RAFTing the Air

Summary
Student will write a RAFT assignment where they are a molecule in the atmosphere moving around Earth’s surface. They will use information from objective 2 to describe their journey.

Main Core Tie
Science - Earth Science
Standard 3 Objective 1

Time Frame
1 class periods of 90 minutes each

Group Size
Individual

Materials
- student sheet (attached)
  textbook
candle in a jar
vinegar
baking soda
writing computer lab (optional)

Student Prior Knowledge
Students should have some knowledge of climate and weather but extensive knowledge is not needed.

Instructional Procedures
1. Hook:
   Light the candle in the jar and ask students how long it will burn. If the lid is not placed on the jar, it will burn until the candle is gone. Mix some vinegar with baking soda in a beaker and let the carbon dioxide form. It is denser than the air and will stay in the beaker. Carefully, pour the CO2 (but not the liquid mixture) onto the candle in the jar. It should go out quickly. If it doesn't work the first time, use more vinegar and baking soda and hold your hand over the beaker to protect the gas from air currents in the room. Do it a second time only this time, become the voice of a CO2 molecule and tell of your journey from the baking soda to the beaker and then to the flame. Be as creative and scientific as you can.
Tell student they are going to do the same thing only as a molecule in the atmosphere of Earth.
Read the student sheet with students and give them time to write their stories. Allow them to peer grade one another’s work before the final draft.
Ask students to share their work and read it to the class. You will not have time for everyone to do this so just take volunteers.

Assessment Plan
Scoring Guide:
See Rubric on student sheet attached.

Bibliography
Lesson Design by Jordan School District Teachers and Staff.

Authors
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