INVESTIGATION QUESTION
What happens to dissolved substances in water when it evaporates, and what does this tell us about Earth's water cycle?

HYPOTHESIS

Hint: try writing it as "If _____, then _____, because _____."

Observation Log

Time	Observations (describe what you see inside the bag)
Start	
30 minutes	
60 minutes	
90 minutes	

PhET: States of Matter (phet.colorado.edu)

Temperature Setting	What the Molecules Do
Very cold	
Room temperature	
Very hot	

ANALYSIS

The food coloring stayed in the water but the droplets on the bag were clear. What does this tell you about what evaporation actually does at the molecular level?

CONCLUSION

Explain in 2-3 sentences why the ocean is salty but rainwater is fresh, using what you observed.

CONNECT IT

Desalination plants turn ocean water into fresh drinking water. Based on what you learned today, explain the basic principle behind how desalination works.

THINK FURTHER

If Earth's water cycle is a closed system and the same water keeps cycling, how old is the water you drank today? Where might it have been before?

ADDITIONAL NOTES