Lesson 4.1 – The Water Cycle in the Garden and the Watershed

Quarter 4 · Water, Climate & Student-Owned Investigations · Week 28

Name: _____ Partner: _____ Date: _____ Period: _____

Big Question: How does water move through the garden, the desert, and the atmosphere, and what drives it?

Word Bank: water cycle · evaporation · transpiration · condensation · precipitation · runoff · groundwater · watershed

Safety: Keep water away from lamps and cords.

My Task

Record observations of your bag model and trace the watershed.

Time	What I see in the bag	Process	Energy source or force
0 min			
10 min			
20 min			
30 min			

Support: Provide a water cycle diagram with blanks and a word bank.	**Challenge:** Our bag model is a closed system, but the real garden is not. Describe two ways water leaves the real garden that the bag cannot show, and how you could measure one of them.

Think & Respond

1. Draw the water cycle with the garden, a plant, and the Salt River.

_____

_____

_____

2. What drives the water cycle?

_____

_____

_____

PRACTICE ITEM — answer the item for your grade

Grade 6: Which process turns liquid water into water vapor? A) condensation B) precipitation C) evaporation D) infiltration

Grade 7: Droplets formed on the inside of the sealed bag. What process is this, and why does it happen? A) Evaporation; heat is added B) Condensation; water vapor cools on the plastic C) Precipitation; gravity D) Transpiration; roots push water

Grade 8: Which statement best describes the roles of energy and gravity in the water cycle? A) Gravity causes evaporation. B) The Sun's energy drives evaporation and transpiration, and gravity drives precipitation, runoff, and groundwater flow. C) The Moon drives the water cycle. D) Wind alone moves all water.

My grade: ____ My answer: ____ Why: _____

EXIT TICKET

1. Name four processes you observed or modeled.

_____

_____

2. What two forces drive the water cycle?

3. Name one source of Phoenix's water.