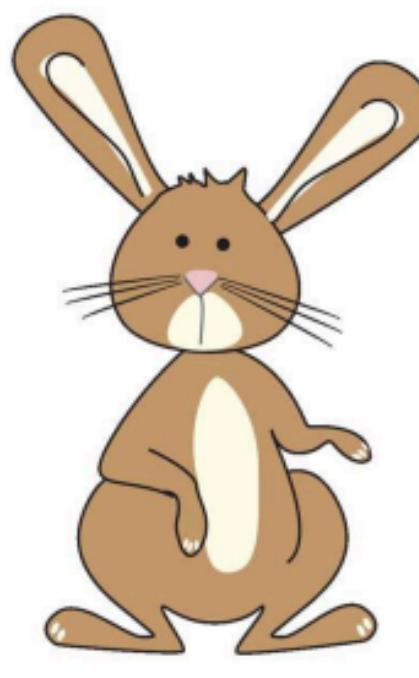
Recommended phonics focus: **É È EAU EUX**

- **É** sound in **Cécile**
- **E** sound in **je & de**
- **EAU** sound in **oiseau**
- **Silent letters.** 'S' is not pronounced in **mais** or **souris** and the t is not pronounced in **et & chat**. 's' & 't' are often silent at the end of French words.
- **'H' Aspiré.** This type of 'H' is not aspirated or otherwise pronounced. It does not allow elisions or liaisons – the 'h' in **hamster** acts like a consonant which is why it is **je n'ai pas de hamster**.
- **Elision 'Je n'ai pas d'oiseau'.** Dropping of the last letter of a word (in this case the 'e' in **ne** and **de**) and replacing it with an apostrophe, and attaching it to the word that follows, which begins with a vowel or mute h. It is not optional.

Vocabulary we will learn & revisit:

8 common pets. **J'ai...** ('I have') will be revisited before introducing the negative reply **je n'ai pas de/d'...** (I don't have). This is all listed on the Vocabulary Sheet.

As-tu un animal ?



un lapin



un chien



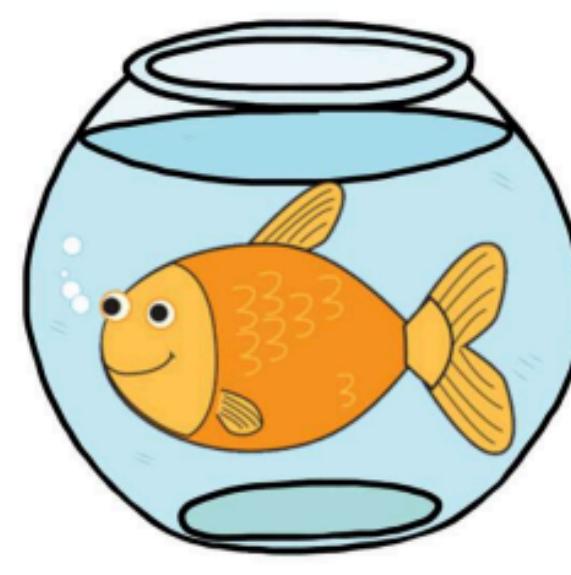
un chat



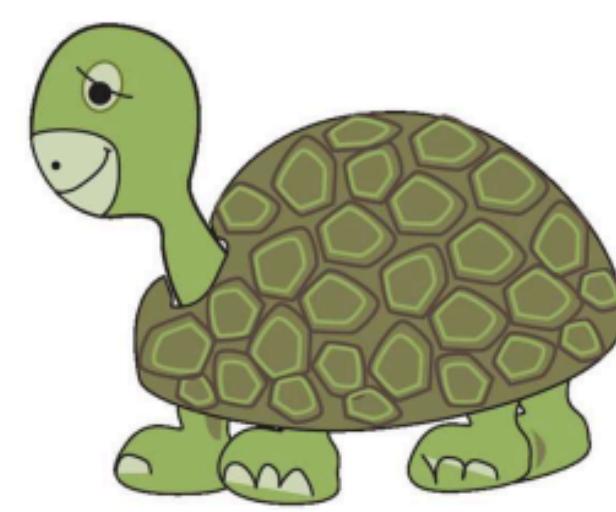
un oiseau



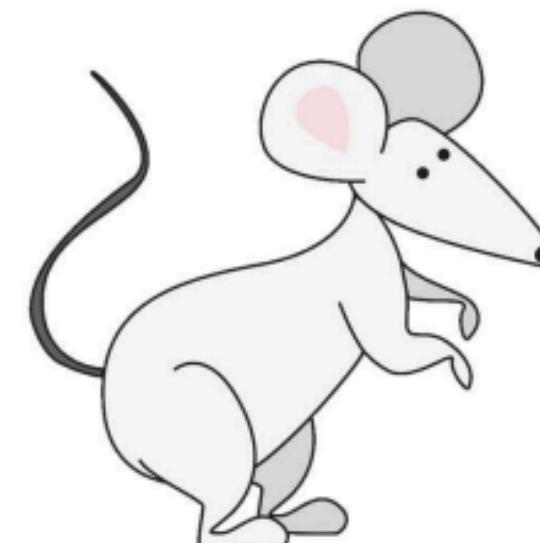
un hamster



un poisson
rouge



une tortue



une souris

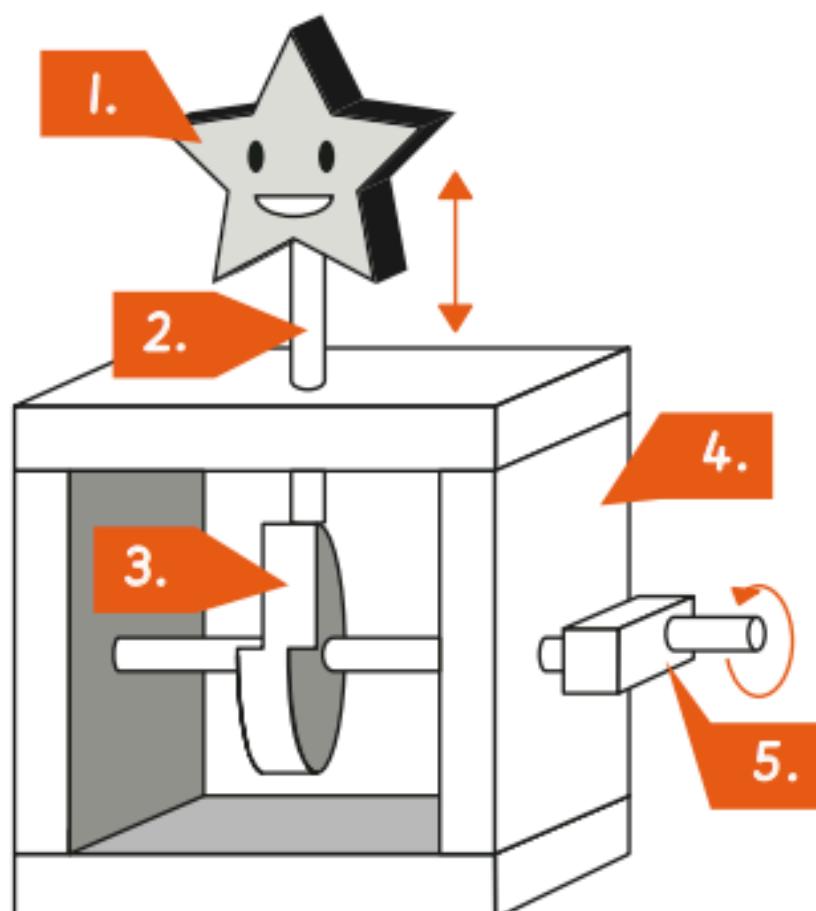
Design

D&T - Automata toys



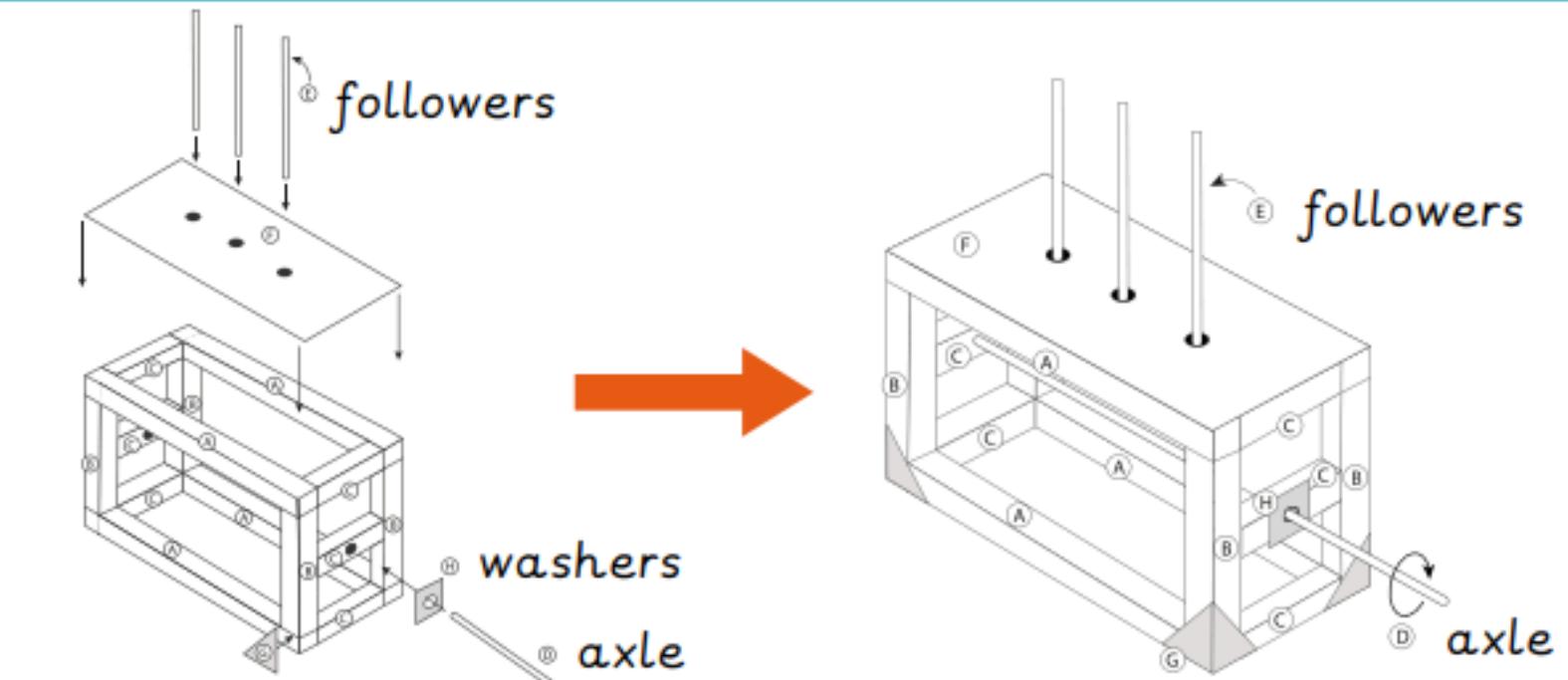
Automata toy components:

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



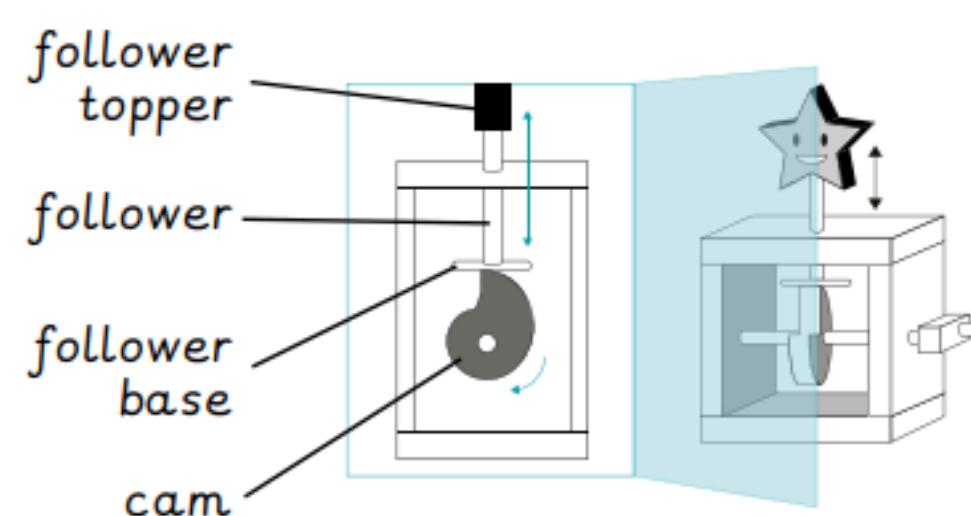
Automata toys use a **mechanical system of cams, axles and followers** to create movement in a character or object.

Exploded diagrams



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

Cross-sectional diagrams

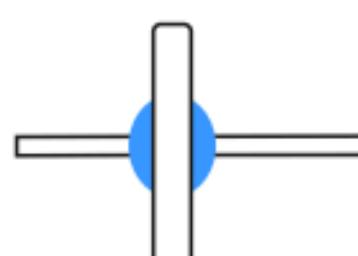


Cross-sectional diagrams help designers to **communicate** how a product works by showing the inside. Imagine a cut down the middle.

Making adjustments and improvements

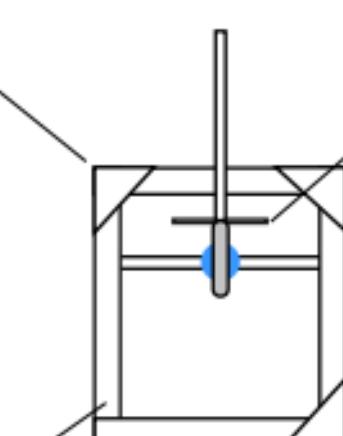


Increase the thickness of the **cams** by using corrugated card or sticking the same shape **cams** together.



Secure the **cam** to the **axle** with sticky tack or modelling dough so the **cam rotates** with the **axle**.

Make sure the frame is straight.



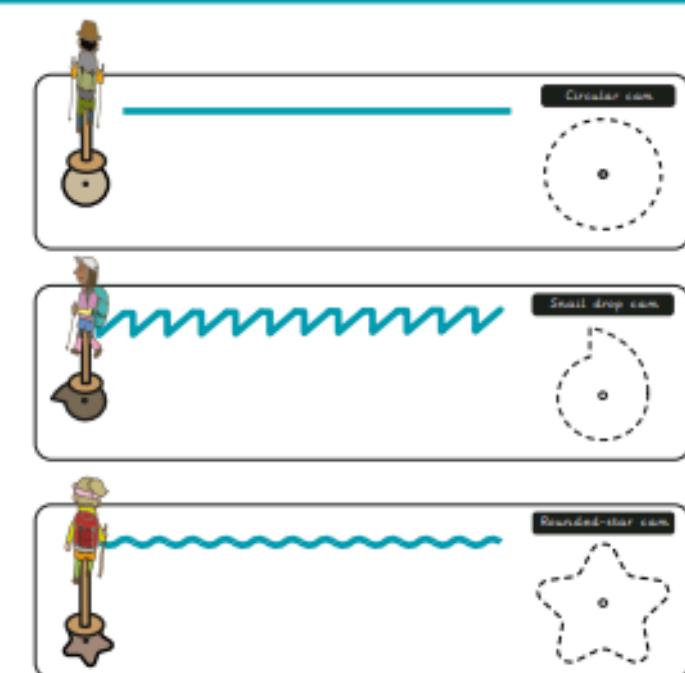
Make sure the base of the follower is touching the cam.

Turn the axle smoothly. Add a handle to make this easier.

Add material to straighten the frame.

Follower movement

The shape of the **cam** changes the movement of the **follower**. Cams can change **rotational movement to linear movement**.

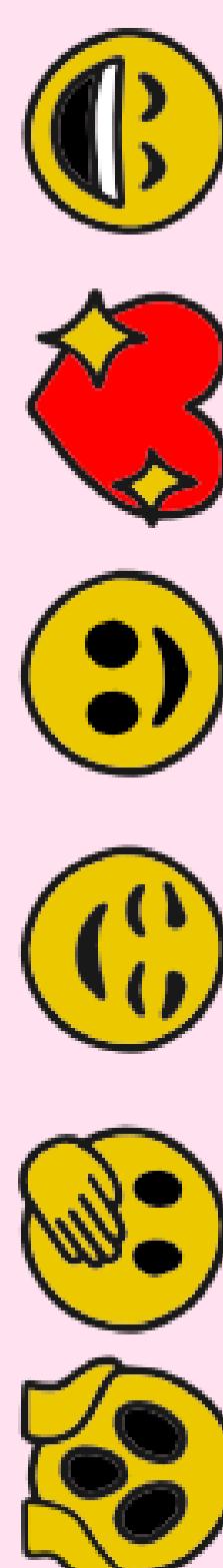


Cam shapes

eccentric cam	snail drop cam	heart cam	circular cam
pear cam	oval cam	star cam	square cam

Computing

app	The shortened word for application is a type of computer program typically found on smart phones and tablets.
bullying	The deliberate act of harming, intimidating or threatening someone else to cause them physical or emotional distress.
health	The mental and physical condition of a person or living thing.
judgement	To come to a sensible conclusion about a matter or a person.
memes	An image or video visual with some usually humorous writing added to it.
online communication	The way people communicate (share and receive information) with each other over a computer networks, such as the internet.
permission	The action of allowing something to happen.
well-being	The state of mind, health and happiness.

Childline https://www.childline.org.uk/	NSPCC https://www.nspcc.org.uk/	<p>Apps require our permission for things such as accessing location or photo library. It is important to know where these settings are.</p>  <p>Any form of online communication can be misinterpreted. Text may be misread and emojis or memes could be misunderstood.</p>  <p>Technology can have both positive and negative effects on our health and well-being.</p>  <p>Tell a trusted adult if you are getting bullied online. You can also get help from these places:</p>
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