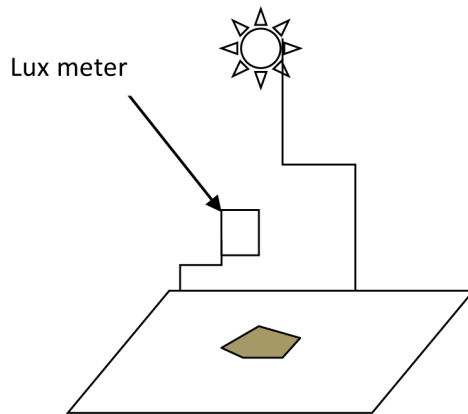


ACTIVITY 10 - Shiny Rocks

Different types of rocks will reflect different amounts of light. This is true of asteroids in the solar system, and it is one of the ways that we can work out what they are made of. We can also use the light reflected from asteroids to work out how fast they are spinning.

In this activity, you will measure how much light is reflected from different rocks, and sketch a graph to suggest how astronomers might calculate the rate of rotation of an asteroid.

Set up the light source above the white paper so that a reading of **XX** on the lux meter is measured – we'll call this the control reading. Place the rock samples underneath the lux meter and take a reading. Do this for each rock type and then repeat twice and find a mean value. Now calculate the average percentage reflected light level compared to the control, for each rock.



Hint:
The percentage reflected light level is calculated from:
$$\frac{\text{average lux}}{\text{control lux}} * 100\%$$

Rock	Control /lux	Reading1 /lux	Reading2 /lux	Reading3 /lux	Average/lux	Percentage
A						
B						
C						
D						
E						

How might the reflected light level tell us about what types of material the rock is made from?

Sketch a graph to show how you could calculate the time taken for an asteroid to make one rotation. You can use the potato asteroids and the lux meter to help.

