

## **Craters on the Moon**

### **Why are the Moon's craters such different shapes and sizes**

#### ***From Anamarija***

This type of activity has been successfully tested at the Science festival and at some other occasions in Zagreb (Croatia) a few years ago, with children of various ages, from different schools. We used flour and red pepper.

This activity is not only useful for astronomy lesson, but for geology (and geography) as well, because impact cratering is a geological process and a geological hazard.

It is best to use metal balls as impactors, and to throw them from the greater height (at least 2 meters), because that way you will get very nice rays of ejecta around the craters (for example, place your future crater field next to/below stairs).

It is also useful to have a small magnet taped to a stick or a pencil, and with it you can easily (but very carefully so as not to disturb the crater!) pull out the impactor and reuse it.

Throw impactors of different sizes from different heights, and at different angles.

Once the craters are created, children can investigate "their" craters by measuring their depth, the height of the crater wall, the length of ejecta rays, crater diameter, etc...; then compare the data and see the differences regarding impactor size and other parameters.

Compare these model craters with the photographs of real craters and discover what type they are (you will get simple craters).

Of course, the activity should be followed (or preceded) by a discussion about asteroids and comets, and the ecological effects of big impacts.