Quality First Education Trust

Science Spring 2 Unit Plan for Home learning		
Subject: Science	**Unit:** Be a scientist. How long does rubbish last? **Unit:** Space	**Year:** 2

Session	
Session 1	**What is rubbish? How long does it last?** • Listen to this song about what happens to our rubbish. • Watch this video. What happens to food? This shows food rotting. This is also called breaking down or decomposing. • How long will it take different rubbish to rot? Look at the items in session 1 science resource 1. Put them in order of which you think will take longest time to rot. Then look at the answer table. What surprised you the most? • Create a poster for a bin to inform people how long different items take to rot. • You will need: a pencil and paper, colouring pencils/pens.
Session 2	**How can we reduce food waste?** • Watch this video about how we can waste less food. What did you learn? • Then watch this video. Which video gives you the best information? • Think about what you and your friends eat and throw away. • Complete the table (see session 2 science resource 1) by adding your own ideas about some ways you could reduce food waste. • You will need: a pencil and paper.
Session 3	**Why do we need packaging? Is all packaging bad?** • Watch this clip about what to do with your rubbish and complete the quiz. • Packaging is useful because it keeps our food fresh, safe and delicious to eat. • Some packaging decays and rots (like banana skins) but some packaging does not (like plastic water bottles). • Recap: we can reduce, recycle and re-use items to reduce the amount of materials that we waste and throw away. For example, we can use a re-usable water bottle, instead of buying a plastic one each time. Re-using materials is more sustainable and better for the environment because it reduces waste. • Make a list of everything you can think of that is re-usable. • Design a reusable shopping bag that promotes the importance of protecting the environment (see session 3 science resource 1). You will need: a pencil and paper, colouring pencils/pens.
Session 4	**How is our rubbish affecting our world? What can we do about it?** • Plastic rubbish is something we can help reduce. Watch this video to find out more about plastic problem. • Have a look through your recycling at home. Find some plastic packaging, which you think you can re-use to make something useful. • Design some sustainable packaging or re-use something that would go in the bin and turn it into something useful. You could use the idea of a plastic piggy bank (see session 4 science resource 1) or come up with your own idea. You will need: an item from the recycling, a pencil and your imagination!
Session 5	**Part 1: How can I stop my apple from going brown?** • Watch this video to launch today's science lesson: How can I stop my apple from going brown? • First, predict what will happen to the apple after it has been left for one hour.

	• Then slice an apple in half and observe it closely. Complete a scientific drawing with labels of what you can see, smell and feel. Do this immediately after it has been sliced and again after one hour. • If you don't have an apple at home, look at the photos below (session 5 science resource 1) to support you with your observations. • Ask yourself: how can you stop the apple from going brown? Write down some ideas of investigations that would help you find out the answer to this question. You will need: a pencil, paper, an apple, a knife and your adult's permission.
Session 6	**Part 2: How can I stop my apple from going brown?** • Watch this video of today's science investigation. • Predict what will work best (putting it in the fridge, adding salt, adding lemon, adding water or adding milk) at preserving the apple and stopping it from going brown. Write down your prediction. • Carry out the investigation or re-watch the video link above. • Next, watch this video to see what happened after 1 hour and how to record your results. Record your results (you can use session 6 science resource session 1 to help you). • Can you think of a different way of recording your results? • You will need: a pencil, paper, an apple, a fridge, a knife, salt, lemon, water, milk and your adult's permission.
Session 7	**Part 3: How can I stop my apple from going brown?** • Watch this video of today's science lesson: How can I stop my apple from going brown? • Today you will write a conclusion and evaluate last lesson's investigation. • Look back at your results table. Think about which apple slice was preserved best and which was preserved worst. What do your results tell you? Write your conclusion. Use session 7 science resource 1 for support. • Now write an evaluation about how successful the investigation was. Did it help us find the answer to our question? Did anything go wrong? What could we do differently next time to improve it? Use session 7 science resource 1 for support. You will need: a pencil, paper, your results table (from session 6) and your pictures (session 5).
Session 8	**What do we want to find out about space?** • Although we can't take you to space we can use the internet to find out lots about it. Watch this video to go on a virtual space launch. • Watch and complete this lesson. • What do we want to find out about Space? • You will need: pencil and paper What questions do you have about space? Write down a list of questions you would like to find out the answers to.
Session 9	**When and how was space discovered?** • Watch and complete this lesson (from 4 minutes 40 seconds on video). • When and how was space discovered? • You will need: pencil and paper
Session 10	**What kind of scientists study space?** • Watch and complete this lesson. • What kind of scientists study space? • You will need: pencil and paper

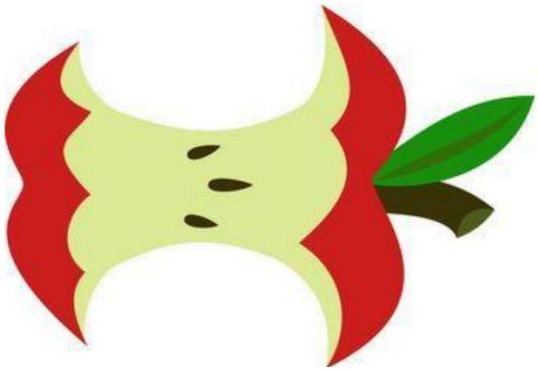
Science Resources

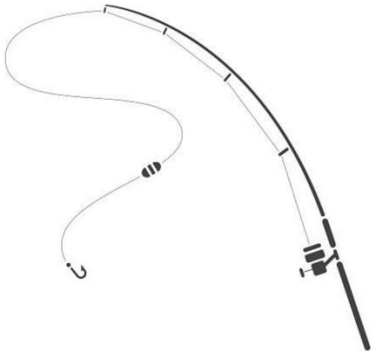
Session 1

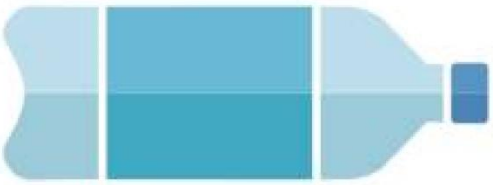
Science resource 1

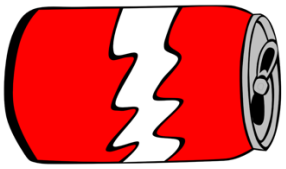
What is rubbish? How long does it last?

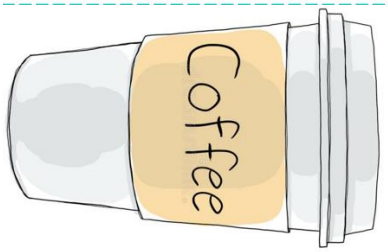
Put these in order – which will take longest to rot?

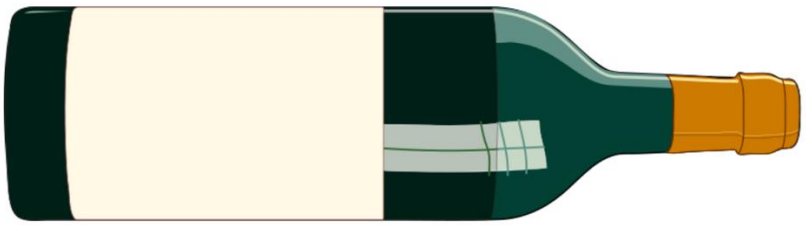












Type of rubbish	Time to break down
Apple core	1 month
Cardboard box	2 months
Balloon	4 years
Plastic bag	20 years
Coffee cup	30 years
Crisp packet	80 years
Drinks can	200 years
Plastic bottle	450 years
Fishing line	600 years
Glass bottle	1 million years

Session 2
Science resource 1
How can we reduce food waste?

Food I eat write or draw	**How much ends up as waste**	**How could there be less waste**
Bowl of cereal	3 spoonfuls	Pour what I need
Banana	The skin	Put in compost
Banana	Brown bits	Eat before it goes brown Make a cake
Sandwich	Crusts	Eat everything in my lunchbox Try something new

Session 3
Science resource 1
Why do we need packaging? Is all packaging bad?

Session 4
Science resource 1
How is our rubbish affecting our world? What can we do about it?

1. Pull out a plastic bottle from the recycling bin.
2. Wash it and let it air dry.
3. Glue 4 bottle caps to the side of the bottle - these will be the legs!
4. Draw 2 small circles on the top to act as the snout.
5. Cut out and glue paper ears onto the top of the bottle.
6. Draw 2 eyes on your pig.
7. Don't forget to cut a slot in the top for the money!
8. Use your recycled piggy bank to help the environment!

Session 5
Science resource 1

How can I stop an apple from going brown? (Part 1)

Next to the pictures, write down what you observe and notice about the apple slices in the photos below.

Apple (sliced):

Apple (sliced and left for one hour):

How can you stop the apple from going brown? Write down some ideas of investigations that would help you find out the answer to this question.

Session 6
Science resource 1

How can I stop an apple from going brown? (Part 2)

Record your results.

Write down what you observed and noticed about the apple slices after they had been left for an hour in each of the preservatives.

Preservative used:	What did you notice and observe after 1 hour? Include what you can see/ smell/ feel/ taste.
Fridge 	
Salt 	
Lemon 	
Milk 	
Water 	

Session 7
Science resource 1

How can I stop an apple from going brown? (Part 3)

Write down your conclusion and evaluation using the support below.

Conclusion

I conclude that _____ was the best preservative at stopping my apple going brown.

I think it was the best **because** _____
_____
_____
_____.

Evaluation

I rate my investigation _____ stars (out of 5).

The investigation was _____ (successful/ unsuccessful) at finding out what is best to stop my apple from going brown.

Next time, I would improve the investigation by _____
_____
_____
_____
_____
_____
_____.