Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Class Period:\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_

Exploring the Water Cycle – Formative Assessment

**Background Knowledge:**

In the box below, draw a picture of a raindrop. (1 pt)

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**Watch the video “Anatomy of a Raindrop” and answer the following questions using complete sentences.**

1. What is the general shape of a raindrop and why do raindrops form this type of shape? (2 pts)

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| -general shape is a sphere due to the surface tension created |
| by water molecules |
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2. What happens to a raindrop as it falls through the troposphere (2 pts)

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| -the raindrop combines with other drops, resulting in a bigger  |
| droplet; the shape moves from a sphere to more of a ‘hamburger |
| bun’ shape with the bottom of the droplet flattening  |
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In the box below, draw a picture of the raindrop as it falls through the troposphere. (1 pt)

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| \*\*\*see video for animation of droplet as it changes shape |

3. Explain why a raindrop will eventually break apart as it falls through the troposphere. ( 1 pt)

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| -droplet becomes too large for surface tension to hold the  |
| droplet together and the droplet breaks apart |
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**Watch the video “Water, Water, Everywhere” and answer the following questions using complete sentences.**

4. What is so special about water? (1 pt)

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| -only substance that is naturally found as a solid, liquid and gas |
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5. How does water regulate climate? (1 pt)

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| -water absorbs heat during the day and releases heat at night |
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6. What energy source drives evaporation? (1 pt)

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| -the Sun |
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7. Why is the water vapor from ocean evaporation fresh water? ( 1 pt)

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| -the water vapor from ocean water is freshwater because the  |
| evaporation process leaves behind the salt molecules |
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8. In the water cycle, what process occurs immediately before precipitation? (1 pt)

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| -condensation |
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9. Why might freshwater in the form of snow take longer to enter the water cycle again than liquid water? (2 pts)

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| -snow will take longer to enter the water cycle because the water is |
| in a solid form; climate conditions may keep the water as a solid  |
| for an extended amount of time; the solid water (snow) needs to |
| melt before the water can re-enter the water cycle |
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10. What role do people play in the water cycle? (2 pts)

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| -human activities like irrigation, deforestation, and construction  |
| of buildings and roads can impact how water moves through the |
| water cycle |
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