

TeachME Professional Development

Teaching Science to Elementary Students

1. What is an inquiry-based lesson?

- A. One which starts with a question from you about how the world works and why a specific process occurs
- B. One where students alternate new concepts with familiar approaches
- C. A strategy where new ideas are spread over time, rather than being taught all at once
- D. One where students provide written explanations of their thought processes

2. Why are elementary-aged children perfectly poised to learn about scientific subjects?

- A. Students find security in ritual and repetition, which are integral parts of science exploration
- B. Students love to play so science concepts can be incorporated into games and activities
- C. They learn through sensory development, which is science based
- D. Children of this age are naturally curious, and their brains are bustling with activity at this age

3. Why is scientific literacy important for children to learn?

- A. Because in modern society, our communication and world in general is increasingly tech-based
- B. It teaches flexibility
- C. Because it stimulates and expands the understanding of surroundings
- D. It promotes openmindedness

4. Why is the scientific process important for modern life?

- A. The scientific process promotes objectivity and reliability
- B. The scientific process is an intuitive and analytical way to make good decisions
- C. The scientific method encourages accuracy and precision
- D. The scientific method teaches ethical and honest exploration

5. What three factors will always help a child be more interested in science?

- A. Using models, videos and puzzles
- B. Enabling students to be challenged, engaged in meaningful activities, and making connections
- C. Incorporating experiments, projects, and nature
- D. Introducing fun facts, promoting self-efficacy, and allowing time for play

6. What is one particularly effective way to integrate STEM subjects into others?

- A. Find an imaginative way to address practical problems within the world of the non-STEM subject
- B. Present lessons in a way that asks questions to be answered
- C. Incorporate technology into all literature, social studies, and art
- D. Allow students to design and create something that uses math concepts in the building process

7. Why aren't memorized or simply parroted answers desirable for deep learning?

- A. They don't teach a sense of meaning
- B. Memorization takes up brain power that could be used to store depth
- C. Memorization is only temporary
- D. These type of rote answers don't reflect whether or not the student is really understanding the material

8. What is the best way to approach teaching scientific vocabulary?

- A. Use word drawings and games
- B. Like you would learning any other language: Conversation, immersion, and even coming up with silly songs about the concept
- C. Use concept maps that connect words
- D. Create and display a vocabulary mural

9. Recommendations to compensate for any inadequate representation of biases in teaching material include each of the following EXCEPT:

- A. Let the students point out the biases as they see them, rather than you addressing them
- B. Find diverse examples to add to the text
- C. Use pronouns that make it clear that anyone can be a scientist
- D. Make the environment feel welcoming and inclusive for all in order to increase participation

10. What are the pros of a scientific notebook?

- A. They help students process information more efficiently
- B. They help sharpen observational and written skills
- C. They help keep students organized
- D. They enable students to thoroughly record and reflect
