



Planetary Features

Geology on Terrestrial Planets

Classroom Activity

Material List:

- Image activity set
- Scissors
- Tray (with holes at one end)
- Sand and craft sand
- Bucket
- Stands
- Water
- Rocks/pebbled

Outline

In this activity you will look at the different geological processes that shaped Earth. Then look at different images showing signs of these same processes on other planets.

Focusing on water you will consider the features it forms and experiment how it can create channels.

Comparing how the results from the classroom are reflected on the moon and other planets.

Procedure:

1

Cut out and arrange the numbered Earth images into four categories based on the introductory information.

2

Look at the lettered images, cut out these and then add them to the categories you established for the earth images.

Assessment:

- Label features that you can see in the images (e.g. crater, ridge, etc.)
- See how many of your images were in the right category
- Write out a definition for tectonism, volcanism, gradation and impact cratering

Online Observatory: onlineobservatory.eu

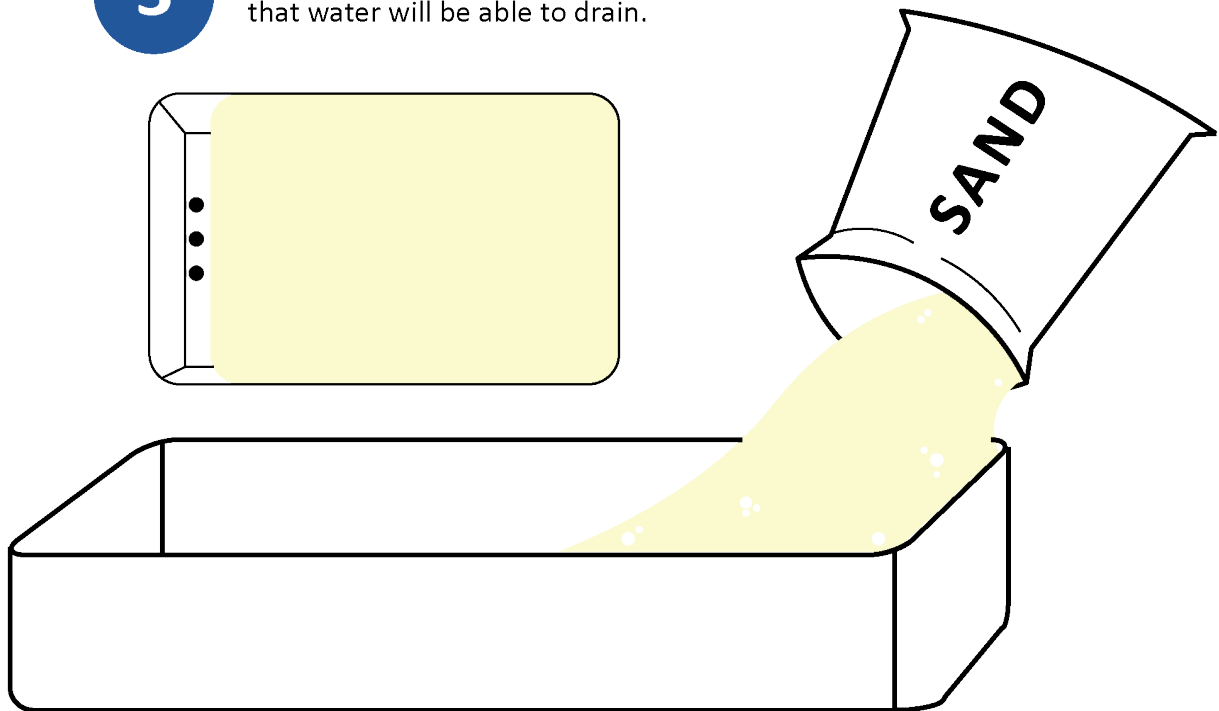
The online observatory collaboration consists of the following partners:

Baldone Observatory, Brorfelde Observatory, Cardiff University, Harestua Solar Observatory, Helsinki Observatory



3

Pour 5-7cm of sand into the tray, leaving the holes clear so that water will be able to drain.

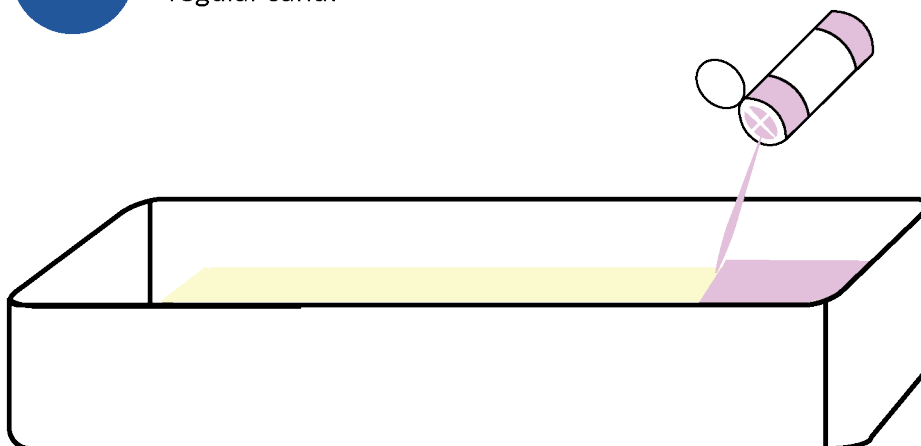


4

Recommended: Add 2-3cm of craft sand and then cover with a thin layer of regular sand.

5

Sprinkle a layer of craft sand, so that it is just covering the regular sand.



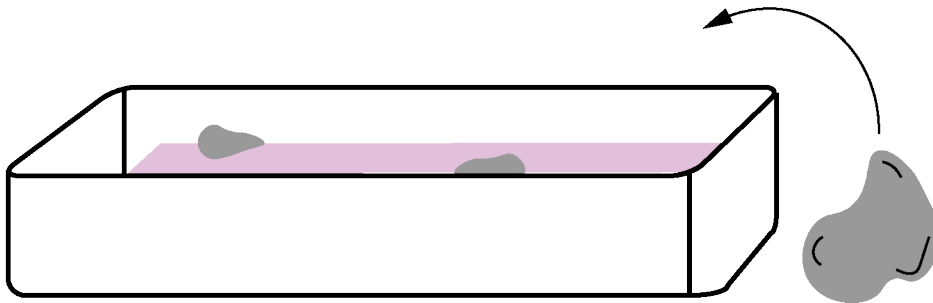
6

Dampen the sand



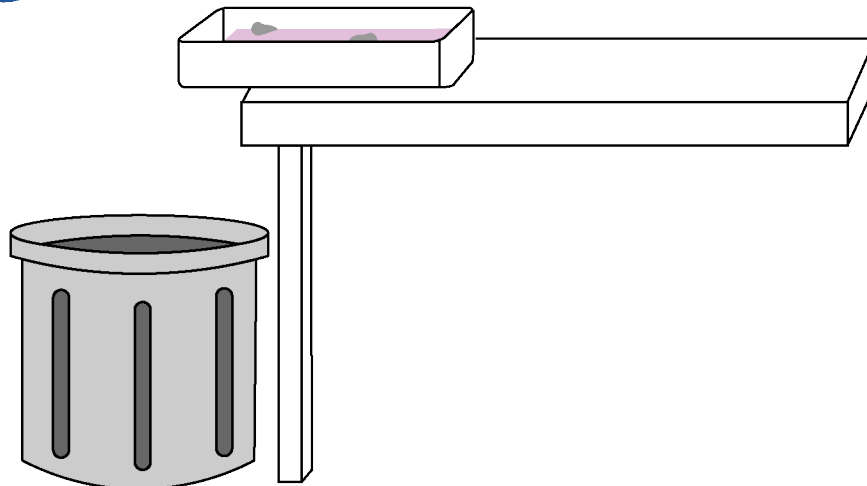
7

Add 2-5 rocks (depending on tray size) to the sand.



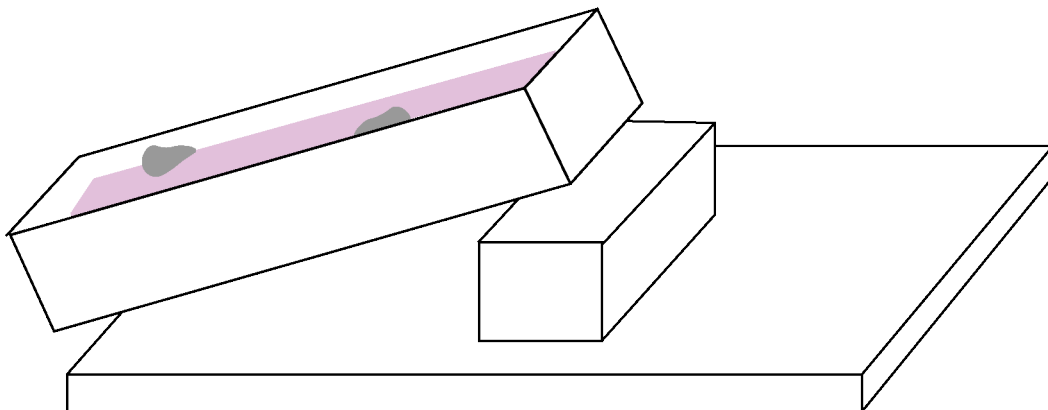
8

Position the tray with the holes over the edge of a table and with a bucket underneath.



9

Use stands (e.g. books, bricks, whatever has been provided) to tilt your tray from the other end.



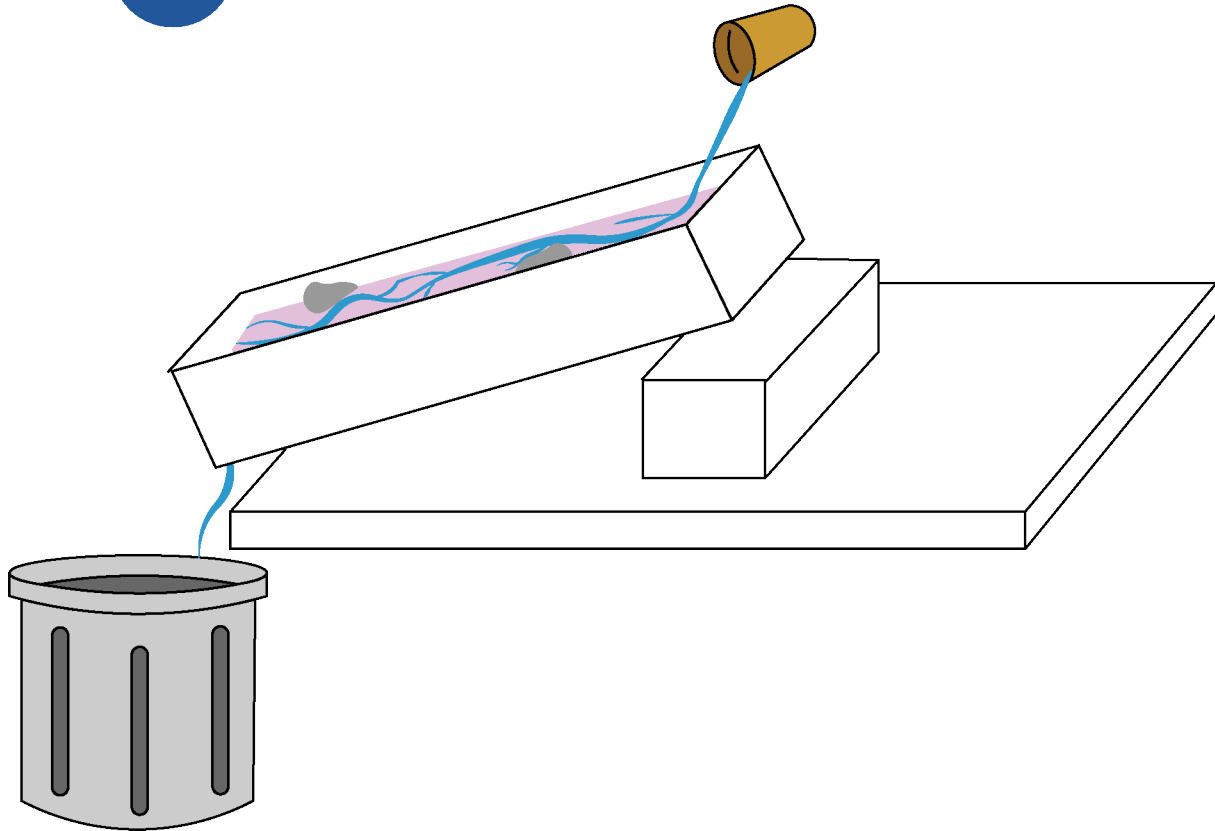
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10

Pour water into the tray's high end and watch as it flows down and out.



Assessment:

- How did the water effect your sand?
- What effect did it have on other people's sand?
- What factors might have affected how the water flows?
- What difference would changing the tilt angle or volume of water make?