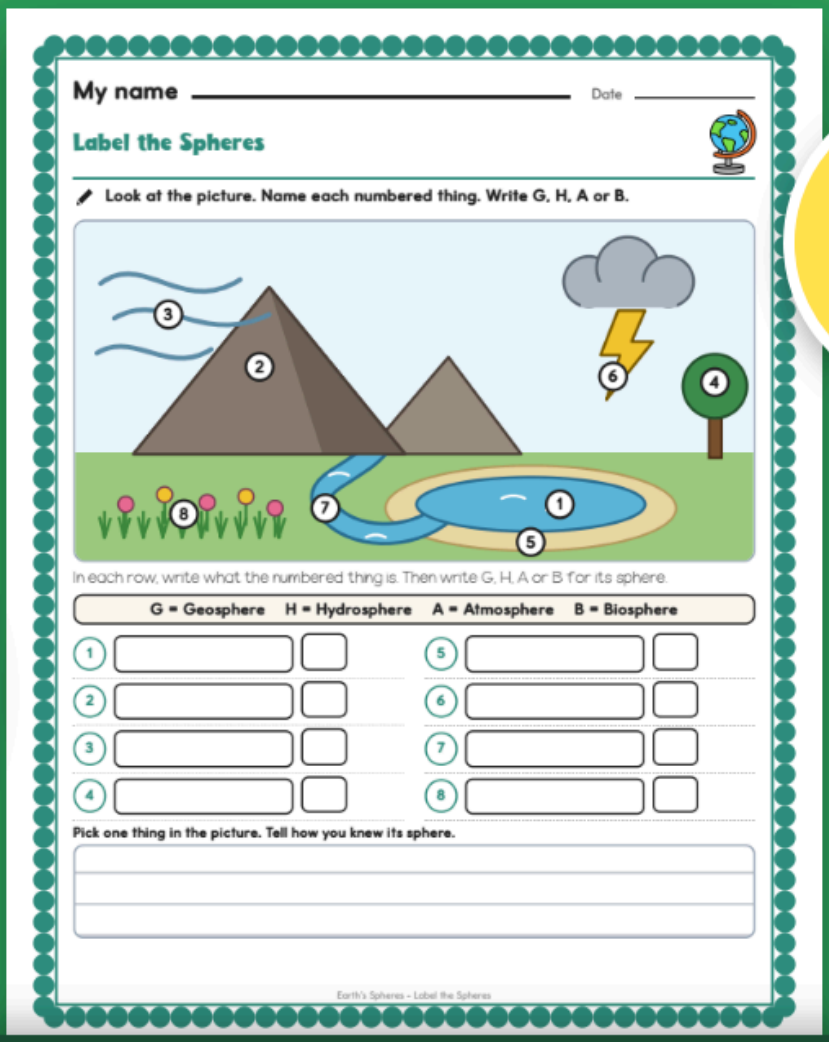
Bright Path Sped


My name _____ Date _____

Label the Spheres

Look at the picture. Name each numbered thing. Write G, H, A or B.

In each row, write what the numbered thing is. Then write G, H, A or B for its sphere.

G = Geosphere H = Hydrosphere A = Atmosphere B = Biosphere

1			5		
2			6		
3			7		
4			8		

Pick one thing in the picture. Tell how you knew its sphere.

Earth's Spheres - Label the Spheres

26 STUDENT PAGES



EARTH'S SPHERES

Readings, Sorts, Cut and Paste - Grades 6-8

Terms of Use

Please read before you print your first page.

One classroom license

- This file is for one classroom: one teacher, one group of students.
- Please do not share it, post it online, or sell it.
- Extra licenses for a team or a school are available on the product page.

This is a fillable PDF

- Open it in a PDF reader (Adobe Acrobat Reader, Preview, or your browser), click into a line or a box, type, and Save As.
- The name line, every answer box, every ruled work box and every check box on the student pages are type-in fields, and so are the tracker, class grid, team note and family page. You can also print any page and write by hand.
- It works offline. No account, no subscription, no internet connection needed after you download it.

Print at 100 percent

Turn off fit to page and shrink to fit so the ruled lines stay 0.34 inch apart. Every student page is black and white inside a colored border, so it still reads when copied in black and white.

Student work

A filled-in tracker, class grid or team note carries a real student's name. Keep it in the data folder, and use a first name only on any page that leaves your hands.

Need help?

If a field will not behave or a page will not print the way you expect, use Ask a Question on the product page. Every question is read, and a fix ships as a free update.

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PREVIEW

How To Read a Page

The parts of a student page, then the page types in the order they come.

The parts of a page

- **The answer box.** A bordered box for a letter. Click it to type, or print and write in it.
- **The ruled work box.** Lines 0.34 inch apart. A short answer gets 4 lines; the main idea and why-it-mattered boxes get 3 and the paragraph page gets 18. It types and prints.
- **The check box.** True or false: click or mark one.
- **The reading.** A short passage with a label at the top, a main idea box, a why-it-mattered box (Reading 2) and the checks.
- **The label page.** A landscape drawn for this file with eight numbered things. Students name each one and write G, H, A or B.
- **The cut line.** Two sorts have six pieces (2.4 by 1.25 inches); the last has twelve (1.85 by 1.12 inches). All touch edge to edge.

Page type	What it looks like	What the student does
Check, Before You Read, Words to Know	3 pages, 17 items	A five-question check for before and after; true or false on the big picture; match eight words to their meanings.
Reading 1 and Reading 2 (A to D)	11 checks	Read, write the main idea (and why it mattered), answer the checks with a letter.
Label, Sort the Examples A and B	3 pages, 26 items	Name eight numbered things in a picture; write G, H, A or B for each sphere.
Chart, Sphere Pairs, Cause and Effect, Case Studies	5 pages, 6 pairs, 2 cases	Fill in the chart; write an example for each pair of spheres; write each effect; tell what changed in each sphere.
Think It Through, claim-evidence-reasoning	6 questions	4 lines per question; a plan and an 18-line paragraph.
Quiz, Cut and Paste, Exit Tickets	12 items, 24 pieces, 4 tickets	A quiz in two parts, three cut-and-paste mats (sphere, sphere, and where two spheres meet) and four exit tickets.

Untimed, unscored on the page

No student page has a timer or a score on it. The keys and the tracker are for you. The answer keys are on pages 31 to 35.

A short account, not a full textbook

Each reading is a summary in plain words. It is not a complete Earth science course, and it is not tied to any particular standard. Add your own textbook, diagram or demonstration for more depth.

Printing and the type-in fields

Every page prints clean in black and white. Every name line, answer box, ruled box and check box is a type-in field in any PDF reader: click, type, then save. This is a fillable PDF, not a slideshow or a word-processor file.

Open answers

The label names, chart, sphere pairs, cause and effect, case studies, short answers, exit tickets and paragraph are open. The keys give a sample and what to look for. Accept any answer that is true to the readings and explains its reason.

PREVIEW

Preview - Bright Path Sped

My name _____ Date _____

Before and After Check



Write a letter in the Before box now and the After box when you finish.

Write the letter of the best answer. Guess if you are not sure. Fill in Before now, and After when you finish the unit.

1. Which sphere is the blanket of gases around Earth?
   - A Atmosphere
   - B Hydrosphere
   - C Geosphere

   Before ☐ After ☐

2. Which sphere has the oceans, lakes and rivers?
   - A Biosphere
   - B Hydrosphere
   - C Atmosphere

   Before ☐ After ☐

3. Which sphere has rock, soil and mountains?
   - A Atmosphere
   - B Hydrosphere
   - C Geosphere

   Before ☐ After ☐

4. Which sphere has all the living things?
   - A Geosphere
   - B Biosphere
   - C Hydrosphere

   Before ☐ After ☐

5. Which one shows two spheres affecting each other?
   - A A plant gives off oxygen into the air.
   - B A rock sits on a hill.
   - C A lake is blue.

   Before ☐ After ☐

One thing I already know about Earth's spheres is...

PREVIEW

Preview - Bright Path Sped

My name _____ Date _____

Words to Know



Write the letter of each meaning.

1	evaporation		A	All of the living things on Earth and the places where they live.
2	atmosphere		B	The solid part of Earth, including rock, minerals and soil.
3	groundwater		C	Fresh water stored in cracks and spaces underground.
4	geosphere		D	The layer of gases that surrounds Earth.
5	photosynthesis		E	The way plants use sunlight, water and carbon dioxide to make food.
6	biosphere		F	All of the water on Earth, in oceans, lakes, rivers, underground and ice.
7	erosion		G	When liquid water changes into a gas called water vapor.
8	hydrosphere		H	The carrying away of weathered rock and soil by wind, water or ice.

Use two of the words in one sentence about Earth.

PREVIEW

Preview - Bright Path Shed

My name _____ Date _____

Reading 2B: The Hydrosphere



Read the story. Then write the main idea and why it mattered.

All of Earth's water

The hydrosphere is all of the water on Earth. It includes liquid water in oceans, lakes, rivers, streams and underground, as well as frozen water in glaciers and ice caps. Oceans cover about 71 percent of Earth's surface, and about 97 percent of Earth's water is salt water in the oceans. Only about 3 percent is fresh water, and most of that is frozen in glaciers and ice caps or stored underground as groundwater. Lakes and rivers hold only a tiny share. Water does not stay in one place. In the water cycle, the Sun's heat makes water evaporate from oceans and lakes. The water vapor rises, cools and condenses into clouds. Water then falls back to Earth as rain or snow, which is called precipitation, and it flows into rivers or soaks into the ground. Then the cycle begins again. Living things in every sphere depend on fresh water to survive.

Main idea: What is this reading mostly about?

Why it mattered: Why is this important for understanding Earth?

Check what you read. Write the letter in the box.

1. About how much of Earth's water is salt water? ☐
   - **A** About 3 percent
   - **B** About 97 percent
   - **C** About half

2. What happens to ocean water when the Sun heats it? ☐
   - **A** It freezes into a glacier.
   - **B** It turns into soil.
   - **C** It evaporates and rises as water vapor.

PREVIEW

Preview - Bright Path Shed

My name _____ Date _____

Reading 2D: The Biosphere



Read the story. Then write the main idea and why it mattered.

All living things

The biosphere is all of the living things on Earth and the places where they live. It includes plants, animals, fungi, bacteria and people. Life is found on land, in fresh water and salt water, in the soil and in the lower part of the atmosphere. The biosphere is a thin layer compared with the size of Earth. Living things need energy, water, air and a place to live. Plants, algae and some bacteria use sunlight to make food in a process called photosynthesis. They take in carbon dioxide and give off oxygen. Animals get energy by eating plants or other animals. Decomposers, such as fungi and bacteria, break down dead plants and animals and return nutrients to the soil. Living things also change the other spheres. Roots break up rock, forests give off water vapor, and coral reefs build limestone from minerals in the ocean.

Main idea: What is this reading mostly about?

Why it mattered: Why is this important for understanding Earth?

Check what you read. Write the letter in the box.

1. What do plants give off during photosynthesis?
   - **A** Oxygen
   - **B** Nitrogen
   - **C** Lava

2. What do decomposers do?
   - **A** Make food from sunlight
   - **B** Carry rainwater to rivers
   - **C** Break down dead plants and animals

PREVIEW

Preview - Bright Ezee Shed

My name _____ Date _____

Sort the Examples, Part A



Which sphere is it part of? Write G, H, A or B.

G = Geosphere H = Hydrosphere A = Atmosphere B = Biosphere

Decide which sphere each one is part of. Use the readings to help you.

1. A granite mountain
2. Water in the Pacific Ocean
3. The oxygen you breathe
4. An oak tree
5. Sand on a beach
6. A glacier
7. A field of wheat
8. Wind blowing across a field
9. Groundwater in an underground well
10. Lava from a volcano

Pick one that was tricky. Tell how you decided.

PREVIEW

Preview - Bright Ezee Shop

My name _____ Date _____

Sphere Pairs



Tell how each pair of spheres can affect each other.

Each pair of spheres can change each other. Write one example for every pair.

Geosphere and Hydrosphere	**One way they affect each other**
Geosphere and Atmosphere	**One way they affect each other**
Geosphere and Biosphere	**One way they affect each other**
Hydrosphere and Atmosphere	**One way they affect each other**
Hydrosphere and Biosphere	**One way they affect each other**
Atmosphere and Biosphere	**One way they affect each other**

PREVIEW

Preview - Bright Path Shed

My name _____ Date _____

Case Study: A Volcano Erupts



Read the story. Then tell what changed in each sphere.

A Volcano Erupts

Imagine a volcano on an island erupts. Melted rock, called lava, flows down the slopes and hardens into new rock. Ash and gas shoot high into the air, and winds carry the ash far away. Ash falls on the ocean and on the forest, covering leaves so that plants get less sunlight. Ash mixed into streams can make the water cloudy. Later, rain breaks the ash down, and over many years the ash adds nutrients to the soil, so new plants can grow.

Read this first: This island and its volcano are invented for this page.

Sphere	What changed?
Geosphere	
Hydrosphere	
Atmosphere	
Biosphere	

Which sphere changed first? Which sphere changed because of that?

PREVIEW

My name _____ Date _____

Think It Through A

Answer each question in full sentences.

Use facts from the readings to answer.

1. What is the geosphere? Name three things that are part of it.

2. Why is the hydrosphere more than just the ocean?

3. What is the atmosphere, and how does it help living things?

PREVIEW

My name _____ Date _____

My Paragraph

Write your paragraph. Use your plan.

Check your plan first: ☐ **claim** ☐ **evidence** ☐ **reasoning**

Write one paragraph. Start with your claim. Add your evidence. Then explain it. End with a sentence that ties back to the question.

PREVIEW

Preview - Bright Path Sped

My name _____ Date _____

Quiz, Part B

Read each one. Write the letter of the best answer.

Take your time. Guess if you are not sure.

7 What happens to water vapor when it cools high in the air?

A It becomes soil.
B It condenses into clouds.
C It turns into lava.

8 A volcano throws ash into the air. Which two spheres are involved?

A Hydrosphere and biosphere
B Biosphere only
C Geosphere and atmosphere

9 A river carves a canyon through rock. Which two spheres are interacting?

A Hydrosphere and geosphere
B Atmosphere and biosphere
C Biosphere and hydrosphere

10 How can plant roots affect rock?

A They turn it into water.
B They can crack it and break it into pieces.
C They turn it into gas.

11 Why is the atmosphere important for life on Earth?

A It holds oxygen and traps heat.
B It holds all of the water.
C It is made of solid rock.

12 Which two spheres are both changed by a forest fire?

A Hydrosphere and geosphere
B Geosphere only
C Biosphere and atmosphere

PREVIEW

Preview - Bright Path Sped

My name _____ Date _____

Cut and Paste 2

Cut out the six pieces. Paste each one in the right box.

Read each piece. Paste it in the box for the sphere it belongs to.

Atmosphere	Biosphere

PREVIEW

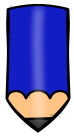
Cut on the dashed lines: six pieces, one straight cut across and two down.

A pine forest	The troposphere, where weather happens	Nitrogen and oxygen gases
Moss growing on a wall	Fungi on a fallen log	A tornado

Which piece was hardest to place? Why?

My name _____ Date _____

Exit Tickets



Answer the exit tickets before you leave.

Each ticket takes about two minutes. Your teacher may collect them at the door.

1. One thing I learned about Earth's spheres today is...

2. Name one thing from the hydrosphere and one thing from the atmosphere.

3. One way two spheres affect each other is...

4. One question I still have about Earth's spheres is...

PREVIEW

Answer Key: Cut and Paste, Quiz B

The three cut-and-paste mats, then the second part of the quiz. Pieces are named by row and column in the cut grid.

Cut and Paste 1 page 27

Piece (row, column)	Box
r1 c1: Layers of rock in a …	Geosphere
r1 c2: A frozen ice cap	Hydrosphere
r1 c3: A stream in the mountains	Hydrosphere
r2 c1: Sand and gravel	Geosphere
r2 c2: The mantle under the crust	Geosphere
r2 c3: A salty sea	Hydrosphere

Cut and Paste 2 page 28

Piece (row, column)	Box
r1 c1: A pine forest	Biosphere
r1 c2: The troposphere, where weather happens	Atmosphere
r1 c3: Nitrogen and oxygen gases	Atmosphere
r2 c1: Moss growing on a wall	Biosphere
r2 c2: Fungi on a fallen log	Biosphere
r2 c3: A tornado	Atmosphere

Quiz, Part B page 26

#	Starts with	Answer
7	What happens to water vapor …	B: It condenses into clouds.
8	A volcano throws ash into …	C: Geosphere and atmosphere
9	A river carves a canyon …	A: Hydrosphere and geosphere
10	How can plant roots affect …	B: They can crack it and …
11	Why is the atmosphere important …	A: It holds oxygen and traps …
12	Which two spheres are both …	C: Biosphere and atmosphere

Cut and Paste 3: Spheres Meet page 29

Piece (row, column)	Box
r1 c1: Heat from the Sun makes …	Air and water
r1 c2: A river slowly carves a …	Rock and water
r1 c3: Tree roots crack a large …	Living things and rock
r1 c4: Strong winds push ocean water …	Air and water
r2 c1: Ocean waves wear away a …	Rock and water
r2 c2: Earthworms loosen and mix the …	Living things and rock
r2 c3: Warm ocean water gives energy …	Air and water
r2 c4: Groundwater fills cracks in underground …	Rock and water
r3 c1: Plant roots hold soil in …	Living things and rock
r3 c2: Rain falls into a lake …	Air and water
r3 c3: A glacier scrapes the ground …	Rock and water
r3 c4: Dead leaves rot and add …	Living things and rock

Reading the sort keys

Read each strip left to right, top row first. On Cut and Paste 3 each piece shows two spheres at work, so it goes in the box that names both of them.

PREVIEW

Answer Key: Written Answers

Think It Through A and B (pages 21, 22) and the case studies (pages 19, 20). These are samples, not the only right answers.

Think It Through

#	Starts with	A good answer includes
1	What is the geosphere? Name …	The solid Earth. Any three of: rock, minerals, soil, mountains, volcanoes, the crust, the mantle, the core, the ocean floor.
2	Why is the hydrosphere more …	It is all of Earth's water: oceans, lakes, rivers, groundwater and ice in glaciers and ice caps.
3	What is the atmosphere, and …	The layer of gases around Earth. It gives oxygen and carbon dioxide, traps heat to keep Earth warm, and the ozone layer absorbs harmful ultraviolet light. Accept any one or two of these.
4	Where is the biosphere found? …	Life is found on land, in fresh water and salt water, in the soil and in the lower atmosphere. Accept any two.
5	Describe one way living things …	Roots crack rock; decomposers help make soil; coral reefs build limestone; earthworms mix the soil. Accept any one.
6	Pick two spheres. Tell how …	Open answer. For example: a river (hydrosphere) carries soil (geosphere) downstream; plants (biosphere) add oxygen to the air (atmosphere).

Case studies: what changed

Case	Sphere	A good answer includes
Volcano	Geosphere	Lava hardens into new rock, and ash builds up on the ground.
Volcano	Hydrosphere	Ash falls into the ocean and streams and makes the water cloudy.
Volcano	Atmosphere	Ash and gas rise into the air, and wind carries the ash far away.
Volcano	Biosphere	Ash covers leaves, so plants get less sunlight; later the soil has new nutrients and plants regrow.
Flood	Geosphere	Flowing water picks up soil and small rocks and drops them in new places (erosion and deposit).
Flood	Hydrosphere	The river rises, spills over its banks and spreads over the land.
Flood	Atmosphere	Heavy rain falls from clouds for three days and fills the river.
Flood	Biosphere	Plants are covered in mud and some trees fall; later crops can grow in the new soil.

Sample: Claim, Evidence, Reasoning (page 23)

- **Claim:** Living things would miss the hydrosphere the most.
- **Evidence:** Every living thing needs fresh water to survive. Plants need water for photosynthesis, and the water cycle brings fresh water to land as rain and snow, to rivers, lakes and groundwater.
- **Reasoning:** Without water, plants could not make food, and animals that eat plants would have nothing to eat. Water is needed in the biosphere every day, so losing the hydrosphere would hurt living things the fastest.
- Any sphere is a fair claim (water for plants, air for oxygen, soil and rock for ground to grow in) if the evidence is true to the readings and the reasoning explains why.

Exit Tickets (page 30): what to look for

- **Exit tickets:** a fact from the readings, one thing from the hydrosphere and one from the atmosphere, a real example of two spheres affecting each other, and a real question.

PREVIEW

Team Note

Use this page between team meetings or when a student moves classes, to hand off what changed without writing a note from scratch. Everything below is observable, with a blank for the number or the wording your team already uses.

Student _____ Team member _____ Date _____

Page type	Covered since last note (Y/N)	Items right	Still blank
Before and After Check			
Readings			
Words to Know			
Label and sort			
Quiz			
Cut and paste			

What I saw (observable, not a conclusion)

- Named the main idea of ___ of ___ readings without a prompt.
- Put ___ of ___ examples in the right sphere (pages 14, 15).
- Used a fact from a reading in the claim, evidence and reasoning pages (23, 24): yes / no / with a reminder.
- Explained how two spheres affect each other in their own words: yes / no.

Next step

- Next page or set: ___, because ___ (what you saw).
- What to try in another class or at home: ___.
- What to keep doing because it is working: ___.
- Anything for the team meeting to decide: ___ (this page records what happened, never a label or a plan).

Summary, in one or two sentences, for whoever reads this next

A filled-in line, for reference

"Matched 6 of 8 words on Words to Know with no prompt on 10/3. Next step: draw erosion and evaporation with an example from the readings." That is the level of detail this page is built for. It matches the filled example on page 40.

PREVIEW

Riley's Tracker (Invented Student)

Riley M. is invented; nothing on this page describes a real student. The blank tracker is on page 36.

Student: Riley M. (an invented student)

Teacher: Ms. Patel (invented)

Month: September to October

Page	Page type and set	Items	Right	Date	Notes
5	Before and After Check	5	3	9/22	Guessed the first answer
6	Before You Read	4	4	9/23	-
7	Words to Know	8	6	10/3	Mixed up erosion and evaporation
8	Reading 1: The Short Read	3	3	9/24	-
9	Reading 2A: The Geosphere	2	2	9/25	-
10	Reading 2B: The Hydrosphere	2	1	9/29	Mixed up fresh water and salt water
11	Reading 2C: The Atmosphere	2	2	10/1	-
12	Reading 2D: The Biosphere	2	-	-	-
13	Label the Spheres	8	7	10/6	Put the sand in the biosphere
14	Sort the Examples, Part A	10	-	-	-
15	Sort the Examples, Part B	8	-	-	-
25	Quiz, Part A	6	-	-	-
26	Quiz, Part B	6	-	-	-
27	Cut and Paste 1	6	-	-	-
28	Cut and Paste 2	6	-	-	-
29	Cut and Paste 3: Spheres Meet	12	-	-	-

PREVIEW

How to read it

Riley M. has done **8 of 16** scored pages and got **28 of 34** items right with no prompt. **4** pages were all right and **4** carry a note. Every number comes from the table.

What the table points to

The lowest page is Reading 2B: The Hydrosphere (1 of 2). That is where the next practice goes. The 8 pages left blank are not tried yet, never wrong.

Binder Cover

Slide this into the front of a binder. Type a name in the two fields or write it by hand. The divider tabs and a spine label to cut out are on the next page (page 43).

Science - Earth Science

EARTH'S SPHERES

Readings, Labels and Practice

Geosphere **Hydrosphere** **Atmosphere**

Biosphere

Teacher _____

Class or student _____

PREVIEW