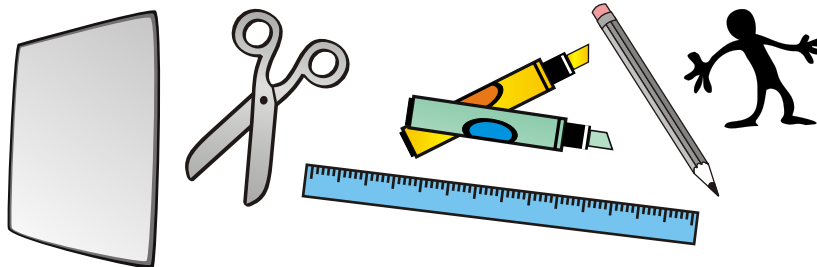


What you need:

- Cardstock
- Scissors
- Ruler, 30cm (12")
- Colored pencils or markers
- A friend
- Pencil



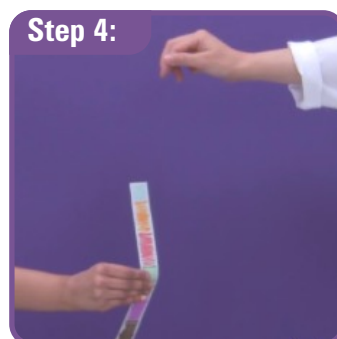
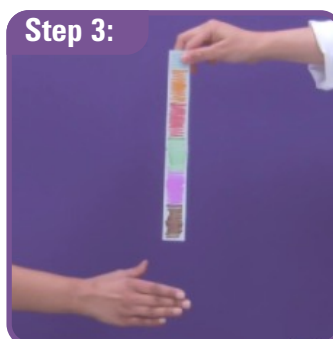
What you do:

Step 1: Draw an outline of the ruler on the cardstock. Cut it out.

Step 2: Draw sections on the cardstock ruler at the 5cm (2"), 10cm (4"), 15cm (6"), 20cm (8"), and 25cm (10") marks. Fill each section with a different color.

Step 3: Stand up. Ask your friend to hold the cardstock ruler just above your outstretched hand.

Step 4: Try to catch the cardstock ruler when your friend releases it. How quickly can you catch it? Which section of the ruler can you catch?



What's going on:

This experiment is a race between gravity and you (your hand and your brain). Your eyes send a message to your brain when the cardstock ruler is released. Your brain then sends a signal to your hand to catch it! By the time the message from your brain reaches your hand, gravity has pulled the cardstock down quite a bit. This demonstrates the power of gravity, and the speed of your reflexes!

Now try this:

Does counting down before releasing the cardstock ruler make it easier to catch? Count down from five and see if you're quicker!