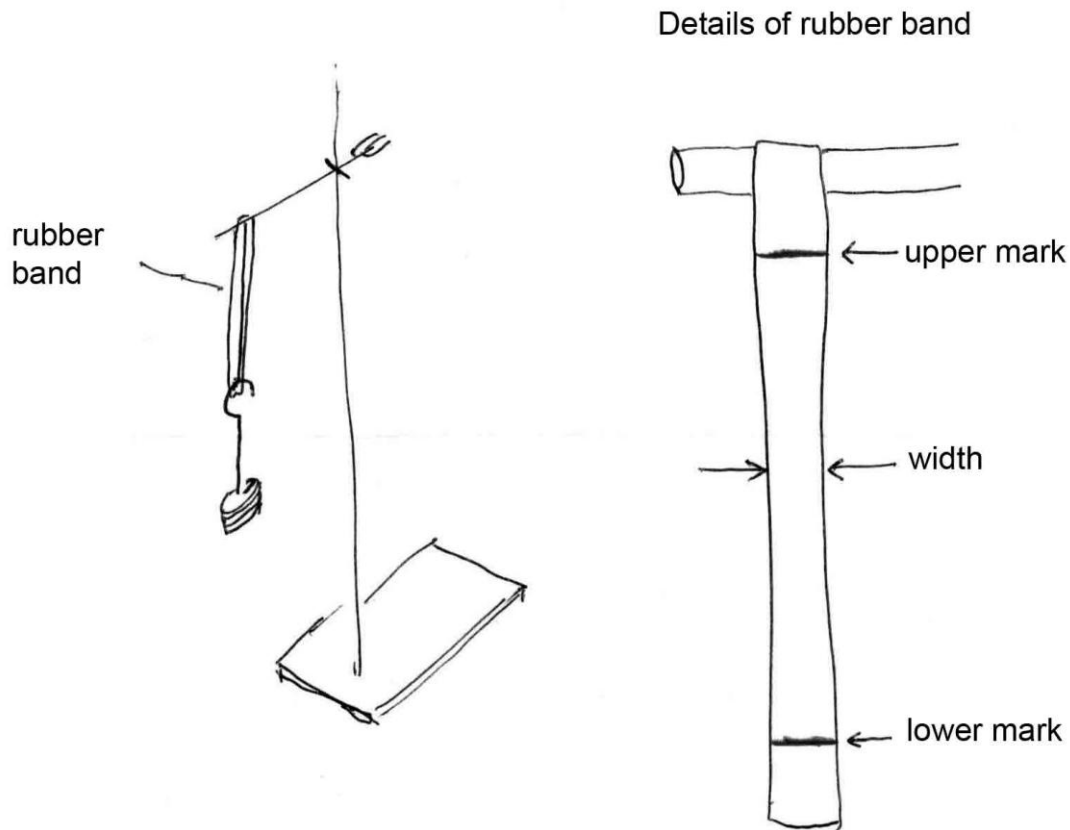


Stretching rubber bands

Your task is to find out how the stretching of a rubber band depends on the width of the band.

You will be using rubber bands, weights and a metre rule.



Instructions

1. Select a rubber band. Make two marks on the band, one close to each end.
2. Hang the rubber band from a clamp. Attach a 1 N weight holder at the lower end so that the band hangs vertically.
3. Measure the distance between the two marks.
4. Increase the load by 5 N. Measure the new distance between the two marks.
5. Calculate the extension of the band (the increase in the distance between the two marks).
6. Repeat the experiment for other bands with different widths.

In this experiment, you must decide:

- how you will make it a fair test;
- how many different rubber bands you will use;
- how often you will repeat each measurement;

- how to present your results.

Questions after the investigation

1. What were you trying to find out in this investigation?
2. In your investigation, which was the independent variable? Which was the dependent variable?
3. When you mark the rubber band, it is important that the marks are close to the ends of the rubber band. Explain why this is so.
4. In your investigation, which variables did you control to ensure that the test was fair?
5. You could have drawn a conclusion from an experiment in which you measured only two bands. Explain why it is better to measure more than two.