



Do science from home: GRAVITY!

Materials needed to do science

- Assorted objects to test (avoid objects that will bounce, roll away or break): marker, plastic cup, pinecone, stuffed animal, Lego, small block, paper, balloon filled with air, tissue, flower.
- Kitchen or dining table to drop the objects off of, or they can drop them from standing up.

1 Begin doing science by introducing our new concept

Gravity is what pulls everything toward the ground, so they don't float away. But some things fall to the ground faster than others. This is because of air resistance. Air resistance pushes back against things as they fall. Light and thin objects, like feathers or paper, take a long time to fall to the ground because air resistance slows down the pull of gravity and makes the object fall slower. Heavy and thick objects like rocks or shoes fall faster because they are heavy, so the air resistance doesn't slow them down and the gravity can pull them down faster. Have your child jump up and down from the ground. What happens? Gravity pulls us back down to the ground and we don't fly away because our bodies are heavy and solid.

2 Let's do science by OBSERVING!

Have your child do science and use his/her eyes and hands to observe the first object they will drop. Is the object heavy or light? Is it thin or thick?

3 Let's do science by PREDICTING!

Each object has a different shape and weight, which means that gravity and air resistance will affect them differently, and they will fall at different speeds. Have your child do science and guess how long it will take for the first object to fall to the ground. Will it fall fast or slow? Will it take 1 second, 3 seconds or 5 seconds? You can practice counting with them to 5 and explain how a heavy object might take 1 second, but a light and thin object might take 5 seconds to fall.

4 Let's do science by CHECKING our guesses

Have your child do science and test their predictions by checking how long it will take for the first object to fall by counting together. Did it fall fast or slow? How many seconds did it take?

5 OBSERVE, PREDICT, and CHECK with more objects

Let your child continue doing science by dropping different objects. As you introduce each new object, continue going through the steps of observing, predicting and checking!

