

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

- A. Students find security in ritual and repetition, which are an integral part 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
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### 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
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### 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
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### 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
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**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
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**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
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**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
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**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
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**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
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