

Suggested timetable:

Monday + Tuesday Bubble		Wednesday + Thursday Bubble	
Monday Day 1		Monday Day 1	History and Geography Part 1
Tuesday Day 2		Tuesday Day 2	DT / Art / PHSE
Wednesday Day 3	History and Geography Part 1	Wednesday Day 3	
Thursday Day 4	DT / Art / PHSE	Thursday Day 4	
Friday Day 5	Science 1	Friday Day 5	Science 1
Monday Day 6		Monday Day 6	History and Geography Part 2
Tuesday Day 7		Tuesday Day 7	DT / Art / PHSE
Wednesday Day 8	History and Geography Part 2	Wednesday Day 8	
Thursday Day 9	DT / Art / PHSE	Thursday Day 9	
Friday Day 10	Science 2	Friday Day 10	Science 2

Science 1

How plants reproduce

Go to: <https://www.bbc.co.uk/bitesize/articles/zrcpscw>

- Watch the short animation about how plants reproduce.
- Bees and flowers
 - Lots of plants rely on insects like bees to reproduce.
 - To make a seed, a flower needs to be pollinated.
 - Pollen from one flower needs to travel to another. Bees are very important for carrying the pollen between flowers.
 - To encourage bees to visit them, flowers have colourful petals and an attractive scent.
 - Some flowers give the bees a sugary reward called nectar too.
 - It's not just plants that need bees; we need them too.
 - Without them we'd have very little food.
 - Lots of our fruit and vegetables come from plants that are pollinated by bees.
 - In this short film learn how the process of pollination works.

Plant reproduction

- The flowers attract insects, the smell from the nectaries and the prettiness of the petals draws the insects in towards them.
- As they dig for the sweet nectar all the pollen rubs off on their bodies from the stamen.
- The nectaries are right at the bottom to make sure this happens. Once the little bee has had her fill she'll fly off to find more nectar.
- When the bee digs into the next flower the pollen on her body rubs off onto the stigma of the new flower. This is called pollination.
- When the pollen lands on the stigma it travels down the style towards the ovary.
- Once the pollen reaches the ovary it hopes to find an ovule to attach to. This is called fertilisation.
- This is the beginning of a new seed. It is absorbed into the receptacle and fruit starts to form from the seed. It is called sexual reproduction.
- When the fruit is ready, the plants release the seeds which get moved into the soil.
- Seeds can be blown by the wind, or eaten by animals and then pooped out in a different place.

- They can explode and scatter themselves, float on water, fall from flowers and trees and they can also stick to animals' fur and be moved.
- Once they are dispersed in the soil they can create new plants.

Activity 1 Fill in the gaps

- Have a go at filling in the gaps in this activity about plant reproduction:

Activity 2

- Try this quick science quiz.

Science 2

The drinks menu



1. Look at the three images above and come up with as many similarities and differences as you can. Think about:
 - appearance
 - what they do
 - where they might be found
2. Then, decided which one is the odd one out and why. Give a reason for every answer and there is no wrong answer!

Background science

Animals need water to survive. Water is found on Earth's surface in all three states: liquid, solid and gas. Ice and water vapour can both be changed into liquid water. Changes of state are reversible.

We are most familiar with animals that drink liquid water, including the ladybird. Some animals live in extreme environments where it is too hot or too cold to find liquid water on the surface. Some of these animals have adaptations (special features or behaviours) that help them change ice or water vapour into liquid water that they can drink.

Bactrian camels live in Mongolia's Gobi Desert. In the winter months, this is a frozen desert. Unlike other mammals, such as polar bears, the camels can quench their thirst by eating snow, without lowering their body temperature so much that they become ill.

Average rainfall in The Namib Desert is just 1 cm per year, making it one of the driest habitats on Earth. Fog-basking beetles have adaptations that allow them to harvest water vapour from the air. They climb sand dunes and stand with their bottoms higher than their heads. This puts them in the

path of fog rolling in from the Atlantic Ocean. Tiny drops of water condense on the bumps on their wing cases, before rolling down the grooves towards the beetle's mouth.

Watch: <https://www.youtube.com/watch?v=8gh29dV-gII> about Bactrian camels.

Extension

- Find out where your own drinking water comes from.
- How many different ways that humans get drinking water around the world do you know about?
- Investigate fog-collection projects such as this one in Peru:

<https://www.bbc.co.uk/news/av/magazine-38175202/the-fog-catcher-who-brings-water-to-the-poor>

- What are the pros and cons of melting snow or ice to drink?
- Why do mountaineers climbing Everest always melt (and boil) snow before drinking it?
- How do astronauts to get drinking water in space?

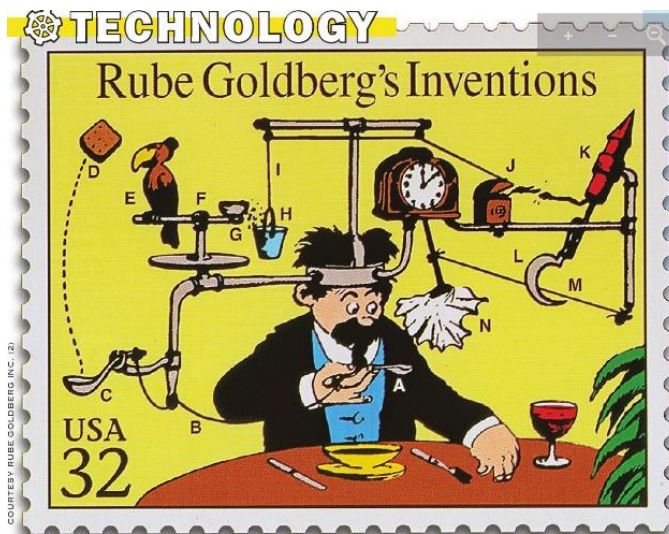
Art

Shadow drawing

In this activity, explore the shape of shadows and how they change throughout the day. Use objects or make a tin foil character to explore shadows. Find a sunny spot and place the object or tin foil character in the sun so that they cast a shadow on paper and draw the shadow. If you have any, you can also use chalk to draw round the shadows or take photographs if you prefer. Come back to your shadow drawing throughout the day and look at how it changes and think about why this is.



Rube Goldberg Task: design/draw your own machine to complete a very simple task in an overly complicated way.



STEP BY STEP Here are Rube Goldberg's instructions for his Self-Operating Napkin: "As you raise **spoon of soup (A)** to your mouth it pulls **string (B)**, thereby jerking **ladle (C)** which throws **cracker (D)** past **parrot (E)**. Parrot jumps after cracker and **perch (F)** tilts, upsetting **seeds (G)** into **pail (H)**. Extra weight in pail pulls **cord (I)** which opens and lights automatic cigar **lighter (J)**, setting off **sky-rocket (K)** which causes **sickle (L)** to cut **string (M)** and allow pendulum with attached napkin to swing back and forth thereby wiping off your chin."

The catch? Participants must do so in 10 to 20 steps by creating their



FUN AND GAMES Rube Goldberg drew wacky contraptions consisting of everyday objects.

THE MAN, THE LEGEND

Rube Goldberg was an inventor and a Pulitzer Prize-winning newspaper cartoonist who was born in 1883. He drew about 50,000 cartoons in his career. He also liked eating giant bowls of whipped cream, and wore shoes while swimming.

Goldberg is best known for his humorous drawings of **elaborate** devices, such as a self-operating napkin and an automatic back-scratcher. He "trained as an engineer," George says. "So the way he thought would creep into his art."

Today, there are lots of videos of Rube Goldberg machines posted on YouTube. A famous one from 2010, by the music group OK Go, has nearly 65 million views. It features a **chain reaction** nearly four minutes long that includes a smashed television and a dropped piano. According to George, it took the crew 87 tries to get it right.

Examples: World's largest Rube Goldberg machine lights up Christmas tree:

<https://www.youtube.com/watch?v=RBOqfLVCDv8>

Advice on how to design one:

<https://www.youtube.com/watch?v=iemltSAT9Ew>

- Decide on a very simple task.
- Design your own Rube Goldberg machine.
- Draw and label a diagram that uses every day and familiar objects.

<https://www.youtube.com/watch?v=qybUFnY7Y8w>

PHSE

Read the 'bikeability' (**PowerPoint Level-3-Bikeability**) and think about how to stay safe on the roads.

History and Geography

Part 1: What happened in Britain between 2 April and 14 June 1982, and why?

This is a good place to start:

<https://www.iwm.org.uk/history/a-short-history-of-the-falklands-war>

<https://kids.britannica.com/kids/article/Falkland-Islands-War/476257>

Do some research on line and find answers to these questions:

- Where are the Falkland Islands?
- How far is that from Britain?
- During this time British forces fought a war with Argentina over the Falkland Islands but why?
- How many people died (on both sides)?
- Why do you think the Argentinians wanted these islands back?
- Who do they belong to today?

Part 2 – The History of the Falkland Islands:

- Which country took possession of the Falkland Islands in 1763?
- Who owned the islands next and how did they become British in 1771?