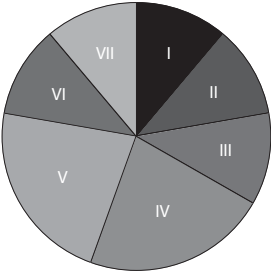


# Principles of Learning and Teaching: Grades K–6 (0522)

<i>Tests at a Glance</i>																	
Test Names and Test Codes	Principles of Learning and Teaching: Early Childhood (0521) Principles of Learning and Teaching: Grades K–6 (0522) Principles of Learning and Teaching: Grades 5–9 (0523) Principles of Learning and Teaching: Grades 7–12 (0524)																
Time	2 hours																
Number of Questions	12 short-answer questions and 24 multiple-choice questions																
Format	4 case histories will be presented, each followed by 3 short-answer questions; 24 multiple-choice questions are included in two sections of 12 questions each																
	<table border="0"> <thead> <tr> <th style="text-align: left;">Categories that will appear on your score report</th> <th style="text-align: right;">Approximate Percentage of Total Score</th> </tr> </thead> <tbody> <tr> <td>I. Students as Learners (multiple-choice questions)</td> <td style="text-align: right;">11%</td> </tr> <tr> <td>II. Instruction and Assessment (multiple-choice questions)</td> <td style="text-align: right;">11%</td> </tr> <tr> <td>III. Teacher Professionalism (multiple-choice questions)</td> <td style="text-align: right;">11%</td> </tr> <tr> <td>IV. Students as Learners (short-answer questions)</td> <td style="text-align: right;">22%</td> </tr> <tr> <td>V. Instruction and Assessment (short-answer questions)</td> <td style="text-align: right;">22%</td> </tr> <tr> <td>VI. Communication Techniques (short-answer questions)</td> <td style="text-align: right;">11%</td> </tr> <tr> <td>VII. Teacher Professionalism (short-answer questions)</td> <td style="text-align: right;">11%</td> </tr> </tbody> </table>	Categories that will appear on your score report	Approximate Percentage of Total Score	I. Students as Learners (multiple-choice questions)	11%	II. Instruction and Assessment (multiple-choice questions)	11%	III. Teacher Professionalism (multiple-choice questions)	11%	IV. Students as Learners (short-answer questions)	22%	V. Instruction and Assessment (short-answer questions)	22%	VI. Communication Techniques (short-answer questions)	11%	VII. Teacher Professionalism (short-answer questions)	11%
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Pacing Considerations	You will need to monitor your time carefully. Plan on approximately 25 minutes per case history. This amount of time has been ample for most examinees to read the case study and respond to the short-answer questions. Allow approximately 10 minutes to answer each of the two sections of multiple-choice questions. The multiple-choice questions are not associated with the case histories. Do not spend too much time on any one section of the test or on any one question.																

## About This Test

The Principles of Learning and Teaching test is designed to assess a beginning teacher’s knowledge of a variety of job-related criteria. Such knowledge is typically obtained in undergraduate preparation in areas such as educational psychology, human growth and development, classroom management, instructional design and delivery techniques, evaluation and assessment, and other professional preparation.

The test includes four case histories, each presenting a particular teaching situation. For each case history, the examinee will respond to three short-answer questions related to the teaching situation described in the case history. The twelve short-answer questions will cover all of the content areas listed under Topics Covered. Each short-answer question will be scored on a scale of 0–2. Questions may require the examinee to do any of the following: demonstrate understanding of the importance of an aspect of teaching, demonstrate understanding of the principles of learning and teaching underlying an aspect of teaching, or recognize when and how to apply the principles of learning and teaching underlying an aspect of teaching. Each case history with short-answer questions will require approximately 25 minutes.

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In addition, the test contains two sections of twelve multiple-choice questions covering an array of topics listed under Topics Covered. Each multiple-choice question section will require approximately 10 minutes.

## Topics Covered

### I. Students as Learners

#### A. Student Development and the Learning Process

1. Theoretical foundations about how learning occurs: how students construct knowledge, acquire skills, and develop habits of mind
  - Examples of important theorists
  - Important terms that relate to learning theory
2. Human development in the physical, social, emotional, moral, speech/language, and cognitive domains
  - Contributions of important theorists
  - Major progressions in each developmental domain and the ranges of individual variation within each domain
  - Impact of students' physical, social, emotional, moral, and cognitive development on their learning and how to address these factors when making instructional decisions
  - How development in one domain, such as physical, may affect performance in another domain, such as social

#### B. Students as Diverse Learners

1. Differences in the ways students learn and perform
  - Learning styles
  - Multiple intelligences
  - Performance modes
    - Concrete operational thinkers
    - Visual and aural learners
  - Gender differences
  - Cultural expectations and styles
2. Areas of exceptionality in students' learning
  - Visual and perceptual difficulties
  - Special physical or sensory challenges
  - Learning disabilities
  - Attention-deficit disorder (ADD); attention-deficit/hyperactivity disorder (ADHD)
  - Functional mental retardation
  - Behavioral disorders
  - Developmental delays
3. Legislation and institutional responsibilities relating to exceptional students
  - Americans with Disabilities Act (ADA)
  - Individuals with Disabilities Education Act (IDEA)
  - Inclusion, mainstreaming, and “least restrictive environment”
  - IEP (Individualized Education Plan), including what, by law, must be included in each IEP
  - Section 504 of the Rehabilitation Services Act
  - Due process
  - Family involvement

4. Approaches for accommodating various learning styles, intelligences, or exceptionalities
  - Differentiated instruction
  - Alternative assessments
  - Testing modifications
5. Process of second-language acquisition and strategies to support the learning of students for whom English is not a first language
6. Understanding the influence of individual experiences, talents, and prior learning, as well as language, culture, family, and community values on students' learning
  - Multicultural backgrounds
  - Age-appropriate knowledge and behavior
  - The student culture at school
  - Family backgrounds
  - Linguistic patterns and differences
  - Cognitive patterns and differences
  - Social and emotional issues

#### C. Student Motivation and the Learning Environment

1. Theoretical foundations of human motivation and behavior
  - Important terms that relate to motivation and behavior
2. How knowledge of human motivation and behavior should influence strategies for organizing and supporting individual and group work in the classroom

## Principles of Learning and Teaching: Grades K–6 (0522)

3. Factors and situations that are likely to promote or diminish student's motivation to learn, and how to help students to become self-motivated
4. Principles of effective classroom management and strategies to promote positive relationships, cooperation, and purposeful learning
  - Establishing daily procedures and routines
  - Establishing classroom rules
  - Using natural and logical consequences
  - Providing positive guidance
  - Modeling conflict resolution, problem solving, and anger management
  - Giving timely feedback
  - Maintaining accurate records
  - Communicating with parents and caregivers
  - Using objective behavior descriptions
  - Responding to student behavior
  - Arranging classroom space
  - Pacing and structuring the lesson

### II. Instruction and Assessment

#### A. Instructional Strategies

1. Major cognitive processes associated with student learning
  - Critical thinking
  - Creative thinking
  - Higher-order thinking
  - Inductive and deductive thinking
  - Problem structuring and problem solving
- Invention
- Memorization and recall
- Social reasoning
- Representation of ideas
2. Major categories, advantages, and appropriate uses of instructional strategies
  - Cooperative learning
  - Direct instruction
  - Discovery learning
  - Whole-group discussion
  - Independent study
  - Interdisciplinary instruction
  - Concept mapping
  - Inquiry method
  - Questioning
  - Play
  - Learning centers
  - Small-group work
  - Revisiting
  - Reflection
  - Project approach
3. Principles, techniques, and methods associated with major instructional strategies
  - Direct instruction
  - Student-centered models
4. Methods for enhancing student learning through the use of a variety of resources and materials
  - Computers, Internet resources, Web pages, e-mail
  - Audiovisual technologies such as videotapes and compact discs (CDs)
  - Local experts
  - Primary documents and artifacts
  - Field trips
  - Libraries
  - Service learning

#### B. Planning Instruction

1. Techniques for planning instruction, including addressing curriculum goals, selecting content topics, incorporating learning theory, subject matter, curriculum development, and student development and interests
  - National and state learning standards
  - State and local curriculum frameworks
  - State and local curriculum guides
  - Scope and sequence in specific disciplines
  - Units and lessons
    - Rationale for selecting content topics
  - Behavioral objectives: affective, cognitive, psychomotor, speech/language
  - Learner objectives and outcomes
  - Emergent curriculum
  - Antibias curriculum
  - Themes/projects
  - Curriculum webbing
2. Techniques for creating effective bridges between curriculum goals and students' experiences
  - Modeling
  - Guided practice
  - Independent practice, including homework
  - Transitions
  - Activating students' prior knowledge

## Principles of Learning and Teaching: Grades K–6 (0522)

- Anticipating preconceptions
- Encouraging exploration and problem solving
- Building new skills on those previously acquired
- Predicting

### C. Assessment Strategies

1. Types of assessments
2. Characteristics of assessments
3. Scoring assessments
4. Uses of assessments
5. Understanding of measurement theory and assessment-related issues
6. Interpreting and communicating results of assessments

### III. Communication Techniques

#### A. Basic, effective verbal and nonverbal communication techniques

#### B. Effect of cultural and gender differences on communications in the classroom

#### C. Types of communications and interactions that can stimulate discussion in different ways for particular purposes

- Probing for learner understanding
- Helping students articulate their ideas and thinking processes
- Promoting risk taking and problem solving
- Facilitating factual recall
- Encouraging convergent and divergent thinking
- Stimulating curiosity
- Helping students to question
- Promoting a caring community

### IV. Profession and Community

#### A. The Reflective Practitioner

1. Types of resources available for professional development and learning
  - Professional literature
  - Colleagues
  - Professional associations
  - Professional-development activities
2. Ability to read, understand, and apply articles and books about current research, views, ideas, and debates regarding best teaching practices
3. Ongoing personal reflection on teaching and learning practices as a basis for making professional decisions
  - Code of Ethics
  - Advocacy for learners

#### B. The Larger Community

1. Role of the school as a resource to the larger community
  - Teachers as a resource
2. Factors in the students' environment outside of school (family circumstances, community environments, health and economic conditions) that may influence students' life and learning
3. Develop and utilize active partnerships among teachers, parents/guardians, and leaders in the community to support the educational process
  - Shared ownership
  - Shared decision making
  - Respectful/reciprocal communication

4. Major laws related to students' rights and teacher responsibilities
  - Equal education
  - Appropriate education for students with special needs
  - Confidentiality and privacy
  - Appropriate treatment of students
  - Reporting in situations related to possible child abuse

### Sample Test Questions

*The sample questions that follow illustrate the kinds of questions in the test. They are not, however, representative of the entire scope of the test in either content or difficulty. Answers with explanations follow the questions.*

#### Case History: K–6

Directions: The case history is followed by two short-answer questions.

#### Sara

##### Scenario

Six-year-old Sara lives with her mother, who has a relaxed schedule. Ms. Mercer, Sara’s teacher, notes that Sara is often tired and inattentive after arriving late. Sara says she frequently stays up past midnight if others are up. Ms. Mercer, a second-year teacher, has asked her mentor to observe Sara and suggest ways to help Sara achieve Ms. Mercer’s purposes.

##### Observation: Ms. Mercer’s Class, April 30

##### Pre-observation interview notes:

Ms. Mercer says, “The purposes of first grade are to teach children ‘school survival skills’ and reading, writing, and arithmetic.” She adds, “Sara needs help with ‘survival skills,’ including following directions, concentrating on a task to its completion, and being attentive to the lessons I present.”

#### Mentor Classroom Observation—Focus on Sara Porter:

As Ms. Mercer’s class begins, the children play with puzzles and other activities requiring construction or manipulation. Two children “write” on a flannel board, using letters kept in alphabetical stacks in a box. They return the letters so they fit exactly over their counterparts. Ms. Mercer praises them for neatness. She instructs them to return to their previously assigned groups as Sara enters the room.

The students are seated at six tables, four students at each table. Ms. Mercer explains, “Tables one and two will work on reading first, while tables three and four will solve math problems, and tables five and six will draw page illustrations for your collaborative Big Book. After twenty-five minutes, the groups will stop the first activity and begin working on a second task without changing seats. Twenty-five minutes later, you will change again to work on the activity each group has not yet done. The math groups and those doing illustrations will hand in their work when time is called. I will work with the two groups who are reading aloud.” She plans to monitor progress of students in the reading group.

Sara is at table 1. Ms. Mercer begins with this table and table 2, working on reading. Several children read aloud. Ms. Mercer praises them. When Ms. Mercer calls on Sara, she begins reading in the wrong place. Joyce, seated next to Sara, points to where they are. Ms. Mercer says, “Sara, you would know where we are if you were paying attention.” She calls on another child. Sara looks hurt but soon starts to follow along in the book. Subsequently, Ms. Mercer calls on Sara, who now has the right place. Ms. Mercer then calls on another child.

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During the math activity, Sara, yawning frequently, is the last to open her workbook and write her name. When she completes the page, she waits. She seems puzzled, although Ms. Mercer has already given directions. Sara gets up, sharpens a pencil, and returns to the wrong seat. “That’s MY seat,” accuses an angry boy. Sara apologizes and returns to her seat. Later, she waits to have her workbook checked. She has not torn out pages as Ms. Mercer instructed. Sara is told to “do it right.” Sara has not creased the paper as Ms. Mercer demonstrated, so the pages do not tear out easily. Sara sucks her thumb and holds her ear for a minute. Suddenly, she yanks the paper and the pages come out with jagged edges. She receives three dots for her work. Ms. Mercer says, “Sara, this is good. I wish you could earn four dots” (the maximum). Sara slaps herself on the forehead.

During the illustration activity, Sara helps several others who have trouble thinking of ideas. Sara’s illustration is among the best handed in.

After the group work, Ms. Mercer places a large pad on an easel and says, “Now we’re going to write about our trip to the art museum yesterday. Raise your hand and tell me something you saw or did in the museum.” No one responds. She says, “Tell me the first thing we did at the museum.” Sara raises her hand, offering a first sentence. After each response, Ms. Mercer asks, “What happened next?” or “What did we see next?” She prints each child’s contribution.

### Our Trip to the Art Museum

We rode the elevator to the second floor. We looked at different shapes on the ceiling. We saw a statue with a white triangle. We went to another room where we saw some pictures. We rode back down to the first floor. On our way out, we saw a painting of a grandfather and a boy.

During the writing of the group story, Sara fidgets in her seat, stares out the window, and makes a face at her neighbor.

#### Post-observation interview notes:

Ms. Mercer says, “Sara is a top performer in academic achievement and on standardized tests, consistently scoring among the top five students in the class. She’s so bright. It’s a shame she’s late and distracted so much.” The mentor replies, “There may be something else bothering Sara. Although easily distracted, there may be other explanations for her behavior. Let’s talk more.”

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## Short Answer Questions

*This section presents two short-answer questions and sample responses along with the standards used in scoring these responses. When you read these sample responses, keep in mind that they are less polished than if they had been developed at home, edited, and carefully presented. Examinees do not know what questions will be asked and must decide, on the spot, how to respond. Readers assign scores based on the following scoring guide.*

### GENERAL SCORING GUIDE

#### A response that receives a score of 2:

- Demonstrates a thorough understanding of the aspects of the case that are relevant to the question
- Responds appropriately to all parts of the question
- If an explanation is required, provides a strong explanation that is well supported by relevant evidence
- Demonstrates a strong knowledge of pedagogical concepts, theories, facts, procedures, or methodologies relevant to the question

#### A response that receives a score of 1:

- Demonstrates a basic understanding of the aspects of the case that are relevant to the question
- Responds appropriately to one portion of the question
- If an explanation is required, provides a weak explanation that is supported by relevant evidence
- Demonstrates some knowledge of pedagogical concepts, theories, facts, procedures, or methodologies relevant to the question

#### A response that receives a score of 0:

- Demonstrates misunderstanding of the aspects of the case that are relevant to the question
- Fails to respond appropriately to the question
- Is not supported by relevant evidence
- Demonstrates little knowledge of pedagogical concepts, theories, facts, procedures, or methodologies relevant to the question

No credit is given for a blank or off-topic response.

Directions: Questions 1 and 2 require you to write short answers. You are not expected to cite specific theories or texts in your answers; however, your responses to the questions will be evaluated with respect to professionally accepted principles and practices in teaching and learning. Be sure to answer all parts of the questions. Write your answers in the spaces indicated in the response book.

#### Question 1

Ms. Mercer is concerned that Sara is often tired and inattentive after arriving late to school.

- Identify TWO specific actions Ms. Mercer might take to connect school and Sara's home environment for the benefit of Sara's learning.
- For each action, explain how that action will benefit Sara's learning. Base your response on principles of fostering positive relationships with family to support student learning and well-being.

### Sample Response that Received a Score of 2

First, Ms. Mercer can collect as much information as possible to use in conferences with Sara's mother to help establish a positive relationship and to help identify Sara's strengths and needs. Ms. Mercer should do some systematic observation and objective description of Sara's performance and the effects of her late arrival and inattentiveness in class. Observation information should also include Sara's good qualities. She might also gather information, with the help of the school nurse, about healthful habits for children Sara's age, including amount of sleep needed. Second, Ms. Mercer then needs to seek a parent conference in order to discuss the areas in which Sara shows strengths as a student and to address her concerns about Sara's performance in class. By showing a sincere interest in Sara's positive growth and development as well as identifying the youngster's problems, Ms. Mercer can work to establish a positive working relationship with Sara's mother.

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### Sample Response that Received a Score of 1

Ms. Mercer needs to talk with Sara’s mother in order to connect school and Sara’s home environment for the benefit of Sara’s learning. She should call her to make an appointment, and when Sara’s mother comes to school for the meeting, they can begin to discuss Sara’s behavior and the possible causes for it. In the same way, the school—Ms. Mercer and perhaps the nurse or school psychologist—know a lot about what Sara does at school and a lot of theory about child growth and development, and they can help Sara’s mother understand what her problems are and how they can be approached. In this way, Sara will benefit because both home and school will know more and be better able to help her.

### Sample Response that Received a Score of 0

Although it sounds like a good idea, probably very little if anything will be gained by trying to establish contact with Sara’s mother. From the way Sara behaves in school, it appears that a very likely cause of her problems lies at home, especially if her mother keeps her up very late at night and has little regard for her welfare. Therefore, in the best interests of Sara, Ms. Mercer should rely on the school to help her try to figure out what’s going on with Sara and how best to help her and should not involve Sara’s mother.

#### Question 2

Review the pre-observation notes in which Ms. Mercer explains the purposes of first grade as she sees them.

- Explain TWO additional purposes the mentor might suggest to Ms. Mercer that might motivate Sara and other students to become more engaged in their school work.
- For each purpose, explain how Ms. Mercer might modify her instruction to better meet the needs of Sara and other students. Base your response on principles of motivation and learning theory.

### Sample Response that Received a Score of 2

The mentor can point out to Ms. Mercer that an important additional purpose for first grade is to address the physical, emotional, and intellectual needs of all children. She could have modified her instruction by learning more about Sara, and then addressing Sara’s needs in a carefully planned way that supports Sara’s growth and development. A second additional purpose for first grade is to build students’ self-esteem and confidence. The mentor could point out that Ms. Mercer shows her concern about Sara to the mentor, but to Sara she generally shows her frustration and impatience with what Sara does wrong. If Ms. Mercer began by praising Sara for her ability and acknowledging her genuine contributions, she would take an important step toward building Sara’s self-esteem and confidence.

### Sample Response that Received a Score of 1

One additional purpose of first grade is to begin introducing some of the higher-order thinking skills at a level appropriate for the age and grade level. Ms. Mercer is right that reading, writing, and arithmetic are important, but she could help the students grow much more effectively by helping them begin to use some synthesis, analysis, and evaluation skills in the tasks they are doing. For example, in her oral reading activity, she could ask some questions related to what the students are reading that would require them to use these higher-order thinking skills. She could ask how characters are alike, or ask them to name two things they really like about the story.

### Sample Response that Received a Score of 0

It seems to me that, with everything first grade teachers are expected to do these days, Ms. Mercer has more than enough challenge with the purposes she has established. Yes, it might be nice if she could think of some “additional” purposes, but I think her students will be best served if she concentrates on the purposes she has established and works to give her students a solid foundation on which later grades can build.

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### Multiple-Choice Questions

Directions: Questions 3–10 are not related to the previous case. For each question, select the best answer and mark the corresponding space on your answer sheet.

3. Classroom management research findings suggest that one of the most effective ways to maximize the amount of time elementary school children spend on academic activities is for the teacher to do which of the following?
- (A) Plan for, teach, and enforce routines for transition times and classroom housekeeping tasks.
  - (B) Assign homework three times a week in the major subjects.
  - (C) Assign individual reading on new topics before discussing the topic in class.
  - (D) Introduce new material in a lecture followed immediately by a questioning session on the material.
4. Which of the following kinds of instruction is frequently cited as the opposite of discovery learning?
- (A) Simulation games
  - (B) Expository teaching
  - (C) Mastery learning
  - (D) Schema training
5. During a visit to a second-grade classroom, a student teacher observed a child spending the time allotted for a worksheet either looking out the window or doodling on his paper. When the student teacher asked the child if he needed help on the assignment, he said no. When asked why he wasn't doing it, he pointed to another student and said, "She does all her work fast and when she's done, she gets more work."
- The boy's reaction suggests which of the following about his classroom?
- (A) A routine has been established for students who are having trouble finishing an assignment to ask the teacher for assistance.
  - (B) A routine for rewarding students who finish work promptly is not in place.
  - (C) Students must work alone on seatwork, without consulting other students.
  - (D) Students who finish work before the whole class is finished must not interrupt the students who are still working.
6. For developing the language abilities of kindergartners, which of the following would be the most appropriate way to follow up the writing of a group essay?
- (A) Prepare a list of the most difficult words for the children to learn to spell.
  - (B) Show the children how to revise the sentences to make them longer and more complex structurally.
  - (C) Have the children print the essay for themselves, then practice writing it, using cursive letters.
  - (D) Read the essay aloud, in unison with the children, then leave it displayed where they can examine it.
7. Dan is one of two students in Ms. Kane's fifth-grade class under the "least-restrictive environment" provision. Dan has a very limited attention span and says he usually cannot follow what is going on in class. One of the IEP objectives for Dan is "Given a 10–12 minute lecture/oral lesson, Dan will take appropriate notes as judged by the teacher."
- Which of the following strategies has the best potential to help Dan meet this goal by the end of the year?
- (A) Ms. Kane grades Dan's notes on lecture/oral lesson material and incorporates the grade into Dan's overall class grade.
  - (B) Ms. Kane allows Dan to tape-record the lecture/oral lesson, rather than taking notes, and then listen to the tape at home to learn the material.
  - (C) Ms. Kane provides Dan with a graphic organizer, or a skeleton outline, of the lecture so Dan can fill in the missing information as it is provided.
  - (D) Ms. Kane seats Dan with a student he says he likes and allows Dan to ask that student questions as the lecture/oral lesson proceeds.

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8. Daryl, a sixth grader, receives a score report from a standardized mathematics test taken by his entire sixth-grade class that includes both a grade-equivalent score and a national percentile rank. Daryl's grade-equivalent score is 8.2. His national percentile rank is 87.

Daryl's grade-equivalent score indicates that which of the following is true?

- (A) Daryl did as well on his test as an average eighth-grade student in the second month of school would do on an eighth-grade test.
- (B) Daryl can do the mathematics expected of an average eighth grader who is in the second month of the school year.
- (C) Daryl may well encounter difficulties in the later stages of the eighth-grade mathematics curriculum.
- (D) Daryl did as well on this test as an average eighth grader in the second month of school would do on the same test.

Questions 9–10 are based on the following passages.

*The following passages are taken from a debate about the advantages and disadvantages of a constructivist approach to teaching.*

### Why constructivist approaches are effective

The point of constructivist instruction is to have students reflect on their questions about new concepts in order to uncover their misconceptions. If a student cannot reason out the answer, this indicates a conceptual problem that the teacher needs to address. It takes more than content-related professional expertise to be a “guide on the side” in this process. Constructivist teaching focuses not on what the teacher knows, but on what and how the student learns. Expertise is focused on teaching students how to derive answers, not on giving them the answers. This means that a constructivist approach to teaching must respond to multiple different learning methods and use multiple approaches to content. It is a myth that constructivist teaching never requires students to memorize, to drill, to listen to a teacher explain, or to watch a teacher model problem-solving of various kinds. What constructivist approaches take advantage of is a basic truth about human cognition: we all make sense of new information in terms of what we already know or think we know. And each of us must process new information in our own context and experience to make it part of what we really know.

### Why constructivist approaches are misguided

The theory of constructivism is appealing for a variety of reasons—especially for its emphasis on direct student engagement in learning. However, as they are implemented, constructivist approaches to teaching often treat memorization, direct instruction, or even open expression of teacher expertise as forbidden. This demotion of the teacher to some sort of friendly facilitator is dangerous, especially in an era in which there is an unprecedented number of teachers teaching out of their fields of expertise. The focus of attention needs to be on how much teachers know about the content being taught.

Students need someone to lead them through the quagmire of propaganda and misinformation that they confront daily. Students need a teacher who loves the subject and has enough knowledge to act as an intellectual authority when a little direction is needed. Students need a teacher who does not settle for minimal effort but encourages original thinking and provides substantive intellectual challenge.

9. The first passage suggests that reflection on which of the following after a lesson is an essential element in constructivist teaching?
- (A) The extent to which the teacher's knowledge of the content of the lesson was adequate to meet students' curiosity about the topic
  - (B) The differences between what actually took place and what the teacher planned
  - (C) The variety of misconceptions and barriers to understanding revealed by students' responses to the lesson
  - (D) The range of cognitive processes activated by the activities included in the lesson design and implementation
10. The author of the second passage would regard which of the following teacher behaviors as essential for supporting student learning?
- (A) Avoiding lecture and memorization
  - (B) Allowing students to figure out complex problems without the teacher's intervention
  - (C) Emphasizing process rather than content knowledge
  - (D) Directly guiding students' thinking on particular topics

### Answers

1. See sample responses on page 7–8.
2. See sample responses on page 8.
3. The best answer is A. Too much time is often spent supervising students in relation to personal needs and everyday housekeeping tasks, and interruptions for this purpose are a major source of discontinuity in academic activities. Teachers can minimize these problems by preparing the classroom and students to handle routine activities on their own.
4. The best answer is B. The method of teaching most often seen as the opposite of discovery teaching is expository teaching. Discovery learning allows students to explore material on their own and arrive at conclusions. In expository teaching, students are presented with subject matter organized by the teacher.
5. The best answer is B. Students are quick to learn classroom routines for work incentives and penalties, as the student's remark implies. No routine has been established to reward students who finish their work early.
6. The best answer is D. The most appropriate follow-up is one that motivates children toward continued expression. Displaying the essay serves as a form of publication and allows the children to reread the essay on their own terms. Reading in unison provides a nonthreatening way for the children to practice the language skills they have learned.
7. The best answer is C. This question asks you to identify an instructional strategy that provides the student with a clearly structured activity to keep him on task to reach the IEP objectives. The information provided about Dan tells you that the strategy the teacher chooses must help Dan in two ways: it must keep his attention from wandering and it must help him to follow what is going on in the lesson. In addition, the strategy needs to provide the teacher with assessment information to use in evaluating the student's progress.
8. The best answer is D. A grade-equivalent score is a score that compares the raw score attained on a test by the individual student to the raw score attained by the average student in the norm group for the particular test and then reports the grade and month level of that norm group comparison. In this case, Daryl's raw score was equivalent to the average raw score of all eighth graders in the second month of school who were part of the norm group.
9. The best answer is C. Constructivist teaching depends on the connection of new information to already learned information or understandings, whether or not they are accurate. The passage says, "The point of constructivist instruction is to have students reflect on their questions about new concepts in order to uncover their misconceptions. If a student cannot reason out the answer, this indicates a conceptual problem that the teacher needs to address." Thus, a consideration of barriers and/or misconceptions in response to the presentation of new material is an essential follow-up to a constructivist lesson.
10. The best answer is D. The second author maintains that students require teacher guidance and a direct expression of the teacher's expert content knowledge in order to learn most effectively. Choices A (avoiding lecturing), B (learning without teacher intervention), and C (de-emphasis on content knowledge) are not consistent with this approach to teaching. Direct guidance of students' thinking is consistent with the second author's approach.