UNIT 2 / WEEK 1 / WEEKLY HOMEWORK

From Puddles to Clouds

Read the passage. Fill in the clues. Draw the connections.

Name: _____ Class: _____ Due at the end of the week.

Work at your own pace during the week. Use the reading for every question. You only need a pencil.

1. Read: Earth's systems are connected

Four systems in one park. Picture a park after a rainstorm. The air, puddles, soil, and trees belong to Earth's four connected systems, called spheres. The **atmosphere** is the air around Earth. The **hydrosphere** includes all water, including ice and water vapor. The **geosphere** includes rocks and soil. The **biosphere** includes living things, such as plants and animals. When rainwater soaks into soil, the hydrosphere and geosphere interact, or work together.

Invisible air matters. Air takes up space and has mass. Mass tells us how much matter is present. Air also pushes on objects. That push is air pressure. The atmosphere has layers. Most weather happens in the lowest layer, the **troposphere**. Trapped air can make a flexible balloon expand when it warms and shrink when it cools. If no air enters or leaves, the mass of that air stays the same even when the balloon changes size.

Water keeps moving. The Sun supplies energy for **evaporation**, when liquid water becomes invisible water vapor. As vapor cools, **condensation** can turn it into tiny liquid droplets. Clouds contain tiny droplets or ice crystals. Water falls from clouds as rain or snow during **precipitation**. Gravity pulls it down. Water gathers in lakes, rivers, or oceans during **collection**. Water may also soak into the ground or enter plants. The water cycle connects all four spheres. Most of Earth's water is salty ocean water, so we need to care for our freshwater.

2. Name the sphere

Word bank: biosphere / geosphere / atmosphere / hydrosphere

Use each word once.

1. Air around Earth belongs to the _____.

2. Pond water belongs to the _____.

3. Soil and rocks belong to the _____.

4. Trees and birds belong to the _____.

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Use page 1 to help you. Simple drawings are welcome.

Name: _____

3. Follow the water

Word bank: collection / evaporation / precipitation / condensation

5. _____: liquid water becomes water vapor.

6. _____: water vapor becomes liquid droplets.

7. _____: rain or snow falls from clouds.

8. _____: water gathers in a lake or ocean.

4. Two quick questions

9. A balloon grows as the air inside warms. No air enters or leaves. Does the mass of the trapped air change?

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10. Which two spheres interact when rainwater soaks into soil?

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5. Draw a place where the spheres meet

Draw a park, pond, or backyard. Label one example of each sphere: **atmosphere, hydrosphere, geosphere, and biosphere.** Add one arrow showing water moving.

Before turning in: complete both pages and check your four sphere labels.