CONTENTS

		Page
Life	Science	2
	Life in a Pond	6
	Honeybees	8
	The Green Head	10
	The World's Largest Insect	12
	The Mystery of the Loch Ness Monster	14
	Bats	16
	A Monster?	18
	Dreaded Disease Wiped Out	20
	On the Trail of the Common Cold	22
	Getting Enough Exercise	24
	A Healthful Diet	26
	Hear Ye, Hear Ye! Can You?	28
	Plants That Eat Insects	
	Tumbleweeds, Rolling Weeds	32
Ear	th-Space Science	34
	Not One, But Two	
	Jupiter's Giant Red Spot	
	Satellites Watch the Earth's Weather	
	Sunspots	
	Tsunami!	
	An Ocean Current	
	When the Earth Shakes	
	Volcanoes: Big Eruptions	
	Hurricane Coming!	E 1

Pag	e
Physical Science	5
The Power of Water60	
Music! Music!62	
Play It Safe64	
Car Design Is Not a Drag66	5
Human-Powered Flight68	
Light Tricks70	
Fiber Optics72	
Lighter Than Air74	
Environmental Science	5
Save the Rainforest80	
Denmark's Windmill82)
The Invisible Danger in Water84	ļ
Sequoias: Tree Giants86	,
Geothermal Energy88	,
Wood, a Resource with Many Lives90)
Big Bird in Big Trouble92	
A Wolf in Danger94	
Pesticides and Rachel Carson96)
Record Keeping	
Metric Tables 100)
Bibliography102	1

Life in a Pond

How does a pond food chain work?

The water is still while frogs croak and crickets chirp softly. The pond seems so peaceful, but don't be fooled. Over and under the water, there is a lot of activity. Plants and animals are growing, and animals are searching for food.

All the energy in a pond comes first from the sun. Tiny plants called *algae* (al'jē) use the sun's energy to make their food. Tadpoles and small insects eat the algae. Large insects and small fish eat the tiny insects and tadpoles. Frogs and big fish eat the large insects and small fish. Hawks, ducks, and raccoons eat the big fish and frogs.

It is like a chain. Each animal in a food chain needs to eat many smaller living things. This means there are many more smaller animals than larger ones. One small pond may have only a few ducks. But it will have hundreds of frogs and thousands of insects. There will be billions of algae cells. You can see that a quiet pond is really a very busy place.



QUESTIONS

- 1. What are algae?
 - a. very small fish
 - b. small pond animals
 - c. tiny plants
- **2.** What does the story say that tadpoles eat?
 - a. algae
 - b. fish
 - c. insects
- 3. A food chain always begins with
 - a. tiny fish.
 - b. a pond.
 - c. the sun.
- **4.** Why should there be more small living things than large living things in a pond?
 - a. Smaller things are harder to catch.
 - b. Larger things must have enough to eat.
 - c. Smaller things live underwater.
- 5. If all the algae in a pond were killed, what would happen to the animals?
 - a. They would all leave.
 - b. Nothing would happen.
 - c. They would starve.

Honeybees

Honeybees can do three kinds of jobs.

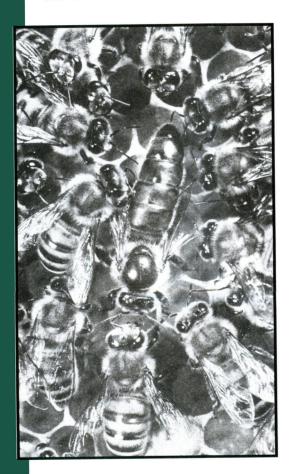
The honeybee is one of the most unusual insects in the world. Bees are special because they divide up their work. Each bee has a certain job to do.

The busiest bee is the worker. Workers build the nest, called a *hive* (hīv). Inside the hive, workers make a honeycomb (hūn'ē kōm') from wax. They store honey there for food. Workers are always cleaning and fixing the hive. They even stand at the opening and fan their wings to cool the hive. Worker bees will attack anything–even people–to

keep the hive safe.

Another kind of bee is the drone. Drones are male bees, and their job is to fly with the queen bee and mate with her. After the queen mates, the worker bees drive the drones away. The drones then starve to death.

The third kind of bee is the queen. Each hive needs only one queen, and her job is to lay eggs. She can lay as many as 2,000 eggs a day.



QUESTIONS

- 1. The bee's nest is called a
 - a. drone.
 - b. honeycomb.
 - c. hive.
- 2. Wax is used to make the
 - a. nest.
 - b. honeycomb.
 - c. fan.
- 3. Which jobs do workers do?
 - a. They lay 2,000 eggs each day and build a nest.
 - b. They mate with the queen bee and then starve.
 - c. They clean the hive and keep it cool.
- 4. According to the story, bees
 - a. are very dangerous insects.
 - b. will attack anything or anyone to protect the hive, if necessary.
 - c. are like any other insect that flies.
- 5. The drone is driven away when its job is finished, because
 - a. it attacked the workers.
 - b. it is no longer needed in the hive.
 - c. the queen bee has died.