

*Intellectual Development  
from One to Three*

**CHAPTER 12**

# Study Guide

**Directions:** Answer the following questions as you read the chapter. They will help you focus on the main points. Later, you can use this guide to review and study the chapter information.

## Section 12–1: Brain Development from One to Three

1. How has *neuroscience* benefited parents and other caregivers? *[By discovering more about how a child’s brain develops, neuroscience has led to recommendations for the care of children.]*  
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2. What is *intelligence*. *[The ability to interpret and understand everyday situations and to apply prior experiences to new situations or problems. It is the capacity to learn.]*  
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3. What roles do heredity and environment play in intelligence? *[Heredity—Determines limits of possible intellectual development. Environment—Influences the extent to which a person’s potential is actually developed.]*  
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4. What are the features of a stimulating environment that promotes intellectual development? *[(1) Interactions with caregivers. (2) A variety of appropriate playthings. (3) Encouragement.]*  
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5. Give examples of the four methods of learning, other than those used in the textbook.  
*[Examples for A-D will vary.]*
  - A. *Incidental learning:* \_\_\_\_\_  
\_\_\_\_\_  
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  - B. *Trial and error learning:* \_\_\_\_\_  
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C. Imitation: \_\_\_\_\_  
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D. Directed learning: \_\_\_\_\_  
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6. What are concepts? Give three examples of concepts that young children learn. [Concepts are categories of objects and information. Examples might include: Color, shape, size.]  
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7. Why do toddlers have difficulty concentrating on one thing at a time? [They are not yet capable of blocking out some of the information from their senses to focus on one thing. They are constantly distracted.]  
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8. Why is the ability to remember such an important key to learning? [When experiences are forgotten, they can't affect later actions or thoughts.]  
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9. How can parents help improve their child's perception? [By talking about the activities they are doing together and by answering the child's questions.]  
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10. Compare the problem-solving strategy of a fourteen-month-old to that of a three-year-old.  
**Fourteen-month-old**—Would try all solutions to a problem until finding the right one.  
**Three-year-olds**—Would mentally evaluate a problem and rule out options that won't work without actually trying each one.]  
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11. Why is it important to respect a child's imagination? Should parents always point out what is real and what's not?  
 [An active imagination is important to learning. It allows children to try new things and act out many roles. Continually separating fact from fiction isn't necessary and might unnecessarily discourage use of the imagination.]  
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*Intellectual Development from One to Three*

*Chapter 12 continued*

12. How does *creativity* relate to imagination? [Creativity involves using imagination to produce original ideas.]
13. How might keeping a child in a playpen discourage curiosity? How might curiosity be mistaken for misbehavior?  
[Being in a playpen could stifle curiosity because exploration is limited. Curiosity prompts children to explore their world. During their explorations, they can seem to get into everything.]

**Section 12–2: Encouraging Learning from One to Three**

14. What is the meaning of “readiness for learning”? [The physical and intellectual maturity required to perform a skill.]
15. How can a routine of reading to children younger than age three contribute to *reading readiness*?  
[Children learn to enjoy books, which is key to learning to read. They also learn how to handle books, begin to associate written words with words read aloud, and feel a sense of accomplishment from finishing a book.]
16. How can caregivers promote *math readiness* in young children? [Caregivers can use opportunities from everyday life to build interest in learning math concepts. For example, they might ask children to identify numbers on signs, count objects, and identify shapes.]
17. Three-year-old Terrell is having trouble closing a cabinet door because toys are sticking over the edge of the shelf. How should his father respond? Why?  
[Possible response: Help a little, but don’t take over, and allow Terrell to complete the final step—closing the door. Terrell is learning while he struggles and will feel a sense of accomplishment when he succeeds.]
18. Scott’s mom said “Grandpa’s birthday card won’t fit in this envelope. Let’s see if we have a bigger envelope. Or we can fold the card if we have to.” How was she modeling problem solving for Scott?  
[By talking through possible solutions out loud, she showed how it is possible to think your way to a solution.]

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19. Identify three common safety hazards related to toys. [Any three: Small parts, sharp edges, flammable, toxic paint.]
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20. In addition to safety, identify six characteristics of appropriate toys. [(1) Durable. (2) Easy to care for. (3) Encourages use of imagination. (4) Colorful. (5) Easy for the child to handle. (6) Enjoyable to the child.]
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21. Give an example of a toy that is appropriate for each of the following age groups. Then give a developmental reason why the toy is appropriate. *[Possible responses:]*
- A. One to two years: [Riding toy with wheels. Children this age are practicing motor control, and this toy uses the large muscles.]
- B. Two to three years: [A child-size lawn mower. Children this age want to do what adults are doing.]
- C. Three to four years: [A construction set. Children this age are acquiring fine motor skills.]
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22. Why might children of two and a half use a word like “tooths”? [They are learning some rules of grammar, such as adding an s to make words plural, but aren’t yet able to recognize exceptions to the rules.]
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23. What kinds of problems might a *speech-language pathologist* identify as the source of a child’s speech difficulties?  
[Hearing problems, learning disabilities, or mood disorders.]
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24. How is difficulty with *articulation* different from *stuttering*? How are they similar?  
[Articulation—Refers to the use of clear, distinct speech. For example, until age three or four, children commonly skip syllables and leave off endings of words. Stuttering—This is a more serious condition. The child speaks with sporadic repetition or prolonged sounds, usually at the beginning of words. Most children outgrow both problems.]
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