Chapter One: The Science Program

1. A high quality science program includes the following traits:
   a. It builds on children’s prior ___________________
   b. It draws on children’s ________________ and encourages children to pursue their ________________
   c. It engages in ________________ exploration of a topic
   d. It encourages children to reflect on, represent and ________________ their experiences
   e. It is embedded in children’s daily work. Provide an example of this:
   f. It provides access to science experiences for all children

2. Provide an example of how a teacher might choose a focus for science inquiry.

3. What strategies can teachers use to help children deepen their understanding?

Chapter Two: Inquiry in the Early Childhood Classroom

4. A fundamental goal of an early childhood science program is:

5. Provide examples of some of the fundamental skills that make up scientific inquiry.
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6. Describe the *cycle of children’s inquiry*.

7. How can teachers maintain and build *curiosity*?

8. How can teachers build a *respect for evidence*?

9. How can teachers build a respect for *collaboration*?

10. What is the difference between science and *design technology*?

Chapter Four (66-69 and 89-127): Physical Science

11. Physical Science for young children includes:

12. Why is it sometimes difficult for children to document their work in the physical sciences?

What are some alternate media forms that can be used to document physical science investigations?
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13. **Position and Motion of Objects:** What are examples of materials and activities that allow children the opportunity to explore motion?

14. Give an example of a comment made by Mrs. Chin that helped the children focus on the truck’s motion on the ramp.

15. Why did Mrs. Chin play with the balls, trucks and ramps?

16. What did Mr. Jacobsen learn about the children’s interactions with blocks by “just being there”?

17. What did Mr. Jacobsen do at circle time to encourage/build children’s block play?

18. How did Mr. Jacobsen incorporate math and science into block play?

19. How did the trip to visit the towers extend the children’s block play?

20. How would you prepare a resource person like Phil, the architect, to visit your class?