

Animal survival

Contents

Student worksheet 1

An outline for analysing and researching how animals survive on Stradbroke Island. This sheet (#1) considers issues for survival and is used with the Sun Sand Salt and Survival kits available from Queensland Museum Loans.

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Student worksheet 2

An outline for analysing and researching how animals survive on Stradbroke Island. This sheet (#2) considers issues for survival and is used with the Sun Sand Salt and Survival kits available from Queensland Museum Loans.

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Student worksheet 3

An outline for analysing and researching how animals survive on Stradbroke Island. This sheet (#3) combines elements of the Sheets 1 and 2 to consider how a creature is best suited to its environment Stradbroke Island. Sun Sand Salt and Survival kits are available from Queensland Museum Loans.

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Animal survival card - Student worksheet

A specimen analysis activity that leads students to create their own information card about how their chosen creature survives its environment. This activity is modelled on the Couran Cove kits approach to creating information cards. Students can create their own kit or exhibition.

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Animal survival example - Student worksheet

An example outline for analysing and researching animals and their adaptations to survival in the natural environment. This example is the spiny leaf stick insect found on Stradbroke Island.

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Specimen: _____ Environment: _____

Questions	Responses	Questions to research
What conditions do I have to be able to survive?		
What do I eat?		
How do I survive the conditions?		
How do I catch my food?		

<p>What eats me?</p> <ul style="list-style-type: none">• Animals		
<p>How do I avoid being eaten?</p> <ul style="list-style-type: none">• Features• Behaviour		

Questions my group would like answered:

Properties of Natural Specimens	Observe & Discuss <i>What can you find out about this specimen by using your senses?</i> <i>What can your group find out by talking about this specimen?</i>	Research <i>What questions would you like to answer about this specimen?</i>
Physical Features Draw a picture of your animal and try to name as many parts as possible?		
Appearance Describe the appearance of the specimen. What is its outer skin like?		
Function What did it do in its life? What was the function of various parts? What might have been some of its problems or challenges?		
Features How do some of its features match its function? Can you see how the features helped with its problems and challenges or helped it survive in its environment?		
Habitat Where did it live? When? Are there clues about what happened during its life or why it died?		
Value What is its role in the environment? What does it eat? What eats it? How important do you think your animal is? Why?		

Specimen: _____ Environment: _____

Questions	What my group thinks	What is the evidence?
<p>What conditions do I have to be able to survive?</p> <ul style="list-style-type: none">• Temperature• Water• Sun exposure		
<p>How do I survive the conditions?</p> <ul style="list-style-type: none">• Features• Behaviour		

Sheet #3

<p>What do I eat?</p> <ul style="list-style-type: none">• Plants• Animals		
<p>How do I catch and eat my food?</p> <ul style="list-style-type: none">• Features• Behaviour		

Sheet #3

<p>What eats me?</p> <ul style="list-style-type: none">• Animals		
<p>How do I avoid being eaten?</p> <ul style="list-style-type: none">• Features• Behaviour		

Sheet #3

<p>What are some of the factors that have changed my environment?</p> <ul style="list-style-type: none">• Climate• Human• Celestial events		
<p>How well have I been able to survive the changes?</p>		

How can we learn by looking closely?

Analyse → Predict → Check

Physical features

1. Draw a detailed diagram of the whole specimen. Label as many parts as you can.
2. Identify parts and features for:
 - Movement
 - Protection
 - Sound and hearing
 - Seeing
 - Sensing



Habitat

1. Where do you think this specimen would have lived?
2. What is the evidence to support this idea?

Value

1. What role do you think this specimen plays in its ecosystem?
2. How would the ecosystem be different if this specimen did not exist?

Movement

1. How was this specimen able to move around? Describe this movement in detail.
2. Describe the movement using descriptive words such as: fast; slow; smooth; jerky; leaping; slithering; waddling; diving; soaring; etc.

Feeding

1. Draw a diagram of the features that the specimen used for feeding.
2. Include features for:
 - Finding
 - obtaining (capturing)
 - preparing and
 - eating food
3. What types of food do you think your specimen eats? What is the evidence to support your ideas?

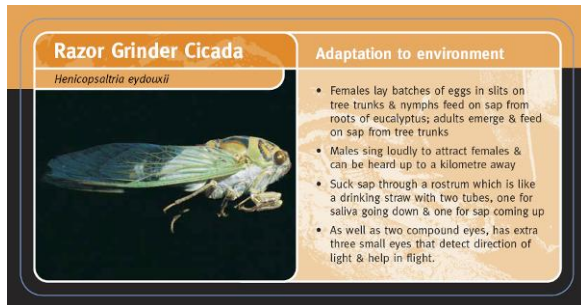
Protection

1. How does your specimen protect itself from predators?
2. What is the evidence to support this idea?



How can we share what you found out?

Prepare an **Information Card** to inform others about your specimen's role in the environment.



How do I start?

Draw a rough sketch of the layout here:

What is on the card?

Your card should contain:

1. Name: Common and Scientific names
2. Physical description could include:
 - A photo with some dimensions or
 - A carefully labeled diagram
 - Special features (sound, sensing, etc)
3. Habitat type
4. Adaptations for:
 - a. Movement
 - b. Feeding
 - c. Protection
5. Value or role of your specimen in the environment

How should the card be presented?

Your card should be presented as a double sided DL (half A4) size sheet.

Include suitable graphics elements such as:

- Layout of graphics and text
- Font sizes and types
- Background graphics
- Borders
- Colour scheme

Features of Natural Specimens	Observe & Discuss <i>What can you find out about this specimen by using your senses? What can your group find out by talking about this object?</i>	Research <i>What questions would you like to answer about this object?</i>
Habitat Where did it live? Are there clues about what happened during its life or why it died?		
Physical Features Draw its shape and indicate its size, weight, and sound. Is this a complete specimen or part of one?		
Construction What sort of tissues and structures can you find? Is it soft/tough/fragile/solid/delicate?		
Function What did it do in its life? What was the function of various parts? What might have been some of its problems or challenges?		
Design How does its design match its function? Can you see how the design helped with its problems and challenges or helped it survive in its environment?		
Value What is the value of this specimen to the environment? Do other living things depend on this specimen for survival?		

Specimen: Spiny Leaf Insect

Environment: Mixed Woodland

Questions	What my group thinks	What is the evidence?
What conditions do I have to be able to survive? <ul style="list-style-type: none"> • Shelter • Water • Exposure to sun 	Trees provide homes in hollows and branches Water available in creeks and ponds Sunlight filters through overhead gum trees	
How do I survive the conditions? <ul style="list-style-type: none"> • Features • Behaviour 	Tough outer skin helps prevent water loss Claws on feet allow clinging to branches and leaves even upside down Leaf-like appearance protects and tough outer skeleton protects against water loss and direct sun exposure	Tough outer skin Claw-like feet Green body colour Body shape like leaf Wings for flying
What do I eat? <ul style="list-style-type: none"> • Plants • Animals 	Plants only: Leaves of shrubs and trees	Mouth parts like sharp razor for cutting
How do I catch and eat my food? <ul style="list-style-type: none"> • Features • Behaviour 	Crawl from tree branch to tree branch Move from tree to tree through interlocking branches Eat at night?	Wings are broad Claws for clinging to branches and leaves Large eyes and feelers

<p>What eats me?</p> <ul style="list-style-type: none"> Animals 	<p>Birds Small mammals Other insects on young</p>	<p>Large size would make a worthwhile meal for a bird.</p>
<p>How do I avoid being eaten?</p> <ul style="list-style-type: none"> Features Behaviour 	<p>Leaf-like appearance Tough spiny skin Can feed with little movement while upside down Feeds at night?</p>	<p>Feelers Bulging eyes Green colour and spiny appearance would not look attractive as a meal</p>

Questions my group would like answered:

1. Does this insect feed at night?
2. Are the spiny legs sharp?
3. Are the small projections on back like wings?
4. How quickly can the insect move to avoid capture?
5. How does the insect move? Does it crawl or hop?