



Preparation Manual
Pedagogy and
Professional Responsibilities for Trade
and Industrial Education 6–12 (370)

Overview and Exam Framework
Sample Selected-Response Questions
Sample Selected-Response Answers and Rationales
Sample Constructed-Response Question

Preparation Manual

Section 3: Overview and Exam Framework Pedagogy and Professional Responsibilities for Trade and Industrial Education 6–12 (370)

Exam Overview

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| Exam Name | Pedagogy and Professional Responsibilities for Trade and Industrial Education 6–12 |
| Exam Code | 370 |
| Time | 5 hours |
| Number of Questions | 90 selected-response questions and 1 constructed-response question |
| Format | Computer-administered test (CAT) |

The TExES Pedagogy and Professional Responsibilities for Trade and Industrial Education 6–12 (370) exam is designed to assess whether an examinee has the requisite knowledge and skills that an entry-level educator in this field in Texas public schools must possess. The 90 selected-response questions and the 1 constructed-response question are based on the Pedagogy and Professional Responsibilities for Trade and Industrial Education exam framework. Questions on this exam range from grades 6–12. Your final scaled score will be based only on scored questions.

The Standards

Standard I

Instructional Planning and Delivery. Trade and Industrial Workforce Training Grades 6–12 classroom teachers demonstrate understanding of instructional planning and delivery by providing standards-based, data-driven, differentiated instruction that engages students and makes learning relevant for today's learners.

Standard II

Knowledge of Student and Student Learning. Trade and Industrial Workforce Training Grades 6–12 classroom teachers work to ensure high levels of learning and achievement outcomes for all students, taking into consideration each student's educational and developmental backgrounds and focusing on each student's needs.

Standard III

Content Knowledge and Expertise. Trade and Industrial Workforce Training Grades 6–12 classroom teachers exhibit an understanding of content and related pedagogy as demonstrated through the quality of the design and execution of lessons and the ability to match objectives and activities to relevant state standards.

Standard IV

Learning Environment. Trade and Industrial Workforce Training Grades 6–12 classroom teachers interact with students in respectful ways at all times, maintaining a physically and emotionally safe, supportive learning environment that is characterized by efficient and effective routines, clear expectations for student behavior, and organization that maximizes student learning.

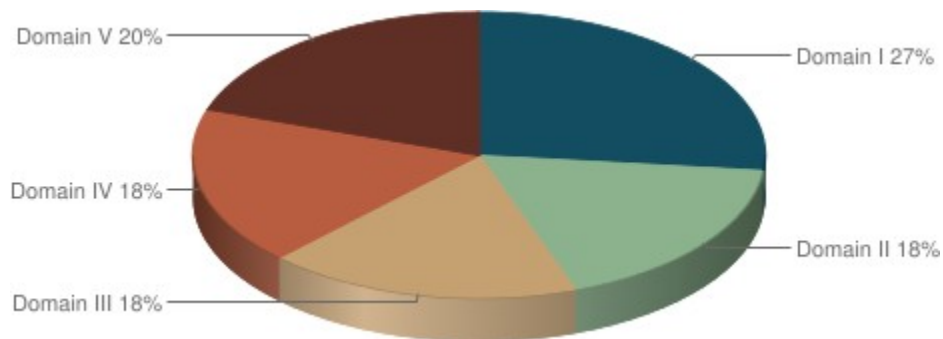
Standard V

Data-Driven Practices. Trade and Industrial Workforce Training Grades 6–12 classroom teachers use formal and informal methods to assess student growth aligned to instructional goals and course objectives and regularly review and analyze multiple sources of data to measure student progress and adjust instructional strategies and content delivery as needed.

Standard VI

Professional Practices and Responsibilities. Trade and Industrial Workforce Training Grades 6–12 classroom teachers consistently hold themselves to a high standard for individual development, collaborate with other educational professionals, communicate regularly with stakeholders, maintain professional relationships, comply with all campus and school district policies, and conduct themselves ethically and with integrity. Trade and Industrial Workforce Training Grades 6–12 classroom teachers must adhere to the educators' code of ethics in §247.2 of this title (relating to Code of Ethics and Standard Practices for Texas Educators), including following policies and procedures at their specific school placement(s).

Domains and Competencies



Note: Percentages in the pie chart do not add up to 100 due to rounding.

The content covered by this exam is organized into broad areas of content called **domains**. Each domain covers one or more of the educator standards for this field. Within each domain, the content is further defined by a set of **competencies**. Each competency is composed of two major parts:

- The **competency statement**, which broadly defines what an entry-level educator in this field in Texas public schools should know and be able to do.
- The **descriptive statements**, which describe in greater detail the knowledge and skills eligible for testing.

Domain I—Instructional Planning, Delivery, and Assessment

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

For example:

- A. Demonstrate knowledge of pedagogical practices and contextual factors, such as industry environments, standards, and practices, that affect student learning.
- B. Apply knowledge of how to develop instructional goals and objectives that are clear, relevant, and aligned with industry and state standards.
- C. Recognize ways to develop and organize the curriculum to facilitate student understanding of key content knowledge and skills of the discipline.
- D. Apply knowledge of instructional planning that is developmentally appropriate, that is standards driven, and that will motivate students to learn.
- E. Apply strategies for encouraging student engagement through direct instruction, facilitated discussion, and student-centered activities.
- F. Demonstrate knowledge of how to use communication techniques to provide ongoing, appropriate, and constructive feedback to students to reinforce learning and promote understanding of key concepts.
- G. Apply knowledge of methods for communicating goals, objectives, and learning expectations to support all students in reaching high levels of achievement.
- H. Apply knowledge of instructional strategies for designing lessons, including differentiated instruction, to meet the needs of diverse learners (e.g., acceleration, remediation, implementation of Individualized Education Programs [IEPs]).

Competency 002—(Resources, Technologies, and Materials): Understand how to select, adapt, and incorporate resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.

For example:

- A. Apply strategies for identifying, developing, and using resources and materials to prepare and present developmentally appropriate instruction that is responsive to the needs of all students.
- B. Apply strategies for selecting and using resources, technologies, and instructional materials that reflect educational goals and actively engage all students.
- C. Recognize variations in students' ability to access and use technology resources, and adapt instruction to facilitate all students' use of appropriate resources to enhance learning.
- D. Apply knowledge of digital citizenship, including technology-related laws, issues, and ethics (e.g., copyrights, Internet safety, plagiarism, computer-use guidelines).
- E. Apply knowledge of ways to integrate the use of oral, written, graphic, kinesthetic, and/or tactile resources and materials to teach key concepts.

Competency 003—(Data-Driven Practices and Student Assessments): Understand how to collect, analyze, evaluate, and communicate data and how to design and implement appropriate and effective student assessments.

For example:

- A. Demonstrate knowledge of strategies for collecting, analyzing, and evaluating data in a timely, thorough, accurate, and appropriate manner to monitor student learning.
- B. Apply strategies for collecting, analyzing, and evaluating multiple sources of data, including student assessments, to develop a coherent evaluation of the trade and industrial workforce training program's strengths and weaknesses, instructional strategies, and content delivery.
- C. Demonstrate knowledge of the characteristics and uses of formal and informal assessments, including cognitive and performance-based assessments, to analyze students' strengths and needs, measure and evaluate student progress, and adjust instructional strategies and content delivery.

- D. Apply strategies for providing students with timely, constructive feedback; cooperating effectively with teachers, other professionals, and parents/guardians to collect and interpret data; and communicating the purposes, methods, findings, and implications of students' assessment results.
- E. Apply principles and standards for developing individualized training plans for student work-based learning experiences, and apply methods for evaluating student performance and the value of particular experiences to student learning.

Domain II—Knowledge of Students and Student Learning

Competency 004—(Learning Processes): Understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.

For example:

- A. Demonstrate knowledge of theories of how learning occurs and processes by which learners acquire knowledge and skills (e.g., constructivism, behaviorism, hierarchy of needs, social learning).
- B. Demonstrate knowledge of physical, cognitive, social, and emotional factors of human development and their significance for teaching and learning.
- C. Recognize the wide range of individual development and the implications of developmental variation for instructional planning.
- D. Recognize challenges for adolescents, both in and out of school, and effective resources to help students address challenges.
- E. Apply strategies for communicating effectively with students to enhance their self-esteem and achieve personal goals.

Competency 005—(Student Learning): Apply principles for connecting learning, content, and expectations to students' prior knowledge, real-world experiences, and interests in meaningful contexts.

For example:

- A. Demonstrate knowledge of the ethnic, cultural, linguistic, gender, gender identity, and socioeconomic diversity of students and the effects of this diversity on student learning.
- B. Apply strategies for developing and adapting lesson plans and instruction that are responsive to students' diverse backgrounds and particular needs, including the needs of English learners.
- C. Recognize the importance of modeling acceptance of and respect for all students.
- D. Apply strategies for developing lesson plans and instruction that meaningfully relate to students' prior knowledge, life experiences, and interests.
- E. Apply strategies for ensuring equitable access to educational opportunities and experiences for all students, including students with disabilities.
- F. Demonstrate knowledge of different types of work-based learning experiences (e.g., mentorships, job shadowing, internships, apprenticeships, practicum) and the characteristics, advantages, and disadvantages of each.

Domain III—The Learning Environment

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

For example:

- A. Demonstrate understanding of ways to implement efficient and effective routines and procedures that promote students' learning and achievement.
- B. Apply knowledge of strategies to organize classroom and laboratory activities and schedules to enhance the efficiency of teaching and learning.
- C. Apply knowledge of strategies for maintaining a learning environment that is based on high expectations for student performance and empowers students to take responsibility for their own learning.
- D. Apply strategies for maximizing time spent on instruction (e.g., managing time, facilitating transitions).
- E. Apply principles for planning, managing, and facilitating classroom and laboratory organization in order to maximize students' collaboration, participation, and achievement.

Competency 007—(Safe, Supportive Learning Environment): Understand principles and strategies for maintaining a physically and emotionally safe, supportive learning environment that maximizes student learning.

For example:

- A. Apply knowledge of strategies for creating an inclusive learning environment in which diversity and individual differences are respected and classroom interactions are positive and respectful.
- B. Demonstrate knowledge of how to facilitate positive and productive interactions with and among students in small or large groups.
- C. Apply strategies for arranging and organizing the physical environment to maximize student learning and to ensure that all students have access to resources.
- D. Apply knowledge of relevant local, state, and federal safety regulations and current practices and procedures for ensuring the safety of students in the classroom, laboratory, field, and workplace settings.
- E. Demonstrate knowledge of principles and characteristics of effective behavior management systems and strategies for maintaining an environment where all students can learn.
- F. Recognize potential hazards, threats, and vulnerabilities (e.g., mechanical, chemical, human, natural) and ways to prevent or mitigate them.

Domain IV—Professional Practices and Responsibilities

Competency 008—(Ethics and Integrity): Understand the importance of maintaining the highest standards of ethics and integrity in personal and professional behavior.

For example:

- A. Apply self-assessment procedures to identify strengths and areas for growth in order to maintain high standards in quality of instruction, interactions with students and others, and personal development.
- B. Demonstrate understanding of ethical guidelines, policies, and procedures for educators in Texas as outlined in the Code of Ethics and Standard Practices for Texas Educators.

- C. Demonstrate knowledge of ways to apply campus and school district policies and procedures.
- D. Identify and apply legal requirements for educators (e.g., related to students' and families' rights, student discipline, record keeping, equity, OSHA regulations).
- E. Apply strategies for serving as an advocate for students and modeling ethical behavior for students, families, colleagues, and others.

Competency 009—(Professional Practice): Apply strategies for collaborating with other professionals, maintaining professional relationships, and fulfilling professional duties.

For example:

- A. Demonstrate understanding of the importance of participating in program, school, and community activities and performing professional responsibilities and duties outside the classroom setting.
- B. Demonstrate knowledge of the importance of identifying opportunities for and participating in relevant professional development activities and lifelong learning to enhance technical knowledge and pedagogical skills.
- C. Recognize the benefits of maintaining membership and participating in professional organizations (e.g., networking, access to resources, contributing to the profession, obtaining current technical and pedagogical information).
- D. Recognize the importance of establishing partnerships, maintaining relationships, and working effectively with internal and external partners.
- E. Apply knowledge of skills and procedures for organizing and working with advisory committees.
- F. Demonstrate understanding of the purpose and benefits of student organizations and the roles of advisors to such organizations.

Domain V—Constructed Response

Competency 010—(Constructed Response): Apply appropriate pedagogical principles and knowledge of instructional methods to describe components of a lesson designed to achieve a specific learning objective.

Note: Examinees' written responses will be scored only on pedagogical content knowledge. Written responses may be presented in any format that clearly communicates pedagogical content knowledge (e.g., essay, bullet points, outline).

For example:

- A. Identify one learning objective related to a field within trade and industrial workforce training, including a logical rationale for selecting the particular learning objective.
- B. Use appropriate pedagogical principles and effective instructional methods to describe an approach for promoting students' achievement of the learning objective.
- C. Describe instructional strategies for connecting students' prior knowledge, life experiences, and interests to the learning objective.
- D. Identify potential safety issues and discuss methods for securing student safety during instruction.
- E. Describe how instruction will be accessible to all students, including those with special needs.
- F. Describe appropriate assessment methods for evaluating student performance and achievement of the learning objective.

Preparation Manual

Section 4: Sample Selected-Response Questions Pedagogy and Professional Responsibilities for Trade and Industrial Education 6–12 (370)

This section presents some sample exam questions for you to review as part of your preparation for the exam. To demonstrate how each competency may be assessed, sample questions are accompanied by the competency that they measure. While studying, you may wish to read the competency before and after you consider each sample question. Please note that the competency statements do not appear on the actual exam.

For each sample exam question, there is a correct answer and a rationale for each answer option. The sample questions are included to illustrate the formats and types of questions you will see on the exam; however, your performance on the sample questions should not be viewed as a predictor of your performance on the actual exam.

Selected-Response Questions with Rationales

Each sample exam question here includes the correct answer and a rationale for each answer option.

Domain I—Instructional Planning, Delivery, and Assessment

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

1. An eighth-grade career and technical education class includes students with disabilities, English learners, and students who are academically advanced. The teacher can most appropriately address this variation by adopting which of the following approaches?

- A. incorporating activities to develop students' ability to cope with academic and personal challenges
- B. focusing a greater amount of instructional time on areas in which students demonstrate the highest achievement levels
- C. implementing long-term instructional groups based on students' overall performance levels
- D. differentiating for students by prioritizing the development of students' strengths and higher-order thinking skills while providing supports for their specific needs

Answer _____

2. Teachers in a career and technical education program want to promote students' success as they progress through increasingly rigorous coursework. Which of the following actions by the teachers would be most effective in promoting this outcome?

- A. assigning students in advanced classes to mentor students in introductory classes
- B. implementing individual exit interviews with students at the end of each of their courses
- C. ensuring that the curriculum is aligned vertically to minimize instructional gaps
- D. participating in joint instructional planning with colleagues who teach related courses

Answer _____

Competency 002—(Resources, Technologies, and Materials): Understand how to select, adapt, and incorporate resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.

3. In a principles-level career and technical education class, the teacher plans to engage students in a project-based learning experience that will involve extensive use of technology. Students have district-provided one-to-one electronic devices and technical support. The teacher is working with the technology department to plan and implement the project. Which of the following issues is most important to consider in the planning process?

- A. putting in place steps to facilitate students' equitable access to and support in using technology during the project
- B. designing the project with flexibility in requirements for students who do not have ready access to technology
- C. acquiring user guides and tutorials specific to available technology for students to reference during the project
- D. ensuring that the technology students will utilize during the project is approved by school and district administrators

Answer _____

4. An engineering teacher incorporates various strategies into instruction. For example, the teacher presents new content orally along with appropriate graphic support. Whenever possible, the teacher provides students with manipulative materials and tools to use in problem solving. At the end of each class, the teacher has students work with a partner to respond to a discussion question prompt focusing on the topic of the day's lesson. The teacher's approach can be expected to enhance students' abilities in which of the following areas?

- A. personal responsibility for learning
- B. conceptual understanding
- C. connection of content to life experiences
- D. use of academic language

Answer _____

Competency 003—(Data-Driven Practices and Student Assessments): Understand how to collect, analyze, evaluate, and communicate data and how to design and implement appropriate and effective student assessments.

5. Which of the following scenarios most clearly represents a teacher's use of informal assessment to guide instruction?

- A. The teacher includes content that has been addressed on previous classroom tests on subsequent tests.
- B. The teacher implements regular written tests to measure students' mastery of specific content and standards.
- C. The teacher provides immediate feedback to students during lesson activities and class assignments.
- D. The teacher uses varied questioning strategies in the moment to check students' understanding of lesson content.

Answer _____

6. A career and technical education teacher incorporates frequent formative assessment into instruction and makes anecdotal notes of students' participation in class and small groups. The teacher also assigns one project-based

activity to cooperative groups and provides a rubric for evaluating the project. This multipronged approach is likely to be most effective in achieving which of the following goals?

- A. determining the most appropriate instructional strategies for individual students
- B. gaining a full picture of students' learning on which to base instructional decisions
- C. providing students with a summary of their progress and learning
- D. preparing students for the varied tasks they are likely to encounter in the workplace

Answer _____

Domain II—Knowledge of Students and Student Learning

Competency 004—(Learning Processes): Understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.

7. A culinary teacher who wishes to encourage students' need for self-actualization as defined in Maslow's hierarchy of needs should emphasize that students remain motivated because they:

- A. are more likely to get a good, high-paying job if they succeed in school.
- B. benefit from striving to realize their full potential and achieve a sense of accomplishment.
- C. are part of a team along with their teachers and other students.
- D. will find school less stressful if they follow the rules and expectations of others.

Answer _____

8. Career and technical education teachers can help adolescent students address the developmental challenge of forming a personal identity by implementing activities that are designed to:

- A. promote students' awareness and understanding of their own interests and abilities.
- B. provide students with opportunities for self-expression through the arts and social interaction.
- C. broaden students' knowledge of a wide range of academic and work opportunities.
- D. engage students in role-playing a variety of authentic social and academic situations.

Answer _____

Competency 005—(Student Learning): Apply principles for connecting learning, content, and expectations to students' prior knowledge, real-world experiences, and interests in meaningful contexts.

9. A career and technical education teacher's class includes a few students who are English learners with varying levels of English proficiency. The teacher has observed that these students sometimes have difficulty following large-group discussions. The teacher can most effectively support these students during class discussions by utilizing which of the following strategies?

- A. summarizing critical concepts at regular intervals during discussions to check for understanding
- B. providing a note-taking template to use after discussions
- C. providing a list of vocabulary words to students related to discussions
- D. limiting discussion comments to specific topics defined and distributed in advance

Answer _____

10. A career and technical education teacher has a diverse class of learners. The teacher is planning a lesson on the following Texas Essential Knowledge and Skills (TEKS):

The student is expected to evaluate forms of financial exchange, including cash, credit, debit, and electronic funds transfer.

The teacher wants to design instruction that encourages students to draw on their backgrounds to facilitate content learning. The teacher can best achieve this goal by:

- A. focusing instruction on the forms of financial exchange in which students show the greatest interest.
- B. determining the prevalence of a form of financial exchange within students' respective knowledge before including it in activities.
- C. incorporating assignments in which students interview family members about their preferred forms of financial exchange.
- D. incorporating students' languages, experiences, and culturally familiar examples in instruction about forms of financial exchange.

Answer _____

11. Which of the following teacher behaviors would contribute most significantly to creating an environment of respect?

- A. maintaining strict guidelines for interpersonal interactions across various educational settings
- B. building relationships by acknowledging the unique abilities and perspectives that each student brings to the learning process
- C. spending time with students at school-related events outside of class to learn about their personal interests
- D. integrating self-deprecating humor into the learning process to establish a relaxed atmosphere

Answer _____

Domain III—The Learning Environment

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

12. A middle school teacher of a career and technical education class consistently runs out of time and students often do not have adequate time to practice new skills. With appropriate permissions from the school district and students' parents/guardians, the teacher decides to make a video recording of the class for a one-week period. This approach is likely to improve the teacher's instructional efficiency primarily by:

- A. facilitating the teacher's ability to analyze how time is being used during the class period.
- B. supporting the teacher in identifying students who are contributing to classroom distractions.
- C. assisting the teacher in evaluating the developmental appropriateness of class activities.
- D. enabling the teacher to recognize content and skills that are particularly challenging for students.

Answer _____

13. Students in a construction management class are having difficulty making smooth transitions from one activity to the next. Some students quickly put away materials and prepare for the next activity, while others are reluctant to stop what they are doing. This often results in minor misbehavior and lost instructional time. The teacher can best address this problem by taking which of the following actions?

- A. praising students who change activities in a timely manner
- B. beginning the next activity as planned to urge students' promptness
- C. implementing visual prompts periodically to indicate how much time is left before the next activity
- D. reviewing planned activities with students at the beginning of each class period

Answer _____

Competency 007—(Safe, Supportive Learning Environment): Understand principles and strategies for maintaining a physically and emotionally safe, supportive learning environment that maximizes student learning.

14. A forensic science teacher's classroom is organized into six laboratory tables equipped with a standard set of equipment. Recently the teacher observed that the equipment students need is often found at another table and that students have to spend time locating what they need before beginning the laboratory assignment. Which of the following teacher strategies would best ensure that students have ready access to the equipment they need?

- A. stopping activities 30 minutes earlier to allow ample time for students to store equipment appropriately
- B. marking each piece of equipment with a color code or number that corresponds to the table where it should be stored
- C. asking for student volunteers at each table to organize equipment at the end of the class period
- D. teaching a lesson on the appropriate storage of each piece of equipment and the importance of organization

Answer _____

15. A high school manufacturing classroom includes four stations, each with basic equipment needed for laboratory activities. During a class activity, a piece of equipment at one station malfunctions and a student narrowly avoids an injury. Which of the following actions should the teacher take immediately in this situation?

- A. inspecting the equipment to determine whether the problem can be remedied by the teacher
- B. completing an incident report of the situation to accompany a repair request for the equipment
- C. implementing safety procedures to remove students' access to the equipment until it has been repaired
- D. discontinuing the activity to review operating procedures for the equipment with the class

Answer _____

Domain IV—Professional Practices and Responsibilities

Competency 008—(Ethics and Integrity): Understand the importance of maintaining the highest standards of ethics and integrity in personal and professional behavior.

16. While in the teachers' lounge, a new teacher hears another teacher complaining about a particular student's low grades and behavioral issues. The new teacher feels uncomfortable with this conversation, ignores it, and stops going to the teachers' lounge. However, after hearing from like-minded colleagues about too much negative gossip related to students in the teachers' lounge, the new teacher decides to enlist them in a plan for solving the problem and restoring

the lounge to a professional and collegial space. The new teacher's effort to fix this problem best illustrates the intent of which of the following professional standards?

- A. reflecting on practices to improve instructional effectiveness and engaging in continuous professional learning to gain knowledge and skills
- B. maintaining self-awareness in interpersonal interactions and being open to feedback from peers and administrators
- C. seeking out opportunities to lead other educators within and beyond their classrooms
- D. modeling respectful behavior and interpersonal interactions and demonstrating integrity in all situations

Answer _____

17. Which of the following scenarios most clearly represents an ethical concern as articulated in the Code of Ethics and Standard Practices for Texas Educators?

- A. A high school automotive teacher uses school resources and materials in the teacher's fee-based oil change workshops for community members.
- B. A middle school career education teacher shares classroom performance data with members of a student's Individualized Education Program (IEP) committee.
- C. A high school political science teacher accepts a personalized pen and pencil set from a student in appreciation for the teacher providing the student with after-school study support.
- D. A middle school financial literacy teacher provides a guest speaker with general background information about students prior to the speaker's presentation.

Answer _____

18. A career and technical education teacher would most appropriately consult the Occupational Safety and Health Administration (OSHA) guidelines for which of the following purposes?

- A. understanding procedures for reporting classroom safety concerns to school district personnel
- B. identifying relevant safety certifications needed for career and technical education teachers
- C. understanding the elements of effective safety instruction in career and technical education
- D. identifying practices for the safe use of field-specific equipment and materials in the classroom laboratory

Answer _____

19. A high school student with a disability is participating in a work-based learning program. The student will be working as an unpaid intern in a floral design business. Which of the following strategies is most important for the teacher to implement when working with the business sponsor?

- A. assisting the business sponsor in providing the appropriate supervision and supports as outlined in the student's individual training plan
- B. conducting joint observations with the business sponsor of the student's performance in the work setting
- C. recommending that the business sponsor become a member of the student's Individualized Education Program (IEP) committee
- D. providing the business sponsor with an explanation of the student's legal rights within the work environment

Answer _____

Competency 009—(Professional Practice): Apply strategies for collaborating with other professionals, maintaining professional relationships, and fulfilling professional duties.

20. A high school career and technical education teacher has identified several professional development activities relevant to the teacher's goal of improving student learning outcomes. When selecting which opportunities to pursue, the teacher should give the most consideration to which of the following questions?

- A. Is this activity focused on relevant, evidence-based practices in the field?
- B. Does this activity include support materials at little or no cost to the district?
- C. How much time away from campus will be required by this activity?
- D. Will the information provided in this activity be useful to teachers on campus?

Answer _____

21. Which of the following goals would be most appropriate for the advisory committee of a school district's career and technical education program to address?

- A. reviewing planned instructional units in each of the program fields to determine alignment with current industry practices
- B. participating in the performance evaluation for teachers in the program
- C. analyzing labor market information to identify gaps between the current program and industry needs
- D. identifying relevant professional development activities for group members

Answer _____

Clustered Questions

Use the information below to answer the four questions that follow.

A middle school career and technical education teacher is planning a research project for seventh-grade students. Students will select a career-related topic to investigate, conduct research about the topic, write a report, and prepare a multimedia presentation about the topic to share with the class. The project plan includes the following overview for students:

1. Define a topic related to a specific career in which you are interested.
2. Review the requirements of the research and presentation components of the project.
3. Develop a research plan and brainstorm potential resources.
4. Gather information, using appropriate documentation.
5. Use the information gathered to write a report and create a multimedia presentation to share with the class.
6. Complete the self-assessment worksheet.

As part of the planning process, the teacher has identified several potential resources to support students throughout the project.

Possible Resources

- Journals from various career fields
- U.S. Department of Labor Web site
- Online videos, photographs, and audio
- Career-related artifacts
- Interviews with career professionals

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

22. As part of the project's overview, the teacher can most effectively communicate high expectations for the project by:
- creating a form for students to use when developing their research plans.
 - providing students with the rubric that will be used to evaluate the project and discussing the specific performance criteria during the second component.
 - breaking the project into small increments that will each receive a separate grade.
 - showing students a sample project that was created by a student during the previous school year during the fifth component.

Answer _____

Competency 002—(Resources, Technologies, and Materials): Understand how to select, adapt, and incorporate resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.

23. To ensure that students understand the ethical use of information from the resources they select, the teacher's most important priority should be to provide explicit instruction on which of the following topics?
- methods for downloading information from the Internet
 - definitions and examples of different types of copyrighted information
 - steps for developing a bibliography of information sources
 - when and how to cite the source of information in various formats

Answer _____

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

24. The teacher is concerned about students waiting for resources during the information-gathering phase of the project. The teacher can best manage this concern by taking which of the following actions during the planning process?
- developing and implementing an equitable system for organizing students' access to materials
 - assigning each student a specific amount of time to utilize classroom computers and other materials
 - establishing a limit on the number of print and online materials that students are allowed to use in their research

- D. arranging for students to conduct research once or twice as a class in the school library media center

Answer _____

Competency 008—(Ethics and Integrity): Understand the importance of maintaining the highest standards of ethics and integrity in personal and professional behavior.

25. Which of the following actions by the teacher at the outset of the project is the best application of school district policies?

- A. explaining to students how to select experts for interviews that the district will approve
- B. reviewing with students the district's acceptable use of technology guidelines
- C. providing students with access to the school district handbook for reference
- D. inviting district curriculum consultants to answer questions from students

Answer _____

Additional Selected-Response Questions

This section includes additional sample selected-response questions for you to review in preparation for the exam. The correct answer is provided for each question below.

Domain I—Instructional Planning, Delivery, and Assessment

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

26. A ninth-grade career and technical education teacher occasionally uses a call-and-response strategy to engage students in a lesson or activity. For example, the teacher may ask students to report the answer to a problem. For this strategy to be effective, the teacher should utilize which of the following techniques?

- A. recognizing only students who raise their hands
- B. using a verbal or nonverbal signal such as a countdown or hand gesture to cue students' response
- C. acknowledging by name a few students who provide a correct response
- D. implementing the strategy as a replacement for the guided practice portion of an instructional sequence

Answer _____

27. A middle school career and technical education teacher who is planning instructional units for the upcoming school year has brainstormed several potential topics for the units. In selecting unit topics, the teacher should give the greatest consideration to which of the following questions?

- A. Will the topic require acquisition or construction of new learning materials?
- B. How will the topic support students' achievement of the targeted Texas Essential Knowledge and Skills (TEKS)?
- C. Is the topic appropriate for independent, small-group, and whole class activities?
- D. Are most students likely to have significant background knowledge about the topic?

Answer _____

28. Students in a manufacturing class are learning how to operate a CNC milling machine to create custom parts for a machine. After several lessons on the use of the mill, students are ready to perform their first operation with feedback from the teacher. The teacher's feedback will be most useful to students if it focuses on:

- A. frequent reminders to students to maintain focus during the milling process.
- B. general praise for students' approach to the milling process.
- C. ongoing descriptions of steps students should implement next in the milling process.
- D. specific actions and safety measures students are taking during the milling process.

Answer _____

Competency 002—(Resources, Technologies, and Materials): Understand how to select, adapt, and incorporate resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.

29. A career and technical education teacher is discussing potential careers for students in a seventh-grade class. The teacher is using the online edition of the *Occupational Outlook Handbook* to demonstrate for students how to find job-related information for different careers. Which of the following additional details can students obtain by clicking on the occupation link for a career?

- A. specific coursework needed to qualify for different jobs in the selected field
- B. expected demand for jobs and earnings potential for entry-level jobs in the selected field
- C. contact information for human resources managers for participating companies in the field
- D. current available entry-level jobs posted by participating companies in the field

Answer _____

30. A cosmetology teacher is teaching a unit on chemical safety. The teacher would most appropriately use safety data sheets (SDS) as a resource for a lesson based on which of the following Texas Essential Knowledge and Skills (TEKS)?

- A. using ergonomically designed equipment to promote professional efficiency
- B. employing safe and effective use of tools to enhance client services
- C. applying universal precautions in disposal of hazardous materials
- D. applying health and safety policies and procedures

Answer _____

Competency 003—(Data-Driven Practices and Student Assessments): Understand how to collect, analyze, evaluate, and communicate data and how to design and implement appropriate and effective student assessments.

31. A cosmetology teacher is teaching a unit that includes the following Texas Essential Knowledge and Skills (TEKS) related to design and color theory:

The student is expected to recognize elements of hair design, such as line, form, space, texture, and color.

The teacher wants to monitor students' learning during the unit. Which of the following strategies would be most important to include for this purpose?

- A. creating a summative unit assessment linked to each component of the learning objectives
- B. using frequent questioning throughout the unit to check students' understanding of the content
- C. utilizing a standard set of assessment questions at regular intervals throughout the unit
- D. tracking students' specific errors and success points during walk-around observations

Answer _____

32. A career and technical education teacher assigns students a task in which they are required to recommend strategies for responding to safety and health issues in a simulated work environment. Students will create their initial drafts and the teacher will provide feedback to guide students' development of their final product. Which of the following feedback statements from the teacher would be most effective in helping students refine their work?

- A. "You've done an excellent job of identifying the key safety and health issues presented. Please present your recommended strategies in greater detail and depth."
- B. "There are many health and safety issues in this work environment that you have not identified. Analyze the information presented again to form a more complete response."
- C. "This is great work! You seem to have a real aptitude for this skill. I look forward to seeing your final product."
- D. "I think you may need to rethink your approach to this product. Please reread the instructions and relevant class materials and try again."

Answer _____

33. A high school career and technical education program offers internships in partnership with various businesses. The teachers want to evaluate the effectiveness of the internships in supporting student learning. Which of the following details would be most important to include in this process?

- A. descriptions of students' workplace environments
- B. records of students' overall grade point averages
- C. demographic characteristics of students
- D. industry-aligned assessment of students' skill gains

Answer _____

Domain II—Knowledge of Students and Student Learning

Competency 004—(Learning Processes): Understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.

34. Students in a middle school career investigation class demonstrate varying levels of social development. Which of the following statements describes the most important implication of this variation regarding instruction?

- A. Students who are more socially advanced may be required to serve as role models.
- B. The teacher may need to provide extra support and guidance to students during collaborative tasks.
- C. Students may need frequent reminders about behavioral expectations in different classroom contexts.

- D. The teacher may need to teach the class several lessons on how to interact socially with others.

Answer _____

Competency 005—(Student Learning): Apply principles for connecting learning, content, and expectations to students' prior knowledge, real-world experiences, and interests in meaningful contexts.

35. Students in a culinary class come from widely diverse socioeconomic circumstances. Some students live in economically disadvantaged areas of the community, while other students live in more affluent areas with access to a variety of resources and opportunities. The most significant implication of this socioeconomic diversity for student learning is that students are likely to:

- A. experience difficulty participating effectively in collaborative tasks.
- B. require explicit instruction in problem-solving strategies.
- C. demonstrate wide variation in background knowledge and experiences.
- D. prefer self-directed activities and independent assignments.

Answer _____

Domain III—The Learning Environment

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

36. The teacher of a foreign service and diplomacy class is starting a unit that compares different diplomatic strategies in achieving a desired end. The teacher could best enhance students' interest and engagement in this topic by:

- A. conducting an in-depth look at a successful diplomatic solution to a historical confrontation between countries.
- B. organizing a debate between two teams of students focusing on two different diplomatic approaches to solving a current real-world problem.
- C. outlining the major principles of diplomacy and how they might be applied in a variety of different situations requiring diplomatic intervention.
- D. reviewing the history of diplomacy, including case studies of major diplomats in the past and their successes and failures.

Answer _____

37. At the beginning of the week, a teacher asks students to identify one or more academic or organizational goals that they want to accomplish. At the end of the week, students write a reflection in their journals about their goals and what they accomplished. Periodically the teacher meets with individual students to discuss their goals and reflections. This practice can be expected to have which of the following benefits for students?

- A. helping students recognize their abilities and learning potential
- B. fostering in students a sense of responsibility for their progress and learning
- C. encouraging students to set consistently high expectations for their performance
- D. supporting students in developing individualized organizational strategies

Answer _____

Competency 007—(Safe, Supportive Learning Environment): Understand principles and strategies for maintaining a physically and emotionally safe, supportive learning environment that maximizes student learning.

38. During a problem review session on small-engine technology, a transportation, logistics, and distribution teacher notices that a student has just put his head on his desk and closed his eyes. How should the teacher adapt a strategy of least intrusive intervention to gain the student's compliance?

- A. stopping the review and looking at the student intently until he lifts his head and sits up in his seat
- B. calling out the student's name and politely requesting that he begin listening like the rest of the class
- C. moving into the proximity of the student to get his attention and continuing to teach without disrupting the lesson
- D. informing the student in a friendly and good-natured way that he needs to sleep at home and stay awake at school

Answer _____

39. A career and technical education teacher utilizes large- and small-group discussions as a regular part of instruction. The teacher wants to promote student interactions that are respectful of individual opinions and perspectives. Which of the following approaches would provide the best foundation for achieving this goal?

- A. requiring students to paraphrase the previous statement before stating their position or perspective
- B. providing students with sentence frames as guidance on how to form relevant and useful comments
- C. engaging students in the development of guidelines and norms for communication in different classroom contexts
- D. implementing a system in which each student is allotted a specific amount of time to state a position or make a comment

Answer _____

40. A middle school career and technical education teacher is reviewing a planned rearrangement of the classroom. Which of the following questions is most important for the teacher to consider prior to implementing the new arrangement?

- A. Will this arrangement enable supervision of students working in different areas of the classroom?
- B. Will this arrangement convey to students an expectation for their participation?
- C. Will this arrangement group students by academic needs appropriately?
- D. Will this arrangement support periodic breaks for student movement?

Answer _____

41. Which of the following practices is most effective for identifying potential hazards in a machine shop?

- A. requiring equipment operators to participate in regular training activities
- B. maintaining a log where equipment operators can record safety concerns
- C. keeping user manuals for equipment in an easily accessible location
- D. performing routine inspections of equipment using industry-approved standards

Answer _____

42. A career and technical education teacher can most effectively mitigate potential hazards in the classroom by adopting which of the following approaches?

- A. providing students with a resource library of manuals for the operation of relevant equipment for the field
- B. ensuring that students have access to and are trained in the appropriate use of industry-recommended protective gear
- C. implementing a buddy system in which student partners monitor each other's adherence to established guidelines
- D. displaying posters and other materials reminding students of their responsibility for personal safety

Answer _____

Domain IV—Professional Practices and Responsibilities

Competency 008—(Ethics and Integrity): Understand the importance of maintaining the highest standards of ethics and integrity in personal and professional behavior.

43. Use the information below to answer the question that follows.

| Weekly Class Averages | Homework Assignments | Lab Assignments | Small-Group Assignments | Classroom Multiple-Choice Assessments |
|-----------------------|----------------------|-----------------|-------------------------|---------------------------------------|
| Week 1 | 73 | 88 | 79 | 70 |
| Week 2 | 70 | 87 | 78 | 69 |
| Week 3 | 71 | 89 | 76 | 68 |
| Week 4 | 70 | 91 | 77 | 70 |

An interior design teacher is reviewing formative data for the class in order to adjust instructional practices to help students achieve the identified Texas Essential Knowledge and Skills TEKS in a unit on basic design elements. Based on these data, the teacher should consider adjusting practices in which of the following ways?

- A. discontinuing homework assignments in favor of in-class assignments
- B. refraining from assigning students number grades on classroom assessments
- C. increasing hands-on and performance-based assignments and assessments
- D. assigning students to homogeneous small groups to target specific skill needs

Answer _____

44. Parents/guardians have a legal right to remove their child temporarily from a school class or activity without penalty in which of the following situations?

- A. The class or activity includes discussions of points of view that differ from the parents'/guardians' views.
- B. The parents/guardians believe that their child has not been fully prepared to take an assessment.
- C. The class or activity conflicts with the parents'/guardians' religious or moral beliefs.
- D. The parents/guardians want their child to be exempt from a semester of instruction.

Answer _____

Competency 009—(Professional Practice): Apply strategies for collaborating with other professionals, maintaining professional relationships, and fulfilling professional duties.

45. A career and technical education program in a high school is associated with several career and technical student organizations, including the Technology Student Association (TSA), SkillsUSA, and Distributed Education Clubs of America (DECA). These student organizations all have which of the following primary goals in common?

- A. providing opportunities for student members to develop leadership skills
- B. connecting student members with local and regional educational leaders
- C. expanding student members' acquisition of field-specific knowledge
- D. facilitating the job application process for student members

Answer _____

Clustered Questions

Use the information below to answer the five questions that follow.

A seventh-grade career and technical education class includes 25 students who perform at varying levels and who come from diverse socioeconomic backgrounds. The class includes English learners as well as students with disabilities. Many students in the class have difficulty with independent activities when it comes to following directions and staying on task. The teacher is planning a lesson in which students will use O*NET OnLine to learn more about careers within a program of study. The classroom has six computers with Internet access. The teacher plans to provide students with the worksheet shown for the online activity.

Career Exploration

Name: _____

Program of Study: _____

Career: _____

Job Duties: What are three job duties listed for this career?

1. _____
2. _____
3. _____

Technology Skills: What are three technology skills needed for this career?

1. _____
2. _____

3. _____

Knowledge: What are two areas of knowledge for this career?

1. _____

2. _____

Skills and Abilities: What are three skills or abilities needed for this career?

1. _____

2. _____

3. _____

Personal Skills and Abilities: What are two skills or abilities related to this career that you have or would be willing to learn?

1. _____

2. _____

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

46. The teacher can most effectively support students' understanding of lesson content by taking which of the following actions prior to instruction?

- A. requiring students to copy the lesson objective at the top of the career exploration worksheet
- B. ensuring that students have general background knowledge of each of the programs of study
- C. pre-assessing students to determine whether they have the necessary technology skills
- D. engaging students in brainstorming what they know about the Web site they will use

Answer _____

Competency 004—(Learning Processes): Understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.

47. The career exploration worksheet supports students' independent completion of the lesson activity primarily by:

- A. encouraging students to view relevant components of the Web site.
- B. enabling students to gather information in an organized manner.
- C. providing a guide to help students stay focused on the assigned task.
- D. ensuring that the lesson is accessible to students with various needs.

Answer _____

48. The teacher wants to support students' emerging critical-thinking skills. Which of the following prompts, added to the career exploration worksheet, would best support this outcome?

- A. Describe one part of this career that would be difficult for you.
- B. Explain the educational requirements and certifications for this career.
- C. List two other careers that require similar knowledge and skills.
- D. Analyze why this career would or would not be the best match for you.

Answer _____

Competency 005—(Student Learning): Apply principles for connecting learning, content, and expectations to students' prior knowledge, real-world experiences, and interests in meaningful contexts.

49. Given the diversity of students' characteristics and needs, the teacher should plan to incorporate which of the following strategies into the lesson?

- A. pre-teaching relevant technical vocabulary and academic language
- B. writing the instructions for the activity on the board for students' reference
- C. identifying students who are technologically proficient to support their peers
- D. offering an alternative online resource for completing the assigned task

Answer _____

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

50. Which of the following approaches by the teacher would best maximize the time students spend on productive learning during the lesson?

- A. providing another assignment for students to work on while they are waiting their turn to use classroom computers
- B. expanding the lesson across several days to enable all students to have computer time to complete the activity
- C. setting a timer for each student to work at a classroom computer and assigning incomplete portions of the task as homework
- D. arranging to teach the class in the school library media center or computer lab where all students have computer access at the same time

Answer _____

Preparation Manual

Section 4: Sample Selected-Response Answers and Rationales Pedagogy and Professional Responsibilities for Trade and Industrial Education 6–12 (370)

This section presents some sample exam questions for you to review as part of your preparation for the exam. To demonstrate how each competency may be assessed, sample questions are accompanied by the competency that they measure. While studying, you may wish to read the competency before and after you consider each sample question. Please note that the competency statements do not appear on the actual exam.

For each sample exam question, there is a correct answer and a rationale for each answer option. The sample questions are included to illustrate the formats and types of questions you will see on the exam; however, your performance on the sample questions should not be viewed as a predictor of your performance on the actual exam.

Selected-Response Questions with Rationales

Each sample exam question here includes the correct answer and a rationale for each answer option.

Domain I—Instructional Planning, Delivery, and Assessment

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

1. An eighth-grade career and technical education class includes students with disabilities, English learners, and students who are academically advanced. The teacher can most appropriately address this variation by adopting which of the following approaches?
- A. incorporating activities to develop students' ability to cope with academic and personal challenges
 - B. focusing a greater amount of instructional time on areas in which students demonstrate the highest achievement levels
 - C. implementing long-term instructional groups based on students' overall performance levels
 - D. differentiating for students by prioritizing the development of students' strengths and higher-order thinking skills while providing supports for their specific needs

Answer

Option D is correct because differentiation is the process of tailoring instruction to address individual needs. Differentiation provides flexibility that helps all students access content and achieve learning targets. Differentiation enables teachers to leverage students' strengths and maximize individual growth. **Option A is incorrect** because coping skills position students to overcome challenges but do not directly promote academic success. **Option B is incorrect** because it is important to address students' learning needs to close achievement gaps in addition to supporting them in areas where they are already successful. **Option C is incorrect** because implementing long-term instructional groups based on overall performance levels is a limiting approach that can prevent students from achieving their full academic potential.

2. Teachers in a career and technical education program want to promote students' success as they progress through increasingly rigorous coursework. Which of the following actions by the teachers would be most effective in promoting this outcome?

- A. assigning students in advanced classes to mentor students in introductory classes
- B. implementing individual exit interviews with students at the end of each of their courses
- C. ensuring that the curriculum is aligned vertically to minimize instructional gaps
- D. participating in joint instructional planning with colleagues who teach related courses

Answer

Option C is correct because vertical alignment is designed to organize the curriculum across grade bands in a way that identifies and supports students' acquisition of prerequisite knowledge and skills needed to master increasingly complex content. **Option A is incorrect** because peer mentoring focuses primarily on guiding students through processes such as developing study skills and managing course assignments and deadlines. **Option B is incorrect** because it is an after-the-fact strategy that does not support students who are currently enrolled in courses. Future students' needs may be entirely different than those of students who participate in exit interviews. **Option D is incorrect** because even courses that are related require different types of background knowledge and focus on different concepts, so appropriate instruction in one course may or may not be effective in a similar course.

Competency 002—(Resources, Technologies, and Materials): Understand how to select, adapt, and incorporate resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.

3. In a principles-level career and technical education class, the teacher plans to engage students in a project-based learning experience that will involve extensive use of technology. Students have district-provided one-to-one electronic devices and technical support. The teacher is working with the technology department to plan and implement the project. Which of the following issues is most important to consider in the planning process?

- A. putting in place steps to facilitate students' equitable access to and support in using technology during the project
- B. designing the project with flexibility in requirements for students who do not have ready access to technology
- C. acquiring user guides and tutorials specific to available technology for students to reference during the project
- D. ensuring that the technology students will utilize during the project is approved by school and district administrators

Answer

Option A is correct because there is often significant variation in students' access to technological resources, such as reliable Internet, and experience with different applications. For students to use technological tools effectively in the learning process, they all must have access to technological resources and support that will position them to be successful. **Option B is incorrect** because teachers should maintain the same high expectations for all students. **Option C is incorrect** because this consideration implies that the students are responsible for managing the technology on their own. **Option D is incorrect** because the district has provided students with the tools they will be using.

4. An engineering teacher incorporates various strategies into instruction. For example, the teacher presents new content orally along with appropriate graphic support. Whenever possible, the teacher provides students with manipulative materials and tools to use in problem solving. At the end of each class, the teacher has students work with a partner to respond to a discussion question prompt focusing on the topic of the day's lesson. The teacher's approach can be expected to enhance students' abilities in which of the following areas?

- A. personal responsibility for learning
- B. conceptual understanding
- C. connection of content to life experiences
- D. use of academic language

Answer

Option B is correct because providing students with opportunities to engage with content in different formats and with various supports is responsive to different learning modalities and promotes students' comprehension of the content on a deeper, more conceptual level. **Option A is incorrect** because personal responsibility is promoted by maintaining high expectations and providing students with choices in their learning. **Option C is incorrect** because students make connections between the content and life experiences through the teacher's use of familiar examples and contexts during instruction. **Option D is incorrect** because students' ability to use academic language requires explicit instruction in the vocabulary as well as opportunities to apply it in various contexts.

Competency 003—(Data-Driven Practices and Student Assessments): Understand how to collect, analyze, evaluate, and communicate data and how to design and implement appropriate and effective student assessments.

5. Which of the following scenarios most clearly represents a teacher's use of informal assessment to guide instruction?

- A. The teacher includes content that has been addressed on previous classroom tests on subsequent tests.
- B. The teacher implements regular written tests to measure students' mastery of specific content and standards.
- C. The teacher provides immediate feedback to students during lesson activities and class assignments.
- D. The teacher uses varied questioning strategies in the moment to check students' understanding of lesson content.

Answer

Option D is correct because the teacher's use of questioning in the moment is an ongoing process. Students' responses are not graded but allow the teacher to provide additional information or correct misconceptions during instruction and identify content to reinforce or reteach going forward. **Option A is incorrect** because cumulative assessment of content knowledge on tests is more formal and summative in nature. **Option B is incorrect** because written tests to measure mastery are considered formal assessments. **Option C is incorrect** because feedback helps students improve their performance but is not directly connected to future instruction.

6. A career and technical education teacher incorporates frequent formative assessment into instruction and makes anecdotal notes of students' participation in class and small groups. The teacher also assigns one project-based activity to cooperative groups and provides a rubric for evaluating the project. This multipronged approach is likely to be most effective in achieving which of the following goals?

- A. determining the most appropriate instructional strategies for individual students
- B. gaining a full picture of students' learning on which to base instructional decisions
- C. providing students with a summary of their progress and learning
- D. preparing students for the varied tasks they are likely to encounter in the workplace

Answer

Option B is correct because the use of varied types of assessments and assignments gives students the opportunity to fully demonstrate their learning and helps the teacher form a more comprehensive picture of students' strengths and needs that should be addressed in the instructional process. **Option A is incorrect** because determining appropriate strategies for individual students involves formal assessments of mastery to identify specific skill needs as well as acknowledging the student's preferred learning modalities. **Option C is incorrect** because the assessments described are distinct from one another and do not provide a summary of progress or learning. **Option D is incorrect** because small-group and project-based activities in an educational setting do not necessarily reflect workplace expectations or experiences.

Domain II—Knowledge of Students and Student Learning

Competency 004—(Learning Processes): Understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.

7. A culinary teacher who wishes to encourage students' need for self-actualization as defined in Maslow's hierarchy of needs should emphasize that students remain motivated because they:
- A. are more likely to get a good, high-paying job if they succeed in school.
 - B. benefit from striving to realize their full potential and achieve a sense of accomplishment.
 - C. are part of a team along with their teachers and other students.
 - D. will find school less stressful if they follow the rules and expectations of others.

Answer

Option B is correct because, according to Maslow's hierarchy of needs, human needs form a five-tier pyramid with the most basic need being physiological needs such as food and clothing. Higher up the pyramid are needs related to safety, love and belonging, esteem, and, at the top of the pyramid, self-actualization. In Maslow's hierarchy, self-actualization represents the highest level of human motivation, which encourages individuals to strive for the realization of their full potential. Individuals who are reaching the level of self-actualization feel a sense of accomplishment related to their goals. **Option A is incorrect** because this type of motivation is extrinsic or motivated by external rewards. **Options C and D are incorrect** because these reasons are not related to the development or potential of the individual.

8. Career and technical education teachers can help adolescent students address the developmental challenge of forming a personal identity by implementing activities that are designed to:
- A. promote students' awareness and understanding of their own interests and abilities.
 - B. provide students with opportunities for self-expression through the arts and social interaction.
 - C. broaden students' knowledge of a wide range of academic and work opportunities.

- D. engage students in role-playing a variety of authentic social and academic situations.

Answer

Option A is correct because forming a personal identity is the process of exploring questions related to appearance, career choices, relationships, goals, values, and beliefs. Adolescents who are engaged in this process of exploration need the foundation that is provided by an awareness of their own interests and abilities.

Option B is incorrect because activities focused on self-expression help students represent their personal identity rather than form it. **Option C is incorrect** because activities related to academic and work opportunities are focused primarily on cognitive aspects of development. **Option D is incorrect** because role playing situations require students to apply learned skills of interpersonal interactions.

Competency 005—(Student Learning): Apply principles for connecting learning, content, and expectations to students' prior knowledge, real-world experiences, and interests in meaningful contexts.

9. A career and technical education teacher's class includes a few students who are English learners with varying levels of English proficiency. The teacher has observed that these students sometimes have difficulty following large-group discussions. The teacher can most effectively support these students during class discussions by utilizing which of the following strategies?

- A. summarizing critical concepts at regular intervals during discussions to check for understanding
- B. providing a note-taking template to use after discussions
- C. providing a list of vocabulary words to students related to discussions
- D. limiting discussion comments to specific topics defined and distributed in advance

Answer

Option A is correct because summarizing critical concepts helps make the content of the discussion more comprehensible for English learners and providing the summarization at regular intervals breaks the content into more manageable segments of information. **Option B is incorrect** because note taking after a discussion depends on the English learners' understanding of the discussion content. **Option C is incorrect** because English learners may recognize vocabulary but still have difficulty following the syntax of the discussion. **Option D is incorrect** because this strategy does not allow for a full and organic discussion of concepts.

10. A career and technical education teacher has a diverse class of learners. The teacher is planning a lesson on the following Texas Essential Knowledge and Skills (TEKS):

The student is expected to evaluate forms of financial exchange, including cash, credit, debit, and electronic funds transfer.

The teacher wants to design instruction that encourages students to draw on their backgrounds to facilitate content learning. The teacher can best achieve this goal by:

- A. focusing instruction on the forms of financial exchange in which students show the greatest interest.
- B. determining the prevalence of a form of financial exchange within students' respective knowledge before including it in activities.
- C. incorporating assignments in which students interview family members about their preferred forms of financial exchange.

- D. incorporating students' languages, experiences, and culturally familiar examples in instruction about forms of financial exchange.

Answer

Option D is correct because incorporating these elements into instruction helps students make connections between the content and their lives outside of school. This approach also helps students understand and internalize new content. **Option A is incorrect** because interest in a topic is not the same as relevance. Students' interest in a topic does not necessarily provide the framework for understanding that they need for content learning. **Option B is incorrect** because focusing on what students already know during activities does not expand the scope of their understanding or facilitate critical thinking about the content. **Option C is incorrect** because a family's preference provides limited information about the broader options of financial exchange.

11. Which of the following teacher behaviors would contribute most significantly to creating an environment of respect?
- A. maintaining strict guidelines for interpersonal interactions across various educational settings
 - B. building relationships by acknowledging the unique abilities and perspectives that each student brings to the learning process
 - C. spending time with students at school-related events outside of class to learn about their personal interests
 - D. integrating self-deprecating humor into the learning process to establish a relaxed atmosphere

Answer

Option B is correct because acknowledging each student's unique abilities and perspectives provides a strong foundation for positive teacher-student and student-student relationships. This behavior also conveys to students that their contributions are valued and welcomed. **Option A is incorrect** because maintaining strict guidelines for interactions is a limiting approach that can hinder open communication by focusing on guidelines rather than messages. **Option C is incorrect** because learning about students' personal interests through informal interactions helps teachers gain insights about students but does not directly contribute to the learning environment. **Option D is incorrect** because this type of humor tends to minimize students' view of the teacher and the goal is a respectful environment, not a relaxed atmosphere.

Domain III—The Learning Environment

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

12. A middle school teacher of a career and technical education class consistently runs out of time and students often do not have adequate time to practice new skills. With appropriate permissions from the school district and students' parents/guardians, the teacher decides to make a video recording of the class for a one-week period. This approach is likely to improve the teacher's instructional efficiency primarily by:
- A. facilitating the teacher's ability to analyze how time is being used during the class period.
 - B. supporting the teacher in identifying students who are contributing to classroom distractions.
 - C. assisting the teacher in evaluating the developmental appropriateness of class activities.
 - D. enabling the teacher to recognize content and skills that are particularly challenging for students.

Answer

Option A is correct because the teacher will be able to observe various interactions and activities in the video that may not be apparent in the moment. This approach helps the teacher identify how time is being spent and specific aspects of instruction that are less than efficient. **Option B is incorrect** because the teacher should be focused on instructional practice rather than specific students as the source of the problem. **Options C and D are incorrect** because the developmental appropriateness of instruction and whether content is challenging for students is best determined through various forms of ongoing assessment.

13. Students in a construction management class are having difficulty making smooth transitions from one activity to the next. Some students quickly put away materials and prepare for the next activity, while others are reluctant to stop what they are doing. This often results in minor misbehavior and lost instructional time. The teacher can best address this problem by taking which of the following actions?

- A. praising students who change activities in a timely manner
- B. beginning the next activity as planned to urge students' promptness
- C. implementing visual prompts periodically to indicate how much time is left before the next activity
- D. reviewing planned activities with students at the beginning of each class period

Answer

Option C is correct because alerting students about the time remaining for an activity helps guide them to bring their tasks to a close. Using visual prompts for this purpose is more concrete than a simple verbal reminder.

Option A is incorrect because students who are reluctant to conclude one activity are not likely to be motivated by praise for others. This approach is more appropriate for motivating students in lower grade levels. **Option B is incorrect** because beginning the next activity before all students are ready will result in greater disarray as students who did not conclude the previous activity promptly try to catch up with the class. **Option D is incorrect** because reviewing planned activities with students provides an overview of class but does not directly address students' ability to move from one activity to another smoothly.

Competency 007—(Safe, Supportive Learning Environment): Understand principles and strategies for maintaining a physically and emotionally safe, supportive learning environment that maximizes student learning.

14. A forensic science teacher's classroom is organized into six laboratory tables equipped with a standard set of equipment. Recently the teacher observed that the equipment students need is often found at another table and that students have to spend time locating what they need before beginning the laboratory assignment. Which of the following teacher strategies would best ensure that students have ready access to the equipment they need?

- A. stopping activities 30 minutes earlier to allow ample time for students to store equipment appropriately
- B. marking each piece of equipment with a color code or number that corresponds to the table where it should be stored
- C. asking for student volunteers at each table to organize equipment at the end of the class period
- D. teaching a lesson on the appropriate storage of each piece of equipment and the importance of organization

Answer

Option B is correct because color- or number-coding equipment provides scaffolding that helps all students take responsibility for storing and organizing equipment appropriately and efficiently. **Option A is incorrect** because stopping class 30 minutes early would result in a significant loss of instructional time. **Option C is incorrect** because using student volunteers places the responsibility for organizing equipment on a few students rather than promoting all students' responsibility for the classroom. **Option D is incorrect** because one lesson on the topic of equipment storage and organization is not likely to result in application of the desired practices by students.

15. A high school manufacturing classroom includes four stations, each with basic equipment needed for laboratory activities. During a class activity, a piece of equipment at one station malfunctions and a student narrowly avoids an injury. Which of the following actions should the teacher take immediately in this situation?

- A. inspecting the equipment to determine whether the problem can be remedied by the teacher
- B. completing an incident report of the situation to accompany a repair request for the equipment
- C. implementing safety procedures to remove students' access to the equipment until it has been repaired
- D. discontinuing the activity to review operating procedures for the equipment with the class

Answer

Option C is correct because student safety is the primary consideration in the career and technical education classroom. The teacher's action to remove students' access to the equipment is the most immediate and critical step to take. Most career and technical educational classrooms utilize a "tag-out" procedure to lock down equipment that has malfunctioned until its safety can be verified as one method of restricting students' access to unsafe equipment. **Option A is incorrect** because the teacher is not responsible for repairing laboratory equipment. Repairs should be done by an appropriate professional. **Option B is incorrect** because incident reports are documentation and do not address the primary concern of student safety. **Option D is incorrect** because a review of operating procedures does not correct the malfunction of the equipment.

Domain IV—Professional Practices and Responsibilities

Competency 008—(Ethics and Integrity): Understand the importance of maintaining the highest standards of ethics and integrity in personal and professional behavior.

16. While in the teachers' lounge, a new teacher hears another teacher complaining about a particular student's low grades and behavioral issues. The new teacher feels uncomfortable with this conversation, ignores it, and stops going to the teachers' lounge. However, after hearing from like-minded colleagues about too much negative gossip related to students in the teachers' lounge, the new teacher decides to enlist them in a plan for solving the problem and restoring the lounge to a professional and collegial space. The new teacher's effort to fix this problem best illustrates the intent of which of the following professional standards?

- A. reflecting on practices to improve instructional effectiveness and engaging in continuous professional learning to gain knowledge and skills
- B. maintaining self-awareness in interpersonal interactions and being open to feedback from peers and administrators
- C. seeking out opportunities to lead other educators within and beyond their classrooms
- D. modeling respectful behavior and interpersonal interactions and demonstrating integrity in all situations

Answer

Option C is correct because the teacher decides to act on an issue that the teacher believes needs to be addressed. The teacher's effort demonstrates leadership by engaging others in addressing the problem collaboratively. **Option A is incorrect** because the situation described does not focus on instruction or new knowledge and skills. **Option B is incorrect** because the teacher moves beyond self-awareness to actions with others. **Option D is incorrect** because the teacher's actions are focused on problem-solving rather than modeling.

17. Which of the following scenarios most clearly represents an ethical concern as articulated in the Code of Ethics and Standard Practices for Texas Educators?

- A. A high school automotive teacher uses school resources and materials in the teacher's fee-based oil change workshops for community members.
- B. A middle school career education teacher shares classroom performance data with members of a student's Individualized Education Program (IEP) committee.
- C. A high school political science teacher accepts a personalized pen and pencil set from a student in appreciation for the teacher providing the student with after-school study support.
- D. A middle school financial literacy teacher provides a guest speaker with general background information about students prior to the speaker's presentation.

Answer

Option A is correct because the teacher is using school resources for personal profit. The Code of Ethics and Standard Practices for Texas Educators states that an educator shall not knowingly use resources "committed to his or her charge for personal gain or advantage." Because the teacher is using school resources purchased with school monies in a profit-based endeavor, the teacher is committing a violation of the code of ethics. **Option B is incorrect** because the teacher is allowed to share performance data with a student's IEP committee. **Option C is incorrect** because teachers may accept small gifts or tokens from students and their families. **Option D is incorrect** because the information the teacher provides is general in nature and will facilitate an effective presentation by the speaker.

18. A career and technical education teacher would most appropriately consult the Occupational Safety and Health Administration (OSHA) guidelines for which of the following purposes?

- A. understanding procedures for reporting classroom safety concerns to school district personnel
- B. identifying relevant safety certifications needed for career and technical education teachers
- C. understanding the elements of effective safety instruction in career and technical education
- D. identifying practices for the safe use of field-specific equipment and materials in the classroom laboratory

Answer

Option D is correct because Occupational Safety and Health Administration (OSHA) guidelines are federal rules that employers must follow to protect employees from hazards. The same rules apply to career and technical education laboratory settings. **Option A is incorrect** because reporting procedures are determined by the school district. **Option B is incorrect** because identifying requirements for teachers to acquire various safety certifications is the state's responsibility. **Option C is incorrect** because OSHA guidelines do not address safety instruction in the school setting.

19. A high school student with a disability is participating in a work-based learning program. The student will be working as an unpaid intern in a floral design business. Which of the following strategies is most important for the teacher to implement when working with the business sponsor?

- A. assisting the business sponsor in providing the appropriate supervision and supports as outlined in the student's individual training plan
- B. conducting joint observations with the business sponsor of the student's performance in the work setting
- C. recommending that the business sponsor become a member of the student's Individualized Education Program (IEP) committee
- D. providing the business sponsor with an explanation of the student's legal rights within the work environment

Answer

Option A is correct because the business sponsor is not expected to be knowledgeable about supports for students with disabilities, so the career and technical education teacher's most important strategy is to assist the sponsor in providing appropriate supports, and ensuring that this assistance adheres to the Family Educational Rights and Privacy Act (FERPA). **Option B is incorrect** because the career and technical education teacher does not conduct workplace observations with business sponsors. **Option C is incorrect** because the business sponsor may provide information that will be communicated to the student's IEP committee by the career and technical education teacher, but the sponsor is not expected to participate as a member of the committee. **Option D is incorrect** because the business sponsor is expected to have a clear understanding of the rights of employees, whether paid or unpaid, within the work environment.

Competency 009—(Professional Practice): Apply strategies for collaborating with other professionals, maintaining professional relationships, and fulfilling professional duties.

20. A high school career and technical education teacher has identified several professional development activities relevant to the teacher's goal of improving student learning outcomes. When selecting which opportunities to pursue, the teacher should give the most consideration to which of the following questions?

- A. Is this activity focused on relevant, evidence-based practices in the field?
- B. Does this activity include support materials at little or no cost to the district?
- C. How much time away from campus will be required by this activity?
- D. Will the information provided in this activity be useful to teachers on campus?

Answer

Option A is correct because the best way for the teacher to improve student learning outcomes is to ensure that professional development activities are grounded in current research-based best practices in the field. **Option B is incorrect** because professional development activities generally do not provide free or no-cost materials. At times, materials may be purchased depending on the provider or topic of the activity. **Option C is incorrect** because the time commitment is not as important as the quality of the professional development and its eventual effect on student outcomes. **Option D is incorrect** because professional development activities should focus on the needs and goals of the specific teacher.

21. Which of the following goals would be most appropriate for the advisory committee of a school district's career and technical education program to address?

- A. reviewing planned instructional units in each of the program fields to determine alignment with current industry practices
- B. participating in the performance evaluation for teachers in the program
- C. analyzing labor market information to identify gaps between the current program and industry needs
- D. identifying relevant professional development activities for group members

Answer

Option C is correct because advisory committee members have a strong knowledge of various industry needs as they relate to current and emerging employment trends and have experience in analyzing labor market information. **Option A is incorrect** because members of the advisory committee do not possess the pedagogical expertise to evaluate instructional plans. **Option B is incorrect** because teachers' performance evaluations are conducted by school administrators and do not include stakeholders outside of the school community. **Option D is incorrect** because professional development is targeted to improve instructional practice, a topic that is outside the expertise of the advisory committee.

Clustered Questions

Use the information below to answer the four questions that follow.

A middle school career and technical education teacher is planning a research project for seventh-grade students. Students will select a career-related topic to investigate, conduct research about the topic, write a report, and prepare a multimedia presentation about the topic to share with the class. The project plan includes the following overview for students:

1. Define a topic related to a specific career in which you are interested.
2. Review the requirements of the research and presentation components of the project.
3. Develop a research plan and brainstorm potential resources.
4. Gather information, using appropriate documentation.
5. Use the information gathered to write a report and create a multimedia presentation to share with the class.
6. Complete the self-assessment worksheet.

As part of the planning process, the teacher has identified several potential resources to support students throughout the project.

Possible Resources

- Journals from various career fields
- U.S. Department of Labor Web site
- Online videos, photographs, and audio
- Career-related artifacts
- Interviews with career professionals

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

22. As part of the project's overview, the teacher can most effectively communicate high expectations for the project by:
- A. creating a form for students to use when developing their research plans.
 - B. providing students with the rubric that will be used to evaluate the project and discussing the specific performance criteria during the second component.
 - C. breaking the project into small increments that will each receive a separate grade.
 - D. showing students a sample project that was created by a student during the previous school year during the fifth component.

Answer

Option B is correct because a rubric is a scoring tool that explicitly describes performance expectations along with specific criteria for each component of an assignment or project. Providing students with a rubric enables them to see from the outset of the project the elements that are present in a high-quality product. **Option A is incorrect** because a form provides structure but does not directly relate to quality expectations. **Option C is incorrect** because breaking a project into small, graded increments is a strategy for helping students manage their time during a long-term project. **Option D is incorrect** because students may or may not identify the key elements in an exemplar without direct and explicit guidance from the teacher.

Competency 002—(Resources, Technologies, and Materials): Understand how to select, adapt, and incorporate resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.

23. To ensure that students understand the ethical use of information from the resources they select, the teacher's most important priority should be to provide explicit instruction on which of the following topics?
- A. methods for downloading information from the Internet
 - B. definitions and examples of different types of copyrighted information
 - C. steps for developing a bibliography of information sources
 - D. when and how to cite the source of information in various formats

Answer

Option D is correct because instruction in source citation allows the teacher to address the topic of intellectual property as well as how and when others' work and ideas may be incorporated into the students' projects. The process of source citation follows specific formats such as the Modern Language Association (MLA) or American Psychological Association (APA). This is especially important when using online sources with easily downloadable images or text. **Option A is incorrect** because downloading information for reference is not necessarily unethical. **Option B is incorrect** because copyright guidelines are complex, and this strategy would require students to make judgments about what information is free to use without the required expertise. **Option C is incorrect** because a bibliography provides documentation of the sources consulted during a project, whether they are cited in an assignment or not. A bibliography does not provide credit for specific information used in an assignment.

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

24. The teacher is concerned about students waiting for resources during the information-gathering phase of the project. The teacher can best manage this concern by taking which of the following actions during the planning process?

- A. developing and implementing an equitable system for organizing students' access to materials
- B. assigning each student a specific amount of time to utilize classroom computers and other materials
- C. establishing a limit on the number of print and online materials that students are allowed to use in their research
- D. arranging for students to conduct research once or twice as a class in the school library media center

Answer

Option A is correct because students' information needs will be dependent on their topics and on their access to various resources outside of school. Setting up a system for students' use of classroom resources that takes into consideration these factors would be the best way to manage students' information-gathering process. **Option B is incorrect** because not all students will need the same amount of time to use the computers, depending on their topics and the sources of information they are relying on. **Option C is incorrect** because, even with a limit on the number of materials students are allowed to use, some students may need more time with resources than others due to lack of access outside of school. **Option D is incorrect** because one or two short periods in the school library media center may not be enough time for students to gather the information they need.

Competency 008—(Ethics and Integrity): Understand the importance of maintaining the highest standards of ethics and integrity in personal and professional behavior.

25. Which of the following actions by the teacher at the outset of the project is the best application of school district policies?

- A. explaining to students how to select experts for interviews that the district will approve
- B. reviewing with students the district's acceptable use of technology guidelines
- C. providing students with access to the school district handbook for reference
- D. inviting district curriculum consultants to answer questions from students

Answer

Option B is correct because school districts establish guidelines for the acceptable use of technology as part of their policies and students are likely to make use of online resources in their projects. These guidelines apply to all staff and students within the district. **Option A is incorrect** because most school districts do not have specific policies for student assignments such as interviews. **Option C is incorrect** because, while the handbook provides the district's policies, the teacher has a responsibility to ensure that the students read and understand the acceptable use of technology guidelines. **Option D is incorrect** because inviting curriculum consultants to speak to students is not a practice that is addressed or required at the policy level. In the absence of a district policy, inviting curriculum consultants to speak does not represent an application of policy.

Additional Selected-Response Questions

This section includes additional sample selected-response questions for you to review in preparation for the exam. The correct answer is provided for each question below.

Domain I—Instructional Planning, Delivery, and Assessment

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

26. A ninth-grade career and technical education teacher occasionally uses a call-and-response strategy to engage students in a lesson or activity. For example, the teacher may ask students to report the answer to a problem. For this strategy to be effective, the teacher should utilize which of the following techniques?

- A. recognizing only students who raise their hands
- B. using a verbal or nonverbal signal such as a countdown or hand gesture to cue students' response
- C. acknowledging by name a few students who provide a correct response
- D. implementing the strategy as a replacement for the guided practice portion of an instructional sequence

Answer

Option B is correct.

27. A middle school career and technical education teacher who is planning instructional units for the upcoming school year has brainstormed several potential topics for the units. In selecting unit topics, the teacher should give the greatest consideration to which of the following questions?

- A. Will the topic require acquisition or construction of new learning materials?
- B. How will the topic support students' achievement of the targeted Texas Essential Knowledge and Skills (TEKS)?
- C. Is the topic appropriate for independent, small-group, and whole class activities?
- D. Are most students likely to have significant background knowledge about the topic?

Answer

Option B is correct.

28. Students in a manufacturing class are learning how to operate a CNC milling machine to create custom parts for a machine. After several lessons on the use of the mill, students are ready to perform their first operation with feedback from the teacher. The teacher's feedback will be most useful to students if it focuses on:

- A. frequent reminders to students to maintain focus during the milling process.
- B. general praise for students' approach to the milling process.
- C. ongoing descriptions of steps students should implement next in the milling process.
- D. specific actions and safety measures students are taking during the milling process.

Answer

Option D is correct.

Competency 002—(Resources, Technologies, and Materials): Understand how to select, adapt, and incorporate resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.

29. A career and technical education teacher is discussing potential careers for students in a seventh-grade class. The teacher is using the online edition of the *Occupational Outlook Handbook* to demonstrate for students how to find job-related information for different careers. Which of the following additional details can students obtain by clicking on the occupation link for a career?

- A. specific coursework needed to qualify for different jobs in the selected field
- B. expected demand for jobs and earnings potential for entry-level jobs in the selected field
- C. contact information for human resources managers for participating companies in the field
- D. current available entry-level jobs posted by participating companies in the field

Answer

Option B is correct.

30. A cosmetology teacher is teaching a unit on chemical safety. The teacher would most appropriately use safety data sheets (SDS) as a resource for a lesson based on which of the following Texas Essential Knowledge and Skills (TEKS)?

- A. using ergonomically designed equipment to promote professional efficiency
- B. employing safe and effective use of tools to enhance client services
- C. applying universal precautions in disposal of hazardous materials
- D. applying health and safety policies and procedures

Answer

Option C is correct.

Competency 003—(Data-Driven Practices and Student Assessments): Understand how to collect, analyze, evaluate, and communicate data and how to design and implement appropriate and effective student assessments.

31. A cosmetology teacher is teaching a unit that includes the following Texas Essential Knowledge and Skills (TEKS) related to design and color theory:

The student is expected to recognize elements of hair design, such as line, form, space, texture, and color.

The teacher wants to monitor students' learning during the unit. Which of the following strategies would be most important to include for this purpose?

- A. creating a summative unit assessment linked to each component of the learning objectives
- B. using frequent questioning throughout the unit to check students' understanding of the content
- C. utilizing a standard set of assessment questions at regular intervals throughout the unit
- D. tracking students' specific errors and success points during walk-around observations

Answer

Option B is correct.

32. A career and technical education teacher assigns students a task in which they are required to recommend strategies for responding to safety and health issues in a simulated work environment. Students will create their initial drafts and the teacher will provide feedback to guide students' development of their final product. Which of the following feedback statements from the teacher would be most effective in helping students refine their work?

- A. "You've done an excellent job of identifying the key safety and health issues presented. Please present your recommended strategies in greater detail and depth."
- B. "There are many health and safety issues in this work environment that you have not identified. Analyze the information presented again to form a more complete response."
- C. "This is great work! You seem to have a real aptitude for this skill. I look forward to seeing your final product."
- D. "I think you may need to rethink your approach to this product. Please reread the instructions and relevant class materials and try again."

Answer

Option A is correct.

33. A high school career and technical education program offers internships in partnership with various businesses. The teachers want to evaluate the effectiveness of the internships in supporting student learning. Which of the following details would be most important to include in this process?

- A. descriptions of students' workplace environments
- B. records of students' overall grade point averages
- C. demographic characteristics of students
- D. industry-aligned assessment of students' skill gains

Answer

Option D is correct.

Domain II—Knowledge of Students and Student Learning

Competency 004—(Learning Processes): Understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.

34. Students in a middle school career investigation class demonstrate varying levels of social development. Which of the following statements describes the most important implication of this variation regarding instruction?

- A. Students who are more socially advanced may be required to serve as role models.
- B. The teacher may need to provide extra support and guidance to students during collaborative tasks.
- C. Students may need frequent reminders about behavioral expectations in different classroom contexts.
- D. The teacher may need to teach the class several lessons on how to interact socially with others.

Answer

Option B is correct.

Competency 005—(Student Learning): Apply principles for connecting learning, content, and expectations to students' prior knowledge, real-world experiences, and interests in meaningful contexts.

35. Students in a culinary class come from widely diverse socioeconomic circumstances. Some students live in economically disadvantaged areas of the community, while other students live in more affluent areas with access to a variety of resources and opportunities. The most significant implication of this socioeconomic diversity for student learning is that students are likely to:

- A. experience difficulty participating effectively in collaborative tasks.
- B. require explicit instruction in problem-solving strategies.
- C. demonstrate wide variation in background knowledge and experiences.
- D. prefer self-directed activities and independent assignments.

Answer

Option C is correct.

Domain III—The Learning Environment

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

36. The teacher of a foreign service and diplomacy class is starting a unit that compares different diplomatic strategies in achieving a desired end. The teacher could best enhance students' interest and engagement in this topic by:

- A. conducting an in-depth look at a successful diplomatic solution to a historical confrontation between countries.
- B. organizing a debate between two teams of students focusing on two different diplomatic approaches to solving a current real-world problem.
- C. outlining the major principles of diplomacy and how they might be applied in a variety of different situations requiring diplomatic intervention.
- D. reviewing the history of diplomacy, including case studies of major diplomats in the past and their successes and failures.

Answer

Option B is correct.

37. At the beginning of the week, a teacher asks students to identify one or more academic or organizational goals that they want to accomplish. At the end of the week, students write a reflection in their journals about their goals and what they accomplished. Periodically the teacher meets with individual students to discuss their goals and reflections. This practice can be expected to have which of the following benefits for students?

- A. helping students recognize their abilities and learning potential
- B. fostering in students a sense of responsibility for their progress and learning
- C. encouraging students to set consistently high expectations for their performance
- D. supporting students in developing individualized organizational strategies

Answer

Option B is correct.

Competency 007—(Safe, Supportive Learning Environment): Understand principles and strategies for maintaining a physically and emotionally safe, supportive learning environment that maximizes student learning.

38. During a problem review session on small-engine technology, a transportation, logistics, and distribution teacher notices that a student has just put his head on his desk and closed his eyes. How should the teacher adapt a strategy of least intrusive intervention to gain the student's compliance?

- A. stopping the review and looking at the student intently until he lifts his head and sits up in his seat
- B. calling out the student's name and politely requesting that he begin listening like the rest of the class
- C. moving into the proximity of the student to get his attention and continuing to teach without disrupting the lesson
- D. informing the student in a friendly and good-natured way that he needs to sleep at home and stay awake at school

Answer

Option C is correct.

39. A career and technical education teacher utilizes large- and small-group discussions as a regular part of instruction. The teacher wants to promote student interactions that are respectful of individual opinions and perspectives. Which of the following approaches would provide the best foundation for achieving this goal?

- A. requiring students to paraphrase the previous statement before stating their position or perspective
- B. providing students with sentence frames as guidance on how to form relevant and useful comments
- C. engaging students in the development of guidelines and norms for communication in different classroom contexts
- D. implementing a system in which each student is allotted a specific amount of time to state a position or make a comment

Answer

Option C is correct.

40. A middle school career and technical education teacher is reviewing a planned rearrangement of the classroom. Which of the following questions is most important for the teacher to consider prior to implementing the new arrangement?

- A. Will this arrangement enable supervision of students working in different areas of the classroom?
- B. Will this arrangement convey to students an expectation for their participation?
- C. Will this arrangement group students by academic needs appropriately?
- D. Will this arrangement support periodic breaks for student movement?

Answer

Option A is correct.

41. Which of the following practices is most effective for identifying potential hazards in a machine shop?

- A. requiring equipment operators to participate in regular training activities
- B. maintaining a log where equipment operators can record safety concerns
- C. keeping user manuals for equipment in an easily accessible location
- D. performing routine inspections of equipment using industry-approved standards

Answer

Option D is correct.

42. A career and technical education teacher can most effectively mitigate potential hazards in the classroom by adopting which of the following approaches?

- A. providing students with a resource library of manuals for the operation of relevant equipment for the field
- B. ensuring that students have access to and are trained in the appropriate use of industry-recommended protective gear
- C. implementing a buddy system in which student partners monitor each other's adherence to established guidelines
- D. displaying posters and other materials reminding students of their responsibility for personal safety

Answer

Option B is correct.

Domain IV—Professional Practices and Responsibilities

Competency 008—(Ethics and Integrity): Understand the importance of maintaining the highest standards of ethics and integrity in personal and professional behavior.

43. Use the information below to answer the question that follows.

| Weekly Class Averages | Homework Assignments | Lab Assignments | Small-Group Assignments | Classroom Multiple-Choice Assessments |
|-----------------------|----------------------|-----------------|-------------------------|---------------------------------------|
| Week 1 | 73 | 88 | 79 | 70 |
| Week 2 | 70 | 87 | 78 | 69 |
| Week 3 | 71 | 89 | 76 | 68 |
| Week 4 | 70 | 91 | 77 | 70 |

An interior design teacher is reviewing formative data for the class in order to adjust instructional practices to help students achieve the identified Texas Essential Knowledge and Skills TEKS in a unit on basic design elements. Based on these data, the teacher should consider adjusting practices in which of the following ways?

- A. discontinuing homework assignments in favor of in-class assignments
- B. refraining from assigning students number grades on classroom assessments
- C. increasing hands-on and performance-based assignments and assessments
- D. assigning students to homogeneous small groups to target specific skill needs

Answer

Option C is correct.

44. Parents/guardians have a legal right to remove their child temporarily from a school class or activity without penalty in which of the following situations?

- A. The class or activity includes discussions of points of view that differ from the parents'/guardians' views.
- B. The parents/guardians believe that their child has not been fully prepared to take an assessment.
- C. The class or activity conflicts with the parents'/guardians' religious or moral beliefs.
- D. The parents/guardians want their child to be exempt from a semester of instruction.

Answer

Option C is correct.

45. A career and technical education program in a high school is associated with several career and technical student organizations, including the Technology Student Association (TSA), SkillsUSA, and Distributed Education Clubs of America (DECA). These student organizations all have which of the following primary goals in common?

- A. providing opportunities for student members to develop leadership skills
- B. connecting student members with local and regional educational leaders
- C. expanding student members' acquisition of field-specific knowledge
- D. facilitating the job application process for student members

Answer

Option A is correct.

Clustered Questions

Use the information below to answer the five questions that follow.

A seventh-grade career and technical education class includes 25 students who perform at varying levels and who come from diverse socioeconomic backgrounds. The class includes English learners as well as students with disabilities. Many students in the class have difficulty with independent activities when it comes to following directions and staying on task. The teacher is planning a lesson in which students will use O*NET OnLine to learn more about careers within a program of study. The classroom has six computers with Internet access. The teacher plans to provide students with the worksheet shown for the online activity.

Career Exploration

Name: _____

Program of Study: _____

Career: _____

Job Duties: What are three job duties listed for this career?

1. _____

2. _____

3. _____

Technology Skills: What are three technology skills needed for this career?

1. _____

2. _____

3. _____

Knowledge: What are two areas of knowledge for this career?

1. _____
2. _____

Skills and Abilities: What are three skills or abilities needed for this career?

1. _____
2. _____
3. _____

Personal Skills and Abilities: What are two skills or abilities related to this career that you have or would be willing to learn?

1. _____
2. _____

Competency 001—(Instruction): Apply knowledge of instructional development that builds coherently toward objectives based on state standards, course content, and expected student outcomes.

46. The teacher can most effectively support students' understanding of lesson content by taking which of the following actions prior to instruction?

- A. requiring students to copy the lesson objective at the top of the career exploration worksheet
- B. ensuring that students have general background knowledge of each of the programs of study
- C. pre-assessing students to determine whether they have the necessary technology skills
- D. engaging students in brainstorming what they know about the Web site they will use

Answer

Option B is correct.

Competency 004—(Learning Processes): Understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.

47. The career exploration worksheet supports students' independent completion of the lesson activity primarily by:

- A. encouraging students to view relevant components of the Web site.
- B. enabling students to gather information in an organized manner.
- C. providing a guide to help students stay focused on the assigned task.
- D. ensuring that the lesson is accessible to students with various needs.

Answer

Option C is correct.

48. The teacher wants to support students' emerging critical-thinking skills. Which of the following prompts, added to the career exploration worksheet, would best support this outcome?

- A. Describe one part of this career that would be difficult for you.
- B. Explain the educational requirements and certifications for this career.
- C. List two other careers that require similar knowledge and skills.
- D. Analyze why this career would or would not be the best match for you.

Answer

Option D is correct.

Competency 005—(Student Learning): Apply principles for connecting learning, content, and expectations to students' prior knowledge, real-world experiences, and interests in meaningful contexts.

49. Given the diversity of students' characteristics and needs, the teacher should plan to incorporate which of the following strategies into the lesson?

- A. pre-teaching relevant technical vocabulary and academic language
- B. writing the instructions for the activity on the board for students' reference
- C. identifying students who are technologically proficient to support their peers
- D. offering an alternative online resource for completing the assigned task

Answer

Option A is correct.

Competency 006—(Organized, Productive Learning Environment): Understand the development and implementation of strategies for creating a well-organized and productive learning environment.

50. Which of the following approaches by the teacher would best maximize the time students spend on productive learning during the lesson?

- A. providing another assignment for students to work on while they are waiting their turn to use classroom computers
- B. expanding the lesson across several days to enable all students to have computer time to complete the activity
- C. setting a timer for each student to work at a classroom computer and assigning incomplete portions of the task as homework
- D. arranging to teach the class in the school library media center or computer lab where all students have computer access at the same time

Answer

Option D is correct.

Preparation Manual

Section 5: Sample Constructed-Response Question Pedagogy and Professional Responsibilities for Trade and Industrial Education 6–12 (370)

General Directions

This question requires you to demonstrate your knowledge of the subject area by providing an in-depth written response. Read the question carefully before you begin to write your response to ensure that you address all components. Think about how you will organize what you plan to write.

The final version of your response should conform to the conventions of standard English. Your written response should be your original work, written in your own words, and not copied or paraphrased from some other work. You may, however, use citations when appropriate.

Exhibits for the constructed-response question will be presented in a tabbed format on the computer-administered test. You will have the ability to move between exhibits by clicking on the tab labels at the top of the screen.

An on-screen answer box will be provided on the computer-administered test. The answer box includes a white response area for typing your response, as well as tools along the top of the box for editing your response. A word counter that counts the number of words entered for the response is also provided in the lower left corner of the box. Note that the size, shape, and placement of the answer box will depend on the content of the assignment.

Sample Assignment

Use the information below to complete the assignment that follows.

You are planning the introductory lesson for a unit on workplace expectations for your career and technical education class. The unit will address the following standard and substandard from the Texas Essential Knowledge and Skills (TEKS).

TEKS Student Expectations

127.14. (c) Knowledge and Skills

(3) The student discusses work ethics, employer expectations, interactions with diverse populations, and communication skills in the workplace. The student is expected to:

(C) discuss and analyze employer expectations.

Using your knowledge of career and technical education principles, concepts, and best practices, write an essay of approximately 400–600 words in which you:

- identify a learning objective for this introductory lesson that is aligned to the targeted standard;
- describe one instructional activity, including teaching strategies and materials, you would use to promote student achievement of the learning objective;
- explain why the activity you described would be effective in promoting students' achievement of the learning objective;
- explain how you would differentiate instruction to maximize the participation of all students; and
- describe one approach for assessing students' knowledge and skills in relation to the learning objective.

Sample Responses and Rationales

Score Point 4

A thorough understanding of employer expectations would include an understanding of the role played by soft skills in the workplace. At the conclusion of this introductory lesson on workplace expectations, students will be able to (1) identify soft skills, (2) explain how soft skills are important to professional success, and (3) determine what soft skills they already possess.

I would begin this lesson by using a slideshow to present students with the following scenario: "You have been offered the opportunity to meet a potential employer tomorrow to talk about your dream job. You want to make sure this person has a positive opinion of you at the end of the meeting. Describe how you would make the best first impression possible." I would provide students with a printed version of this slide with a blank space where they could record their ideas.

After students spend five minutes brainstorming ideas about making a good first impression, I would then use the Think-Pair-Share method to allow students to process the information. I would pair them up, asking them to discuss their ideas and compare their answers. Once students have had a chance to compare notes with a peer, I would bring the class back together and create a list, with student input, of soft skills in the workplace. With the students still working in pairs, I would post the following definition: "Soft skills are personal attributes that enable someone to interact effectively and harmoniously with other people." I would then present a video of a job interview. Then, I would ask the student pairs to work together to identify aspects in the video that could be categorized as soft skills. Again, I would open the class up for discussion, asking each student pair to share its results.

In order for students to explain how soft skills are important to professional success, they must first be able to identify soft skills. Providing a video will enable students to see what soft skills, which can be somewhat abstract, would look like in the real world. With that knowledge, students would be better able to analyze the soft skills they already possess. Even students unfamiliar with the concept of soft skills will likely be able to explain how they would go about making a positive first impression; here, learning is facilitated by connecting students' prior knowledge with this new knowledge, the definition of soft skills. Using the Think-Pair-Share method prompts students to produce more thoughtful and extensive responses than what they would produce individually. This approach also provides a low-risk setting for students to share ideas, which is an especially beneficial approach for students who are hesitant to participate in large-group discussions due to shyness, language proficiency, or other factors.

Providing students with a printed version of the slide and a handout of the definition of soft skills along with using video is one way to differentiate instruction and make content more accessible to students. This strategy addresses multiple learning modalities. The Think-Pair-Share method also increases student participation by providing more reserved students with an opportunity to talk about their ideas in a one-to-one conversation without the anxiety that comes with being asked to share with the whole class.

At the end of the lesson, one way to quickly assess students' progress toward meeting the identified learning objectives would be to use an "exit ticket." Using a notecard, sticky note, or online survey, I would ask students to identify one soft skill that is important in making a good first impression in a job interview, one soft skill that they already possess, and one soft skill that they need to work on. The responses to the exit ticket could then be used to inform future lessons to support students in building these soft skills and moving confidently toward professional success.

Rationale for the Score of 4

The "4" response reflects a thorough understanding of the relevant content knowledge and skills. The response fully addresses all parts of the assignment and demonstrates an accurate, highly effective application of the relevant content knowledge and skills. The response provides strong, relevant evidence, specific examples, and well-reasoned explanations.

Completion: Each of the five tasks presented in the assignment is fully addressed. The first paragraph identifies three learning objectives aligned to the targeted standard. The second and third paragraphs describe an appropriate instructional sequence, including strategies (slide presentation, handouts, Think-Pair-Share). The fourth paragraph explains why this activity would be effective, giving reasons for the various elements of the activity, including activating students' existing knowledge of soft skills. The fifth paragraph explains strategies for differentiating instruction to address learning preferences and participation needs. The sixth paragraph describes a method of assessment. It describes the materials used, the method by which the assessment would be administered, and the uses to which the data yielded by the assessment could be put.

Application of Content: The response reflects appropriate knowledge of career and technical education principles, concepts, and best practices. The candidate demonstrates, for example, an understanding of how prior knowledge can be activated toward the students' achievement of the learning objective. The candidate provides specific examples of how to differentiate instruction—for example, by providing written handouts in addition to projecting the information and giving time for students to work independently and then in pairs prior to large-group discussion. The candidate supplies a specific example and a well-reasoned explanation for the use of an exit ticket as an approach to assessing students' knowledge and skills in relation to the learning objective.

Support: The response provides strong, relevant evidence, specific examples, and well-reasoned explanations for each of the specific tasks in the assignment. The phrasing of the scenario, for example, is precisely thought out, as is the definition of soft skills. The rationale provided for each instructional material and each step of the lesson activity reflects a thorough understanding of the relevant content knowledge and skills.

Score Point 2

Employers want employees who are responsible and reliable. By the end of my lesson students should become familiar with generally accepted employer expectations. One of these is effective communication.

The lesson should teach students the importance of body language or non-verbal communication. There are many examples of non-verbal communication that students need to know to be successful in the workplace. One of the best ways to teach students about non-verbal communication is to use role plays.

One such role play would be the following: an employee is in a meeting with their supervisor to discuss the employee's new job responsibilities. Have one student volunteer to be the employee and another student volunteer to be the supervisor. Have the student who is playing the employee exhibit one or more of the following non-verbals that would be considered undesirable in this scenario (slouch in their chair, fidget, check their phone, cross their arms in a defensive way, avoid making eye contact, smirk or frown). The students who are observing the role play should write down any examples of non-verbal communication that they observe. This should include both positive and negative examples. Allow the student volunteers to engage in the role play for a few minutes before bringing the mock meeting to a close. Afterwards, ask the rest of the class to share what they observed and explain why the negative non-verbals are undesirable and why the positive non-verbals are desirable in the workplace. The role play could be modified and repeated to allow all of the students an opportunity to participate.

This is an effective way to help students learn the importance of non-verbal communication because it is learning by doing. When students practice in this way they will be able to better understand why it is so important to be aware of their own non-verbal communication and how it is perceived by others in the workplace.

At the end of the lesson students can construct a T-chart to write out not only what they think they know about non-verbal communication, but also what they don't know as well. This is just one way to assess whether students have become familiar with employer expectations.

Rationale for the Score of 2

The "2" response reflects a limited understanding of the relevant content knowledge and skills. The response partially addresses some parts of the assignment and demonstrates a limited application of the relevant content knowledge and skills. The response provides limited evidence, and examples or explanations, when provided, are only partially appropriate.

Completion: The response addresses some parts of the assignment. The candidate provides a paraphrase of the substandard from the TEKS ("*By the end of the lesson students should become familiar with generally accepted employer expectations.*") rather than identifying a measurable learning objective that is aligned to the targeted standard. The candidate partially describes an instructional activity but does not include a relevant teaching strategy nor the specific materials used to promote student achievement of the stated learning objective. The response offers limited evidence and only partially appropriate explanations as to how to differentiate instruction ("*The role play could be modified and repeated to allow all of the students an opportunity to participate*") and assess students' knowledge and skills in relation to the learning objective ("*students can construct a T-chart to write out not only what they think they know about non-verbal communication, but also what they don't know as well*").

Application of Content: The response provides an only partially accurate and effective application of knowledge pertaining to career and technical education principles, concepts, and best practices. It states, for example, that "*One of the best ways to teach students about non-verbal communication is to use role plays,*" but provides only the partially appropriate explanation of "*because it is learning by doing.*" The response provides an approach for assessing students' knowledge and skills ("*construct a T-chart*") but does not provide an explanation for how this relates to students' achievement of the learning objective.

Support: The response provides limited evidence. Examples or explanations, when provided, may only be partially appropriate. The instructional activity described offers limited evidence for the promotion of student achievement of the learning objective. The explanation of how to differentiate instruction reflects weak reasoning and lacks the support of an appropriate explanation or example.

Performance Characteristics

The rubric created to evaluate your response to the constructed-response question is based on the following criteria:

| | |
|-------------------------------|---|
| Completion | The degree to which the candidate completes the assignment by responding to each specific task in the assignment. |
| Application of Content | The degree to which the candidate applies the relevant knowledge and skills to the response accurately and effectively. |
| Support | The degree to which the candidate supports the response with appropriate evidence, examples, and explanations based on the relevant content knowledge and skills. |

Score Scale

The four points of the scoring scale correspond to varying degrees of performance.

| Score Point | Score Point Description |
|-------------|--|
| 4 | <p>The "4" response reflects a thorough understanding of the relevant content knowledge and skills.</p> <ul style="list-style-type: none"> • The response fully addresses all parts of the assignment. • The response demonstrates an accurate, highly effective application of the relevant content knowledge and skills. • The response provides strong, relevant evidence, specific examples, and well-reasoned explanations. |
| 3 | <p>The "3" response reflects a general understanding of the relevant content knowledge and skills.</p> <ul style="list-style-type: none"> • The response addresses most or all parts of the assignment. • The response demonstrates a generally accurate, effective application of the relevant content knowledge and skills. • The response provides sufficient evidence, some examples, and generally sound explanations. |
| 2 | <p>The "2" response reflects a limited understanding of the relevant content knowledge and skills.</p> <ul style="list-style-type: none"> • The response addresses at least some of the parts of the assignment. • The response demonstrates a partially accurate, partially effective application of the relevant content knowledge and skills. • The response provides limited evidence, and examples or explanations, when provided, may be only partially appropriate. |
| 1 | <p>The "1" response reflects little or no understanding of the relevant content knowledge and skills.</p> <ul style="list-style-type: none"> • The response addresses, few, if any, parts of the assignment. • The response demonstrates a largely inaccurate, ineffective application of the relevant content knowledge and skills. • The response provides little to no evidence, and if provided, examples or explanations are weak or inappropriate. |
| U | <p>The response is unscorable because it is unreadable, not written to the assigned topic, written in a language other than English, or does not contain a sufficient amount of original work to score.</p> |
| B | <p>There is no response to the assignment.</p> |

Note: Your written response should be your original work, written in your own words and not copied or paraphrased from some other work.