Activity 4: Moon jumps

Rationale

The intention of this activity is that students will measure distances using whole metres and some extra centimetres by laying down a metre stick and then a ruler. This will lead to comments such as, "I jumped 1m and 15cm". Showing 6 lots of this distance will then be carried out by drawing and marking on the ground. Some students will line up all of the meters and then the centimetres whereas other will mark in the 1m 15cm pattern. This will lead to some problem solving at the end to work out what that distance is altogether but this is a valuable experience.

Before using the activity sheet

Talk to the children about how much further they would be able to jump on the moon due to the reduced gravity and involve them in acting out what 6 times as far means. Give each group of students a metre stick or 1 metre length of string and a ruler to work with. Allow the students to work out how to go about this and have a mini reflection after a few minutes so that students can share their ideas and results so far. For instance:

What do you need to find out before you can work out what six times as far would be?

"What measurement tools and units would be best to use?"

"What can you do if a jump is not a whole number of centimetres?"
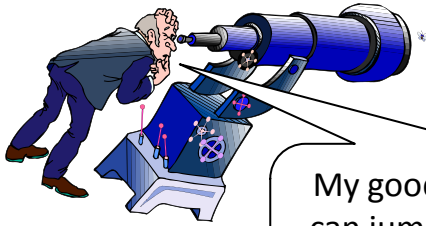
Suggest they go to the closest centimetre if necessary.

This may be the first time that some students have needed to combine a metre and some extra centimetres so some assistance labelling the lengths in metres and centimetres may be needed.
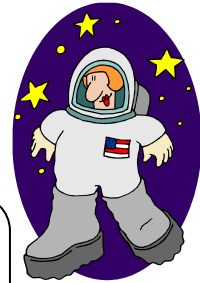
Using the activity sheet

The students should now be ready to complete the activity so ask them to record the steps they take and their methods of measuring as well as actual measurements. This may well be in a totally visual format requiring only numbers and centimetres to support it.

4: Moon jumps

My goodness! This astronaut can jump six times further on the moon than on earth.
I wonder how that could be?

If you were an astronaut, how far would you be able to jump if you were on the moon?
Show how you worked it out.

Goal: uses a mixture of metres and centimetres to measure distances
Assessment: Did the student use metres and centimetres ? _____
                    Was the unit chosen appropriate and used correctly? _____