# **Materials and Change**

Exploring the Effects of Water on a Variety of Materials



## Waterproof

What does waterproof mean?

If a material is waterproof it keeps water out.

Why do we need waterproof materials?

To keep us dry! Our raincoats are waterproof to stop the rain from making our clothes wet. Boots are waterproof so that we can walk through puddles without our socks getting wet.

What materials are waterproof?

Let's investigate and find out.

#### Let's Investigate the Following Materials:

- tinfoil
- cardboard
- paper
- plastic
- tissue
- fabric
- rubber

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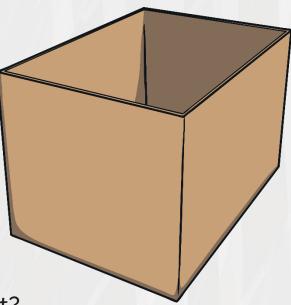
Do you think these materials will be waterproof or not waterproof?

# Tinfoil

- What does it feel like?
- What does it look like?
- Does it make a sound when you squash it?
- Can you fold it?
- Do you think it will be waterproof?
- What can we use tinfoil for?

### Cardboard

- What does it feel like?
- What does it look like?
- Does it make a sound when you squash it?
- Can you fold it?
- Do you think it will be waterproof?
- Can you think of anything that is made of cardboard?



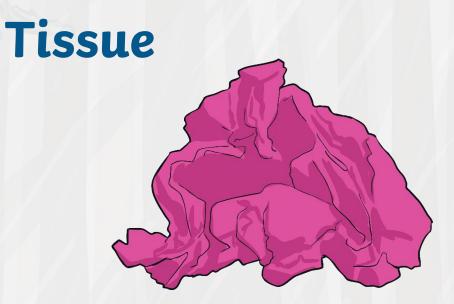


- What does it feel like?
- What does it look like?
- Does it make a sound when you squash it?
- Can you fold it?
- Do you think it will be waterproof?
- When do you use paper?

### Plastic



- What does it feel like?
- What does it look like?
- Does it make a sound when you squash it?
- Can you fold it?
- Do you think it will be waterproof?
- What in your classroom is made of plastic?

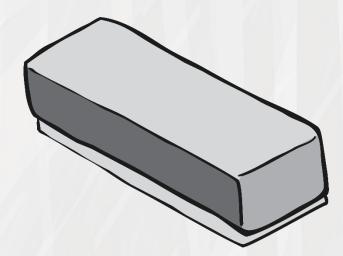


- What does it feel like?
- What does it look like?
- Does it make a sound when you squash it?
- Can you fold it?
- Do you think it will be waterproof?
- What is tissue useful for?

## Fabric

- What does it feel like?
- What does it look like?
- Does it make a sound when you squash it?
- Can you fold it?
- Do you think it will be waterproof?
- Can you see anything that is made of fabric?

## Rubber



- What does it feel like?
- What does it look like?
- Does it make a sound when you squash it?
- Can you fold it?
- Do you think it will be waterproof?
- When might you use rubber?

#### What Happens to the Material When Water Is Added?

Use a pipette or teaspoon to pour some water on to each material.



Does the material let the water soak in or does it keep the water out?



#### Which Materials Were Waterproof?

- tinfoil
- cardboard
- paper
- plastic
- tissue
- fabric
- rubber

