

# SCIENCE

Teacher's Guide Part 2

▶ **1st Grade**

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# SCIENCE 100

## Teacher's Guide Part 2

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# 1. GROWING

## PAGES 2 AND 3

### MATERIALS NEEDED

- pencils
- writing tablet
- scissors
- glue
- Worksheet 1

**Concept:**

Plants, animals, and people grow.

**Objective:**

I can name three things that grow.

**Process:**

Observing

**Reading Integration:**

Recalling details, irregular verbs (grow/grew)

**Vocabulary:**

kitten, deer, cub, grew, living, (plants, animals, people, garden, bear)

*Note: Vocabulary words in parentheses were previously introduced and are being reviewed.*

**Teaching Pages 2 and 3:**

Remind the children that the last two LIFE-PACs were about things that grow.

Ask:

“Can you name some things that grow that you learned about in LIFE-PACs 104 and 105?” (plants, animals)

Tell the children that the first section of the LIFE-PAC will review a few of the things they learned in Science 104 and 105 and then help them learn some ways people grow.

Present the vocabulary. Stress the irregular past tense of grow (grew). Read the introductory sentences to the class or have them read by a volunteer.

GROWING UP HEALTHY | Unit 6

### 1. GROWING

All living things grow.  
Plants grow.  
Animals grow.  
People grow.



#### Plants and Animals Grow

Look at the seed.  
Dan put the seed in the garden.

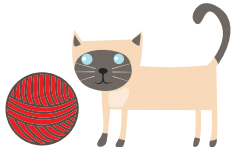
Dan watered the seed.  
The seed grew.  
The seed grew into a plant.




2 | Section 1

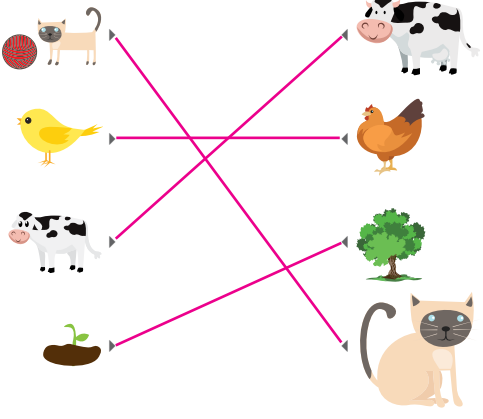
Unit 6 | GROWING UP HEALTHY

Look at Tat.  
Tat is Dan's kitten.  
Tat is growing.  
As Tat grows,  
she gets bigger.  
Soon Tat will be a cat.



.....

 Match the small plant or animal to what it will be when it grows bigger.



Section 1 | 3



Ask the class to identify the vocabulary words.

Continue to read through the page. Have the children recall and discuss the growing seed. They may have grown a plant in LIFE-PAC 105, so will be able to talk about how it grew.

Read the sentences on page 3 to the class or have them read by students.

Continue discussion of how animals grow. Review names of baby animals with the names of their grown-up versions.

*Examples:* puppy / dog  
 calf / cow  
 fawn / deer  
 chick / hen, rooster, chicken  
 cub / bear  
 colt / horse

Go over the directions for the exercise. Put an example on the board. Use a puppy and dog, pictures or words. Draw a line to match.

Have the children complete the exercise independently. Check it together.

**Activities:**

1. Do worksheet 1.

Read the sentences with the children.

Instruct the children to find the words that finish the sentence, to cut these words out, and to paste them in the right place.

Have the children read the sentences and talk about the animals.

2. In the writing tablet, have the children write these sentences:

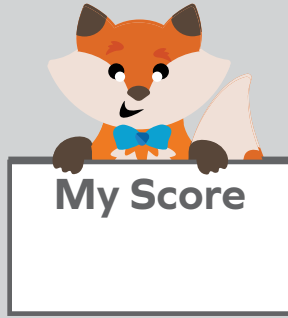
*That will grow to be a cat.*  
*A seed will grow to be a plant.*

# SCIENCE 106

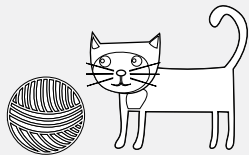
ALTERNATE LIFEPAC TEST

Name \_\_\_\_\_

Date \_\_\_\_\_



Circle the things that can grow.



Write the answer.

man      cat      plant

Dan will grow to be a \_\_\_\_\_ .

Tat will grow to be a \_\_\_\_\_ .

A seed will grow to be a \_\_\_\_\_ .

## PAGES 4 AND 5: WOODLANDS

### MATERIALS NEEDED

- objects made from wood (paper, pencils, and so on)
- picture of forest
- pencils
- crayons
- Worksheet 2

### Concepts:

Deer live in the woodlands. People use the woodlands.

### Objective:

I can tell about different kinds of land.

### Processes:

Observing, classifying

### Reading Integration:

Recalling detail, following directions

### Vocabulary:

woods, useful, (deer, bushes)

*Note: Vocabulary words in parentheses were previously introduced and are being reviewed.*

### Teaching Pages 4 and 5:

Tell the children that the next two pages will help them learn something about woodland regions. They will learn about some plants and animals that live there.

Ask:

“What kind of animal do you see on page 4?”

“Can you find the baby?”

“What do you call a baby deer?” (fawn)

Read the paragraphs aloud.

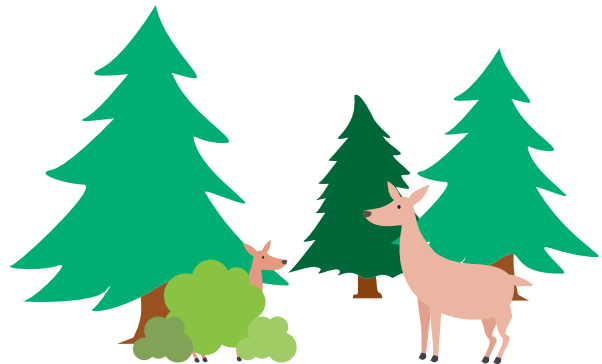
Have the children read along with you as you repeat it.

Ask volunteers to identify the vocabulary words.

### Woodlands

“I’m Dorrie Deer.  
My home is cool and dark.  
I live in the woods.  
The trees are tall.  
My baby can hide in the bushes.  
Can you find him?”

“We are safe in the woods.  
Baby deer can hide.  
I can run fast.”

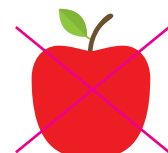
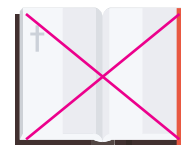


4 | Section 1

Woodlands are good for people.  
People use the trees.



Put an X on each way a tree is useful.



Ask:

“What do the paragraphs tell you about the woodlands?” (cool, dark, etc.)

“Why does Dorrie Deer feel safe in the woods?”

“What kind of plants would you see in the woods?” (trees, bushes.)

Provide discussion time. Use the following questions:

“Why do people need trees?”

“What do you use in school that is made from trees?” (desk, pencil, paper)

“What do you use at home that is made from trees?” (furniture, wooden spoon, the house itself perhaps)

Wood is often used as a fuel. It is used today mainly in fireplaces. It used to be used in kitchen stoves. The charcoal used in grills is a product of wood, too.

Have a child read the introductory sentences and the direction on page 5. Have the vocabulary word identified.

When the children have chosen the ways a tree is useful, discuss the reasons the paper, logs, and the wood house were chosen.

**Activities:**

1. To extend the concept, have the children find out (from books, parents, or other sources) some other animals that might live in the woodlands. They might make a poster, a collage, a diorama (shoe box scene) of the woodlands including some animals to be seen

2. Do Worksheet 2.

Read the directions. Let the children do the worksheet independently. Help the children who have difficulty with numerals over 10. Check. Help with the spelling of animal names. Have the children color the picture.

3. If you live in a woodland region, a lumber or paper mill may welcome a class visit.
4. Make a class poster, collage, or chart of the products of wood.
5. Extend the concept of man’s use of woodlands. Early settlers depended upon meat from the animals they could trap or shoot. Homes and fences were built from the trees. Cleared land was and still is farmed. The soil in woodland areas is usually very fertile.

Student Worksheet | Science 107

Follow the dots to see another woodland animal.

I am a

skunk

Science 107  
Worksheet 2  
with page 5

Teacher Check  Initial \_\_\_\_\_ Date \_\_\_\_\_

136

**Make compound words.**

**Match the words.**

**Write the compound word.**

rain ▶ ◀ fish

sun ▶ ◀ drop

star ▶ ◀ land

grass ▶ ◀ shine

raindrop

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

road ▶ ◀ land

wood ▶ ◀ fish

sea ▶ ◀ runner

cat ▶ ◀ shore

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Teacher Check

Initial

Date

## PAGES 3 AND 4: SUN

### MATERIALS NEEDED

- lamp (no shade)
- writing tablets
- pencils

#### Concept:

Light energy and heat energy come from the sun.

#### Objective:

I will know about energy.

#### Process:

Observing

#### Reading Integration:

Vocabulary development, recalling detail

#### Vocabulary:

light energy, heat energy

#### Teaching Pages 3 and 4:

Discuss the vocabulary. Have the children volunteer names of things that give light. Ask what sense is used to observe light. (eye/sight)

Have the children volunteer names of things that give heat. Ask what sense is used to observe heat. (skin/touch/feel)

Use an unshaded lamp to simulate the sun. Have the children note (without actually touching the bulb) that when light is produced, heat is also produced.

Read the page to the children or have it read by a volunteer.

Ask: "What do you see outside?"

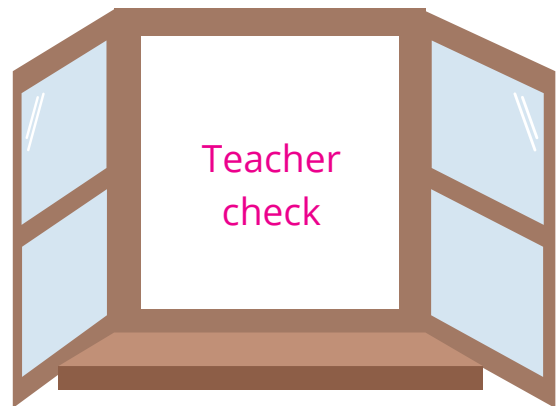
Explain that it can be seen because of the light from the sun. In the space provided, have the children draw a picture of one thing they see when they look through a window in their houses.

### Sun

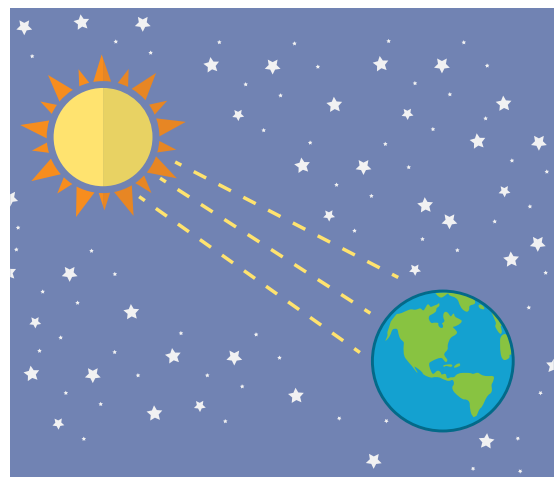
Light comes from the sun.  
Look outside a window. Can you see a tree?  
Can you see a car? You can see outside because the sun is making light.



Draw something you can see outside a window in your house.



Light energy changes into heat energy.  
Do you feel warm when you stand in the sun?





## PAGE 13

## MATERIALS NEEDED

- story about Benjamin Franklin flying his kite in a lightning storm
- Worksheet 2
- crayons

**Concept:**

Moving water has energy.

**Objectives:**

I will know about energy.

I will know about the energy we use.

**Processes:**

Observing, comparing

**Reading Integration:**

Recalling detail, main idea, vocabulary development

**Vocabulary:**

wheel, electricity

**Teaching Page 13:**

Write the vocabulary words on the board. Say each word out loud and ask for student volunteers to give a description of each.

Read the text to the class, or ask for a volunteer to read. Compare moving water to moving air and the sun. Discuss electricity and how we use it.

**Activity:**

1. Read a short story about Benjamin Franklin discovering electricity by flying his kite in a lightning storm.
2. Provide Worksheet 2 and have children color the picture.

Unit 8 | ENERGY

Moving water has energy. Look at the picture of the dam. Water moves large wheels called turbines inside the dam and makes electricity.



Electricity is made from solar energy, wind, and moving water.

We use electricity every day. Do you know how?



This is how we use electricity in our homes.

Section 1 | 13

Student Worksheet | Science 108

Color Benjamin Franklin and his kite.



Science 108  
Worksheet 2  
with page 13



Teacher Check

Initial \_\_\_\_\_ Date \_\_\_\_\_

## PAGES 8 AND 9: LEVERS WORK TOGETHER

### MATERIALS NEEDED

- vocabulary word cards
- scissors
- pliers
- nutcrackers
- other tools made of levers
- pencils
- crayons
- Worksheet 2

#### Concept:

Some tools we use are made of two levers working together.

#### Objective:

I can tell about some levers.

#### Processes:

Observing, predicting

#### Reading Integration:

Main idea, vocabulary development, speaking in a group, following directions

#### Vocabulary:

tool, scissors, pliers, nutcracker, clippers, (pair)

*Note: Vocabulary words in parentheses were previously introduced and are being reviewed.*

#### Teaching Pages 8 and 9:

Present the vocabulary. Match the words with the objects they represent.

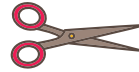
Read the title and the statements at the top of the page or have them read by volunteers.

Ask the children to identify the tools pictured.

Proceed with the discussion question. Have the children try to think of other tools made with two levers. (scissors of assorted sizes, hedge clippers, tongs, bellows)

### Levers that Work Together

Some tools are made of levers.  
The levers work together.



Scissors



Pliers



Nutcracker



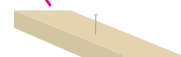
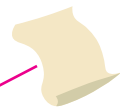
Nail Clippers



Can you name some jobs these tools can do?



Match the levers with the jobs they do.



## PAGES 4 AND 5: SIGHT

### MATERIALS NEEDED

- vocabulary word cards
- pencils
- Worksheets 2 and 3

#### Concept:

You use your sense of sight to observe the world around you.

#### Objective:

I can tell about things I see, hear, smell, taste, and feel.

#### Process:

Observing

#### Reading Integration:

Recalling details, following directions

#### Vocabulary:

(shape, color, beautiful, weather, people, seasons, energy, winter, summer, pets, rain)

*Note: Vocabulary words in parentheses were previously introduced and are being reviewed.*

#### Teaching Pages 4 and 5:

Review the vocabulary words using the word cards. As you present each word have the children try to recall what they have learned about each.

*Example:* Shape: Ask for volunteers to name the shapes they learned. Use the shapes from LIFE PAC 102 to review. Do similar activities with each vocabulary word.

Ask the children to identify all the shapes they can find in the illustrations on both pages.

Read the page aloud to the group, or have it read by a volunteer. Ask for a volunteer to read the direction sentence on page 5.

Review the words in the word box.

### You See

All around you are things to see.  
 You see the shapes of things.  
 You see the colors of things.  
 You see the beautiful world.  
 You see plants and animals.  
 You see people.  
 You see the weather.  
 You see the seasons.  
 You see energy at work.



4 | Section 1



Write the words that name the pictures of things you can see.

winter pets energy summer people rain



rain



pets



energy



summer



winter



people

Have the children complete the activity independently.

Check it together.

**Activities:**

1. Do Worksheet 2 for practice and review of shapes.

Read the directions. Let the children do the page independently.

Check together. Give extra help to children who have forgotten shapes.

2. Do Worksheet 3 for a review of colors.

Read only the direction sentence.

Let the children read the sentences and do what each says independently.

Check together and give extra help to any child who still has difficulty with color words.

Science 110 | Student Worksheet

Match each shape to its name.

Color the rectangle green.  
Color the triangle yellow.  
Color the circle blue.  
Color the square red.

Science 110  
Worksheet 2  
with page 5

Teacher Check \_\_\_\_\_  
Initial \_\_\_\_\_ Date \_\_\_\_\_

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Science 110 | Student Worksheet

Color the pictures to match the sentences.

The dog is brown.  
The shirt is orange.  
The sun is yellow.  
The cat is black.  
The tree is green.  
The dress is purple.  
The flag is red, white, and blue.

Science 110  
Worksheet 3  
with page 5

Teacher Check \_\_\_\_\_  
Initial \_\_\_\_\_ Date \_\_\_\_\_

285

maple	peanut butter	same	starfish	vibrate
march	peas	sand	stayed	vibration
Mary	pencil	sandwich	steam	vines
match	pick	school	sticky	voice
meadow	picnic	scientist	still	wagon
meat	picture	scissors	stone(s)	walk
massage	pig	seaweed	strong	warmer
metal	pine	seashore	stronger	waste
microscope	pink	season	struck	watch
middle	pitch	screw	sugar	water
milk	place	screwdriver	summer	waves
morning	plains	see	sunlight	weather
mouse	plant	seed	sunshine	wedge
mountain	playing	shape(s)	supper	wet
move	pliers	sharp	sweet	wheat
moving	plow	sheep	sweet potato	wheel(s)
munch	prairie	side	tail	wheelchair
mushroom	praise	simple machine	taller	white
muscles	pulley(s)	sing	taste	wide
mysterious	purple	singing	teach	wildflower
mail	push	sit-up	themselves	wind
narrow	push-up	size(s)	thick	windmill
nature	raccoon	skin	thin	winter
nerves	rain	skip	through	wood(s)
nest	rainbow	sleep	thunder	woodland
nestling	raindrop	slippery	tight	work
Noah	ramp	small	toe-touch	write
noise	read	smaller	tomato	yard
nose	rectangle	smell	tone	yellow
nuclear	red	smooth	tool	
nutcracker	replace	snack	toolbox	
oak	rest	snake	touch	
oar	rhythm	snow	teach	
oarlock	ring	soft	trains	
ocean	river	soil	travel	
o'clock	roadrunner	solar	tree	
oil	rock	solid	triangle	
open	root	sour	trucks	
orange	rope(s)	sound	true	
outer	rough	sparrow	trunk	
outside	run	spinach	turn	
owner	sad	spring	turtle	
pain	safe	square	useful	
pair	sailing ships	squash	valley	
parakeet	salty	stalk	vegetables	



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