

4th Grade: Science and Social Studies Work (4th packet, May 15)		
Here are some assignments you can do at home!		
<i>If you complete these daily assignments, you can earn money to spend at the "Williamson Mart"!</i>		
<u>Directions:</u>		
1. Do one daily assignment everyday. It can be science or social studies!		Keep working hard! I miss you
2. Complete the activity/worksheet.		Keep earning your money to shop!
3. You can turn your work into your bus driver OR keep it and turn it into Mrs. W.		
4. You will earn money for every daily reading you have done.		
5. The activity page has to be completed to earn the money!		
<u>Assignments: These assignments are from Science Spin and WA info:</u>		
Day 1: Read Science Spin: <u>Help for Pangolins</u> issue		Activity/Worksheet: Complete the back page
Day 2: Washington Climate pages 42-43		Next, complete "What's the Main Idea?" page
		You'll need colored pencils or crayons!
		Read the directions on the top of page 42, follow those directions; Next, complete page 43 by filling in the answers; do the bonus activity if you want to!
Day 3: Read Science Spin: <u>Floating on Air</u> issue		Complete the back page
Days 4: Washington Counties pages 48-49		Next, complete "Survey, Question, Read, Recite..." page
		You'll need colored pencils or crayons!
Days 5: Use your Chrome book to do some research!		Read the directions on the top of page 49, follow the directions
Days 6-8 Simple Science Report: Ant Hill		You learned about pangolins from Monday's assignment, do a google search and read more about them. Watch a video!
		You may have noticed some ants around your yard!
		Follow these directions and learn more about those pesky insects!
*Read pg. 57; Color and cut out pgs. 58-59; Complete any of the writing ideas; write a story about ants!		

Science Spin

scholastic.com/sciencespin3-6

3-6 • April 2020

IN THIS ISSUE
Conservation

NATURAL ARMOR

Pangolins are covered in hard scales that protect them from predators.

LIFE SCIENCE

HELP FOR PANGOLINS

Can conservationists keep these cute critters from becoming extinct?

SCHOLASTIC

PROTECTING PANGOLINS

People are helping these captured animals get back to their homes in the wild.

As night fell, Harriet Nimmo and an armed guard walked quietly through Kruger National Park in South Africa. They were protecting a small wild animal called a pangolin as it fed on ants. This shy **nocturnal** mammal is the size of a housecat. There are eight types of pangolins in Africa and Asia. They look like anteaters but are covered with protective scales. The pangolin walking with Nimmo, named Aura, was rescued from captors by police. They brought Aura to Rhino Revolution, where Nimmo worked. Nimmo is a **conservationist** who helps care for rescued wild animals. At the time, Rhino Revolution worked to save not only rhinos, but pangolins too.

Unfortunately, the scaly armor that covers Aura and all pangolins cannot protect them from **poachers**. These people

A pangolin found in India

GO
ONLINE!

Watch a video about pangolins at scholastic.com/sciencesp3-6



GETTING WELL:
A pangolin is cared for by a veterinary nurse at Rhino Revolution, in South Africa (right). Experts monitor a pangolin's weight to make sure its health is improving.

traffic, or illegally trade, wildlife. Pangolins are the most trafficked mammal in the world. They are prized for their meat and scales. Millions are captured or killed each year. But conservation groups are trying to save pangolins from **extinction**.

Pangolin Protectors

Rescued pangolins have often been so neglected that they are close to dying. Veterinary nurses care for them around the clock. They give the sick animals liquid food through tubes inserted into the pangolins' stomachs. Once the pangolins regain strength, rescuers take them on walks to find ants. A pangolin eats more than 2 pounds of ants per night.

Pangolins refuse to eat in captivity, so those walks are important. "Rehabilitating them until they're healthy enough to be returned to the wild is hard," says Ray Jansen. He's a zoologist

with the African Pangolin Working Group that focuses its work on saving pangolins.

Pangolins in Peril

The pangolin has unique features. It has a sticky tongue that's nearly as long as its body. It uses this tongue to slurp up ants and termites that it digs up with its strong front claws. The pangolin is the only mammal with scales instead of fur. The scales are made of keratin, the same material found in human hair and fingernails.

When threatened, pangolins curl into a ball. Their scales are a defense against predators like lions and tigers that want to eat them. But this **adaptation** makes them easy to catch. When a pangolin curls up, a poacher can simply pick it up.

All eight types of pangolin are under threat in the wild. Laws protect them. But countless

pangolins are sold illegally every year. The number rescued is small, but every pangolin saved is important. "We have to treat every single one in our care as if it's the last," says Jansen.

Aura spent three months with Rhino Revolution. When she was returned to the wild, she wore a tracking device. This lets rescuers follow her movements. "We spotted her in the bush a month after her release," says Nimmo. "She looked good."

— Kimberly Y. Masibay

WORDS TO KNOW

nocturnal: active at night

conservationists: people who work to protect plants and animals

poachers: people who illegally capture or kill wildlife

extinction: the dying off of a plant or animal species

adaptation: a feature that helps a living thing survive

Name: _____

ON THE BRINK OF EXTINCTION

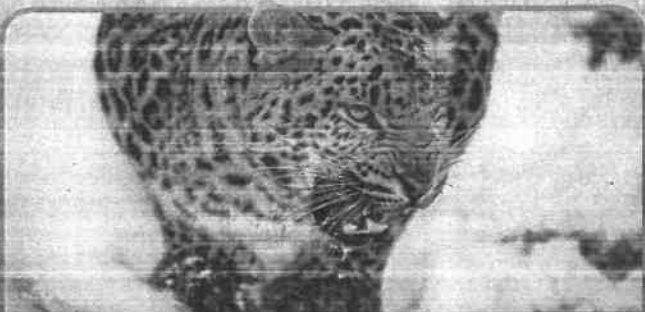
Nearly 2,500 kinds of animals are critically endangered. This means they face an extremely high risk of dying out in the wild. Of these, about 200 are mammals. Read on to find out about some of these mammals.



NAME: Sumatran Elephant | LOCATION: Sumatra
REASON FOR BEING ENDANGERED: Forest homes are being cut down. This is called habitat loss.
ESTIMATED NUMBER IN THE WILD: 2,500



NAME: Yangtze Finless Porpoise | LOCATION: China
REASON FOR BEING ENDANGERED: Lack of food from overfishing
ESTIMATED NUMBER IN THE WILD: 1,800



NAME: Amur Leopard | LOCATION: Russia
REASON FOR BEING ENDANGERED: Poaching as well as habitat loss due to forests being cut down
ESTIMATED NUMBER IN THE WILD: 50

QUICK QUIZ: Answer these questions using what you learned from the article and the examples (left).

- 1** Poaching means to _____ a protected animal.
A eat
B rescue
C illegally capture or kill
D adopt
- 2** There are _____ different types of pangolins.
A two
B four
C eight
D nine
- 3** The pangolin is the only mammal that is covered by _____.
A a shell
B feathers
C scales
D whiskers
- 4** Why have Yangtze finless porpoises become critically endangered?
A They don't have enough food because people overfish the waters where they live.
B People hunt them.
C People catch them to make them pets.
D all of the above
- 5** Which of the following is the best definition of habitat loss?
A removal of an animal from its home
B destruction of an area in which a type of animal lives
C when animals from outside a habitat invade a new habitat
D none of the above

Name: _____

WHAT'S THE MAIN IDEA?

When reading a text, it's important to be able to identify its main ideas, or the important points the author is making.

The author includes details in the text to support each main idea. A short text may have only one main idea. In a longer article, you can typically identify a main idea for each of its sections. Each section's main idea should support the main idea of the whole article. Use this graphic organizer to record the main ideas and important details in any *Science Spin* article. If you need more room, continue the organizer on the back of this paper.

The main idea of the first section is: _____ _____ _____ _____	➔	One detail that supports this idea is: _____ _____
	➔	Another detail that supports this idea is: _____ _____
The main idea of the second section is: _____ _____ _____ _____	➔	One detail that supports this idea is: _____ _____
	➔	Another detail that supports this idea is: _____ _____
The main idea of the third section is: _____ _____ _____ _____	➔	One detail that supports this idea is: _____ _____
	➔	Another detail that supports this idea is: _____ _____
The main idea of the article is: _____ _____ _____		

Washington Climate

Name _____

Date _____

Another interesting type of map you can make is one that shows the average annual rainfall. (Precipitation includes the amount of rainfall, melted snow, sleet and other forms of moisture which fall from the sky.)

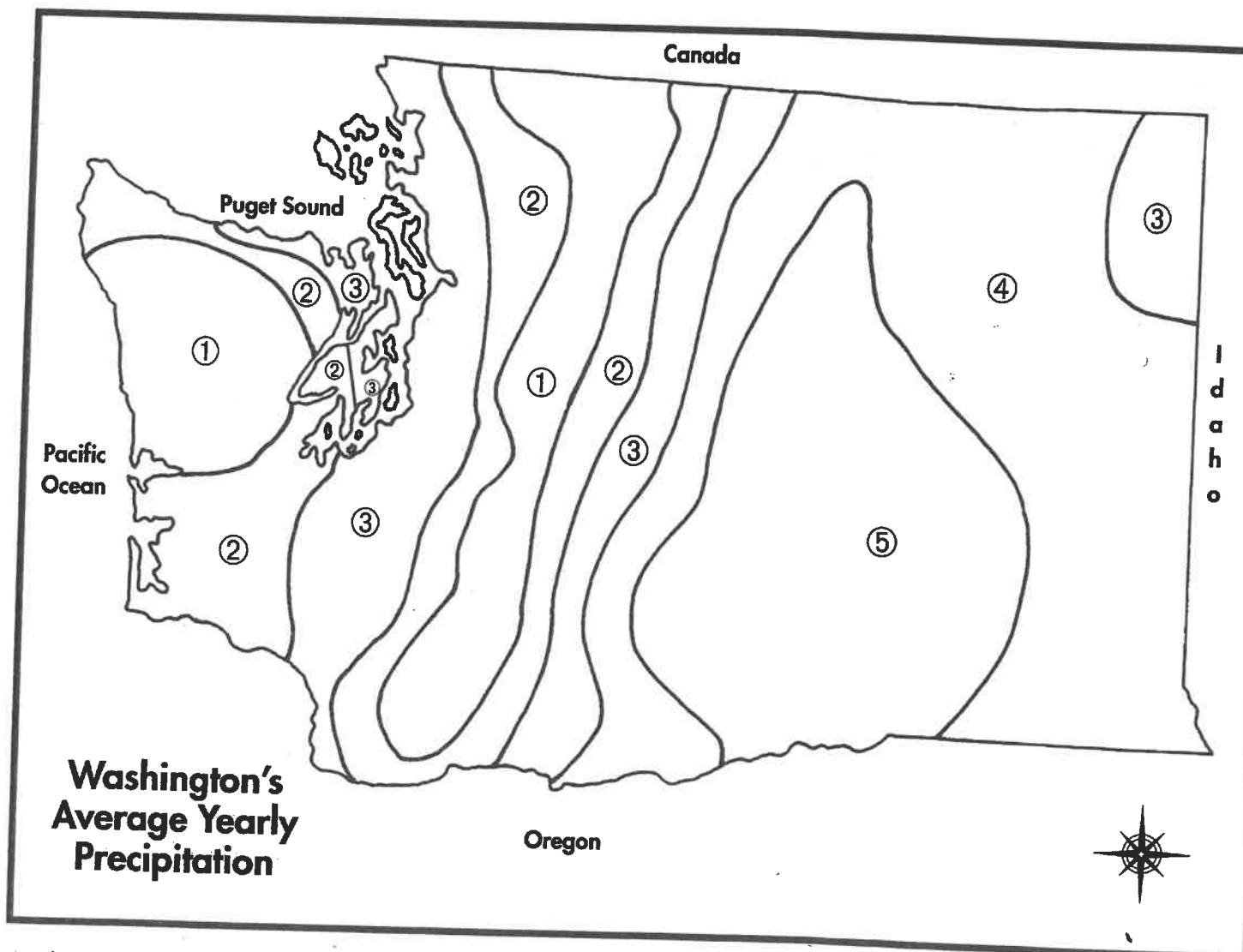
Precipitation in parts of the Olympic Peninsula averages over 135 inches per year. Washington's Central Plateau only receives 6 inches per year.

Make a map of the average precipitation.

Complete this map...

Use this key. Color each of the precipitation ranges the correct color. Make sure you color by the correct number. (Complete the compass rose.)

95" to 150" ① - yellow 48" to 95" ② - orange
24" to 48" ③ - red 12" to 24" ④ - green 0" to 12" ⑤ - blue



REVIEW QUESTIONS

Write the correct answer to complete the sentences.

1. The _____ winds from the _____ bring a lot of _____ to the _____ part of Washington.
2. The _____ averages 135 inches of precipitation per year.
3. The heaviest _____ in U.S. history occurred at _____.
4. The _____ only gets 6 inches of _____ per year.
5. The eastern part of the state has a _____ climate than the _____ part. Much of the eastern part is _____.
6. The _____ ever recorded in Washington was 118°F, on _____. _____ also recorded the same temperature _____ years later.
7. Precipitation includes the amount of _____, _____ and _____.

Write the correct answer in the space provided. (You may need to use a map.)

8. What is January's average daily high temperature in the northeast corner of the state? _____
9. What is January's average daily low temperature in the southeast corner of the state? _____
10. What is July's average daily high temperature along the Pacific coastline? _____
11. What is July's average daily low temperature in the southeastern and much of the western part of Washington? _____
12. What is Washington's average yearly precipitation along the Puget Sound? _____
13. Explain why Washington has a milder climate than other states as far north. _____

☆☆ Bonus Activity

Write a true or fictitious story about an adventure you or somebody else had in freezing winter or blistering hot summer. Be specific with the details.
Make pictures to go along with your adventure.

Science Spin

3-6 • November/December 2019

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IN THIS
ISSUE
Properties
of Matter

PHYSICAL SCIENCE

FLOATING on Air

How do hot air balloons float?
Science has the answer!

SCHOLASTIC

Pg. 1.

UP, UP, and AWAY!

Find out how hot air balloons float.

GO
ONLINE!

Watch a video about the world's largest balloon event at scholastic.com/sciencspin3-6

Every fall, the skies above Albuquerque, New Mexico, fill with color. It's the Albuquerque International Balloon Fiesta, the largest gathering of hot air balloons in the world!

Each year, more than 500 pilots bring colorful balloons in outrageous shapes, from pirate ships to haunted houses. No matter their shape, all hot air balloons work the same way. Here's how they stay afloat.

Great Heights

Hot air balloons have three main parts (see *How a Hot Air Balloon Floats*; right). The pilot and passengers ride in the basket. The colorful balloon that fills with air is called the envelope. Attached to the

bottom of the envelope are burners powered by tanks of propane, a type of gas.

To take off, the pilot lights the burners, which produce a 12-foot flame. As the air inside the envelope warms, its **molecules** move faster and farther apart. Soon, the air becomes less **dense** than the air outside. The balloon lifts off! The upward force that allows the balloon to float is called **buoyancy**.

Making the flame larger causes the balloon to rise. It can soar as high as 3,000 feet! To travel back to the ground, the pilot opens a vent. This releases hot air through the balloon's top.

The Air Up There

In the air, the real challenge begins. "You don't really steer a balloon," says Caryn Welz, president of Albuquerque's hot air ballooning association. "It goes where the wind does."

In Albuquerque, a regular wind pattern helps pilots control the balloons. Cool air from the Sandia Mountains blows south at a low elevation. Warm air rises and blows north.

Pilots fly low to go south, then rise higher to travel north.

For Welz, the best part of ballooning is watching a new passenger take in the 360-degree view. "You don't get that in a plane!" she says.

—Jeanette Ferrara



How a Hot Air Balloon Floats

GOING UP: A hot air balloon rises as the air inside the balloon is warmed. As the air inside warms, it becomes less dense than the air outside.

AIR INSIDE

AIR OUTSIDE

ENVELOPE: The balloon's envelope is made of panels of tough nylon fabric sewn together. It keeps the hot air inside the balloon.

BASKET: The basket holds the pilot and passengers. The basket is attached to the balloon by steel cables.

BURNER: A burner is attached to gas tanks. The burner shoots a flame high up into the balloon. It heats the air inside. The average temperature of the air in the balloon is about 120°F.

WORDS TO KNOW

molecules: the smallest parts of a substance that display all the chemical properties of that substance

dense: how much matter is found within a given space

buoyancy: the upward force that a fluid or gas puts on an object that is less dense than itself

Name: _____

Measuring Matter

You read about how changing the density of air allows a hot air balloon to float. Study these boxes below to find out about how matter (anything with mass that takes up space) is measured.

VOLUME

Measures how much space matter takes up

HOW IT'S MEASURED:
Volume can be measured using measuring cups.



MASS

Measures the amount of matter contained in an object

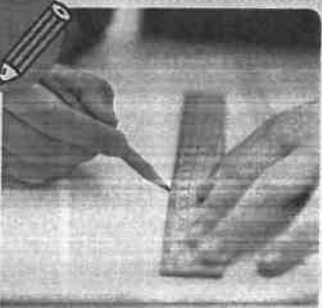
HOW IT'S MEASURED:
Mass can be measured using a balance.



LENGTH

Measures distance—how far from end to end or from one point to another

HOW IT'S MEASURED:
Length can be measured using a ruler.



DENSITY

Measures the amount of mass in a given volume of a substance

HOW IT'S MEASURED:
Density is calculated by dividing the mass of an object by its volume.



QUICK QUIZ: Answer the following questions using information from the article and from the boxes (above).

1 When describing an object by saying how long it is, you are describing its _____.

- Ⓐ length Ⓒ mass
- Ⓑ volume Ⓓ density

2 To find an object's _____, divide its mass by its volume.

- Ⓐ length Ⓒ mass
- Ⓑ volume Ⓓ density

3 This force keeps a hot air balloon afloat.

- Ⓐ speed Ⓒ mass
- Ⓑ buoyancy Ⓓ density

4 Heating the air inside a hot air balloon makes it _____ the air outside.

- Ⓐ more dense than
- Ⓑ less dense than
- Ⓒ have the same density as
- Ⓓ none of the above

5 The volume of an object tells you _____.

- Ⓐ how heavy it is
- Ⓑ how tall it is
- Ⓒ how much space it takes up
- Ⓓ how much of the floor it will cover

ScienceSpin.

Survey, Question, Read, Recite, Review!

Use the Survey, Question, Read, Recite, and Review (SQ3R) method with the article "Up, Up, and Away!" to help you better understand the article and summarize its most important details. The checklist below will guide you through the SQ3R process.

SURVEY: Look at the article.

1. What is the title of the article? _____
 2. What are the subheadings? _____
 3. What do the images show? _____
-

QUESTION: Skim the article. What do you hope to learn by reading this article? Write four questions in the spaces below.

1. _____
 2. _____
 3. _____
 4. _____
-

READ: Read the article one section at a time. Look for answers to your questions.

RECITE: After you've finished reading, look up from the text. Say the answers to your questions out loud. Then write down your answers.

1. _____
 2. _____
 3. _____
 4. _____
-

REVIEW: Read through the information you gathered from the article. Use this information to write a summary of the article's main idea and important details. Continue your summary on the back of this page or on another sheet of paper if necessary.

Simple Science Report

ANT HILL

Provide books and other materials about ants and their homes for students reporting on ant hills. (You may need to read these to younger students.) Discuss the information they have learned, then assign a writing task.

Ants by Cynthia Overbeck; Lerner, 1982

Ants by Edward Ross; Child's World, Inc., 1993

Ant Cities by Arthur Dorros; Harper Collins Childrens Books, 1993

Discussion Starters

Do all kinds of ants build the same kind of ant hill?

What kinds of jobs do different ants have?

What do ants eat and where do they get the food?

How do ants take care of their babies?

How do ants communicate with one another?

Animal Home Discussion Starter

Look at the picture of the inside of an ant hill.

Can you tell how the ant uses the different "rooms"?

Writing Ideas

1. A Report about an Ant Hill
 - a. Tell about who lives in an ant hill.
 - b. Tell how an ant hill is built.
 - c. Tell why this is a good home for ants.
2. Make a list of all the kinds of animals you know that live in tunnels under the ground.
3. Describe how an ant hill is like your home and how it is different than your home.
4. Write a story about ants and an ant hill.

**The Little Lost Ant
Protecting the Ant Hill
If I Lived in an Ant Hill**

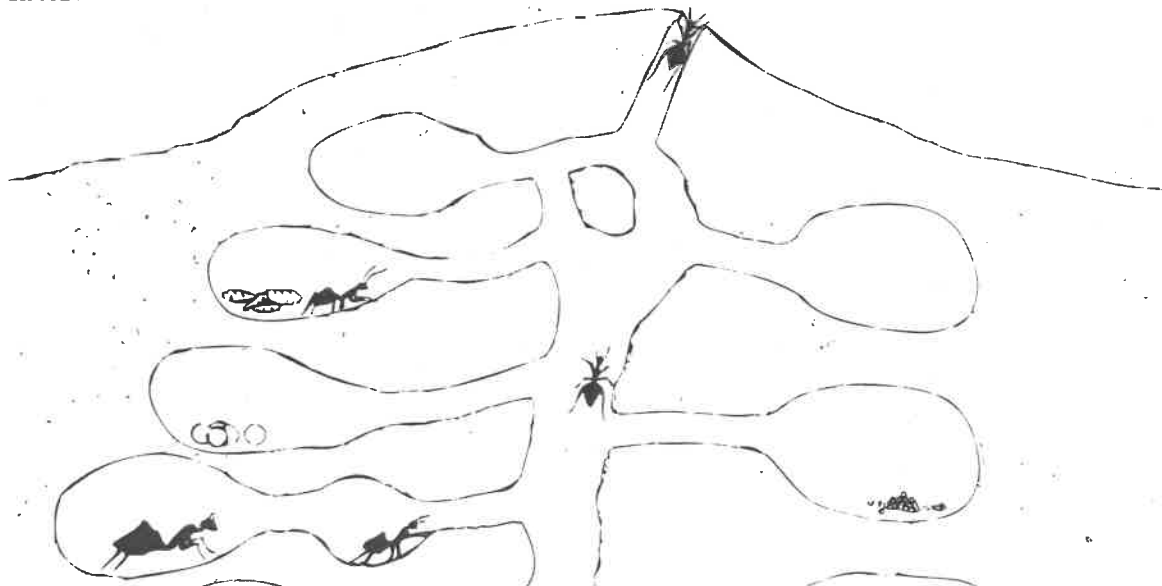
Ant Hill

Ants build nests in all kinds of places. Some build tunnels in the rotten wood of logs or telephone poles. Some nest in branches of living trees. The kinds of ants we see the most build their nests in the earth.

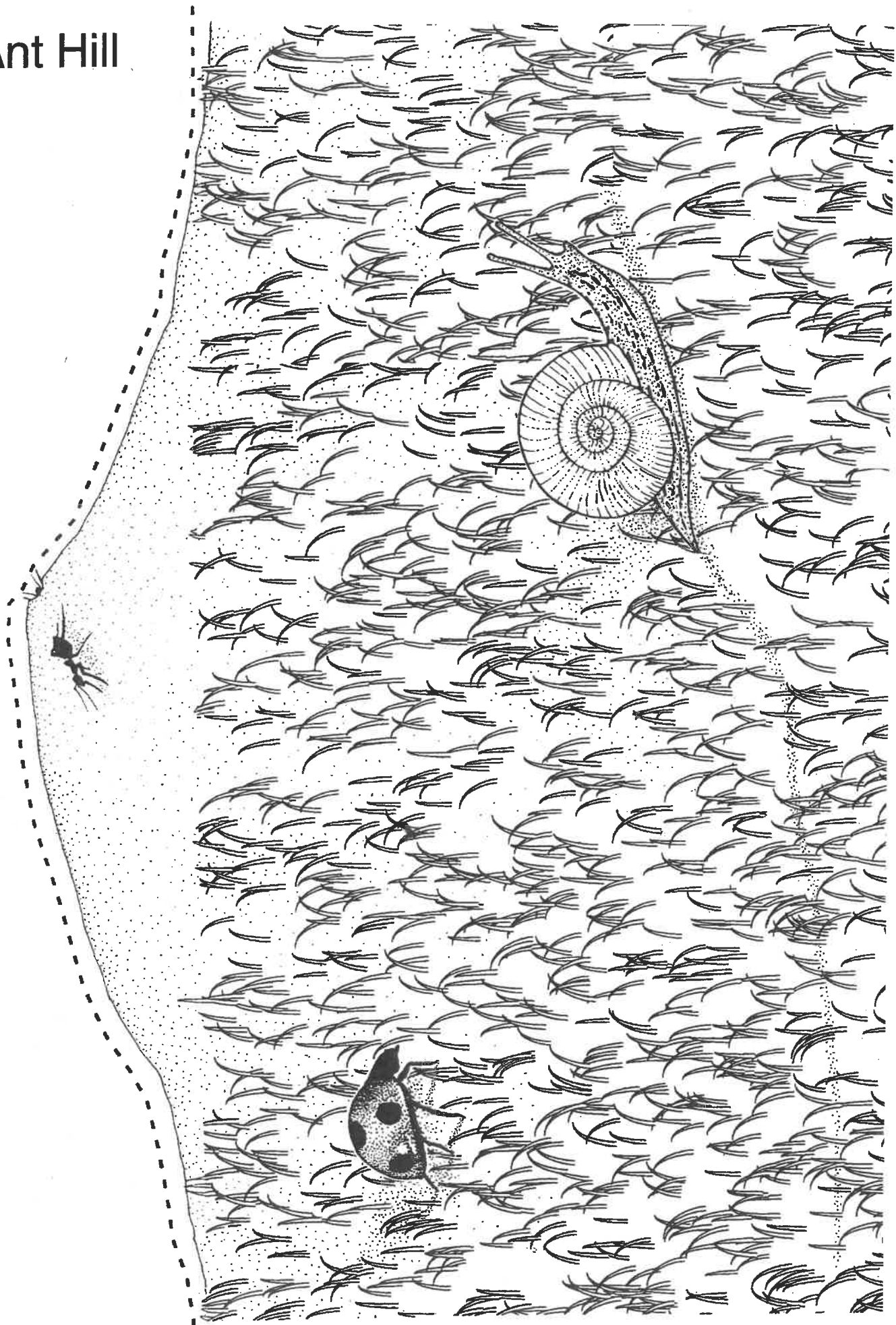
In these nests built under the earth, whole communities of ants are busily working away. The ants build homes with many rooms and tunnels where they live, store their food, and raise their young.

An ant hill in the ground begins with one small room that the queen makes before she lays her eggs. The workers ants dig tunnels leading from the queen's room to the surface. The worker then start building underground tunnels and many more rooms. They dig out the dirt and carry it, bit by bit, up to the surface. Some kinds of ants carry the dirt away from the opening and scatter it around. Other kinds of ants let the dirt pile up around the entrance to the nest.

The workers dig rooms to use as nurseries for the eggs, larvae, and pupae stages of the baby ants. They build rooms in which to store food. And they build rooms to use as resting places for the worker ants.



Ant Hill



Inside the Ant Hill

