

Downpour!

Put your cat on a sponge “bed” and test each of these materials by placing it over your cat. Use the pipette to drip a few drops of water over the material and observe what happens.

Check on your cat!

Try again with another material and observe how the results are different. Finally, try one of the chemically treated materials to see how its properties can be changed.

Clean up and dry off!



Gather:

Your cat
A pipette
an empty bowl or plate
a cup of water

Several materials:

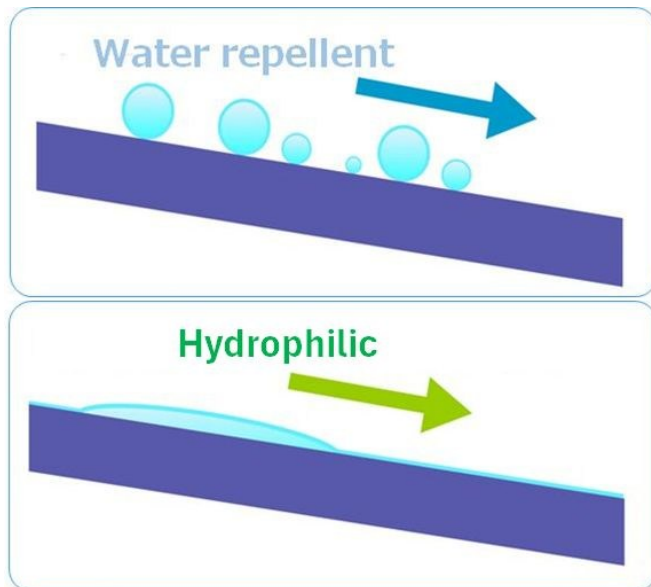
plastic
foil
paper
foam
felt
Chemically treated paper

Remember to share!

The Science

What materials repel water (hydrophobic)?
What materials absorb water (hydrophilic)?

Which of these could be used as a jacket or
clothing? Which would not?



Hydrophobic materials repel water. It may bubble, slide off or pass through but water does not **absorb** into the material. This doesn't mean it will keep the cat dry! If a hydrophobic material has holes or gaps, the water will still fall through!

Hydrophilic materials absorb water. When you drip water on them, they bond into the material until they reach a **saturation point**: the material is full and water may drip off or overflow!