

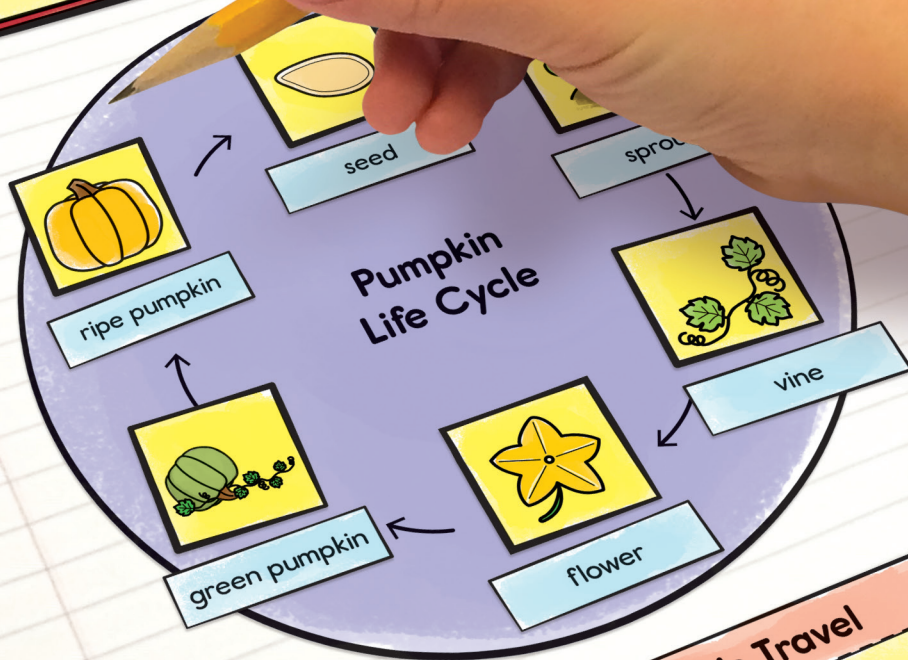
Interactive Notebooks

Grade
2

SCIENCE



Plant Life Cycle



- Ideal for organizing information and applying learning
- Perfect for addressing the needs of individual learners
- Includes step-by-step instructions for each page
- Great for introducing new science topics

How Seeds Travel

in the wind



moved by water

with a
animal
hand

Living and Nonliving

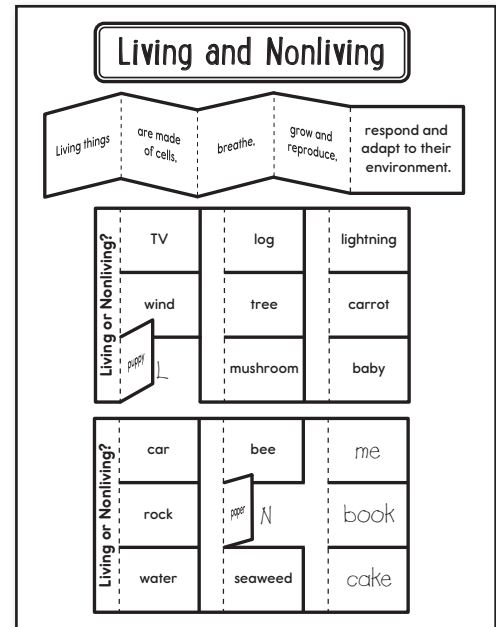
Introduction

Ask students for examples of things that are living. Then, ask what makes something alive. Discuss the characteristics of living things, such as living things breathe, grow, are made of cells, reproduce, and respond and adapt to their environments. Ask for examples of living and nonliving things.

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

1. Add a Table of Contents entry for the Living and Nonliving pages.
2. Cut out the title and glue it to the top of the page.
3. Cut out the *Living things* accordion fold. Starting with the *Living things* section on top, accordion fold on the dashed lines. Apply glue to the back of the last section and attach it to the right side of the page below the title.
4. Cut out the flap books. For each flap book, cut on the solid lines to create three flaps. Apply glue to the back of each left section. Attach them to the page so that the spine of each one is slightly underneath the other, creating two nine-flap books.
5. Under each flap, write whether the object is living (L) or nonliving (N). It may be helpful to discuss plants such as mushrooms and carrots, which are living while planted but nonliving in a grocery store setting where many students may be familiar with them. If an object was once living but is no longer alive, write *nonliving* (N). Write three more objects on the blank flaps. Then, write the answers under the flaps.



Reflect on Learning

To complete the left-hand page, have students answer the following question: *How do plants and animals use nonliving things?*

Answer Key

Nonliving: car, lightning, log, paper, rock, TV, water, wind; Living: baby, bee, carrot, mushroom, puppy, tree, seaweed

Living and Nonliving

Living or Nonliving?	TV	log	lightning
	wind	tree	carrot
	puppy	mushroom	baby

Living or Nonliving?	car	bee	
	rock	paper	
	water	seaweed	

Living things

are made
of cells,

breathe,

grow and
reproduce,

respond and
adapt to their
environment.

Plant and Animal Needs

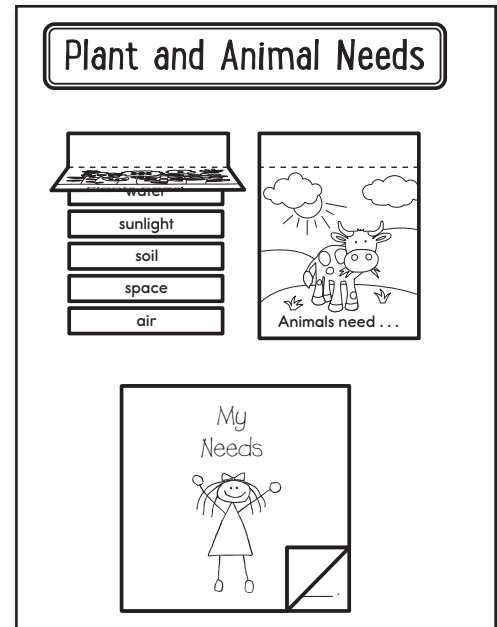
Introduction

Ask students what they need to survive. Have them write their answers on self-stick notes. Draw a T-chart on the board with the headings *Wants* and *Needs*. Have students come to the board and put their responses below the correct category. Finally, discuss and compare plant and animal needs with human needs.

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

1. Add a Table of Contents entry for the Plant and Animal Needs pages.
2. Cut out the title and glue it to the top of the page.
3. Cut out the *Plants need . . .* and *Animals need . . .* flaps. Apply glue to the back of each top section and attach them below the title.
4. Cut out the 14 word cards. Read each need. Then, glue it under the correct flap. Extra pieces may be discarded.
5. Cut out the *I drink* piece. Fold the left side over the text on the dashed line. Apply glue to the back of the piece and attach it to the bottom of the page.
6. On the front, write *My Needs* and draw a picture of yourself. On the inside of the book, fill in the blanks with your needs.



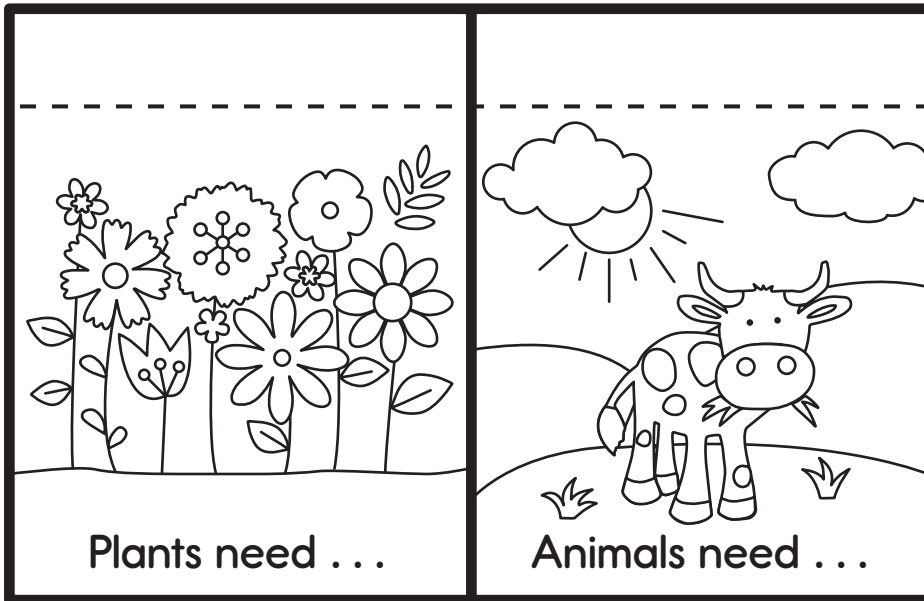
Reflect on Learning

To complete the left-hand page, have students pretend they are hiking overnight. Have them create a list of what they would pack. Have them circle which of those items are needed to survive.

Answer Key

Plants Needs: air, soil, space, sunlight, water; Animals Needs: air, food, shelter, space, water

Plant and Animal Needs



air	air
food	food
shelter	shelter

water	sunlight	space	soil
water	sunlight	space	soil

I drink _____ glasses of water a day.

Healthy foods I enjoy are _____ and _____.

My shelter is _____.

It provides me with _____.

I breathe in _____.

Parts of a Plant

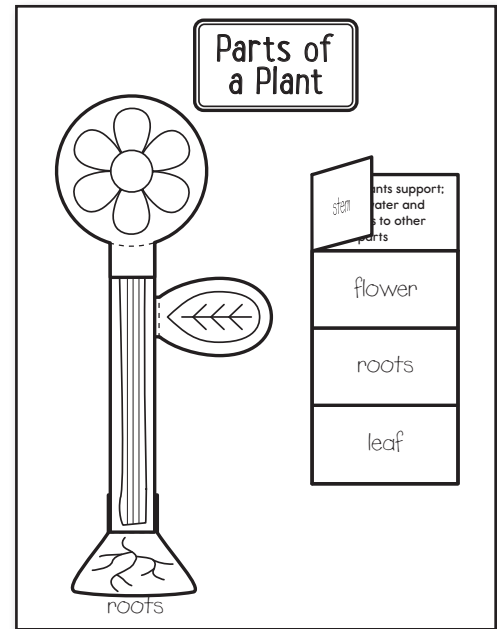
Introduction

Draw a diagram of a simple flower and label its parts on the board (roots, stem, flower, leaf). Discuss what each part of a plant does to keep the plant alive. Then, play a game of “four corners” to assess students’ understanding. Assign each corner of the room a part of a plant. Read the definition of each part of a plant and have students move to the correct corner of the room.

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

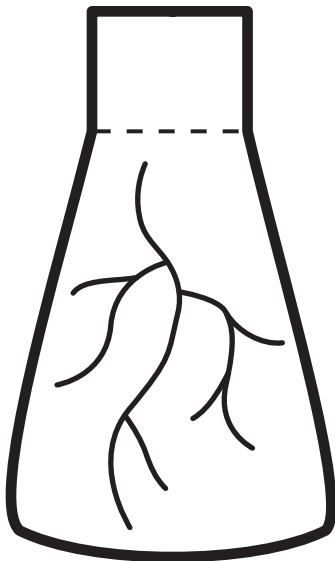
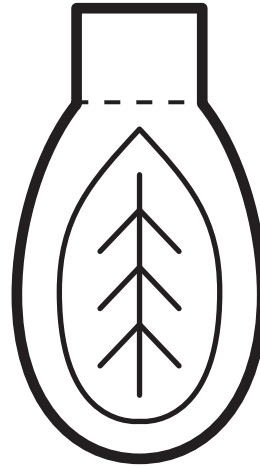
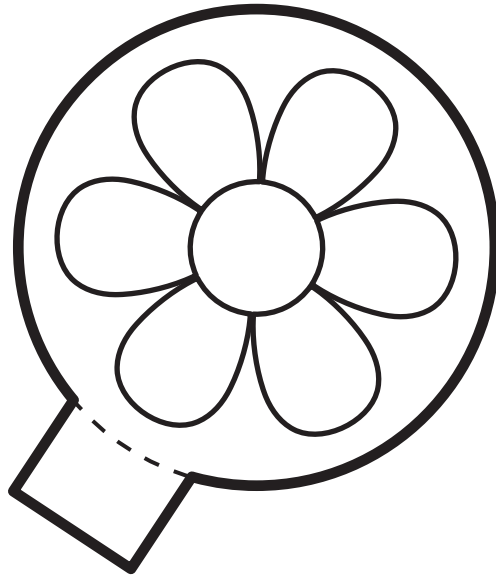
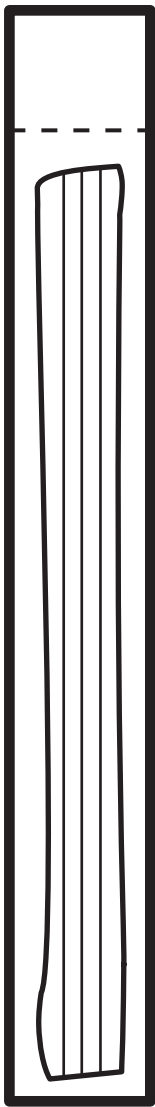
1. Add a Table of Contents entry for the Parts of a Plant pages.
2. Cut out the title and glue it to the top of the page.
3. Cut out the parts-of-a-plant flaps. Assemble them in the correct order. Apply glue to the back of the tabs and attach them on the left side of the page, creating a flower.
4. Under each flap, write the name of the plant part.
5. Cut out the flap book. Cut on the solid lines to create four flaps. Fold the flaps on the dashed lines so that the flaps cover the definitions. Apply glue to the back of the right side and attach it on the right side of the page.
6. Read each definition. Write the correct plant part on the front of each flap.



Reflect on Learning

To complete the left-hand page, provide each student with several pictures of plants. Have students look at the pictures and discuss with partners what is the same about the plants (they have leaves, they have a stem, etc.) and what is different (they have different colored petals, the number of leaves, etc.). Then, have each student choose one picture to cut out and glue into his notebook. He should label the picture of the plant with the correct parts.

Parts of a Plant



	gives plants support; moves water and nutrients to other plant parts
	petals help to attract pollinators, who help create fruit and seeds
	absorb water from the soil and draw it up to the rest of the plant
	takes in carbon dioxide and gives off oxygen; makes food for plants

Animal Structures

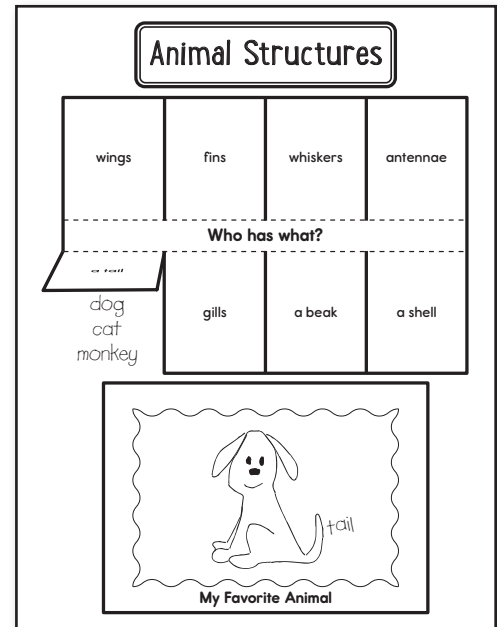
Introduction

Discuss the different structures of animals, such as feet, fins, wings, backbones, etc. Distribute pictures of various animals from magazines or printed from the Internet to each student. Pair students together. Have them complete Venn diagrams comparing the structures of their two animals.

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

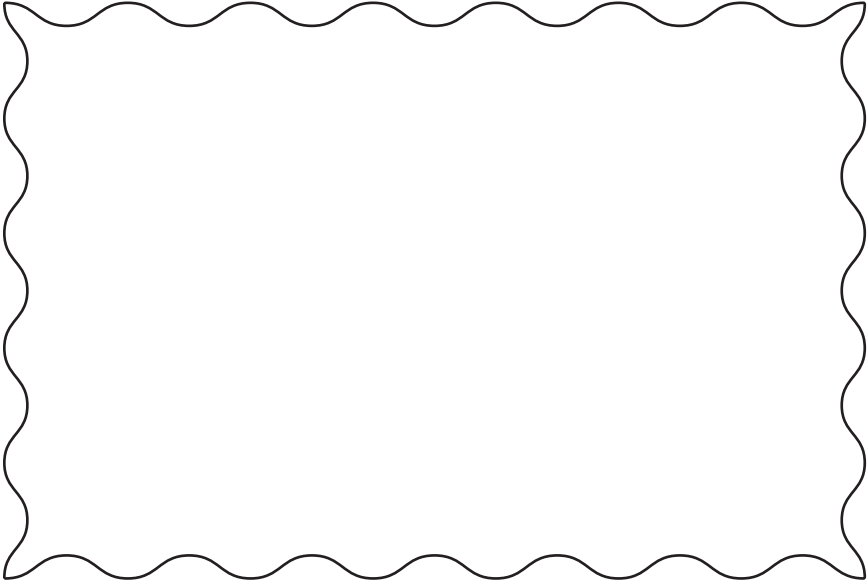
1. Add a Table of Contents entry for the Animal Structures pages.
2. Cut out the title and glue it to the top of the page.
3. Cut out the *Who has what?* flap book. Cut on the solid lines to create eight flaps. Apply glue to the back of the middle section and attach it below the title.
4. Under each flap, write the name of at least one animal with that particular structure.
5. Cut out the *My Favorite Animal* picture frame. Glue it to the bottom of the page.
6. Draw a picture of your favorite animal. Label its structures.



Reflect on Learning

To complete the left-hand page, have students write a list of parts on plants and animals that are similar. Have them choose one and write a sentence to tell what purpose it serves for each.

Animal Structures



My Favorite Animal

wings	fins	whiskers	antennae
Who has what?			
a tail	gills	a beak	a shell

The Human Body

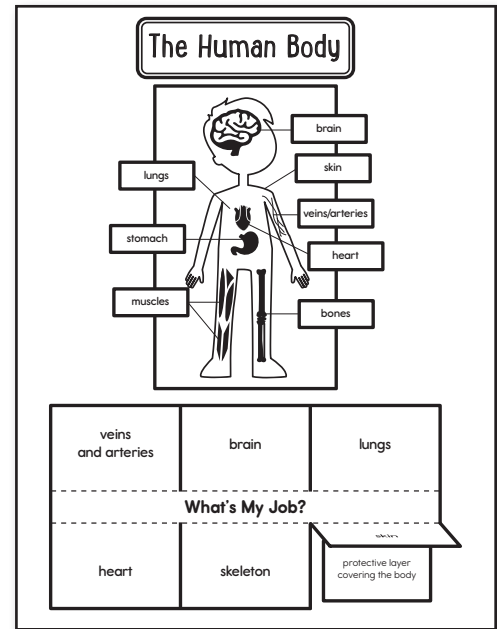
Introduction

Have students run in place for 30 seconds. Ask them if they can feel their hearts beating faster. Explain that the heart helps to pump blood through the body. Have students run again. Ask if they notice they are breathing air in and out. Explain that oxygen is being drawn into their lungs, and unneeded carbon dioxide is being blown out. Discuss how the body has many structures that help it to function.

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

1. Add a Table of Contents entry for The Human Body pages.
2. Cut out the title and glue it to the top of the page.
3. Cut out the human body piece and glue it below the title.
4. Cut out the eight body parts labels. Glue the labels to the correct place on the human body piece.
5. Cut out the *What's My Job?* flap book. Cut on the solid lines to create six flaps. Apply glue to the back of the middle section and attach it to the bottom of the page.
6. Cut out the six definition pieces. Find the correct definition for each body part and glue it under the correct flap.

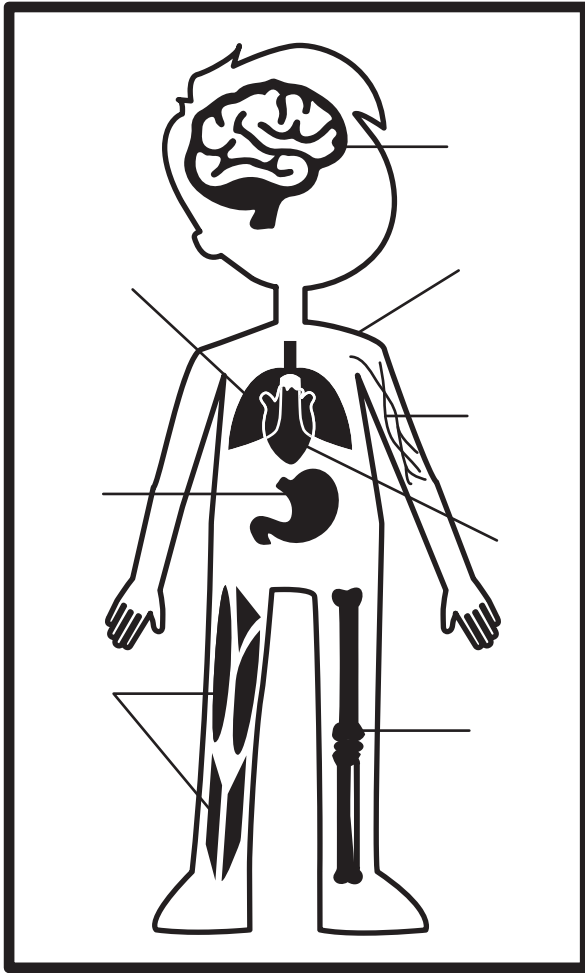


Reflect on Learning

To complete the left-hand page, have students choose a body part from the right-hand page and write a job description from that organ's point of view. Students should describe who they are and what jobs they do in the body.

Answer Key

veins and arteries: allow blood to flow to and from the heart and the rest of the body; brain: is your body's control center; lungs: take in oxygen and let out carbon dioxide; heart: pumps blood and oxygen throughout the body; skeleton: helps to support the body; skin: protective layer covering the body



The Human Body

skin	bones	muscles	stomach	heart	lungs	veins/arteries	brain
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take in oxygen and let out carbon dioxide	allow blood to flow to and from the heart and the rest of the body
protective layer covering the body	is your body's control center
pumps blood and oxygen throughout the body	helps to support the body

veins and arteries	brain	lungs
What's My Job?		
heart	skeleton	skin