

Shady Shadows

You need metre rulers (or a metre ruler and a tape measure)
 a classmate

trees

playground
equipment

people

Activity One

Choose several tall objects in your school grounds. With a classmate, measure how long the shadow of each object is.

At the same time, measure the length of a shadow made by a metre ruler.

Use these measurements to estimate the height of each object.

Activity Two

Stephanie and Mihi are studying shadows.

At 10 a.m., they measure the shadows of a rugby goalpost and a shrub.

Stephanie thinks that this means the rugby goalpost is twice as high as the shrub.

Is she right? How do you know?

Investigation

With a classmate, investigate how the length of a shadow cast by a metre ruler changes as the day passes. (Try measuring every hour.)

That's 500 mm.

That's 680 mm.

That's 1 350 mm.