teachers guide

Food and energy 1: The honey possum

Components

	NAME	DESCRIPTION	AUDIENCE
	The honey possum teachers guide	The teachers guide shows how this resource may be used to engage student interest in the biology of the honey possum (*Tarsipes rostratus*). It explains the use of the video and fact sheet, and suggests suitable questions for group discussion.	teachers
	Features of the honey possum fact sheet	This fact sheet presents a series of unusual or unique facts about the honey possum (*Tarsipes rostratus*) to help stimulate student engagement and promote questions.	students
	A unique marsupial video	This videoclip engages the interest of students in the honey possum: a rare and unusual Australian marsupial. Zoologist Professor Don Bradshaw tells how he became interested in the species, and describes some of their unique adaptations.	students

Purpose

To use the unique features of a honey possum to **Engage** students' interest and curiosity in the survival of native animals in an ecosystem.

Outcomes

Students:

- describe some features of the honey possum and unique adaptations it has evolved to help it live a highly specialised lifestyle, and
- identify what they know and want to know about the honey possum using information from the video and fact sheet.

Activity summary

ACTIVITY	POSSIBLE STRATEGY
Show the video, *A unique marsupial*.	whole group
Discuss video (see *Using the video* below) .	small group discussion
Distribute and use the fact sheet, *Features of the honey possum*, to assist students identify what they want to learn about the honey possum in its ecosystem.	KWL chart

Technical requirements

QuickTime version 7 or later is required to view the video, *A unique marsupial*. This is a free download from www.apple.com/quicktime. A high quality MP4 version of the video can be downloaded from the SPICE website.

The guide and fact sheet require Adobe Reader (version 5 or later), which is a free download from www.adobe.com.

Using the video

Play the video, *A unique marsupial*.

Ask students to draw up a KWL chart, complete the 'K' (what I know) column, and encourage them to write questions in the 'W' (what I want to know) column. This may be done in small groups of two or three.

Ask students to read the fact sheet, *Features of a honey possum*. If this answers some of their questions they may add these to the 'L' (what I have learned) column. The sheet may also stimulate additional questions to add to their 'W' column. As students continue to learn about the honey possum through later activities they may add questions, and write their own answers.

KWL example

What I already Know	What I Want to know	What have I Learned?
very small feeds on nectar lives in Scott National Park is a marsupial male and female differ in size	Why does it only feed on nectar and pollen? Does it live in other locations in WA? Is it endangered? Why is its closest relative in South America? How can we save native animals when we set fires to stop wild fires? What are its predators?	*To fill in some time later*

Associated SPICE resources

Food and energy 1: The honey possum may be used in conjunction with related SPICE resources to address the broader topic of how scientists determine energy requirements of a species.

DESCRIPTION	LEARNING PURPOSE
Food and energy (overview) This learning pathway shows how a number of SPICE resources may be combined to teach the topic of food and energy.	
Food and energy 1: The honey possum In a video interview, zoologist Professor Don Bradshaw tells how he became interested in the honey possum, a rare and unusual Australian marsupial, and describes some of their unique adaptations.	**Engage**
Food and energy 2: Pollen Students use a virtual microscope to examine pollen from a range of plants, measure the size of pollen grains, and learn about features such as pore width and cell wall width.	**Explore**
Food and energy 3: Fauna surveys Students explore factors controlling abundance and distribution of organisms, and occupation of particular habitats.	**Explore**
Food and energy 4: Honey possum respiration Students use a worksheet to explore the process of respiration in heterotrophic organisms.	**Explain**
Food and energy 5: Animal release Students answer questions to identify an environment that will effectively sustain a released population of honey possums.	**Elaborate**

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