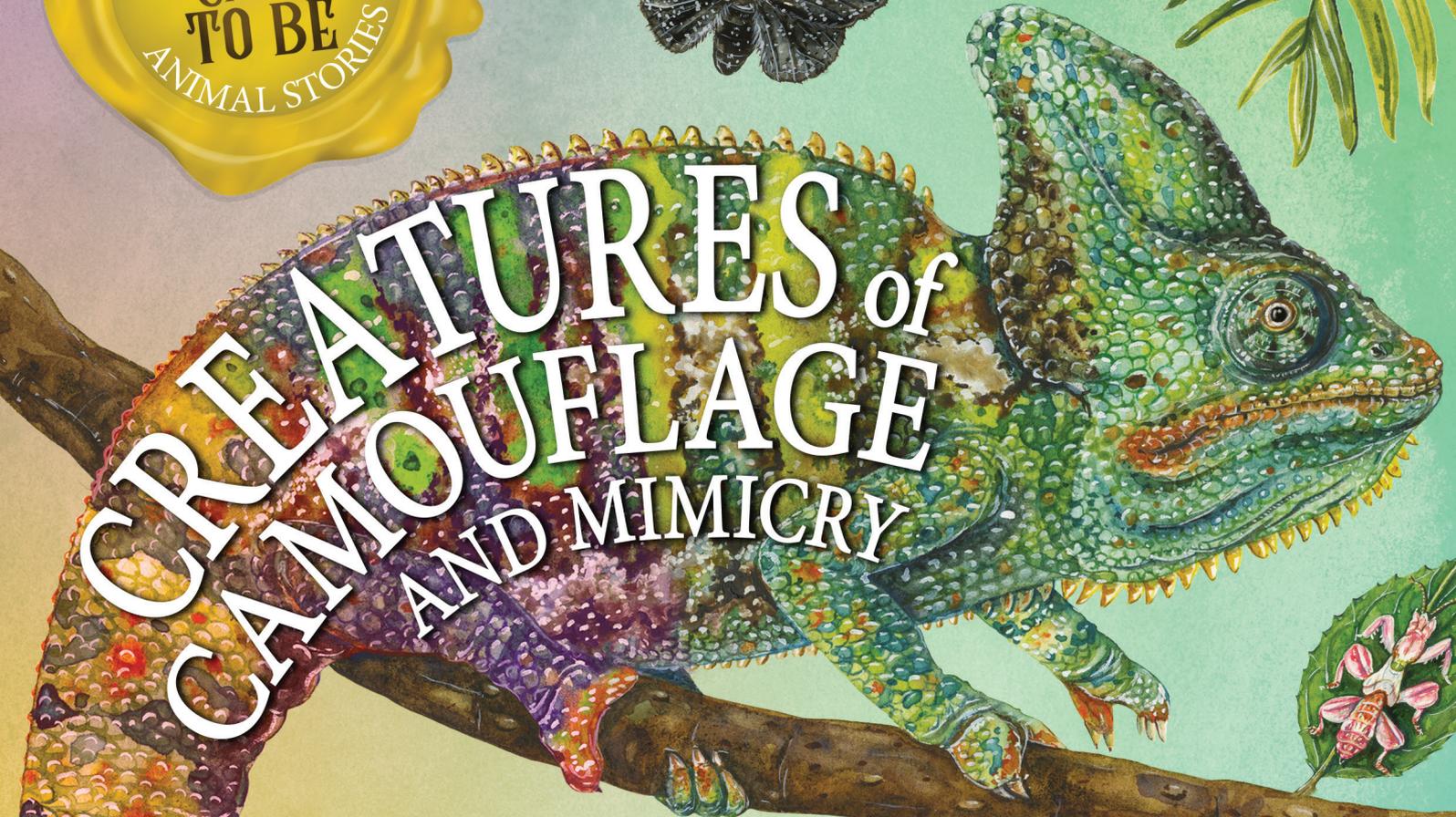
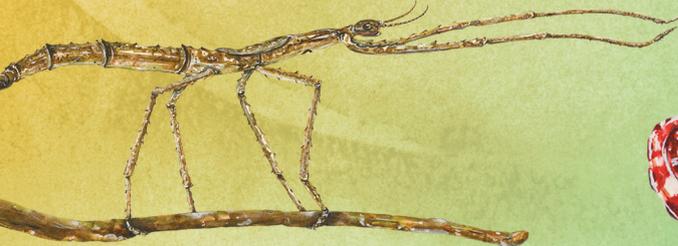




CREATURES of CAMOUFLAGE AND MIMICRY



SAMI BAYLY



TEACHERS RESOURCES

CREATURES OF CAMOUFLAGE AND MIMICRY

SAMI BAYLY[®]

Teachers Resources by Robyn Sheahan-Bright

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INTRODUCTION

Discover the secrets behind some of the natural world's most unusual creatures of camouflage and mimicry. Find out about the chameleon who changes colour to communicate with its friends, the burrowing owl who copies the sound of a fiercer animal to protect itself from threats, and the harlequin filefish that has come to smell like coral to blend in with its surroundings.

You'll be amazed by how these clever creatures use disguise and imitation to find food, send out warning signals and, most of all, avoid predators!

Creatures of Camouflage and Mimicry is the second book in a new picture book series *How We Came to Be*, which explores unusual animal evolution stories, from award-winning and bestselling author and illustrator, Sami Bayly.

The series is a perfect companion to *The Illustrated Encyclopaedia of Ugly Animals*, *The Illustrated Encyclopaedia of Dangerous Animals* and *The Illustrated Encyclopaedia of Peculiar Pairs in Nature*.

THEMES & CURRICULUM TOPICS

Several themes and curriculum topics (for primary school students) are covered in this book which might be related to areas covered under: 'Australian Curriculum' <[https:// www.australiancurriculum.edu.au](https://www.australiancurriculum.edu.au)>

SCIENCE

'Australian Curriculum: Science' <[https:// www.australiancurriculum.edu.au/f- 10-curriculum/science/](https://www.australiancurriculum.edu.au/f-10-curriculum/science/)>

Each page in this book contains a creature together with three forms of text: a **fact** in third person and two texts in first-person narrative speech bubbles – one by the creature or organism, and one by the narrator, Sami Bayly, who speaks both to the reader and the creatures being described.

CREATURES OF CAMOUFLAGE AND MIMICRY

Discussion Point: In her introduction, Sami Bayly explains her reasons for creating *Creatures of Camouflage and Mimicry* in further detail:

'In this book, I'm going to explore a group of unusual animals who are all masters of disguise. Some animals have clever ways to blend in with their surroundings. This is known as camouflage. Other animals can make themselves look like something else, such as another animal, plant or object.

This is called mimicry. These animals didn't always do these things. They developed these abilities slowly, over time. To find out how this happened – why an animal might transform themselves to look like a leaf, for example, or why another might release a smelly pong in certain situations – we need to think about evolution.'

Activity: Camouflage or mimicry is used by each of the creatures in this book. Sami Bayly outlines how creatures may use **appearance**, **smell**, **sound**, **behaviour**, and their **location** to camouflage (p 5). And as she explores, we meet creatures who use these various forms of camouflage.

Another text defines four main types of camouflage: Concealing Colouration, Disruptive Colouration, Disguise and Mimicry. [See 'Animal Camouflage: Pictures and Information for Kids',

K5 Computer Lab 5,

<<https://oakdome.com/k5/lesson-plans/multi-media/look-again-camouflage/index.php>>]

Apply what you have learned to your observation of other creatures.

Activity: The buff-tip moth camouflages itself to look like the birch tree where it lives, in order to avoid predators. Study how each of these creatures employ unique survival skills in order to avoid predators, or to be predators themselves.

Activity: Study any other websites or books which focus on creatures of camouflage or mimicry. [See **Bibliography.**]

Activity: Quiz students regarding the alternative names of some of these creatures, for example: What is a ladybird mimic spider's scientific name? Answer: *Paraplectana tsushimensis*. What is the order of *Phallacae* commonly known as? Answer: Stinkhorn fungi.

Activity: After you have finished studying this book, research another creature which employs camouflage or mimicry.

THE LIFE CYCLES, EVOLUTION AND HABITATS OF CREATURES OF CAMOUFLAGE AND MIMICRY

Activity: Study the life cycles and evolution of any of the creatures in this book. For example, the orchid mantis, and how over time the females of this creature developed pink and white patterns to mimic an orchid.

Activity: Research special skills or features that other animals in this book have developed over time, so they can protect themselves from predators. For example, the dead leaf butterfly's wings, which developed to look in colour and pattern like autumn leaves.

Activity: Research forms of evolutionary adaptation revealed in any of the creatures included in this book. For example, the lichen katydid developed to look just like the lichen in the rainforest around it.

HUMANITIES AND SOCIAL SCIENCES (HASS)

'Australian Curriculum: HASS' <[https:// www.australiancurriculum.edu.au/f- 10-curriculum/humanities-and-social-sciences](https://www.australiancurriculum.edu.au/f-10-curriculum/humanities-and-social-sciences)>

THREATS TO WILDLIFE AND CONSERVATION, CLIMATE CHANGE

Discussion Point: Read about some of the threats to creatures and then discuss the decline or endangered status of any creature mentioned in this book.

Discussion Point: Discuss the impact of forest clearing, wildlife trade and other threats which are depleting many species.

Activity: Research climate change in relation to any of the creatures included in this book, and write an essay outlining your findings.

Activity: Climate change is a global issue. How should our government be responding to climate change in order to combat it? Examine such initiatives as the *Intergovernmental Panel on Climate Change (IPCC)*

<<https://www.ipcc.ch>> in order to respond to this question. [See **Bibliography.**]

VALUES

Discussion Point: Discuss the key values conveyed in this text.

ENGLISH LANGUAGE AND LITERACY

'Australian Curriculum: English' <[https:// www.australiancurriculum.edu.au/f- 10-curriculum/english/](https://www.australiancurriculum.edu.au/f-10-curriculum/english/)>

The text of this book might be studied in relation to the following aspects:

Activity: The facts on each surprising sea creature are written in **third person**, as an **expository text**. There are also two texts in **first-person narrative** – one by the creature itself, and one by the narrator, Sami Bayly, who also addresses questions to the creature and appears in some images as well.

Invite students to write an **expository text** about any other creature that doesn't feature in this book. (There are different types of expository writing, e.g. descriptive, sequential, cause/effect etc.)

Then write a **first-person narrative 'speech bubble'** by the creature explaining more about its life cycle.

[See **Bibliography**.] [See also **Visual Literacy** exercise below.] [See also **Worksheet 2**. below.]

Discussion Point: Humour is another device used in this series – some of the comments made by the creatures are very funny. Which did you think was the funniest? Try to incorporate humour in the text you write (above) for this unit.

Activity: Test your students' comprehension by asking them questions about the written text. [See also **Worksheet 4**.]

Activity: Invite students to write an acrostic poem using the letters in chameleon.

Activity: Write a lyrical poem about any creature included in this book using models written by published poets. [See **Bibliography**.]

Activity: Discover collective nouns for a range of creatures that employ camouflage or mimicry. [See **Worksheet 6**.]

Activity: Invite students to write a simple cumulative text as the basis for a picture book about a creature of their choosing. [See Ruth Heller's *How to Hide an Octopus and Other Sea Creatures* (1992) as an example.]

VISUAL LITERACY

Australian Curriculum: Visual Arts

<[https:// www.australiancurriculum.edu.au/f-10-curriculum/the-arts/visual- arts/](https://www.australiancurriculum.edu.au/f-10-curriculum/the-arts/visual-arts/)>

Discussion Point: The images in this book have been created by a highly skilled natural history illustrator and she combines them with her written text to illustrate features of the various creatures described. However, it is the designer who created the speech bubbles, and selected the fonts, and the overall design of the text. How does this design complement the illustration?

Activity: The **cover** of the book depicts a number of creatures. Invite students to identify them. What does this cover suggest to you about the book's content? Create another cover depicting other creatures that employ camouflage or mimicry.

Activity: The **title page** contains a veiled chameleon. Draw another appropriate image to adorn this page.

Discussion point: The **format** of the book is loosely standardised with a mixture of expository and narrative texts. The **images** are hand-drawn and scanned to achieve a very different image to those included in Bayly's previous works – the three encyclopaedias. They depict full scenes, with deep, rich colours across the pages, rather than drawings of individual creatures. Have your students study Bayly's images here, and then create their own hand-drawn image of the creature they wrote about in the expository text under **English Language and Literacy** above. Make a display of the texts and images created by all the students. You can also photocopy each student's work and collect them together to make a class book.

Activity: The **endpapers** of the book feature ten extra images of creatures, including the bridal veil stinkhorn and the door head ant, and each one has a written explanation in a circle next to it. Create another endpaper featuring five creatures you have discovered in your research.

Activity: Create a **collage image** of a stinkhorn fungus. [See **Worksheet 1** below.]

Activity: Encourage students to use **critical literacy skills** to unearth further meaning in this text by looking closely at the images, explaining what they see and then what the text says, and how the two texts add meaning to each other. [See also **Worksheet 3**.]

Activity: Invite students to create a **storyboard** for the picture book text they wrote under **English Language and Literacy** above. [Discuss the conventions of the picture book format before embarking on this exercise.]

CREATIVE ARTS

There are many creative activities suggested by this text:

CRAFT: Make a **model** of any of the creatures included in this text. [See 'Fimo Clay Instructions', *eHow*, <https://www.ehow.com/way_5418195_fimo-clay-instructions.html>]

CRAFT: Create a **Camouflaged Creatures Mobile**. [See **Worksheet 5**.] [See **Bibliography**.]

CRAFT: Make a dead leaf butterfly. Fold a piece of paper in half and then open again and paint one wing, then fold it so that the paint imprints on the other half of the page to create another wing. Allow it to dry and then glue to craft paper and hang up your creations.

CRAFT: Create a **diorama** depicting a harlequin filefish in their habitat. [See **Bibliography** for relevant resources.]

SCRIPT: Create a **book trailer** to promote this book. [See **Bibliography** for relevant resources.]

LEARNING TECHNOLOGIES

Activity: Research topics suggested in these notes online.

MATHEMATICS

Activity: Have fun investigating mathematical facts about these creatures such as their population numbers, their longevity, how big or long they are, etc.

FURTHER TOPICS FOR DISCUSSION AND RESEARCH

- Visit Sami Bayly's website and view some of the other illustration projects she has engaged in.
- Students might research this book in comparison to picture books and non-fiction books such as those listed in the **Bibliography**.
- Investigate any other topic suggested by this text.

CONCLUSION

This book is another brilliant addition to Sami Bayly's earlier books, *The Illustrated Encyclopaedia of Ugly Animals*, *The Illustrated Encyclopaedia of Dangerous Animals* and *The Illustrated Encyclopaedia of Peculiar Pairs in Nature*. This second title in the new *How We Came to Be* series, which began with *Surprising Sea Creatures*, is similarly carefully researched and illustrated to introduce a younger audience to the creatures which are so very unique, given that we don't generally see many of them.

ABOUT THE AUTHOR/ILLUSTRATOR

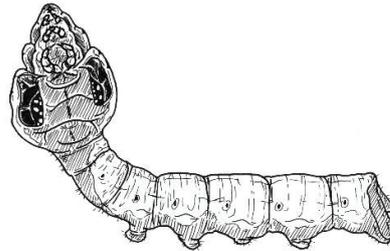
Sami Bayly is a natural history illustrator based in Newcastle, NSW, who loves all things weird and wonderful. She finds the beauty and importance of all animals regardless of their appearance, and hopes to share her appreciation with others.

Sami's first book, *The Illustrated Encyclopaedia of Ugly Animals*, won the Children's Indie Book of the Year Award and the Australian Book Design Award for Younger Readers. It was a CBCA Honour Book and was shortlisted for an ABIA Book of the Year for Younger Children and longlisted for the ABA Booksellers' Choice 2020 Book of the Year Awards. Her second book, *The Illustrated Encyclopaedia of Dangerous Animals*, was a CBCA Honour Book, an ABIA Book of the Year for Younger Children, won an Australian Book Design Award for Younger Readers and was shortlisted for the Children's Indie Book of the Year 2020. Sami's most recent book, *The Illustrated Encyclopaedia of Peculiar Pairs in Nature*, has been shortlisted for the CBCA Eve Pownall Award and longlisted for Children's Indie Book of the Year Award. Sami's most recent book is *How We Came to Be: Surprising Sea Creatures*.

To keep up to date you can follow Sami on Instagram: <https://www.instagram.com/samibayly/> and her website: <http://www.samibayly.com/>

ABOUT THE AUTHOR OF THE NOTES

Dr Robyn Sheahan-Bright AM operates justified text writing and publishing consultancy services, and is widely published on children's literature, publishing history and Australian fiction. In 2011 she was the recipient of the CBCA (Qld Branch) Dame Annabelle Rankin Award for Distinguished Services to Children's Literature in Queensland, and in 2012 the CBCA (National) Nan Chauncy Award for Distinguished Services to Children's Literature in Australia, and in 2014, the QWC's Johnno Award. In 2021 she was appointed a Member of the Order of Australia.

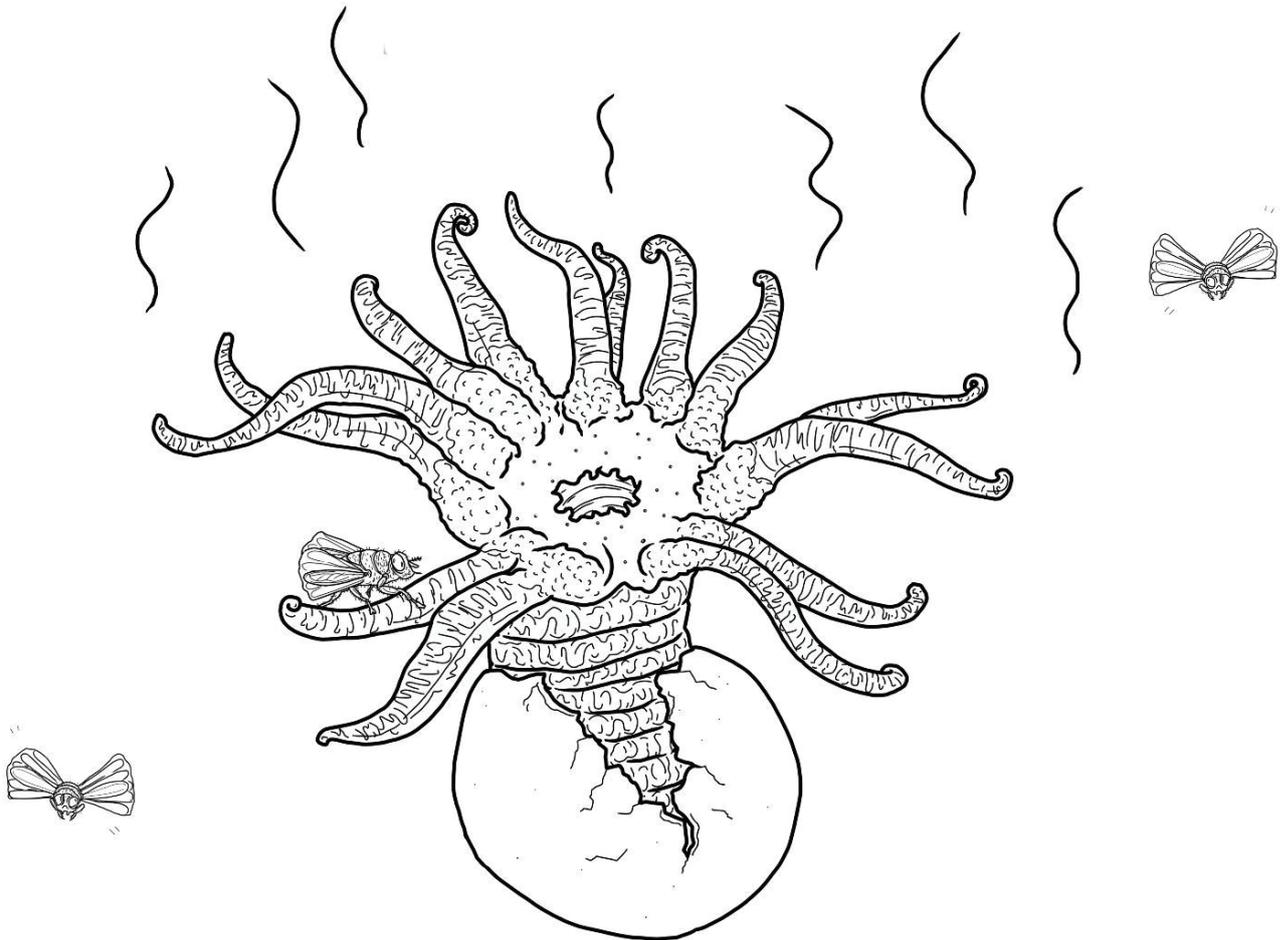


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WORKSHEETS

WORKSHEET 1. CREATE A COLLAGE OF A STINKHORN FUNGUS

Enlarge this image to A3 on a photocopier and then encourage students to use a range of detailed materials, colour and texture to make a collage of the stinkhorn fungus in its underwater environment.

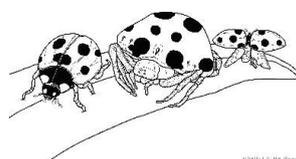


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WORKSHEET 2. CREATE AN ALPHABET OF OTHER CREATURES OF CAMOUFLAGE AND MIMICRY

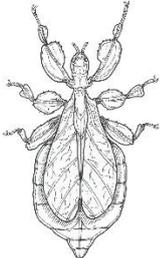
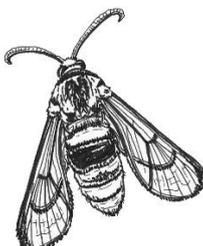
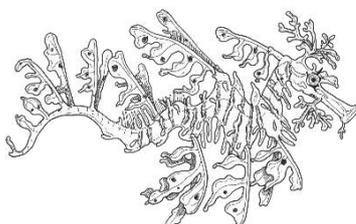
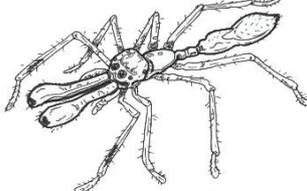
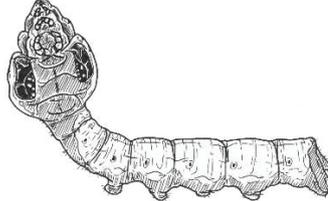
Find surprising creatures of camouflage and mimicry which don't appear in this book and then write one interesting fact beside each one. (Enlarge this sheet to A3 on a copier to give you more space.)

PAIR	FACT
A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	
Lichen katydid	
M	
N	
O	
P	
Q	
R	
S	
T	
U	
V	
W	
X	
Y	
Z	



WORKSHEET 3. IDENTIFY THESE CREATURES OF CAMOUFLAGE AND MIMICRY

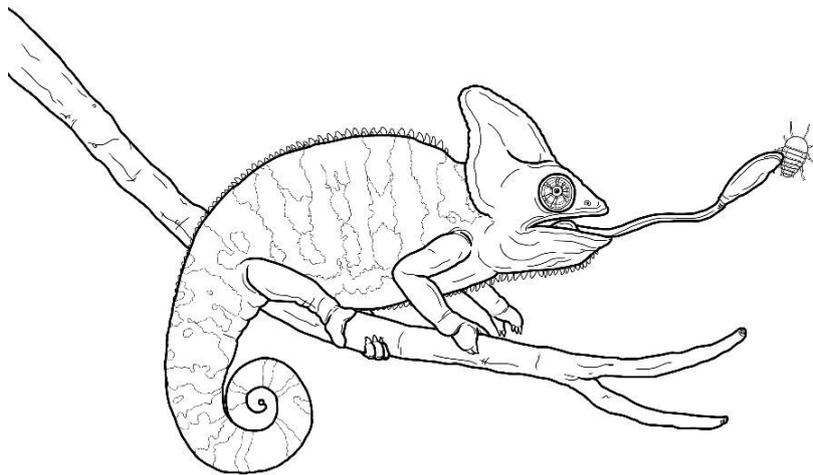
Name these animals, each of which is included on the endpapers of this book.

		
1.	2.	3.
		
4.	5.	6.
		
7.	8.	9.

ANSWERS: 1. Bridal veil stinkhorn 2. Door head ant 3. Giant leaf insect
4. Giant swallowtail caterpillar 5. Hornet moth 6. Leafy sea dragon 7. Pygmy seahorse
8. Red weaver ant-mimicking spider 9. Hawk moth caterpillar

WORKSHEET 4. CREATURES OF CAMOUFLAGE AND MIMICRY QUIZ

1. Why does the veiled chameleon change colour?
2. The ladybird mimic spider is an example of Batesian Mimicry? What does this mean?
3. What is unique about the mimic octopus?
4. The harlequin filefish uses chemical crypsis? What is this?
5. What do the burrowing owl and the northern flicker chick have in common?
6. Orchid mantises disguise themselves as flowers to trick their prey. What sort of mimicry is this?
7. The bagworm is neither a bag nor a worm. What is it?
8. What rather odd mimicry do the bird-dropping spider and the bird poo frog engage in?
9. What does the dead leaf butterfly mimic?
10. What is evolution by natural selection?



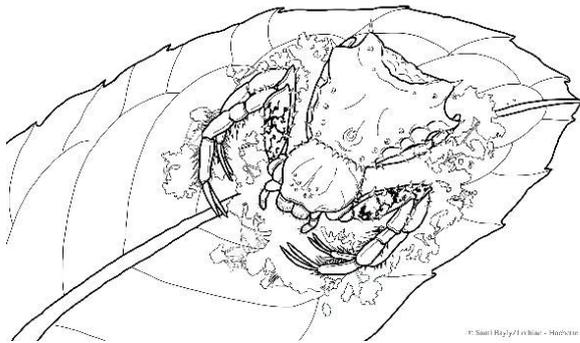
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ANSWERS: **1.** They change colour to reflect their moods. They also change colour in order to adjust their body temperature. **2.** When a harmless species has evolved to imitate the signals of a harmful species, it is called Batesian mimicry. **3.** The mimic octopus is the only sea creature that can mimic many different species. **4.** Chemical crypsis is the process of mimicking the smell of a plant, as most predators rely on their sense of smell. (The harlequin filefish smells like coral.) **5.** They each mimic the sounds of dangerous animals (prairie rattlesnake and bees) to scare off other predators.

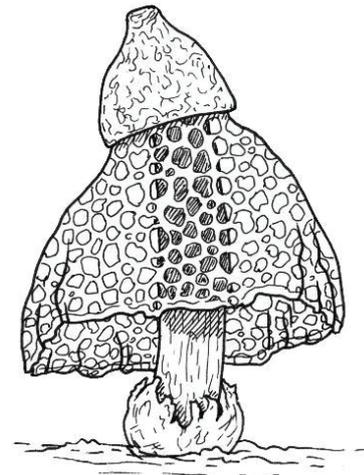
6. Aggressive mimicry. **7.** A caterpillar moth. **8.** They each pretend to be poo so that predators won't eat them! **9.** Dead leaves of course! **10.** Natural selection is the process in which animals, plants and fungi change to suit their environment in order to ensure their survival.

WORKSHEET 5. CREATURES OF CAMOUFLAGE AND MIMICRY MOBILE

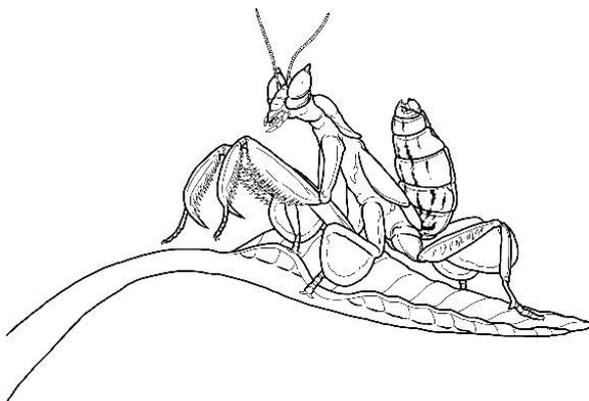
Enlarge this sheet to A3 and stick it to craft paper. Invite students to cut out the creatures, colour them in, and then attach to www.wikihow.com fishing line and hang from a straw, a metal hanger, or an embroidery hoop to create a *Creatures of Camouflage and Mimicry* mobile. [See 'How to make a Mobile', *Wikihow*, <<http://wikihow.com/Make-a-Mobile>>]



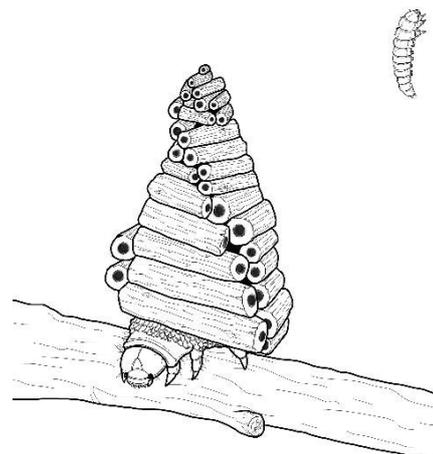
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WORKSHEET 6. COLLECTIVE NOUNS FOR CREATURES OF CAMOUFLAGE AND MIMICRY

Try to discover the collective nouns for the following creatures:

1. Buff-tip moth*
2. Ladybird mimic spider*
3. Satin Bowerbird
4. Mimic octopus*
5. Harlequin filefish*
6. Veiled Chameleon
7. Burrowing owl*
8. Meerkat
9. Fork-tailed drongo*
10. Gargantuan stick insect*
11. Orchid mantis*
12. Thorn bug
13. Bagworm*
14. Dead leaf butterfly*
15. Lichen huntsman*

ANSWERS:

1. eclipse 2. cluster or clutter 3. Bowerbirds don't appear to have their own collective noun but many other birds do! The generic word would be a 'flock of birds'. 4. consortium 5. shoal, school or run. 6. Chameleons don't have a recognised collective noun. 7. a parliament, stare, study or wisdom. 8. mob 9. bunch 10. bushel 11. congregation 12. There doesn't appear to be a collective noun for a thorn bug or a bug. However, a swarm of insects is a common term. 13. eclipse 14. kaleidoscope or flutter 15. cluster or clutter

*These terms relate to any moth, spider, octopus, butterfly, bird, stick insect, mantis.

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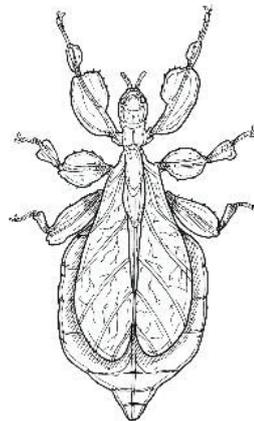
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