

Enquiry Questions

Do all objects float/sink?

Do all balls bounce the same?

Autumn Term: Forces

Working Scientifically: **Comparative and Fair Test**

What do I already know?

- I will have experience of exploring how things work (Nursery).
- I can talk about different forces that I can feel (Nursery).
- I can talk about the differences between materials and the changes that I notice (Nursery).

Sticky Knowledge

- I know that a force is an action that affects the movement of an object. It is a push or pull.
- Pushing and pulling can make things move faster or slower.
- Pushing and pulling can make things move or stop.
- Things can move in different ways.
- Larger masses take bigger pushes and pulls to move or stop them.
- Pushing and pulling can change the shape of things.
- Bigger pushes and pulls have bigger effects.

Key Learning Steps

1. Can you explain what a force is and label the different types of forces?
2. Can you test how many small objects different foil containers can hold before sinking, adapting objects to see if they can float or sink?
3. Can you compare how cars move down different ramps and gutters?
4. Can you compare how wheels turn when sand and water is poured through?
5. Can you compare how objects fall with and without parachutes?
6. Can you compare how different balls bounce?
7. Can you complete an end of unit assessment quiz?

Our Unit Experts

Beyond Living Memory
Isaac Newton 1643-1727

He documented his ideas about a force called gravity, explaining that this was the force that causes objects to fall down.

The Wright Brothers

Wilbur and Orville were two brothers that were always interested in flying. They invented the first ever engine powered aeroplane in 1903.

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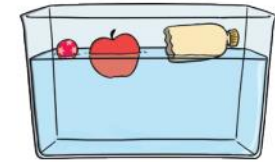
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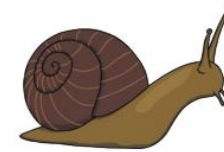
sink



float



fast



slow



up



down



spin



pull



push



stretch



rub



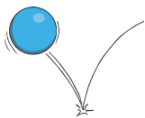
slide



spring



roll



bounce



gravity



magnetise



repel



force