

Chapter 1

An Introduction to Children's Thinking

Multiple Choice

1. A scientist interested in cognitive development would be most likely to study ____.
- children solving math problems
 - the etiology of depression
 - parent-child attachment
 - the effects of socioeconomic status on self-esteem

Answer: A

Question type: CONCEPTUAL

Level of difficulty: EASY

LO: 1.1: Explain the key characteristics of children's thinking.

Page(s) in text: 2

2. The constructivist perspective of Jean Piaget argues that infants possess important ____ and ____ capabilities.
- perceptual and conceptual
 - conceptual and associative
 - associative and linguistic
 - perceptual and motor

Answer: D

Question type: FACTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 3

3. Professor Woo studies infants. The goal of her research is to demonstrate that infants have the ability to understand rudimentary forms of mathematics (e.g., the addition and subtraction of small numbers of objects). Professor Woo most likely subscribes to which of the following perspectives?
- associationist perspective
 - constructivist perspective
 - core knowledge perspective
 - information-processing perspective

Answer: C

Question type: CONCEPTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 4

4. Research has shown that very young infants possess general learning mechanisms that help them acquire knowledge. Two of these learning mechanisms are ___ and ___.
- imitation and statistical learning
 - association and distance perception
 - automatization and conceptual organization
 - analogy and strategy construction

Answer: A

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 5

5. The stage concept can be traced back to the ideas of
- George Berkeley
 - John Locke
 - John Stuart Mill
 - Charles Darwin

Answer: D

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 5

6. John took two weeks to learn how to tie his shoes. His mom went over each step of the process with him day by day, and he learned one step at a time until he could tie his shoes on his own. Kathy also took two weeks to learn how to tie her shoes. However, unlike John, she did not seem to be learning any of the steps day-by-day. Then, all of a sudden, after about two weeks, she tied her shoes all by herself. John's course of development is predicted by the ____, whereas Kathy's course of development is predicted by the ____.
- core knowledge theorists, information-processing theorists
 - constructivists, associationists
 - stage theorists, information-processing theorists
 - associationists, stage theorists

Answer: D

Question type: APPLICATION

Level of difficulty: DIFFICULT

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 6

7. Professor Murphy tested a 6-year-old child, Madeline, on three conservation problems: conservation of volume, conservation of mass, and conservation of number. Madeline displayed stage 2 reasoning on the volume and mass problems, but stage 3 reasoning on the number problem. Madeline's performance violated which of the following assumptions of the stage concept?
- abruptness assumption
 - concurrence assumption
 - the assumption of coherent organization
 - the assumption of qualitative change

Answer: B

Question type: APPLICATION

Level of difficulty: DIFFICULT

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 6

8. Last year, Billy solved addition problems like " $4 + 3 = \underline{\quad}$ " by counting on his fingers. This year, he can retrieve addition facts from memory. This is an example of
- quantitative change
 - abrupt change
 - qualitative change
 - concurrent change

Answer: C

Question type: APPLICATION

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 6

9. The period of development before birth is the ____ period.
- postnatal
 - undeveloped
 - prenatal
 - induction

Answer: C

Question type: FACTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 7

10. A one-year-old child receives a stuffed cat as a present. She sees that this stuffed animal has whiskers, eyes, and feet like her family's cat, but she also observes that this stuffed animal does not make noises like her family's cat does. This realization sets the stage for her to later learn about what makes something alive. The child has experienced which process of cognitive change?
- assimilation
 - accommodation
 - generalization
 - automatization

Answer: B

Question type: APPLICATION

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 7

11. What mechanism of development underlies the main differences between a novice driver and an experienced driver?
- generalization
 - automatization
 - synaptogenesis
 - social scaffolding

Answer: B

Question type: APPLICATION

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 7

12. In a study by Professor Heath, children ages 5 and 10 were asked to complete the following pattern: $\mu\nu$ $\mu\nu$ μ ____ . Most five-year-old children answered correctly with respect to shape, but were at chance with respect to color. In other words, they were just as likely to complete the pattern with a white square as a black square. In contrast, most ten-year-old children answered correctly with respect to both shape and color (i.e., they put a black square in the blank). This example best demonstrates which of the following mechanisms of change?
- automatization
 - encoding
 - habituation
 - statistical learning

Answer: B

Question type: APPLICATION

Level of difficulty: DIFFICULT

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 7

13. Jerry is ten years old and has an IQ of 130. Jerry's mental age is
- 10.0
 - 10.3
 - 13.0
 - 7.7

Answer: C

Question type: APPLICATION

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 8

14. Research has shown a relationship between habituation rate at 7 months and ____.
- IQ scores in childhood
 - math test scores in childhood
 - learning disabilities in childhood
 - all of the above

Answer: D

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 9

15. The brain has its largest increase in weight between the ages of
- 0-11 months
 - 11 months – 3 years
 - 3-18 years
 - none of the above; the increase in weight is about the same for the age ranges listed above

Answer: A

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 10

16. One brain structure that is far more developed in humans than in other primates is the ____.
- hypothalamus
 - cerebral cortex
 - amygdala
 - medulla

Answer: B

Question type: FACTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 10

17. The cerebral cortex has ___ main lobes.
- two
 - three
 - four
 - five

Answer: C

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 11

18. In general, the left hemisphere tends to process information ____, and the right hemisphere tends to process information ____.
- analytically, holistically
 - emotionally, spatially
 - logically, analytically
 - holistically, analytically

Answer: A

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 11

19. The synaptic connections in a toddler's brain are ___ than those in an adult's brain.
- sparser
 - denser
 - faster
 - shorter

Answer: B

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 13

20. Synaptogenesis is
- the transmission of information from one neuron to another
 - the formation of synapses between neurons
 - the release of neurotransmitter into a synapse
 - the period of development in which the number of synapses gradually declines

Answer: B

Question type: FACTUAL

Level of difficulty: DIFFICULT

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 12

21. In general, genes control the ___ of synapses, and experience controls the ___ of synapses.
- generation, pruning
 - pruning, generation
 - maintenance, firing
 - firing, generation

Answer: A

Question type: FACTUAL

Level of difficulty: DIFFICULT

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 13

22. Children are better than adults at learning ___.
- chess
 - physics
 - social skills
 - language

Answer: D

Question type: FACTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 13

23. A scientist interested in social influences on cognitive development would **not** be likely to study ___.
- the effects of calculators on children's mathematical problem-solving skills
 - the effects of genes on children's language proficiency
 - the effects of video game playing on children's IQ scores
 - the effects of tutors on children's reading performance

Answer: B

Question type: CONCEPTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 14-16

24. A toy company influences development at the level of the ___.
- exosystem
 - mesosystem
 - macrosystem
 - microsystem

Answer: A

Question type: CONCEPTUAL

Level of difficulty: DIFFICULT

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 15

25. Alaina got a new puzzle for her birthday. She cannot complete it on her own, but can complete it with ease when her father hands her one puzzle piece at a time. This example best describes the benefits of
- social scaffolding
 - strategy construction
 - cultural tools
 - macrosystems

Answer: A

Question type: APPLICATION

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 15

True or False

26. _____ Baillargeon (1994) has shown that 3-month-old infants' knowledge of object properties is identical to that of adults.

Answer: F

Question type: FACTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 4

27. _____ Saffran and colleagues (1996) have shown that very young infants can detect regularities and extract sequential patterns in the linguistic sounds they hear.

Answer: T

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 5

28. _____ The stage concept implies gradual, quantitative changes in development.

Answer: F

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 6

29. _____ A child's mental age is always higher than their chronological age.

Answer: F

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 8

30. _____ Habituation refers to the process by which infants becoming increasingly interested in an object after repeated exposures to that object.

Answer: F

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 9

31. _____ At birth, the cerebral cortex is immature relative to other parts of the brain.

Answer: T

Question type: FACTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 10

32. _____ The profound development of the occipital lobe during the first few years of life is primarily responsible for the rapid advances in thinking that occur during the first few years of life.

Answer: F

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 11

33. _____ If a particular synapse does not fire over the first several years of life, it may be pruned.

Answer: T

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Pages(s) in text: 13

34. _____ Brain plasticity tends to decrease over the course of development.

Answer: T

Question type: FACTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 13

35. _____ A television is an example of a cultural tool that shapes children's thinking.

Answer: T

Question type: CONCEPTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 15

Short Answer/Essay

36. List four of the six most important questions in the study of children's thinking. Then, choose the **one** that you think is most important, and defend your opinion.

Answer: Any four of the following six: What capabilities are innate? Does development progress through stages? How does change occur? How do individuals differ? How do changes in the brain contribute to cognitive development? How does the social world contribute to cognitive development?

Question type: FACTUAL + CONCEPTUAL

Level of difficulty: EASY

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 3

37. Contrast the associationist perspective of John Locke and the core-knowledge perspective of Carey and Gelman.

Answer: The associationist perspective argues that infants come into the world with only minimal capabilities, such as the ability to associate experiences with one another. According to this view, we must have learned everything we know from experience. In contrast, the core-knowledge perspective suggests that infants come into the world equipped with a wide range of perceptual, motor, and conceptual capabilities that allow them to see the world much like older children and adults do. According to this view, much of our knowledge is innate.

Question type: FACTUAL + CONCEPTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 3-5

38. List and define two of the four implications of the stage concept, as noted by Flavell (1971).

Answer: Any two of the following four: (1) qualitative change, which means that a particular skill not only gets better, but also becomes different in quality or character, (2) concurrent change, which means that changes from stage to stage occur simultaneously for many concepts at once, (3) abrupt change, which means that children switch abruptly (not gradually) from one stage to the next, and (4) coherent organization, which means that children's behaviors and thoughts cohere as a sensible whole and are not random bits and pieces of independent units added together.

Question type: FACTUAL + CONCEPTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 6-7

39. List and define two of the four change mechanisms proposed by researchers who subscribe to the information-processing approach to cognitive development.

Answer: Any two of the following four: (1) automatization, which refers to age or experience-related increases in the efficiency and automaticity of mental processing, (2) encoding, which involves identifying and mentally representing the key features in a particular problem or situation, (3) generalization, which involves transferring the knowledge and skills acquired in one context to interpret information or solve a problem in a novel context, and (4) strategy construction, which refers to the construction of a new method for solving a problem.

Question type: FACTUAL + CONCEPTUAL

Level of difficulty: MEDIUM

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Page(s) in text: 7-8

40. List three of the four layers of Bronfenbrenner's (1979) model of the social context of development, and give an example of how each layer can influence the development of a child's academic abilities.

Answer: Any three of the following four: (1) macrosystem, (2) exosystem, (3) mesosystem, and (4) microsystem. The macrosystem includes cultural values, such as whether children are encouraged to focus on academics. Whether or not a child focuses on academics influences his or her academic abilities. The exosystem includes social systems, such as the school board. The school board makes decisions about a school's curriculum, and this influences the academic abilities of a child in the school. The mesosystem includes the particular school that a child attends, which plays a large role in shaping a child's academic abilities. Finally, the microsystem includes parents. The values, expectations, and education level of a child's parents influence his or her academic abilities.

Question type: FACTUAL + CONCEPTUAL

Level of difficulty: DIFFICULT

LO: 1.2: Summarize different perspectives on key questions related to children's thinking.

Pages(s) in text: 14-15