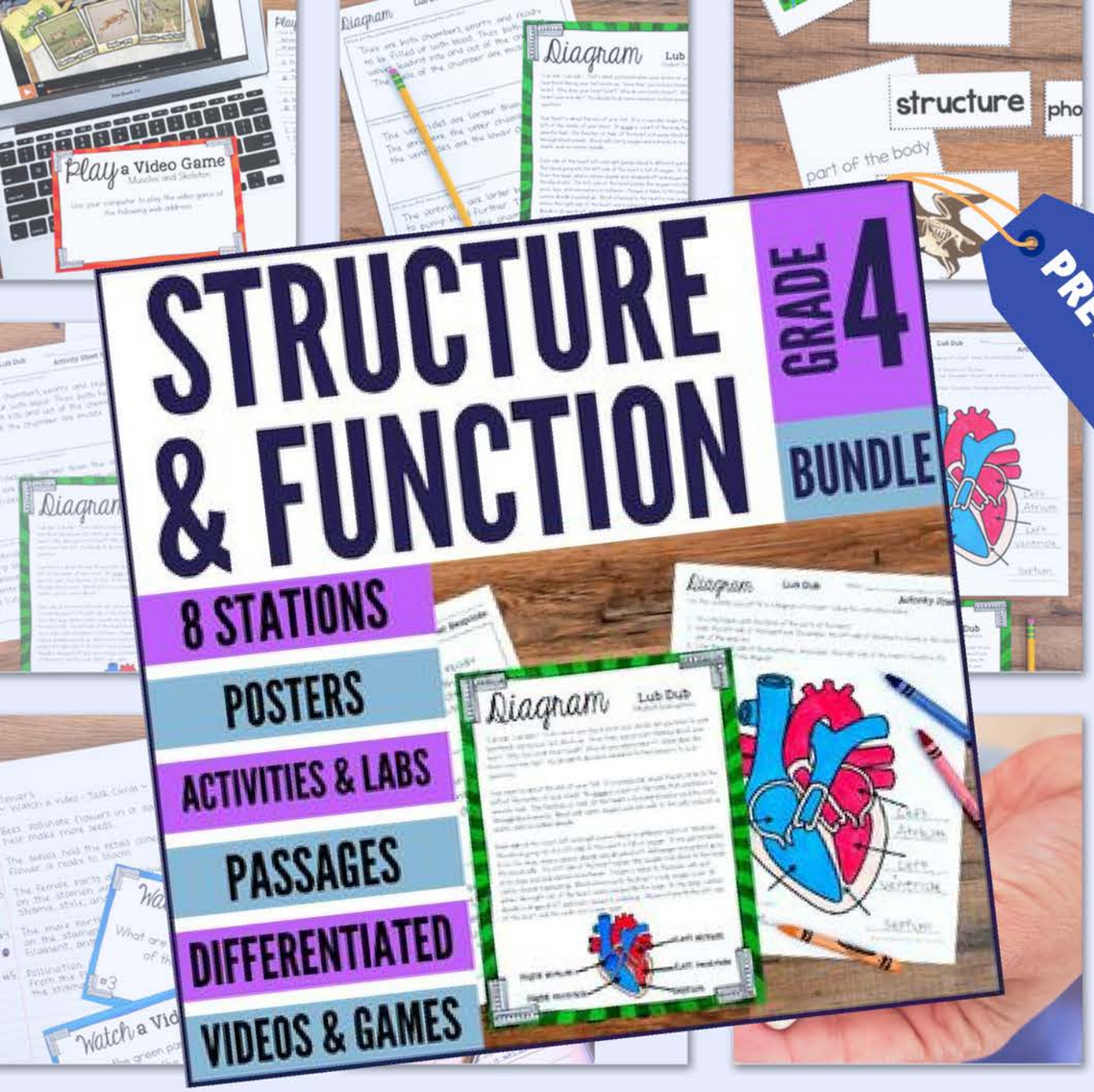


4TH GRADE

Crafting the Foundations of Life

STRUCTURE & FUNCTION
HOW ORGANISMS LIVE, BEHAVE, REPRODUCE, GROW

4th Grade Science Stations

KEEP SCROLLING TO SEE WHAT'S INSIDE!

YOU WILL LOVE THIS BECAUSE



Concept Mastery

Students use various stations to explore internal and external structures of plants and animals, enhancing their understanding of survival, growth, behavior, and reproduction.



Aligned with NGSS

These lesson plans aren't just random; they're laser-focused on Next Generation Science Standards. No more curriculum guesswork!

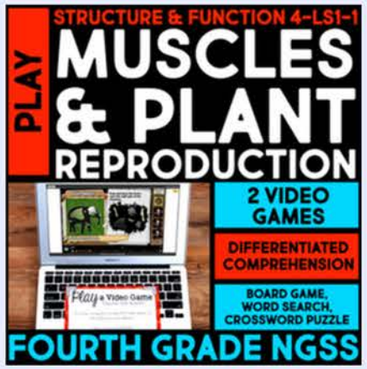


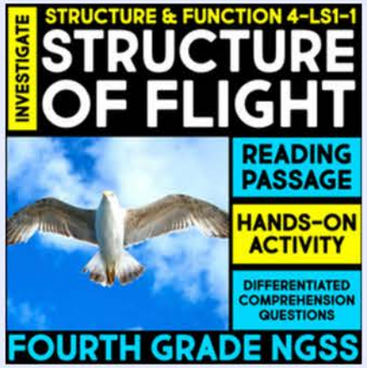
Student Engagement

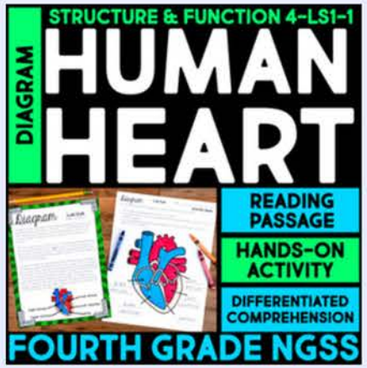
Students investigate real biological structures. Teachers can discuss how these structures support various functions in living organisms.

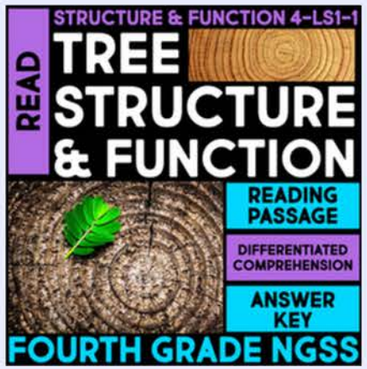
WHAT'S INCLUDED IN THE BUNDLE?

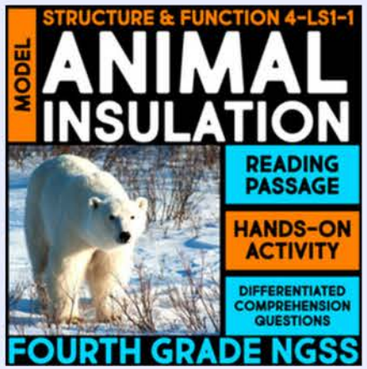


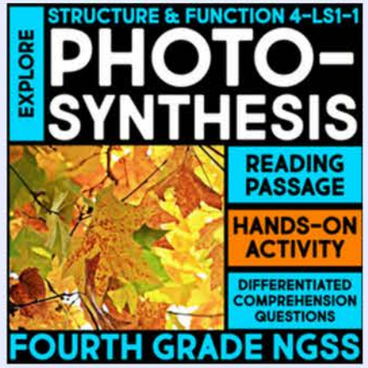


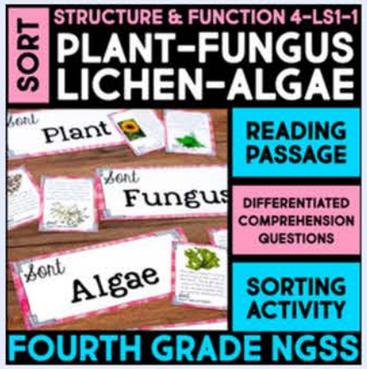












- 8 Science Stations aligned with the NGSS for 4th grade
- 6 Reading passages
- Hands-on activities
- Differentiated comprehension questions
- Digital Videos & Video Games
- Digital Google Slides & Forms

WATCH • PLAY • INVESTIGATE • DIAGRAM • READ • MODEL • EXPLORE • SORT

STRUCTURE & FUNCTION STATION ACTIVITIES

SUGGESTED USES

Learning Stations

Use all eight stations or just a few as learning stations that students complete at their own pace.

Science Centers

Set up a rotation where students visit each center to complete the activities.

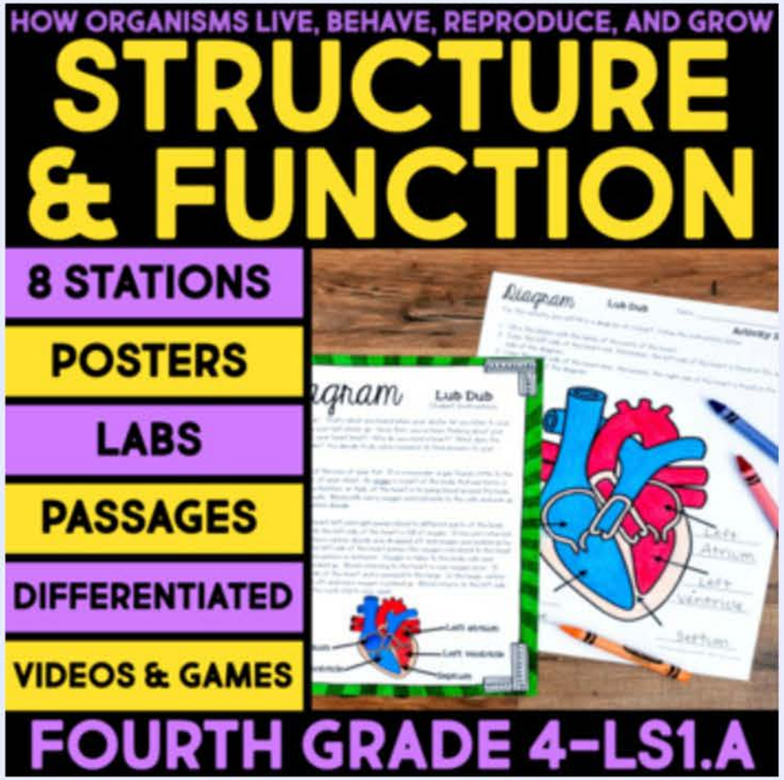
Whole Class

Use the activities in a whole class format.

Small Group

Use the activities with a small group who need extra help.

PAGE OVERVIEW



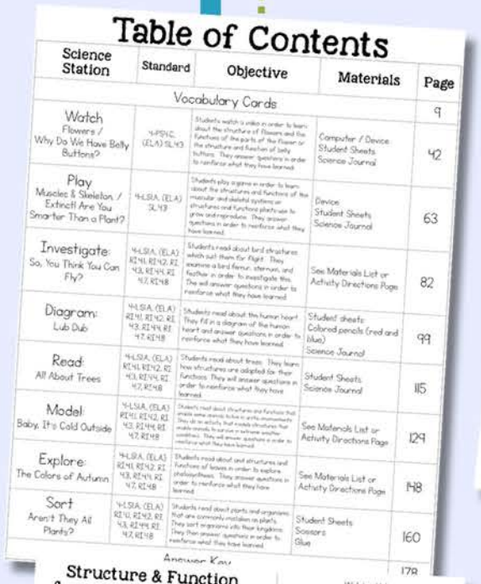


Table of Contents

Science Station	Standard	Objective	Materials	Page
Vocabulary Cards				9
Watch: Flowers / Why Do We Have Belly Buttons?	4-PS4-2, (ELA) SL.4.5	Students watch a video in order to learn about the structure of flowers and the functions of the parts of the flower or the structure and function of belly buttons. They answer questions in order to reinforce what they have learned.	Computer / Device Student Sheets Science Journal	42
Play: Muscles & Skeleton / Extinct! Are You Smarter Than a Plant?	4-LS1.A, (ELA) SL.4.5	Students play a game in order to learn about the structures and functions of the muscular and skeletal systems or structures and functions plants use to grow and reproduce. They answer questions in order to reinforce what they have learned.	Device Student Sheets Science Journal	63
Investigate: So, You Think You Can Fly?	4-LS1.A, (ELA) RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.7, RI.4.8	Students read about bird structures which suit them for flight. They examine a bird femur, sternum, and feather in order to investigate this. They will answer questions in order to reinforce what they have learned.	See Materials List or Activity Directions Page	82
Diagram: Lub Dub	4-LS1.A, (ELA) RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.7, RI.4.8	Students read about the human heart. They fill in a diagram of the human heart and answer questions in order to reinforce what they have learned.	Student sheets Colored pencils (red and blue) Science Journal	99
Read: All About Trees	4-LS1.A, (ELA) RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.7, RI.4.8	Students read about trees. They learn how structures are adapted for their functions. They will answer questions in order to reinforce what they have learned.	Student Sheets Science Journal	115
Model: Baby, It's Cold Outside	4-LS1.A, (ELA) RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.7, RI.4.8	Students read about structures and functions that enable some animals to live in arctic environments. They do an activity that models structures that enable animals to survive in extreme weather conditions. They will answer questions in order to reinforce what they have learned.	See Materials List or Activity Directions Page	129
Explore: The Colors of Autumn	4-LS1.A, (ELA) RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.7, RI.4.8	Students read about and structures and functions of leaves in order to explore photosynthesis. They answer questions in order to reinforce what they have learned.	See Materials List or Activity Directions Page	148
Sort: Aren't They All Plants?	4-LS1.A, (ELA) RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.7, RI.4.8	Students read about plants and organisms that are commonly mistaken as plants. They sort organisms into their kingdoms. They then answer questions in order to reinforce what they have learned.	Student Sheets Scissors Glue	160
Answer Key				178



Science Stations Overview

Watch a Video
At this station, students will watch a video relevant to the topic and answer questions. You have the option of the included worksheet with the questions or use task cards and have students respond in their science journals.

Play a Video Game
Students play an online video game and answer questions about the experience. You have the option of the included worksheet with the questions or use task cards and have students respond in their science journals.

Investigate
Students use materials to investigate the science topic by following directions and recording results. Students answer questions about the investigation.

Draw a Diagram
Students draw and label a diagram specific to certain requirements. Students then explain how their diagram meets the requirements.

Read a Passage
Students read a short passage about the topic and answer questions about the information in the passage. You have the option of the included worksheet with the questions or use task cards and have students respond in their science journals.

Create a Model
Students use materials to illustrate the science concept and answer questions. You have the option of the included worksheet with the questions or use task cards and have students respond in their science journals.

Explore
Students create a sample and manipulate it using the new science concepts they have learned. Students answer question based on the effects.

Sort
Students sort cards into groups or put them in a specific order. Students record the sort and then describe their reasoning.



Structure & Function
Science Stations

Many of the stations found in 3-LS1B could support this standard. In particular, the Model Station (Flower Dissection) introduces students to how flowers are necessary for some plants' reproduction. Other stations in the 3-LS1B station set address plant and animal life cycles and may be useful for students to begin to understand how certain structures are necessary for the different phases of plants' and animals' life cycles.

In Fourth Grade, students are expected to "construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction" (4-LS1-1). This standard relates with the DCI 4-LS1.A, which states, "Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction." All stations in this set meet the DCI, helping students gain an understanding of the biological principle that "form fits function," or organisms' structures are necessary for our survival of the organism and of the species. The Investigate and Model stations go into more detail and help students construct arguments that specific structures are necessary for specific functions in the organism's life, as outlined in the Performance Expectation.

There is no specific Engineering DCI in this standard strand.

These Science Stations have several different ways students can display their understanding. Most of the variations are similar to each other, but differentiated for various classrooms and learning styles. Included are worksheets for both short-answer and fill-in-the-blank and task cards for both short-answer and multiple choice responses. To provide even more support, give students a word list for the fill-in-the-blank options. Also included are vocabulary cards in two formats which could become a ninth station if needed.

Students are encouraged to use their Science Journals with the task cards, but worksheets are provided as well. Use the checklist to monitor student progress through the stations. The Science Stations are designed to last about 20 minutes each. Students may do one a day for 8 days or 2 a day for four days. The following checklists will help you organize the stations.

Watch a Video
Students watch a video in order to learn about the structure of flowers and the functions of the parts of the flower or the structure and function of belly buttons. They answer questions in order to reinforce what they have learned.

Play a Video Game
Students play a game in order to learn about the structures and functions of the muscular and skeletal systems or structures and functions plants use to grow and reproduce. They answer questions in order to reinforce what they have learned.

Investigate
Students read about bird structures which suit them for flight. They examine a bird femur, sternum, and feather in order to investigate this. The will answer questions in order to reinforce what they have learned.

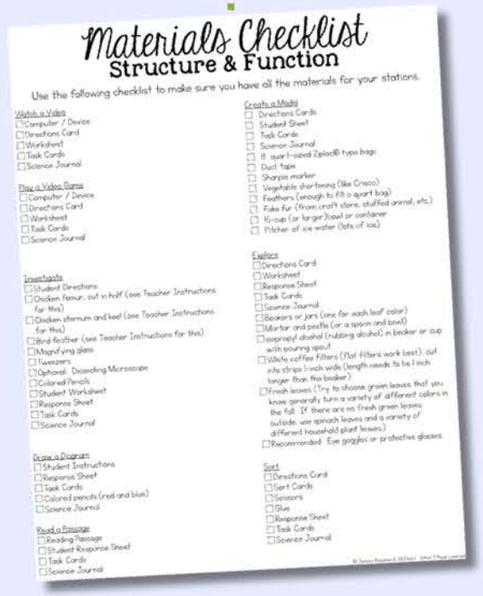
Draw a Diagram
Students read about the human heart. They fill in a diagram of the human heart and answer questions in order to reinforce what they have learned.

Read a Passage
Students read about trees. They learn how structures are adapted for their functions. They will answer questions in order to reinforce what they have learned.

Create a Model
Students read about structures and functions that enable some animals to live in arctic environments. They do an activity that models structures that enable animals to survive in extreme weather conditions. They will answer questions in order to reinforce what they have learned.

Explore
Students read about and structures and functions of leaves in order to explore photosynthesis. They answer questions in order to reinforce what they have learned.

Sort
Students read about plants and organisms that are commonly mistaken as plants. They sort organisms into their kingdoms. They then answer questions in order to reinforce what they have learned.



Materials Checklist
Structure & Function

Use the following checklist to make sure you have all the materials for your stations.

Watch a Video
- ☐ Computer / Device
- ☐ Directions Card
- ☐ Worksheet
- ☐ Task Cards
- ☐ Science Journal

Play a Video Game
- ☐ Computer / Device
- ☐ Directions Card
- ☐ Worksheet
- ☐ Task Cards
- ☐ Science Journal

Investigate
- ☐ Student Directions
- ☐ Chicken femur, cut in half (see Teacher Instructions for this)
- ☐ Chicken sternum and keel (see Teacher Instructions for this)
- ☐ Bird feather (see Teacher Instructions for this)
- ☐ Magnifying glass
- ☐ Tweezers
- ☐ Optional: Dissecting Microscope
- ☐ Colored Pencils
- ☐ Student Worksheet
- ☐ Response Sheet
- ☐ Task Cards
- ☐ Science Journal

Draw a Diagram
- ☐ Student Instructions
- ☐ Response Sheet
- ☐ Task Cards
- ☐ Colored pencils (red and blue)
- ☐ Science Journal

Read a Passage
- ☐ Reading Passage
- ☐ Student Response Sheet
- ☐ Task Cards
- ☐ Science Journal

Create a Model
- ☐ Directions Cards
- ☐ Student Sheet
- ☐ Task Cards
- ☐ Science Journal
- ☐ 8 quart-sized (ziplock) type bags
- ☐ Duct tape
- ☐ Sharpie marker
- ☐ Vegetable shortening (like Crisco)
- ☐ Feathers (enough to fill a quart bag)
- ☐ Fake fur (from craft store, stuffed animal, etc.)
- ☐ 16-cup (or larger) bowl or container
- ☐ Pitcher of ice water (lots of ice)

Explore
- ☐ Directions Card
- ☐ Worksheet
- ☐ Response Sheet
- ☐ Task Cards
- ☐ Science Journal
- ☐ Beakers or jars (one for each leaf color)
- ☐ Mortar and pestle (or a spoon and bowl)
- ☐ Isopropyl alcohol (rubbing alcohol) in beaker or cup with pouring spout
- ☐ White coffee Filters (Flat filters work best), cut into strips 1-inch wide (length needs to be 1 inch longer than the beaker)
- ☐ Fresh leaves (Try to choose green leaves that you know generally turn a variety of different colors in the fall. If there are no fresh green leaves outside, use spinach leaves and a variety of different household plant leaves.)
- ☐ Recommended: Eye goggles or protective glasses

Sort
- ☐ Directions Card
- ☐ Sort Cards
- ☐ Scissors
- ☐ Glue
- ☐ Response Sheet
- ☐ Task Cards
- ☐ Science Journal

Table of Contents

Science Station Overview

Materials Checklist

Teacher Notes

6 READING PASSAGES

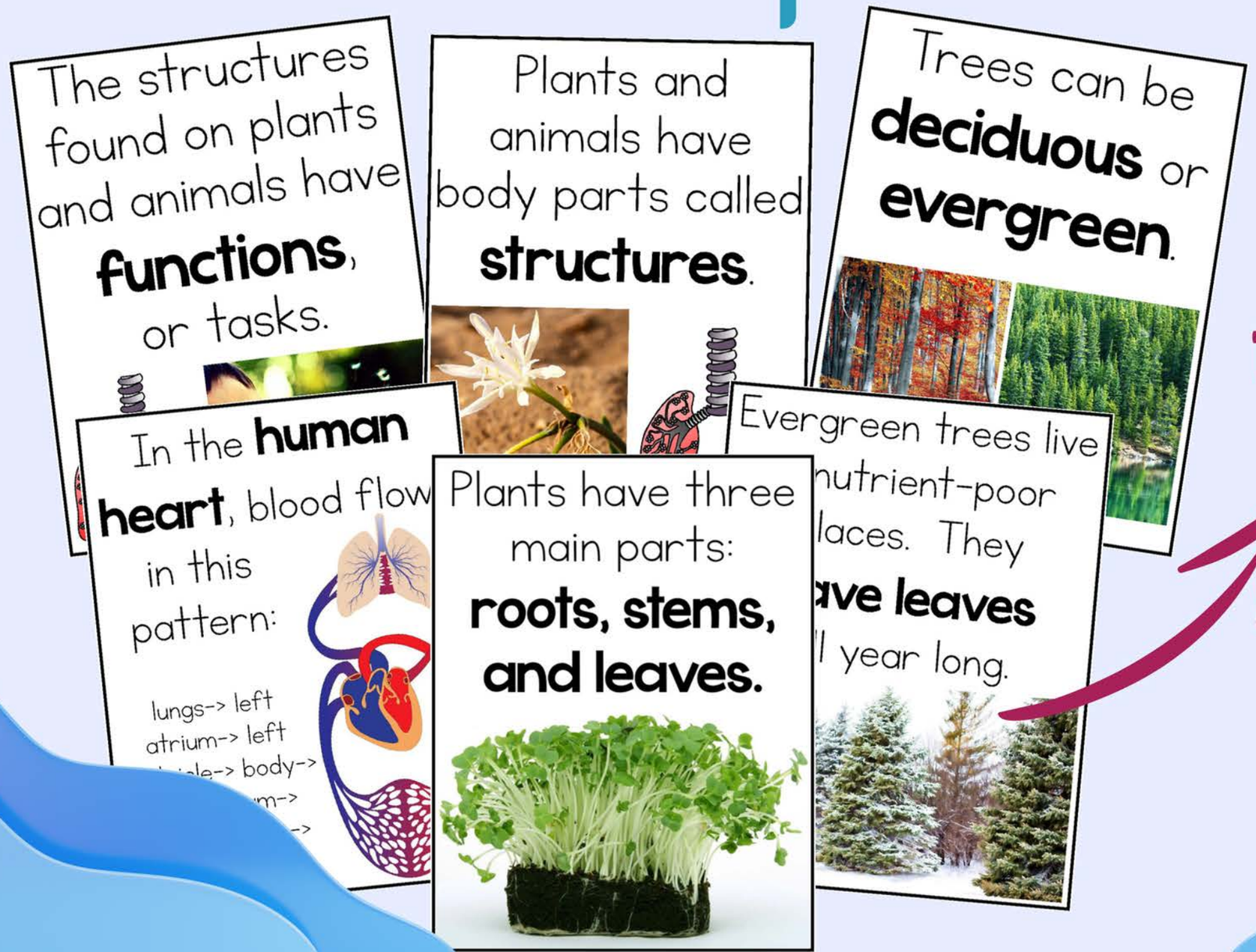


6 Reading Passages that provide scientific background knowledge for each station

Available in two formats + Digital

Includes pictures and visuals

BIG IDEA POSTERS



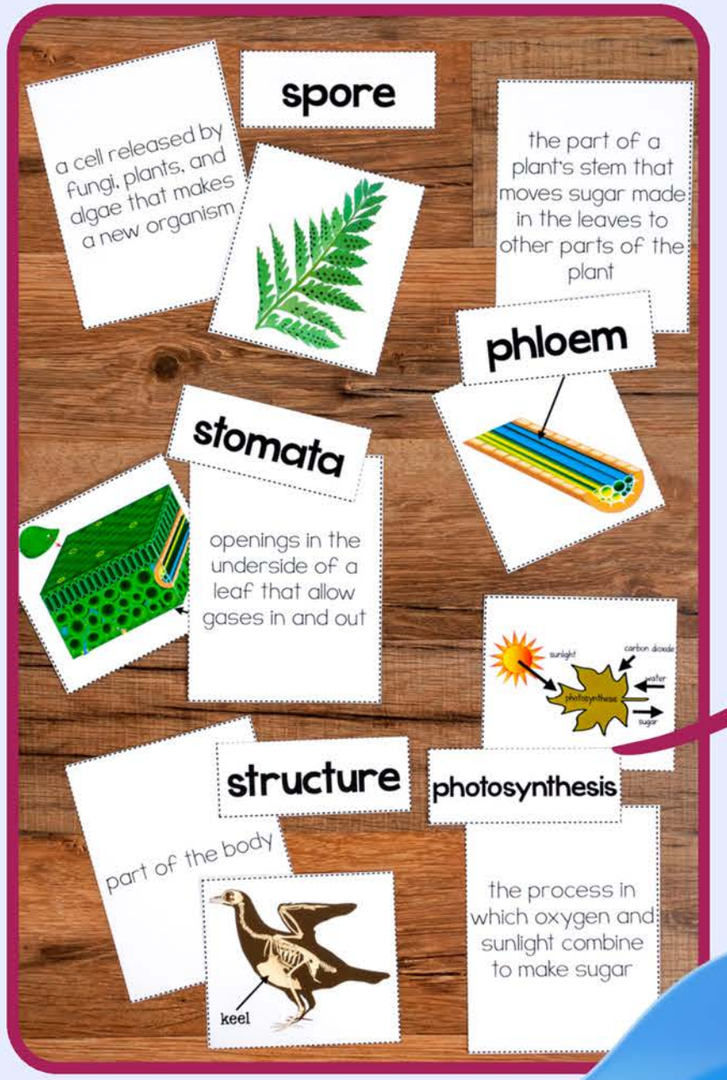
BIG IDEA POSTERS THAT EXPLAIN THE KEY CONCEPTS.

VOCABULARY CARDS IN TWO FORMATS

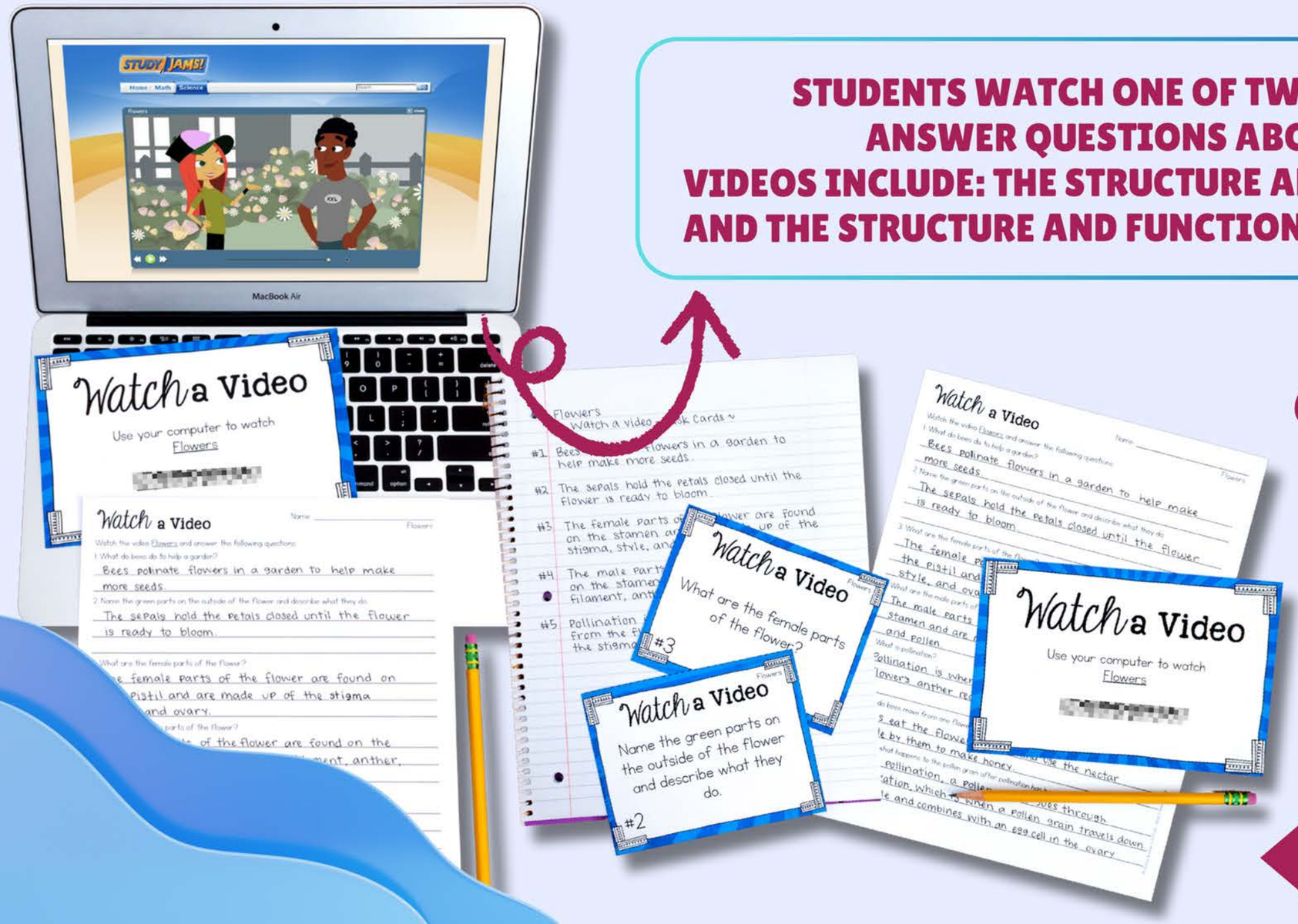
WITHOUT PICTURE



WITH PICTURES



SNEAK PEEK: ONE VIDEO FROM THE WATCH STATION



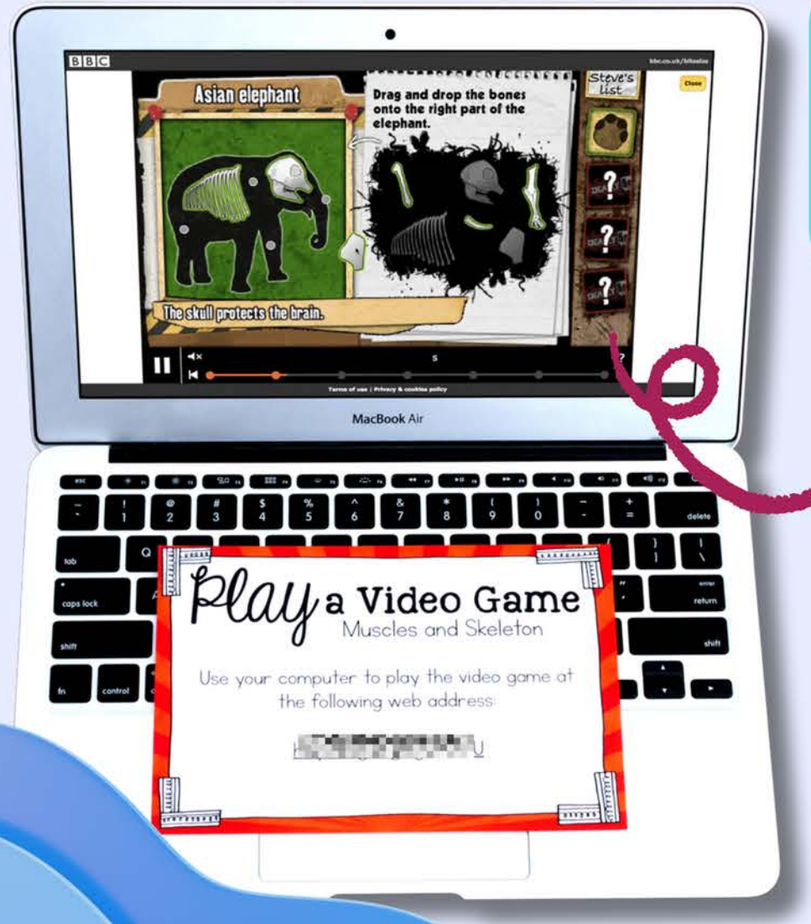
STUDENTS WATCH ONE OF TWO VIDEOS AND THEN ANSWER QUESTIONS ABOUT THE VIDEOS.
VIDEOS INCLUDE: THE STRUCTURE AND FUNCTION OF FLOWERS AND THE STRUCTURE AND FUNCTION OF BELLY BUTTONS.

> "This video was great and the questions that went along with the video were great for my 4th graders! Awesome extension activity to go along with parts of a flower!
> - Christina H."

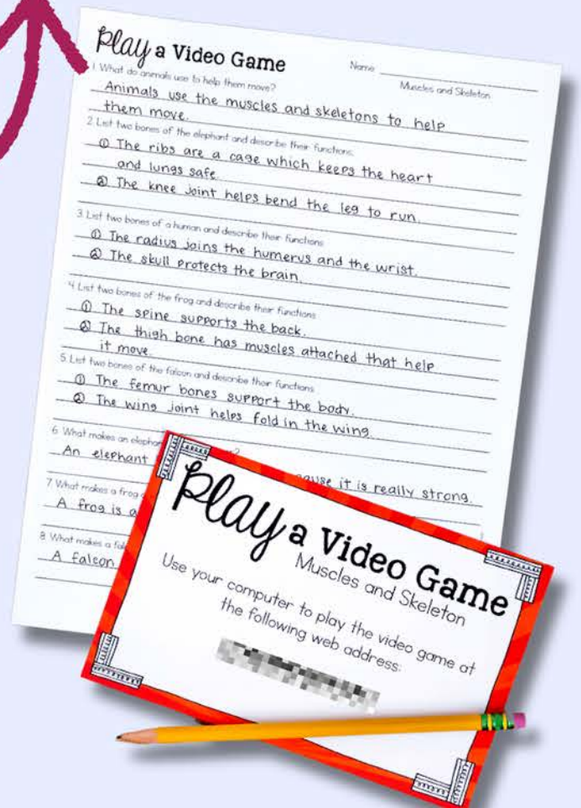
LEARN MORE

WATCH STATION

SNEAK PEEK: ONE GAME FROM THE PLAY STATION



STUDENTS PLAY A VIDEO GAME AND LEARN ABOUT THE STRUCTURES AND FUNCTIONS OF THE MUSCULAR AND SKELETAL SYSTEMS OR THE STRUCTURES AND FUNCTIONS OF PLANT GROWTH AND REPRODUCTION.



> "The students loved the interacting and engaging videos/games. Very fun!"
>
> - Lauren S.

LEARN MORE

PLAY STATION

SNEAK PEEK: PAGES FROM INVESTIGATE STATION



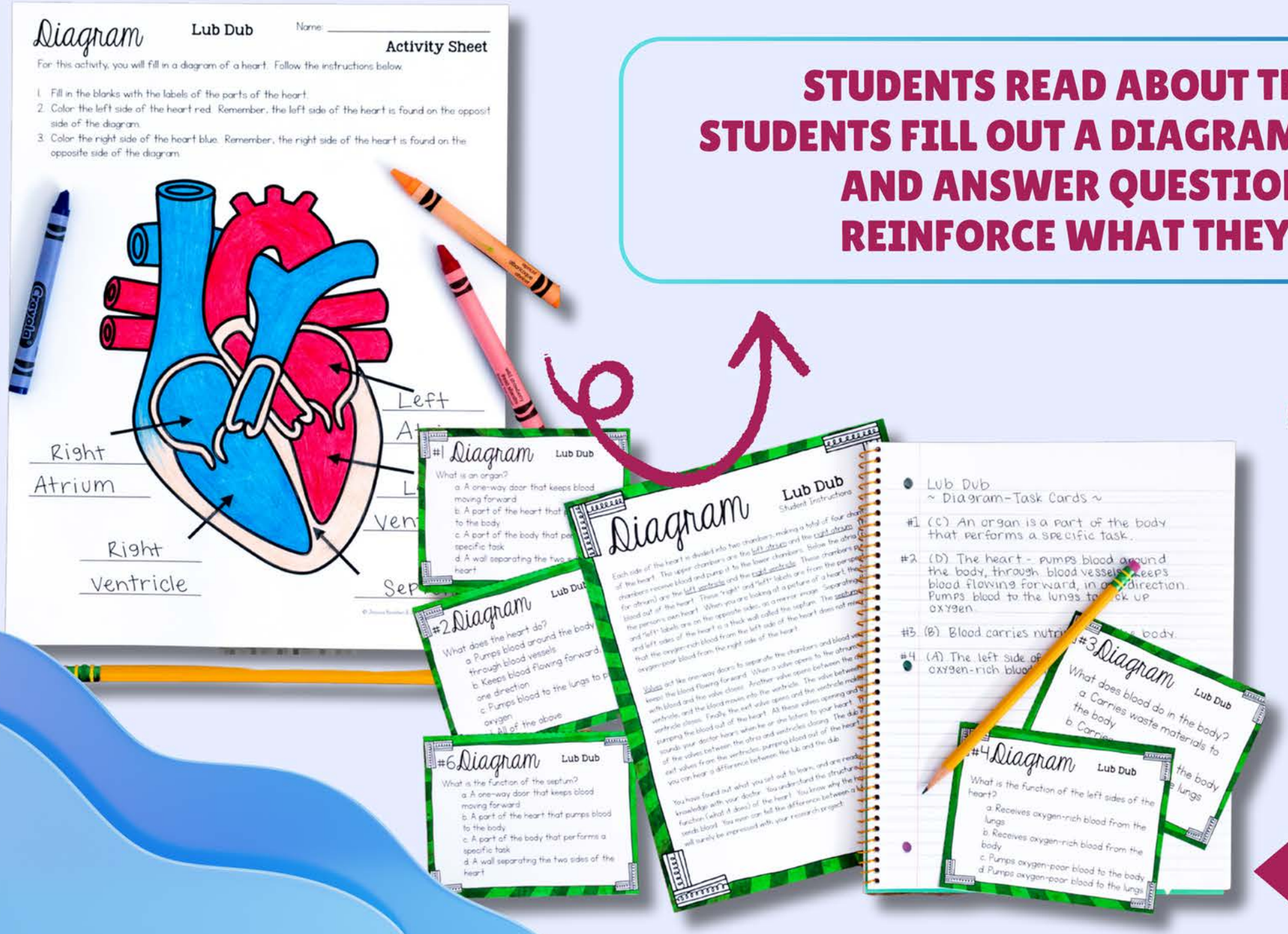
STUDENTS LEARN ABOUT BIRD STRUCTURES FOR FLIGHT, INCLUDING THE FEMUR, STERNUM, AND FEATHERS, AND THEN ANSWER QUESTIONS TO REINFORCE THEIR UNDERSTANDING.

> "My students loved using this resource! It lined up with the standard perfectly."
> - Clifton C.

LEARN MORE

INVESTIGATE STATION

SNEAK PEEK: PAGES FROM DIAGRAM STATION



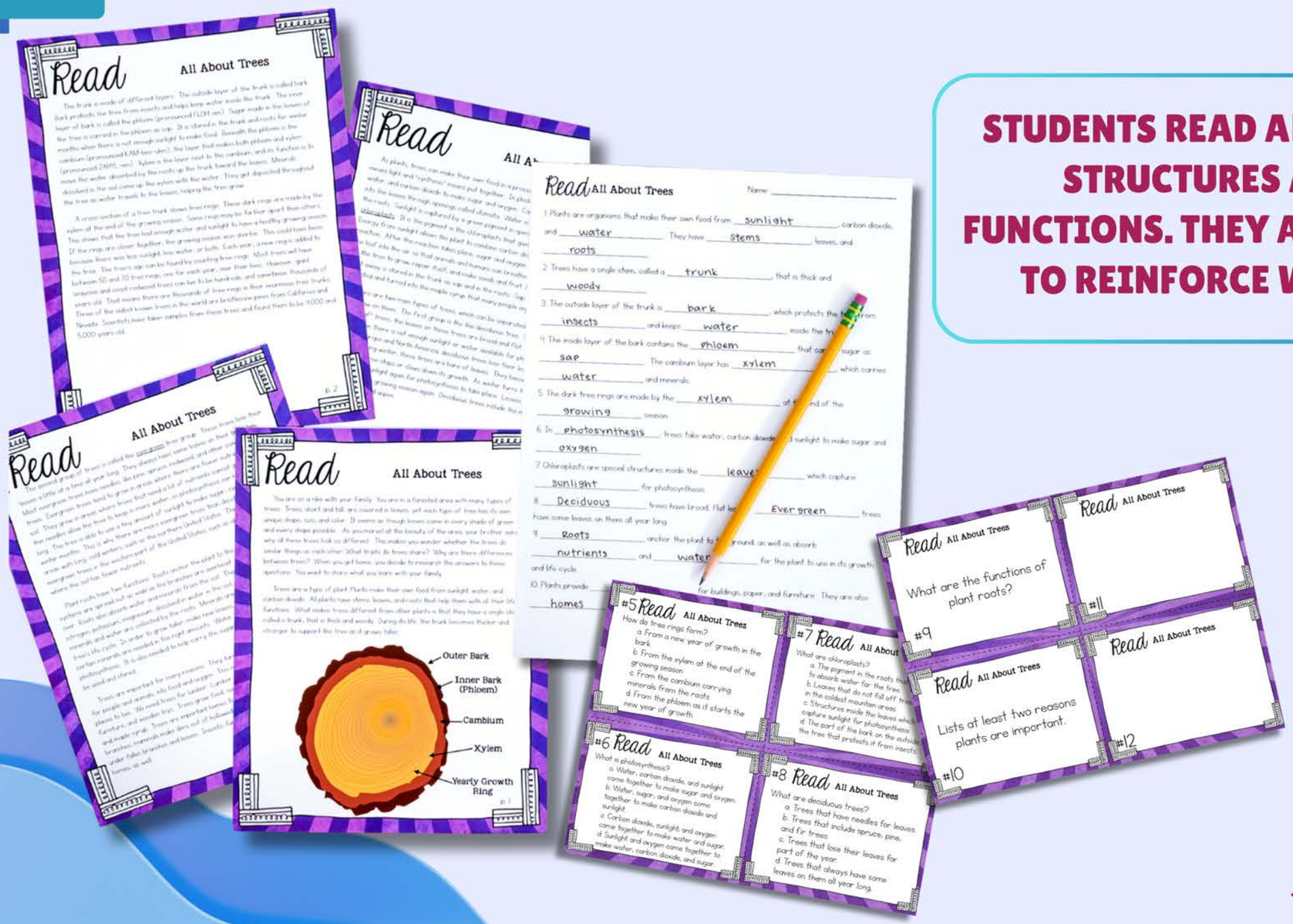
STUDENTS READ ABOUT THE HUMAN HEART. STUDENTS FILL OUT A DIAGRAM OF THE HUMAN HEART AND ANSWER QUESTIONS IN ORDER TO REINFORCE WHAT THEY HAVE LEARNED.

> "Great resource for a great price! Students were engaged and on task with this easy to use resource."
>
> - Brian Dechene

LEARN MORE

DIAGRAM STATION

SOME OF THE PAGES IN THE READ STATION



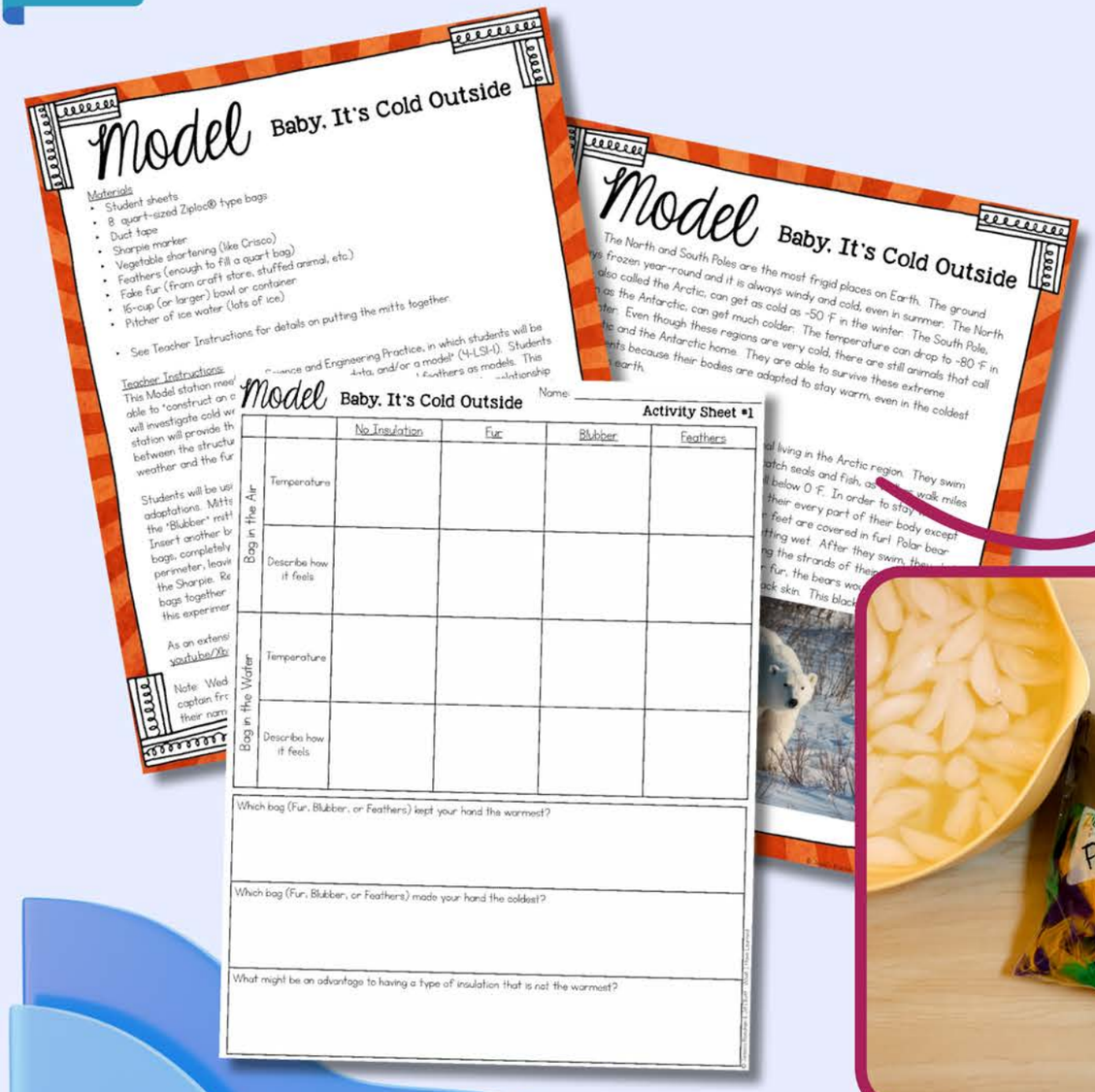
STUDENTS READ ABOUT TREES AND LEARN HOW STRUCTURES ARE ADAPTED FOR THEIR FUNCTIONS. THEY ANSWER QUESTIONS IN ORDER TO REINFORCE WHAT THEY HAVE LEARNED.

> "I had a kid who really wanted to learn about trees and this helped our sessions so much!"
>
> - The Scattered SLP

LEARN MORE

READ STATION

SNEAK PEEK: SOME PAGES IN THE MODEL STATION



STUDENTS LEARN ABOUT ARCTIC ANIMAL STRUCTURES AND FUNCTIONS, ENGAGE IN A RELATED ACTIVITY, AND ANSWER QUESTIONS TO REINFORCE THEIR LEARNING.



"This was a really fun activity to do with the kids. Thanks!"

- Sarah E.

LEARN MORE

MODEL STATION

SNEAK PEEK: SOME PAGES IN THE EXPLORE STATION



STUDENTS READ ABOUT THE STRUCTURE AND FUNCTION OF LEAVES TO EXPLORE PHOTOSYNTHESIS AND ANSWER QUESTIONS TO REINFORCE THEIR LEARNING.

"Using this resource to teach science and hands on activities. Our current science curriculum and materials do not provide anything engaging as this, thanks!
- Miss V"

LEARN MORE

EXPLORE STATION

SNEAK PEEK: SOME PAGES IN THE SORT STATION



STUDENTS READ ABOUT PLANTS AND ORGANISMS COMMONLY MISTAKEN AS PLANTS, SORT THEM INTO KINGDOMS, AND ANSWER QUESTIONS TO REINFORCE LEARNING.

> "Cool resource for discovering why and how different plant (and fungi) fit into their kingdoms."
>
> - Cameron L.

LEARN MORE

SORT STATION



All activities have the same basic components:

- Student Directions
- Short Answer Worksheet
- Fill-in-the-Blank Worksheet
- Cut & Paste Worksheet
- Short Answer Task Cards
- Multiple Choice Task Cards

Some activities have more reading to build background knowledge and additional worksheets or activity sheets to help organize the new information.

NOT ALL VERSIONS OF THE PAGES ARE DISPLAYED ON THE FOLLOWING PAGES, BUT ALL ARE IN EACH RESOURCE

DIGITAL VERSIONS

- ✔ Google Forms and/or
- ✔ Google Slides for every station
- ✔ Videos
- ✔ Video Games
- ✔ Digital Crossword Puzzles & Word Searches

Answer keys provided

CAN BE INDEPENDENT

- Watch
- Play
- Read
- Sort

MAY REQUIRE TEACHER SUPPORT

- Investigate
- Diagram
- Model
- Explore

TEACHER PREP

- Choose a topic and activities
- Choose which type of questions students will answer
- Set up the station using the included materials list
- Have students read the passage to build background knowledge (optional)
- Have students complete the stations using the included student directions

TEACHERS LOVE IT!

I am so happy I bought this bundle. I didn't use all the activities in it this year, but what I did use was super helpful and my students learned a lot!

– Marah B.

This was perfect! I need informational pages because my curriculum is just inquiry based learning and I wanted something the students could go back to look at.

– Cassidy H.





My passion is making learning accessible to all students.
I love scaffolding learning, breaking down the concepts and building them up so that students can see the connections.
I love figuring out the small components that build up to the big ideas and helping students see it all.



teach MATH | teach SCIENCE | teach READING | teach WRITING

What I have LEARNED