

Biological Weathering– Teacher Notes

Weathering is a destructive process.

Living things and their products cause biological weathering.



What do you think has caused this once magnificent statue of a lion to crumble? The statue is about 600 years old and is in a temple in Hakone Prefecture in Japan.

Mosses and lichens cover the statue's surface. Their roots penetrate the rock and force bits to fall off.

There are two different living things causing weathering in this picture. One is a plant and the other is an animal. Name each one and how they are causing destruction to the landscape.

1 The first biological weathering agents are bushes, spinifex and grass. Their roots are forcing rocks apart.

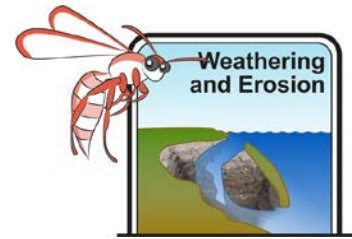
2 The second biological weathering agents are humans. Their feet are killing plants and leaving open sands that can blow away or be washed away by rain.



Which is the biological weathering agent in this photograph?

This tree root has forced its way down into the rock and caused it to crack. As soon as the rock crack this opens the way for oxidation and removal of broken rock by running water.

This tree lies in a small cliff face above a pathway which curves round the Swan River. Broken rock has started falling down on the path below.



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Would filling the crack with concrete help? **No. The growing roots would keep destabilising the cliff face**

What advice would you give to make this area safer?
Remove the tree or move the path.

Describe examples where living things have caused destructive weathering to land surfaces in your schoolyard.



- Tree roots pushing up through paths, yards and breaking walls.
- Weeds breaking apart pathways.
- Skateboards breaking the edges of walls and pathways.
- People walking across grassed areas making paths of bare soil
- Digging up planted areas to put in water pipes or electricity conduits

Could humans be described as biological weathering agents? Explain your answer. **Yes they could because they are living things and can be destructive.**