

Science

Everyday Materials



Umbrella Investigation

Aim

- I can watch closely.
- I can test different materials.
- I can use what I have learnt to make a decision.

Success Criteria

- I can look carefully at what happens to Ted.
- I can record what I see.
- I can test different materials by dropping water onto them, in a fair way.
- I can record what happens.
- I can use what I know to choose a suitable material for an umbrella for Ted.
- I can explain why the chosen material would be a good choice.

Ted's Problem



Poor Ted, can you help him?
He got wet while out playing
in the garden. What could
he do to stop that from
happening again?



We are going to make
him an umbrella.

Materials



We are going to test these materials today and work out which would be the best one to make Ted's umbrella from.

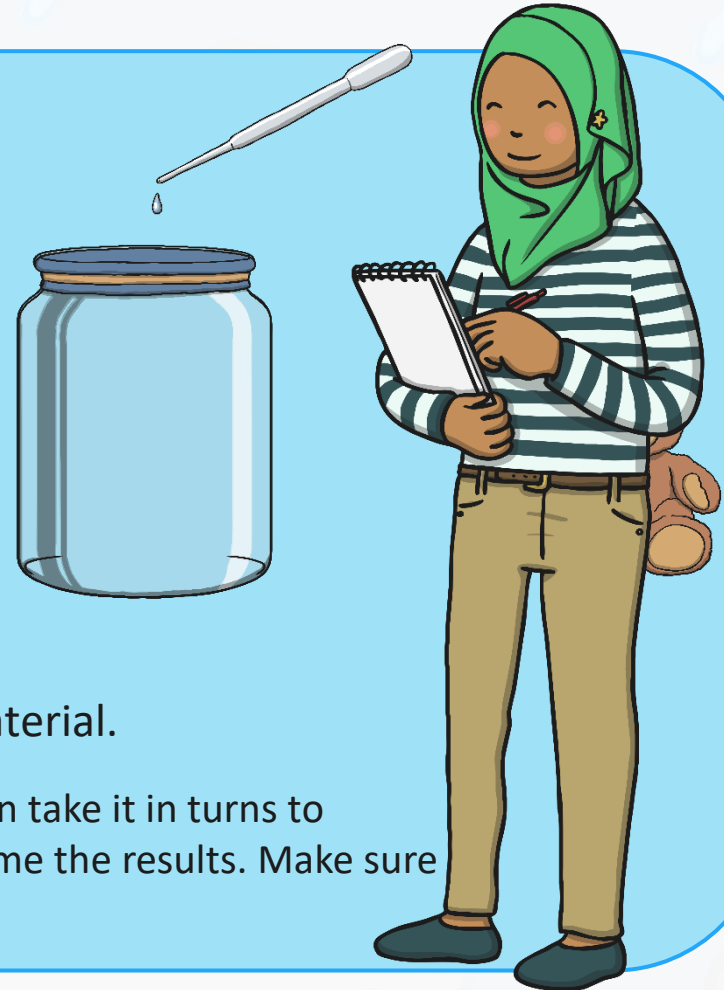


How could we test these materials?

What would we need to look out for?

Your Experiment

- Put your bear in a plastic pot.
- Choose a material to test. Place it on top of the pot and secure it with an elastic band
- Drop water onto the material using the pipette.
- Watch closely.
- Write down the results of the test.
- Do the test again using a different material.



When you are working in your groups you can take it in turns to choose the material, put on the water and time the results. Make sure everyone takes part.

Results



Which material would be the most suitable to makes Ted's umbrella from?



Why?

Why wouldn't it be a good idea to make an umbrella from metal or glass?

Aim



- I can watch closely.
- I can test different materials.
- I can use what I have learnt to make a decision.

Success Criteria

- I can look carefully at what happens to Ted.
- I can record what I see.
- I can test different materials by dropping water onto them, in a fair way.
- I can record what happens.
- I can use what I know to choose a suitable material for an umbrella for Ted.
- I can explain why the chosen material would be a good choice.
















Everyday Materials: Umbrella Investigation

<p>Aim: To observe closely by watching what happens to teddy. I can watch closely.</p> <p>To perform simple tests to find out which material would be suitable to make an umbrella from. I can test different materials.</p>	<p>Success Criteria: I can look carefully at what happens to Ted. I can record what I see. I can test different materials by dropping water onto them, in a fair way. I can record what happens. I can use what I know to choose a suitable material for an umbrella for Ted. I can explain why the chosen material would be a good choice.</p>	<p>Resources: Lesson Pack Pencils</p>
<p>To use their observations and ideas to suggest answers to questions by deciding which materials would be suitable to make an umbrella from. I can use what I have learnt to make a decision.</p>	<p>Key/New Words: Investigation, prediction, predict, watch, test, record, sensible, results, decision.</p>	<p>Preparation: Differentiated Umbrella Investigation Activity Sheet - 1 per child Investigation resources per group: a small bear, a plastic pot, an elastic band, a pipette, a pot with water in and 4 different (pre-cut) materials to test.</p>

Prior Learning: Children will have explored the properties of different materials in lessons 3 and 4.

Learning Sequence

	<p>Ted's Problem: Use the Lesson Presentation to introduce the children to Ted and his problem. Ask children to discuss how they could help Ted. Explain that we would like to make him an umbrella but we're not sure which material would be best to use.</p>	
	<p>Materials: Show children the four different materials they will be testing. (<i>The materials need to be able to cover a small plastic pot and be able to be attached to the pot using an elastic band. One of the materials should ideally be a type of plastic similar to an umbrella.</i>) Children talk to a partner to discuss and answer the questions on the Lesson Presentation. <i>Are children able to suggest sensible ways in which these materials could be tested?</i></p>	
	<p>The Investigation: Read through the information and remind children to fill in their differentiated Umbrella Investigation Activity Sheets as they go (<i>those children using the HA sheet will need to write their prediction before they begin their investigation</i>).</p>	
	<p>Umbrella Investigation: Children carry out their investigation as a group and use the differentiated Umbrella Investigation Activity Sheets to record their investigation individually. <i>Are children watching carefully? Can children test the materials in a fair way?</i></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="220 1480 571 1563">  Children complete the investigation with the support of an adult. </div> <div data-bbox="619 1480 946 1590">  Children complete the investigation as a group, with some support. </div> <div data-bbox="1018 1480 1361 1563">  Children complete their investigation in small groups. </div> </div>	
	<p>Results: Discuss which material children think would be best for Ted's umbrella and why. <i>Are children able to use their results to make a sensible decision?</i> Then discuss why it wouldn't be suitable to make an umbrella out of other materials (<i>for example metal or glass</i>). <i>Look out for children who are able to explain why those materials would not be suitable.</i></p>	

Taskit

Investigateit: Children investigate other similar questions such as: What is the best material for a bookshelf? What is the best material for carrying water?

Debateit: Children hold a debate to argue which material should be used for a particular purpose.

Everyday Materials | Umbrella Investigation

I can watch closely.		
I can look carefully at what happens to Ted.		
I can record what I see.		
I can test different materials.		
I can test different materials by dropping water onto them, in a fair way.		
I can record what happens.		

Everyday Materials | Umbrella Investigation

I can watch closely.		
I can look carefully at what happens to Ted.		
I can record what I see.		
I can test different materials.		
I can test different materials by dropping water onto them, in a fair way.		
I can record what happens.		

Everyday Materials | Umbrella Investigation

I can watch closely.		
I can look carefully at what happens to Ted.		
I can record what I see.		
I can test different materials.		
I can test different materials by dropping water onto them, in a fair way.		
I can record what happens.		

Everyday Materials | Umbrella Investigation

I can watch closely.		
I can look carefully at what happens to Ted.		
I can record what I see.		
I can test different materials.		
I can test different materials by dropping water onto them, in a fair way.		
I can record what happens.		

Everyday Materials | Umbrella Investigation

I can watch closely.		
I can look carefully at what happens to Ted.		
I can record what I see.		
I can test different materials.		
I can test different materials by dropping water onto them, in a fair way.		
I can record what happens.		

Everyday Materials | Umbrella Investigation

I can watch closely.		
I can look carefully at what happens to Ted.		
I can record what I see.		
I can test different materials.		
I can test different materials by dropping water onto them, in a fair way.		
I can record what happens.		

Everyday Materials | Umbrella Investigation

I can watch closely.		
I can look carefully at what happens to Ted.		
I can record what I see.		
I can test different materials.		
I can test different materials by dropping water onto them, in a fair way.		
I can record what happens.		

Everyday Materials | Umbrella Investigation

I can watch closely.		
I can look carefully at what happens to Ted.		
I can record what I see.		
I can test different materials.		
I can test different materials by dropping water onto them, in a fair way.		
I can record what happens.		