

LEAF DEFENCE

Objective

Provides students with the knowledge of why eucalyptus tree's produce an oil to help against insect attack.

Duration

20 minutes

Group Size

20-25 students

Setting

Area with eucalypt trees.

Materials

None.

Background

Gum (or Eucalypt) tree's produce an oil called 'Eucalyptus Oil'. This is secreted through their leaves and prevents attack from insects including most caterpillars.

One caterpillar however, the Spitfire Grub (or Sawfly larvae) is an exception. The Spitfire feeds on eucalyptus leaves and stores the oil inside their stomach. When disturbed they tap their abdomens up and down and regurgitate the oil as a thick yellow fluid. This helps them defend themselves against predators and is why they are called Spitfires. However, they don't actually spit, they regurgitate.

LESSON PLAN

Introduction (3 minutes)

Explain to students that eucalyptus tree's secrete eucalyptus oil which helps them defend themselves from insect attack.

Setting the Scene (5 minutes)

The smell of the eucalyptus oil is the plants natural defence against insects such as most caterpillars. Explain that the Spitfire is an exception to this, as of the information in the background section.

Inform the students that they will be demonstrating that the leaves of the eucalyptus plants are quite smelly and would be a good deterrent to insects.

Activity (5 minutes)

1. Ask the students to go and collect one eucalypt leaf, making sure they don't pull a whole branch down.
2. Come back into a group and tell the children to crush up their leaf.
3. Ask students if they can smell the oil.

Conclusion (5 minutes)

Discuss eucalyptus oil with the students:

- Do they think the smell is nice?
- Why do they like or dislike it?
- Do they think it would be good to deter insects?
- What are some other uses for eucalyptus oil? (eg. natural insect repellents, used for cleaning and for relieving insect bites)

More information

Contact Sandy Dellwo, Land Services Officer – Education on 03 5880 1415.

For more information on the Spitfire visit:

<http://www.csiro.au/en/Outcomes/Environment/Biodiversity/Sawfly-Factsheet.aspx>

Acknowledgments:

This activity has been adapted from an activity provided by the Riverina Environmental Education Centre. For more information visit:

www.reec.nsw.edu.au.

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