

KS2 Mission 1 Activity Sheet - Power Of People

Task 1

Discuss the benefits to recycling glass packaging further. Have a class discussion about the main reasons for recycling glass bottles and jars.

Benefits	Discussion points
It saves money for the local authority/ community	
It saves energy and reduces CO ₂ emissions	
It preserves natural resources	

Task 2

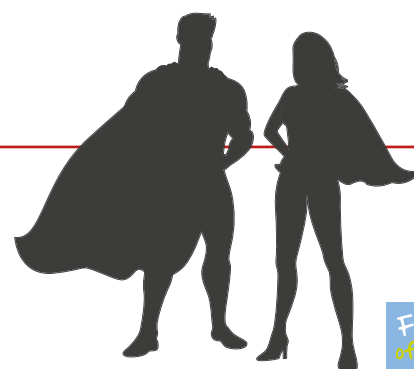
Come up with a mission statement for your superhero. What is the big recycling problem they need to solve? Complete the box below.

The world is facing a terrible threat from
(what is the problem?)

If we don't act now, then
(what will happen?)

Fortunately, there is help at hand from.....
(What is your Superhero called?)

They are here to save the day by.....
(What will they do?)



KS2 Mission 2 Activity Sheet - Power of the Natural World

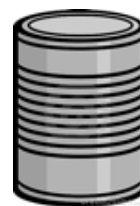
Starter

Match the keywords to the definition:

Magnetic	soaks up water
Brittle	reflects light
Opaque	can be bent
Transparent	attracted to a magnet
Strong	even surface
Smooth	cannot see through it
Absorbent	difficult to break
Rough	can see through it
Shiny	uneven surface
Flexible	hard but easily broken

Task 1

Using the keywords, label the images with as many properties for each as you can:



Task 2

Investigate the following question: 'Is glass an infinitely recyclable material?'

As you watch the video try to answer these questions to help you decide:

1. What are some of the other materials that are separated from the glass?
2. How can you and your family help the machines do their job?
3. What is it called once the glass is separated by colour and free from all other materials?
4. Why can all of the different bottles and jars all be recycled together?
5. What else is made from glass and why can't these things be recycled along with bottles and jars?
6. How many times can glass be recycled?
7. What natural substances are used to make glass?
8. Why do glass companies love to use cullet?
9. What's the mixture of ingredients called?
10. What temperature does it get heated to?
11. Why is it important that all ceramic, stone and some other types of glass are removed before the batch goes into the furnace?
12. What then happens to the molten glass?
13. What is each individual bit of glass called before it's shaped?
14. How long does it take to be shaped?
15. What helps the glass stay strong?
16. What happens to bottles that are not perfect (e.g. if they have even tiny cracks or bits of ceramic in them)? Why does this happen?



Task 3

What Science Super Power could your Glass Guardians Superhero have to be successful?

How would they use their power to recycle glass and transform it into something new?

Write or draw it in the box below.







KS2 Mission 3 Activity Sheet - Power of Numbers

Task 1

Study the pictogram below showing the percentage of each material that was recycled in the UK in 2016.

Each image = 10%

Glass	
Plastic	
Paper and card	
Aluminium and steel	

Questions

1. What percentage of aluminium and steel was recycled?
2. What percentage of glass was recycled?
3. What material was recycled the most? Can you think why this might be?
4. Come up with two more questions for a classmate to work out.

Task 2

Create a five question survey for family and friends about recycling. Each answer should have the option yes/no/unsure.

You will need to each write down the questions on your sheets and create a results table to collect the data.

		Yes	No	Unsure
1				
2				
3				
4				
5				



Task 3

Write down one super shocking statistic you have learned that your Glass Guardians Superhero will use to encourage others to recycle.

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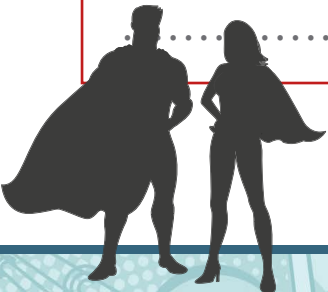
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KS2 Mission 4 Activity Sheet - Power of Words

Task 1

In small groups, choose one person to cut out the 8 facts about glass recycling.

Take it in turns to read each fact and then discuss the importance of each one. As a team order the facts from the most important to the least important.

Decide upon one person to share your most and least important facts to the whole class.

... bottles and jars made in the UK in 2016 contained 39% recycled content on average – and glass factories would like to increase that.

... glass is completely non-toxic and doesn't react with its contents – that's why bottles and jars don't need any extra lining, making them simple to recycle.

... glass can be recycled over and over again endlessly, with no loss of quality or purity – unlike many other packaging materials.

... in 2016 around a third of glass packaging used in the UK wasn't recycled – what a waste!

... recycling two glass jars saves enough energy to bake a lasagne – so every time you recycle you're reducing your carbon footprint.

... all glass bottles and jars are 100% recyclable.

... glass manufacturers like to use recycled glass to make new bottles and jars – it releases less CO2 and uses less energy than melting raw materials, and that helps protect the environment.

... your empty glass bottles and jars can be recycled into new ones, and be back on a shop shelf in as little as 30 days.



Task 2

Create a short comic strip starring your superhero in a recycling mission!

You can introduce them with their Mission Statement from Activity 1 and include how they use their Super Shocking Statistic from Activity 3 and their Science Super Power from Activity 2.

