Week 6 Home Learning Tasks
11th May 2020

	Task	Success criteria	The tasks below should be <u>completed in order</u>. We look forward to reading your work.	
Literacy	Identify uses of everyday materials	Identify different everyday materials. Suggest materials that familiar objects are made from. Explain what 3 different materials can be used for.	Look at BBC bitesize https://www.bbc.co.uk/bitesize/topics/zrssgk7 Which material do we use? Then look at ppt 1and 2 MONDAY -Identifying uses. Name the materials. Keep a list of the different uses of materials you spot at home and whilst out and about. Use a tally of the number of times you see a material, such as metal, being used for a different purpose. How many different purposes do you find for one material? You could choose one material and paint/draw as many different uses of that material as you can think of.	**Which material has most purposes? Can you think why this would be?**

Literacy	Identify, group and record the uses of everyday materials	Explain what 3 different materials can be used for. Group similar uses of materials together. Make observations. Record what you see to help answer a question.	**Today you are looking at the different uses for everyday materials. First, look at the ppt 1 and 2 TUESDAY, Out and about.** **Use worksheet Out and About Activity sheet TUESDAY to help keep a list of everyday materials and what they are used for.** **IF UNABLE TO GO OUTSIDE LOOK INDOORS** **Choose an activity from the Use of Everyday materials Challenge Cards. Write/draw about it in your book.** **Remember use sentences with 2 adjectives, adverb and conjunction if you can.**	Can you use a simile in any of your sentences?
Literacy	Compare the suitability of everyday objects	Explain why different materials can be used to make the same object. Which properties make some materials suitable/unsuitable for different purposes?	Look at BBC bitesize https://www.bbc.co.uk/bitesize/topics/zrssgk7 Heating and cooling materials and Which materials dissolve in water. Then look at ppt 1,2,3 and 4 WEDNESDAY Comparing suitability and do activity sheet WEDNESDAY **Make sure you are using capital letter, finger spaces, full stops in your sentences. Add 2 adjectives, an adverb and conjunctions.** **Now try 'Comparing suitability materials and their properties worksheet WEDNESDAY'.**	**Can you change the shape of an object by squashing, bending etc and take pictures of the object before and after?**

Literacy	Explain the process of recycling	Identify materials that can be recycled. How plastic materials are sorted and changed into new products. Give reasons why it's important to recycle.	Look at BBC bitesize https://www.bbc.co.uk/bitesize/topics/zrssgk7 What should I do with my rubbish? Look at Recycling ppt 1,2,3,4 THURSDAY and do the recycling sequencing activity worksheet THURSDAY.	Keep a record of all you recycle this week. How did you recycle it?
Literacy	Find facts	Name of the new process John McAdam invented. Explain how his invention has impacted on life today. Two interesting facts about John McAdam's life.	Look at BBC bitesize https://www.bbc.co.uk/bitesize/clips/z7fnvcw About John MacAdam Then look at John MacAdam ppt 1 and 2 FRIDAY and factfile 1 and 2 for John MacAdam. Please complete both of the factfiles making sure that the sentences have capital letters, finger spaces and full stops. Have you used 2A, adverbs and conjunctions. If you need more space to write out the assessment piece, use your books instead. **THIS IS THE ASSESSMENT PIECE I WOULD LIKE YOU TO SUBMIT BY 18TH MAY PLEASE**	Can you add a simile?

Reading	Read and answer questions	Read the text and the questions. Underline the important part of the question where appropriate. Tick answers. Draw lines for answers. Fill in missing words. Complete sentences.	**All About Spring** **ADULTS PLEASE BE AWARE THAT THE ANSWERS ARE INCLUDED**	Check that you have answered all the questions.
Topic	Research	Make a mind map or bullet point list	**Week 4. Awesome oceans** **Please follow the instructions on the Topic work sent out previously.**	

All About Spring

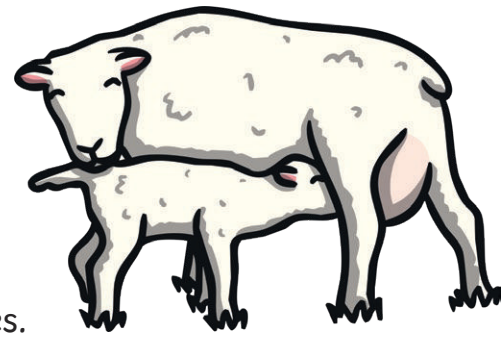
Spring is one of the four seasons.

It is the season that comes after winter.

Spring starts in March and ends in June.

What happens to the animals?

Some animals, such as hedgehogs, grass snakes, lizards, adders, frogs and toads, come out of hibernation.



There are also lots of migrant birds that come back to the UK in the spring.

You can see swifts, cuckoos and nightingales.

What happens to the plants and insects?

You can see the trees and bushes grow new leaves in spring and many plants flower.

Many more insects can be spotted in spring, such as butterflies and bees.

Which celebrations happen in spring?

Easter happens in spring.

It started as a religious festival and now many people celebrate it with Easter chocolate eggs or Easter egg hunts.

Easter Sunday always falls between 22nd March and 25th April.

Questions

1. When does spring begin? Tick **one**.

   - ◯ June
   - ◯ March
   - ◯ January

2. What do hedgehogs do in spring? Tick **one.**

   - ◯ Come out of hibernation
   - ◯ Go into hibernation
   - ◯ Sleep for a long time

3. Which season comes **before** spring? Tick **one.**

   - ◯ summer
   - ◯ autumn
   - ◯ winter

4. What celebration happens in spring? Tick **one.**

   - ◯ Christmas
   - ◯ Easter
   - ◯ Valentine's Day

5. Easter Sunday falls between which two dates? Tick one.

   - ◯ 22nd March and 25th April
   - ◯ 25th March and 22nd April
   - ◯ 17th March and 27th April

Answers

1. When does spring begin? Tick **one**.

   - ○ June
   - ✓ **March**
   - ○ January

2. What do hedgehogs do in spring? Tick **one.**

   - ✓ **Come out of hibernation**
   - ○ Go into hibernation
   - ○ Sleep for a long time

3. Which season comes **before** spring? Tick **one.**

   - ○ summer
   - ○ autumn
   - ✓ **winter**

4. What celebration happens in spring? Tick **one.**

   - ○ Christmas
   - ✓ **Easter**
   - ○ Valentine's Day

5. Easter Sunday falls between which two dates? Tick one.

   - ✓ **22nd March and 25th April**
   - ○ 25th March and 22nd April
   - ○ 17th March and 27th April

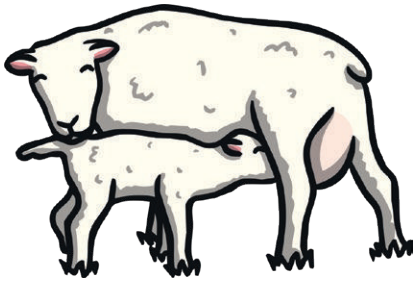
All About Spring

Spring is one of the four seasons. It is the season that comes after winter. Spring starts in March and ends in June. Spring is the season when we change our clocks forward one hour. We often have a mixture of sunny and rainy days.

What happens to the animals?

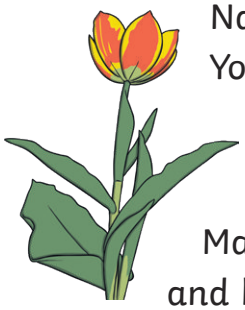
Animals such as hedgehogs, grass snakes, lizards, adders, frogs and toads come out of hibernation on the first warm spring days. You could see frogspawn, which looks like jelly.

Some animals move about a lot more in spring, such as squirrels. You can see squirrels running about, looking for food and climbing trees.



There are also lots of migrant birds that come back to the UK in the spring. You can see swifts, cuckoos and nightingales.

What happens to the plants and insects?



Nature is very busy in spring and there are lots of changes. You can see the trees and bushes grow new leaves again in spring and many plants flower, because the air and soil are warmer and there are more daylight hours.

Many more insects can be spotted in spring, including butterflies and bees, which like the flowers.

Which celebrations happen in spring?

Easter is a celebration that happens in spring. It started as a religious festival and now many people celebrate it with Easter chocolate eggs and a game or Easter egg hunt. Easter Sunday always falls between 22nd March and 25th April. It is not on a fixed date each year. Most schools also have a holiday around this time which lasts around two weeks.

Questions

1. When does spring begin? Tick **one**.

   ○ March
   ○ April
   ○ January

2. Which animals move around more in spring? Tick **one**.

   ○ adders
   ○ lizards
   ○ squirrels

3. Name **two** of the migrant birds that come back to the UK for spring.

   _____

   _____

4. Put ticks in the table to show which sentences are true and which sentences are false.

Sentence	True	False
Many plants flower in spring because there are more hours of daylight.		
The air and soil are wetter so it helps the plants grow.		
More insects can be seen during spring.		
Trees and bushes grow new leaves in spring.		

5. What can you see in spring that looks like jelly?

   _____

Answers

1. When does spring begin? Tick **one**.

   ✓ **March**
   ○ April
   ○ January

2. Which animals move around more in spring? Tick **two**.

   ○ adders
   ○ lizards
   ✓ **squirrels**

3. Name **two** of the migrant birds that come back to the UK for spring.
   Accept any two of the following:

   - **swifts**
   - **cuckoos**
   - **nightingales**

4. Put ticks in the table to show which sentences are true and which sentences are false.

Sentence	True	False
Many plants flower in spring because there are more hours of daylight.	✓	
The air and soil are wetter so it helps the plants grow.		✓
More insects can be seen during spring.	✓	
Trees and bushes grow new leaves in spring.	✓	

5. What can you see in spring that looks like jelly?
   You can see frogspawn in spring that looks like jelly.

All About Spring

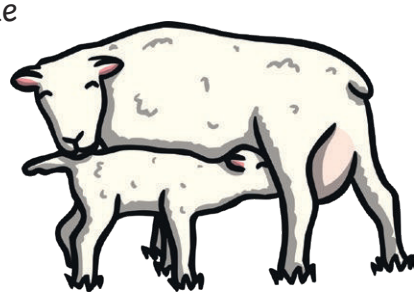
Spring is one of the four seasons. It is the season that comes after winter. Spring begins in March and ends in June. Spring is the season when we change our clocks forward one hour. We often have a mixture of sunny and rainy days. The length of the days increase as the season goes on and the nights get shorter.

What happens to the animals?

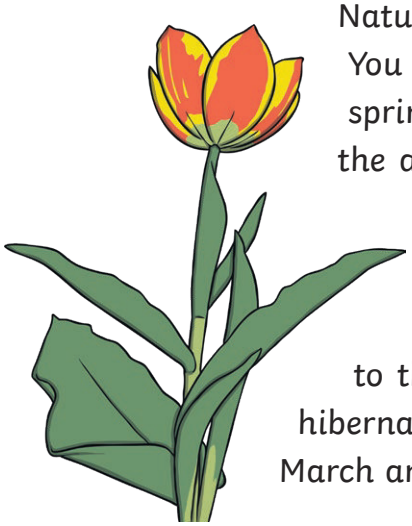
The animals that have been in hibernation through the winter come out on the first warm spring days. These can include hedgehogs, grass snakes, lizards, adders, frogs and toads. You might be able to see frogspawn, which looks like jelly. Toads can travel a long way to find their perfect pond to lay frogspawn.

Some other animals are more active in spring, such as squirrels. You are more likely to spot squirrels running about, looking for food and climbing trees.

There are also millions of migrant birds that come back to the UK in the spring. You might be able to see swifts, cuckoos, nightingales, warblers and chiffchaffs. Chiffchaffs are usually the first birds to appear and their 'chiffchaff' song can be heard from the tops of the trees. Beautiful birdsong is all around in spring.



What happens to the plants and insects?



Nature is very busy in spring and there are lots of changes. You can see the trees and bushes grow new leaves again in spring and many plants flower. They can do this because the air and soil are warmer and there are more daylight hours. Blossom appears first, then the leaves.

Many more insects can be spotted in spring, including butterflies and bees, which are attracted to the flowers. Queen bees that have lived through their hibernation during the winter come out on warm days in March and look for nectar and pollen from the flowers.

Which celebrations happen in spring?

Easter is a celebration that happens in spring. It started as a religious festival and now many people celebrate it with Easter chocolate eggs and a game or Easter egg hunt. It is a called a 'moveable feast' because it is not on a fixed date each year. Easter Sunday always falls between 22nd March and 25th April. Easter Monday is a holiday where many people have the day off work. Most schools also have a holiday around this time, which lasts around two weeks.

Questions

1. What happens to the clocks in spring? Tick one.

   ◯ We change them back by one hour.
   ◯ We do nothing with them.
   ◯ We change them forward by one hour.

2. Find and **copy** one word that means **to move about more.**

   _____

3. What happens to the days and nights in spring? Tick **one**

   ◯ The days get longer and the nights get longer.
   ◯ The days get shorter and the nights get longer.
   ◯ The days get longer and the nights get shorter.

4. Complete the sentence by adding in the missing words.

   _____ are usually the first birds to _____ and their 'chiffchaff' song can he heard from the tops of trees. Beautiful _____ is all around in spring.

5. Look at the paragraph **What happens to the plants and insects?**
   Describe two of the changes that happen in spring in your own words.

   _____

   _____

   _____

6. Why is Easter called a moveable feast?

   _____

Answers

1. What happens to the clocks in spring? Tick one.

   ○ We change them back by one hour.
   ○ We do nothing with them.
   ✓ We change them forward by one hour.

2. Find and **copy** one word that means **to move about more.**

   active

3. What happens to the days and nights in spring? Tick **one**

   ○ The days get longer and the nights get longer.
   ○ The days get shorter and the nights get longer.
   ✓ The days get longer and the nights get shorter.

4. Complete the sentence by adding in the missing words.

   Chiffchaffs are usually the first birds to **appear** and their 'chiffchaff' song can he heard from the tops of trees. Beautiful **birdsong** is all around in spring.

5. Look at the paragraph **What happens to the plants and insects?**
   Describe two of the changes that happen in spring in your own words.

   Pupil's own responses such as: There are more flowers and insects in spring. The trees and flowers grow because of the longer days and warmer weather. There are more bees and butterflies, which come out to collect the nectar and pollen from the flowers.

6. Why is Easter called a moveable feast?

   Easter is called a 'moveable feast' because it is not on the same date every year.

Identifying Uses

What Do We Already Know?

Think back to your Science learning in Year 1. See if you can answer some of these questions:

How many everyday materials can you name and what were the materials used for?

Can you remember anything about them?
- What did they look like?
- What did they feel like?
- How did they behave?

Can you remember doing any investigations?

What did you find out and what did you learn?

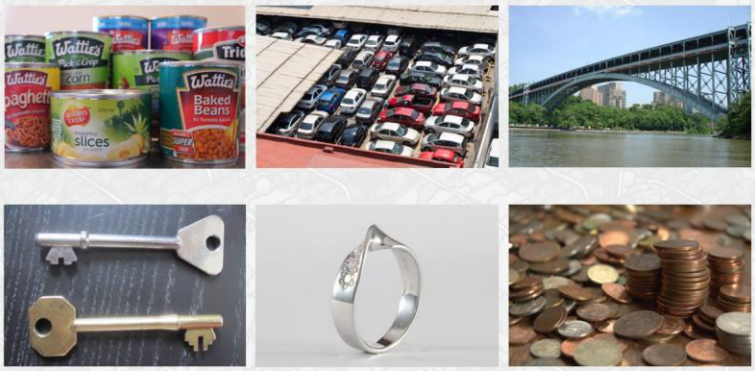
Think Again...

Look at the materials in these photos. What might they be used for?

Have a look around your house. Can you see any familiar objects which are made from these materials?

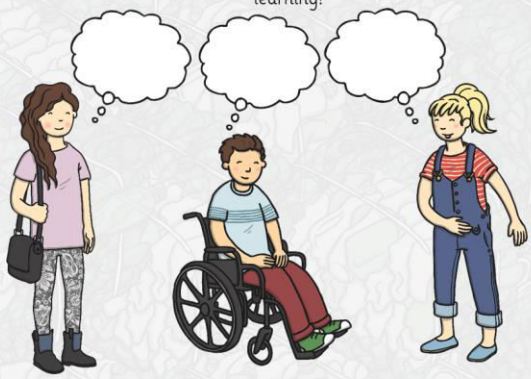
Same Material, Different Uses

Whole Class



Out and About

Today we are going to go on a short walk either indoors or out and do our science learning!



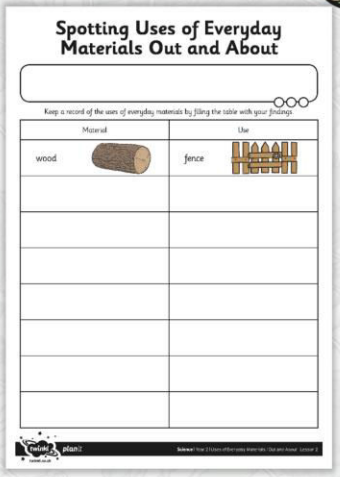
What must we remember to do to keep ourselves safe?

Keep Your Eyes Peeled

Whole Class

You will be working to spot different uses of everyday materials. So keep your eyes peeled and look closely.

When you have spotted a material and what it is being used for record it on your sheet.



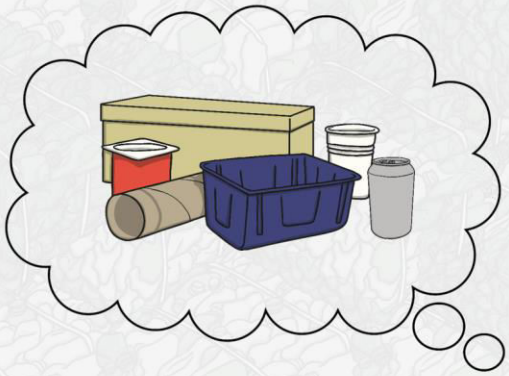
Spotting Uses of Everyday Materials Out and About

Keep a record of the uses of everyday materials by filling the table with your findings.

Material	Use
wood	fence

Grouping Uses

What different uses of materials did you find?
Is there any way we can group some similar uses together?



Unusual Uses

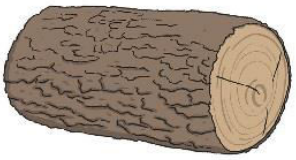
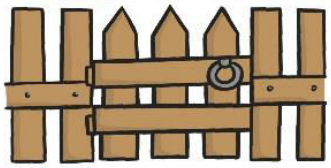
Did you spot any unusual uses of materials?
Why do you think that material was chosen for that purpose?

Spotting Uses of Everyday Materials Out and About

I can identify and group the uses of everyday materials.

I can record my observations.

Keep a record of the uses of everyday materials by filling the table with your findings.

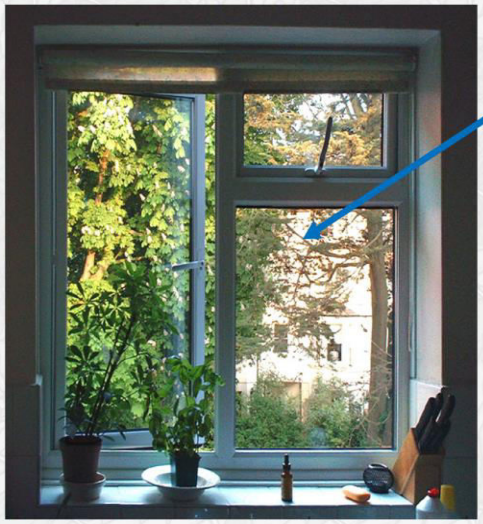
Material	Use
wood 	fence 

Comparing Suitability

Properties

Whole Class

Reasons for Using Materials



Why are window panes made from glass?

What is it about glass that makes it a good material for window panes?

Why wouldn't other materials be as suitable?

Reasons for Using Materials

Which material do you think is best to make a ruler from? Why?

When might a plastic ruler be more suitable?

When might a wooden ruler be more suitable?

When might a metal ruler be more suitable?

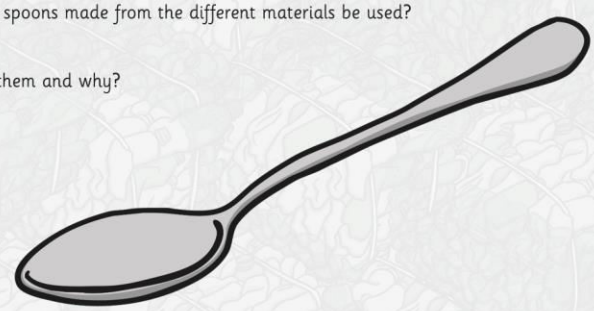
Spoons

What material are spoons made from and why?

Why do you think spoons are made from different materials?

When would the spoons made from the different materials be used?

Who would use them and why?



Suitability

Although these materials are all suitable for spoons, the spoon you would choose to use would depend on what you were using it for.

Which spoon would you give a toddler to eat their dinner with? Why?

Which spoon would you use to make a cake with? Why?

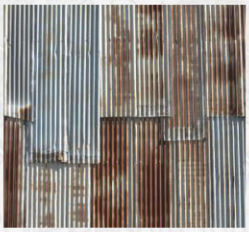
Which spoon would you use to eat soup with? Why?

Suitability

Whole Class

Suitability means having the properties which are right for a specific purpose.

Metal, wood and plastic are all suitable materials for spoons.



Metal is suitable because it is strong and lasts a long time.

Wood is suitable because it is strong and has a high heat tolerance.

Plastic is suitable because it is light and cheap.

Discussion

Whole Class

Which material do you think would be the most suitable material for making coat hangers from and why?

Comparing Suitability of Everyday Materials

I can compare the suitability of different everyday materials.

Read the objects and match them up with the material that you think is the most suitable for them to be made from. Draw a line connecting the object with the material. Some objects might be connected to more than one material and some materials might have more than one object connected to them. The first one has been done for you.

Object	Material
mirror	wood 
coat hanger	glass 
pillow	metal 
rabbit hutch	fabric 
chair	plastic 
house	brick 

Comparing Suitability of Everyday Materials

I can compare the suitability of different everyday materials.

Read the object descriptions and write down a material which you think would be suitable for the job. Explain the properties it has that make it suitable.

I can compare the suitability of different everyday materials.

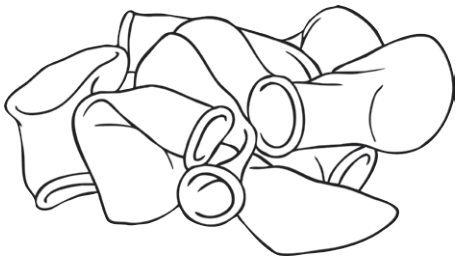
Description	Material	Why is it Suitable?
A hutch to keep a rabbit in. It has to be kept outdoors and keep the rabbit warm and dry.	_____	_____
A cup for a toddler. It has to be light, brightly coloured and safe for a toddler to use.	_____	_____
A pillow case. It has to be soft and able to go in the washing machine.	_____	_____
A vase. It has to hold flowers and look pretty.	_____	_____

Materials and Their Properties

Amazing Fact

Providing it does not break, a ball of glass will bounce higher than a rubber ball. A ball of steel the same size, would bounce higher than both the rubber and the glass balls.

Challenge



Here are some questions about different materials.

Tick the correct answer.

1. Glass is:
   a. transparent ☐
   b. able to block light ☐
   c. a light source ☐

2. Steel is:
   a. found growing on trees ☐
   b. a metal ☐
   c. soft ☐

3. Rubber is:
   a. transparent ☐
   b. always black ☐
   c. bendy ☐

4. Wood is:
   a. transparent ☐
   b. natural ☐
   c. opaque ☐

5. Plastic is:
   a. made in a factory ☐
   b. made from seashells ☐
   c. made in the ground ☐

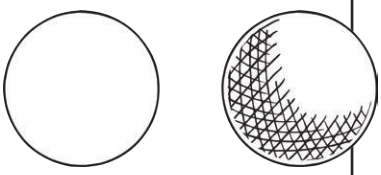
Challenge 2

Now write a fact about any material that you can think of.

_____

You could also try to find out:

- why steel and glass bounce higher than rubber;
- how you could test this for yourself;
- whether this has applications in technology.



Recycling

What is Recycling?

What does recycling mean?

How can you recycle?

Do you recycle at home? How?

Do you recycle at school? How?

What do you think happens to the materials we recycle?

Is it important to recycle? Why or why not?

What Can Be Recycled?

Whole Class

- Paper and Cardboard - such as newspaper and cardboard boxes
- Plastic – such as yoghurt pots and milk bottles
- Metal – such as cans
- Glass – such as bottles and jars
- Clothes – such as jumpers and trousers
- Garden Waste - such as grass cuttings
- Food – such as apple cores and leftovers

How to Recycle

Whole Class

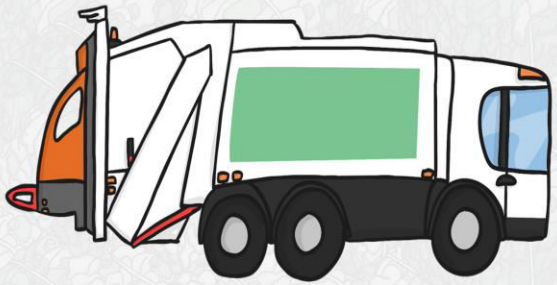
Different areas of the country recycle using slightly different systems but the goal is the same - to recycle as much as possible.

How do you recycle at home?

How do you recycle at school?

The Recycling Process

Your household recycling is collected and taken to a recycling depot.



The Recycling Process

The bottles are separated from other rubbish by people, machines or a mix of both.

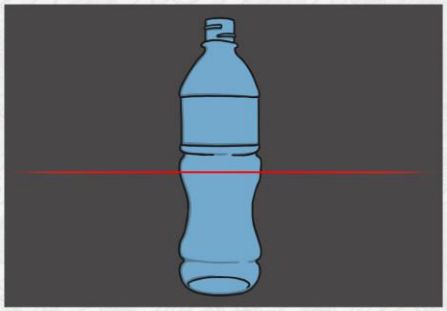
Plastic Recycling

After the materials have been sorted, they are sent to a reprocessing factory to be recycled and made into new products.

In the reprocessing factory the plastic bottles are washed.

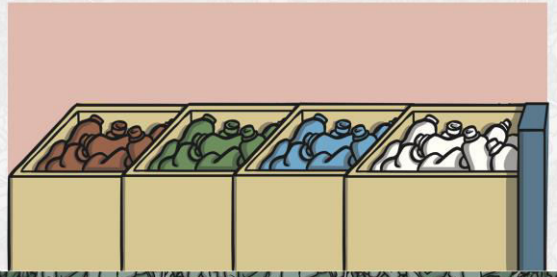
Plastic Recycling

The bottles are then sorted by plastic type using a special process called infrared.



Plastic Recycling

The bottles are then sorted by colour e.g. brown, blue green and natural.



Plastic Recycling

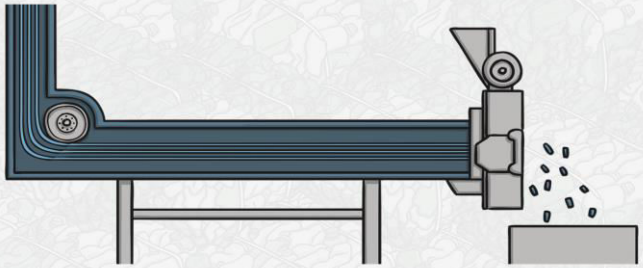
The bottles are shredded.

Plastic Recycling

The shredded bottle pieces are melted.

Plastic Recycling

Pellets are made from the melted, shredded plastic bottles.



Plastic Recycling

New items like carrier bags and more plastic bottles are made. The pellets can then be used to make new items like plastic fencing, carrier bags or new plastic bottles.

Plastic Recycling

Whole Class

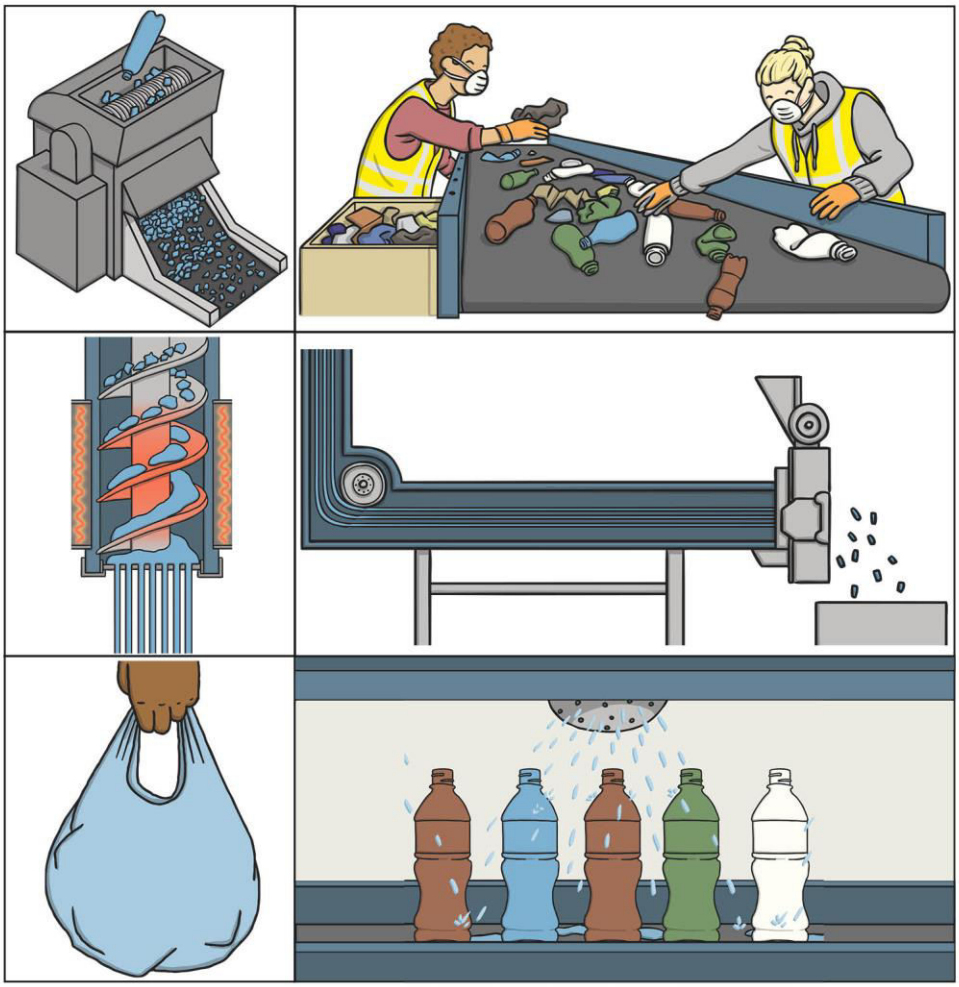
Recycling helps us to use less raw materials, reduces landfill and also reduces the amount of damaging greenhouse gases release.

Look at the arrows in the recycling symbol. What do the arrows represent?

Why is it important to recycle?

Recycling Sequencing

Cut and stick the pictures on the table to show the process.



Cut and stick the captions on the table to show the process.

The shredded pieces are melted.	The bottles are cleaned by a machine.
Pellets are formed.	New items like carrier bags and more plastic bottles are made.
Any rubbish is sorted from the bottles.	The bottles are shredded into small pieces.

Recycling Sequencing

I can explain the process of recycling

Show the process of recycling using the table. Cut and stick the pictures and captions on to show the process.

1.

2.

3.

4.

5.

6.

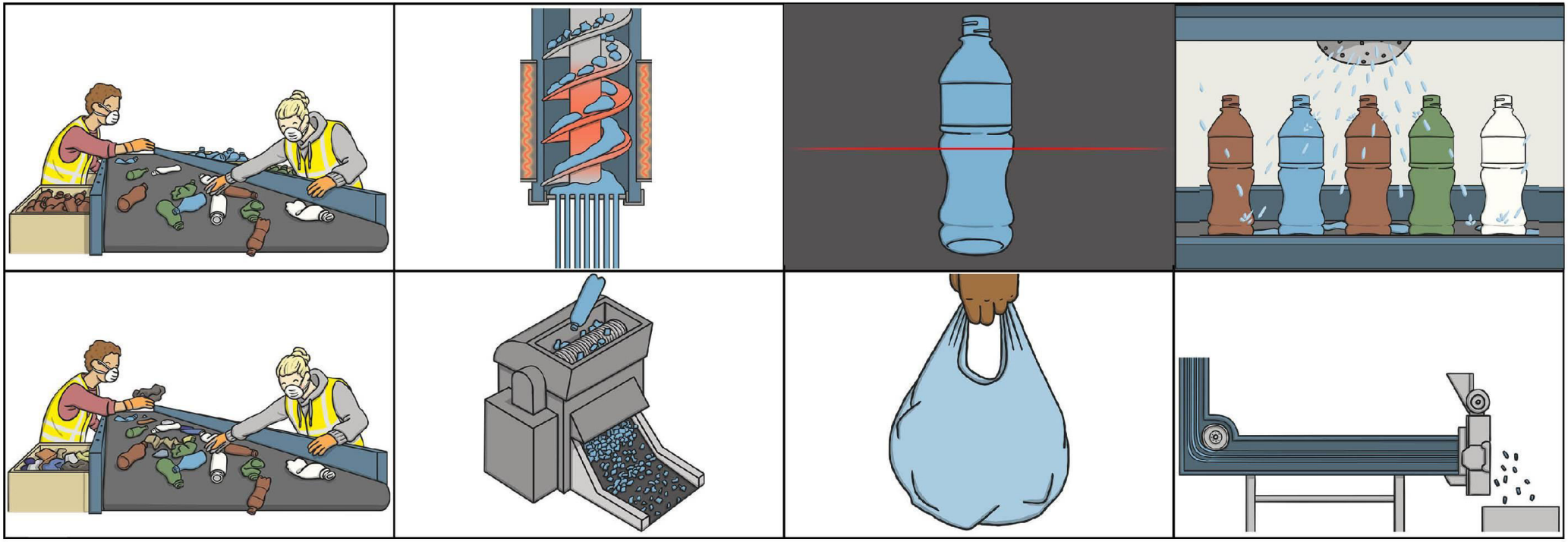
Recycling Sequencing

Explain the process of recycling using the table. Cut and stick the pictures on, and write a couple of sentences below to show the process. Use the word bank to help.

Word Bank:

bottles scanned sorted shredded

melted cleaned pellets machine



Recycling Sequencing

Explain the process of recycling using the table. Cut and stick the pictures on, and write a couple of sentences below to show the process.

1.	2.	3.	4.

5.	6.	7.	8.

John McAdam
Early Life

John Loudon McAdam was born in Scotland on 21st September 1756 and was the youngest of 10 children.

When he was 14 his father died and John went to live with his uncle William, who was a merchant in New York. John also became a merchant and married Gloriana Nicoll.

In 1783, with his wife and two children, John McAdam moved back to Scotland and bought Sauchrie, an estate in Ayrshire.

John McAdam
Road Building

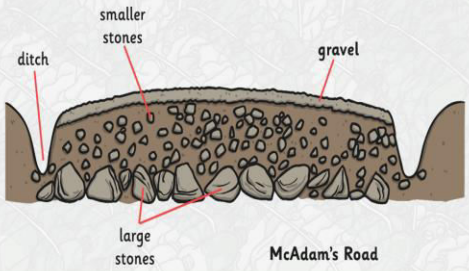
John McAdam became interested in road building and experimented with using different materials.

Roads at the time were often muddy and dangerous. Others were cobbled and very bumpy to travel over.

John McAdam invented a new process called '**macadamisation**', which created smooth hard roads.

Macadamisation

Whole Class



Macadamisation was the name given to John McAdam's construction process of building roads.

Large stones were placed at the bottom and small stones and gravel were crushed on the top to create the surface and structure. The roads were also curved, so that rainwater ran off the surface, instead of creating big puddles in the middle of the road.

McAdamisation
Success

Macadamisation was a success and roads were built in this way across the world. This photo shows the building of a macadam road in Maryland in 1823.

In 1819 the Parliamentary Committee praised his work and the efficiency and economy of his methods.

By 1923, seventy Road Trusts were consulting John McAdam and his 3 sons had moved from Scotland to help him.

The term macadam road is not often used today.

John McAdam
Later Life

John McAdam held **patents** on his methods, but they were so popular that they were not protected.

Parliament eventually awarded him some money, although he was never fully compensated for his work, nor did he receive royalties.

Later in his life he was offered a knighthood, although he turned it down and passed the honour to his son.

John McAdam died in Moffat on November 26th in 1836.

John McAdam
Tarmac

Tar was later added to macadam roads to stabilise them. This became known as **tarmacadam**, which is now commonly known as **tarmac**.

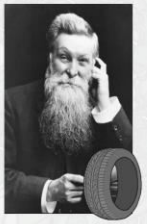
How many places can you think of where **tarmac** is used today?

Other New Materials

Can you match the correct person with the new process or material they invented?

Other New Materials

Can you match the correct person with the new process or material they invented?



John Dunlop was a Scottish inventor who invented the air-filled rubber tyre. It was originally invented in 1887 to use with bicycles, and then became very useful when automobiles were developed.

Charles Macintosh was a Scottish inventor and chemist who invented waterproof fabrics in 1818. The Mackintosh raincoat was introduced in 1824.

John McAdam was a Scottish engineer who experimented with using new materials to build roads, inventing a new process called 'macadamisation'.