

What is the best  
material for an  
umbrella?

Year 1

Pandas

We thought about the question: What is the best material for an umbrella? We then discussed the times we have used an umbrella and what we think the umbrella was made from.

I've got a princess one for when it's raining.

My umbrella is a shiny one.

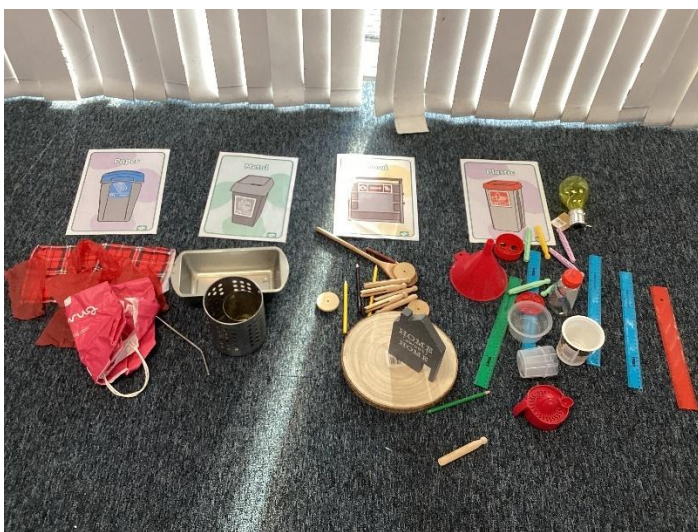
I think mine is metal.

This discussion led us to talk about the different materials used to make things that we can see around us and learned that these things are called objects. We talked about the materials; metal, wood, glass, plastic, cardboard, paper and fabric. Then explored different objects and discussed in groups which material we thought the object was made from. We worked together to match the material to the correct label.





We then talked about the importance of recycling materials and how we recycle at home and school. We looked at different objects made from different materials and sorted them into their own recycling categories.





The following lesson we learned about the properties of materials. We recapped our learning on senses, thinking about what each sense does and some of the vocabulary we developed when exploring each sense i.e. sense of touch - things can feel smooth, rough etc. We then explored a selection of materials to describe their simple properties and recorded these under each material heading.

Glass

Smooth      \* hard  
 Shiny      braky  
 see-through      smooth  
 hard  
 + fabric  
 with braky  
 fraggy  
 big glass  
 smooth  
 braky  
 mousy  
 mousy

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stiff  
 shiny  
 breakable  
 + fragile  
 hard  
 dull  
 transparent

Fabric

soft  
 scratchy  
 soft  
 shaly  
 fluffy  
 be hdy

The dy

soft  
 bendy  
 fluffy  
 fluffy  
 bumpy  
 bumpy  
 stretchy  
 fluffy  
 icky  
 squishy  
 bumpy

bendable  
 furry  
 bumpy

# Metal

shiny  
hard  
bendy  
stiff  
dull  
smooth  
slight  
smooth  
noise  
stiff  
soft  
soundy  
sep + roo  
shiny  
hard  
stiff  
bumpy  
tin  
dull

# Wood

noisy <sup>hard</sup> <sup>big</sup>  
Hand <sup>rough</sup>  
saw + dull  
Heavy  
Big  
rook  
shiny  
Brake all  
hard  
stiff  
bumpy  
moves  
rough  
shiny  
hard  
soundy  
smooth  
loud  
noisy  
bumpy

# Plastic

stiff  
dull  
see + hor  
see  
linee  
bendy  
hard  
squishy  
bendy  
bend + dull  
see + roo  
smooth  
long  
hard  
un + ray + dull  
see + roo  
noise  
bendy  
shiny  
stretchy

Once we had learned about different materials we thought again about our question: What is the best material for an umbrella? We linked this question to the learning we were doing in our English lessons when reading the story, The King's Pants and our History lessons when learning about the monarchy and King Charles III.

### King Charles problem

Oh no! It is raining and the king is going to get wet.

What do you think you could do to help?



### Solving Ted's Problem

To help solve The kings problem, we need to find a waterproof material to help keep him dry.




To do this, we can carry out an enquiry called a comparative test. A comparative test is when you test different things and compare them.

Our enquiry question will be:

**Which material will be best for an umbrella?**

I am going to test paper (kitchen roll), fabric and plastic (cling film). Which materials will you test?

We can test different materials to find out whether they are waterproof or not. This will tell us which material might be best to make an umbrella..



We decided to answer this question we would need to carry out some investigations.

We carried out two experiments. One to test which materials are waterproof and another to test which materials are absorbent.

We first made a prediction then tested a selection of materials, finally recording our results and choosing which material would be best for an umbrella and why.



What is the object and/or material?	Is the material absorbent?	
	<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
sponge	<input checked="" type="checkbox"/>	
tin foil		<input type="checkbox"/>
plastic cup		<input type="checkbox"/>
fabric	<input checked="" type="checkbox"/>	
paper towel	<input checked="" type="checkbox"/>	

Name of Material	Waterproof?	
	<input checked="" type="checkbox"/> = yes	<input type="checkbox"/> = no
fabric		<input type="checkbox"/>
Paper		<input type="checkbox"/>
plastic	<input checked="" type="checkbox"/>	
Which material is best for the Kings umbrella?		
Plastic because it is waterproof.		