

# Centre of gravity

(Georgia)

## Background

The centre of gravity of an object is the point at which weight is evenly dispersed and all sides are in balance. A person's centre of gravity can change as he/she takes on different positions, but in many other objects it's a fixed location.

## You will need

- ✓ A 30 cm ruler,
- ✓ triangular pivot made from lollipop sticks,
- ✓ elastic bands,
- ✓ sticky tack,
- ✓ small cups,
- ✓ different objects

## Follow these steps

1. Use two elastic bands to join three lollipop sticks together to make a triangular pivot.
2. Use sticky tack to stick a small cup to each end of the ruler.
3. Balance the ruler on the lollipop pivot.
4. Add toys or weights to each cup.
5. Slide the ruler along the lollipop pivot until the ruler balances. You have found the point of gravity for these weights.
6. Record the weight of the objects and the position of the pivot under the ruler.

## So what happened?

As you slide the ruler along the pivot you will reach a point where the centre of gravity is reached. This can be recorded.

## What next?

Repeat the investigation, but this time keep the ruler balanced with the pivot directly underneath the mid-point of the ruler. Now instead of moving the ruler, move one cup along the ruler towards the pivot in order to find the centre of gravity. Record your findings.

