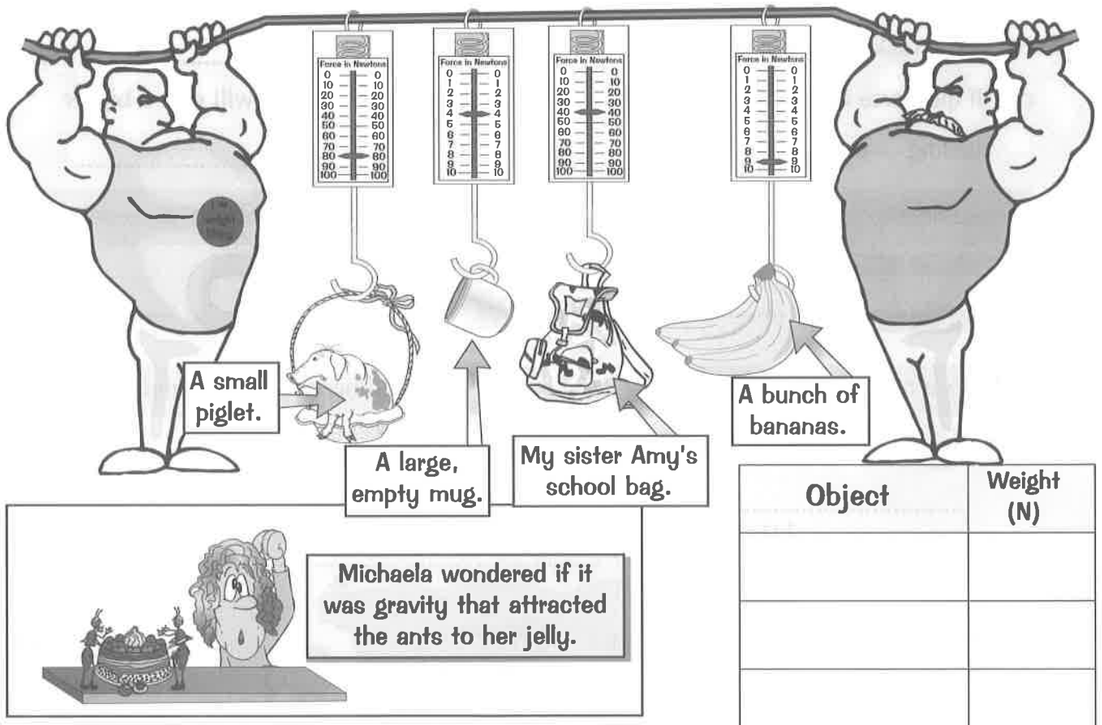
Gravity

Gravity holds us, and everything else, down on the ground where we should be. It's great — if it wasn't for gravity we'd all be floating around and bumping our heads on the ceiling. But gravity has its bad side too — like when you fall out of a tree.

Q1 Read the weights showing on the forcemeters for the four different objects. Write the 'objects' and their weights in the table below. Read the scales carefully — not all the forcemeters are the same.



Object	Weight (N)

Q2 Which object was the heaviest? .....

Q3 Which object was the lightest? .....

Q4 Circle the right words in this sentence so that it makes sense as a conclusion.

What we call the SIZE / WEIGHT of an object is the force that attracts it TOWARDS / AWAY FROM the Earth. The HEAVIER / LIGHTER something is, the bigger the RUBBER BAND / FORCE that pulls it towards the Earth.

Gravity — a very down to earth subject...

You measure weight in Newtons — weight is how strongly the Earth's gravity pulls something. Gravity is a force that pulls things towards the Earth — it's what keeps you on the ground.

Gravity

Gravity on the Earth is the most important kind of gravity for you and me — you need it every day. But you don't only get gravity on the Earth — it exists on the Moon as well. But it's not as strong as on the Earth — the Earth's gravity is six times stronger than the Moon's.

Buoyant Barry the astronaut and his spacedog Bouncing Bozo both love jumping.

They had a go at jumping on the Earth and jumping on the Moon.

On the Earth gravity is about six times stronger than it is on the Moon — this meant they could jump loads higher on the Moon.

Q1 Answer these questions — remember gravity is six times stronger on the Earth than it is on the Moon.

Tanya and her apple weigh 12 Newtons on Earth. About how much would they weigh on the Moon? Circle the right answer.

a) 12 ÷ 2 = 6N b) 12 ÷ 6 = 2N c) 12 ÷ 12 = 1N

I hung my fish from a rubber band, and measured how much the rubber band stretched. If the rubber band stretched 6 cm on the Earth, how much would it have stretched on the Moon? (Clue: it will be six times more on the Earth.)

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Whacking Wilma, the top class golfer, can hit a golf ball 400 metres on the Earth. Would she be able to hit it further, or not as far, on the Moon?

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Q2 Walking on the Moon is a tad different because gravity isn't as strong and doesn't hold you down as well. Write a description of how you think it would feel to walk on the Moon.

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What on Earth's getting you down? — gravity...

Gravity pulls everything towards everything else. With ordinary things like two apples, the pull is so weak you'd never notice it. You need huge things like planets to be able to feel it.