

15. Biodiversity of your local catchment

Lesson ideas

Go for a walk along a creek near your school or an area with native vegetation and ask students to use their powers of observation to monitor the biodiversity of the area.

- Look and listen for insects, birds, frogs, macroinvertebrates.
- Look at the different types of plants at the patch, look at the soil, gently lift up a log or some bark and see what is underneath (make sure to put it back carefully).
- Are there any patterns and shapes in nature? Are the birds in pairs or flocks? Are there any plants flowering? Is the creek flowing? How tall are the largest trees?
- Ask students to report back what they see and write down the answers.

An extension to this can be a blindfolding exercise whereby students must use their listening skills to monitor the biodiversity in the environment. Any human noises will be disruptive. It is better that children are seated several metres from each other. It will take at least 2 minutes for the brain to direct the ears to be more sensitive. After this point they may start to hear insects, birds, frogs, lizards running in the leaves.

After five minutes the students can report back on what they heard.

Topics for outdoor group discussion could include:

Who's eating whom? (relationships between birds, insects and plants)

What would the area have looked like prior to European settlement?

Who lived there?

What animals were there?

Were there any roads?

How would the Aborigines have moved through the area?

Since European Settlement:

What has changed?

What could we have done better to preserve and make this environment better?

What do these terms mean: Environmental weed, endangered, regeneration, responsibility?

What can we do in the future to help look after what is left in this area?

Following this walk, ask students to brainstorm a list of their local biodiversity to gauge improvement of their awareness of local biodiversity

16. The effect of land use on stormwater

Discussion topics and information

What is Stormwater?

Stormwater is the flow of water across the ground after rain has fallen. Heavy runs may cause stormwater to flow violently creating flash floods.

How does land use affect stormwater run-off?

In areas covered with native vegetation most rainfall is absorbed into the ground. In urban areas much of the land is covered by hard surfaces which do not absorb the water from rainfall. This lack of absorption in urban areas means that more stormwater is created than in rural areas.

Lesson idea

- Photocopy the 4 stormwater sheets contained in this activity.
- Have students read out the information about their type of land use and the affect it has on stormwater. Discuss the difference between absorbing surfaces and surfaces creating run-off.
- Have students colour in the absorbing surfaces with green pencil and the surfaces creating run-off with red pencil.
- The few remaining objects can be coloured in using other colours.
- Have students present their drawing to the class with a little speech describing what would happen in rain. An what pollution would get washed into the water.

Discuss:

- Which area created the most stormwater?
- How do the items that get washed into the creek affect the water?
- What can we do in an urban area to reduce the pollution entering the waterway?

Recommended resources

www.onkaparinga.net

www.sa.waterwatch.org.au