

## 16. Mechanical Weathering

### Objective

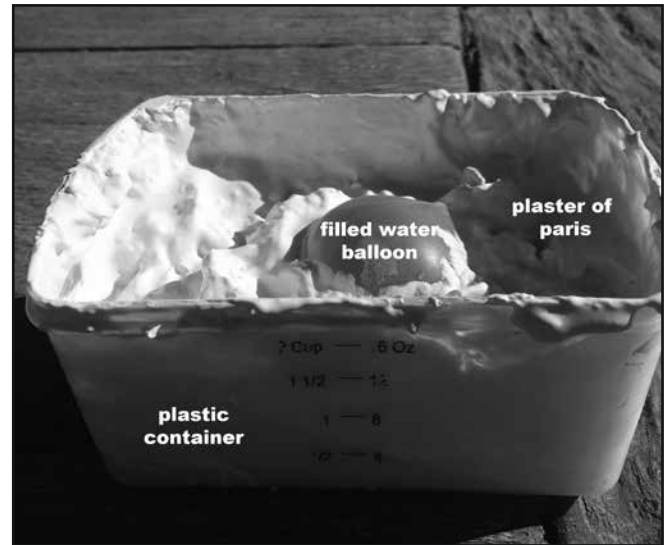
To explore how mechanical weathering contributes to landform formation.

### Materials

pencil  
plastic freezer container  
balloon to fill with water  
plaster of Paris  
notebook

### Experiment

- 1 Fill the balloon with water.
- 2 Following the instructions on the box, mix the plaster of Paris until you have a thick paste.
- 3 Partially fill the plastic freezer container with plaster of Paris.
- 4 Gently push the water balloon inside the plaster of Paris. Add plaster of Paris, if needed, until the balloon is completely covered and you have a solid block.
- 5 Allow the plaster of Paris to dry. Once it is dry, place the container in the freezer and allow to freeze for 24 hours.
- 6 Record your observations in your notebook.



### Results and Conclusions

In this experiment you observed how the water balloon expands as it freezes, creating enough physical force to break the plaster of Paris. This is an illustration of mechanical weathering. Mechanical weathering occurs when rocks are broken by physical forces such as the heating and cooling of rocks and the expansion and contraction of water as it freezes and thaws.