Six Ways to Ensure Student and Program Success on the Technical Skills Assessments (TSAs)

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Update – 1 Teach the content of the technical standards.

(Below is an example of technical standards and measurement criteria from the Early Childhood Education program.)

EARLY CHILDHOOD EDUCATION TECHNICAL STANDARDS

STANDARD 1.0 EXAMINE THE FOUNDATIONAL CONCEPTS AND THEORETICAL APPROACHES OF EARLY CHILDHOOD EDUCATION

    1.1 Explore influences on human development (e.g., environmental, psychological, cultural, genetic, and hereditary)

    1.2 Compare and contrast child development theories and their implications (e.g., Piaget, Vygotsky, Gardner, and Erickson)

    1.3 Compare and contrast teaching approaches to early childhood education and their implications (e.g., Montessori, Reggio, and Head Start)

    1.4 Identify the five developmental ... language and communication

    1.5 Describe current brain develop...

    1.6 Identify play-based approaches ...

STANDARD 2.0 EXAMINE THE FA...

    2.1 Identify the stages of prenatal ...

    2.2 Describe prenatal brain develop...

    2.3 Identify health and environmen...

STANDARD 3.0 EXAMINE INFANT ...

    3.1 Describe social and emotional ...

    3.2 Describe language and commu...

    3.3 Describe cognitive developmen...

    3.4 Explain the general progression of physical and sensory development in infants

    3.5 Select equipment that promotes the development of infants in all developmental areas (domains)

    3.6 Describe and facilitate developmentally appropriate play for infants

    3.7 Identify characteristics of atypical/typical development in infants

- **Pay attention to the verb at the beginning of each standard and measurement criteria.**
- **To clarify content, notice i.e. (to explain or clarify) and e.g. (examples of content that must be taught).**
- **Identify content that you are not familiar with and get help.**
- **Check out the Arizona CTE Curriculum Consortium's resources available from the CTE Curriculum Connection.**
- **Team up with another teacher and/or check with your program specialist for assistance.**
- **Ask for professional development. Let us know your challenges with the standards.**

STANDARD 4.0 EXAMINE TODDLER DEVELOPMENT (12 TO 36 MONTHS)

    4.1 Describe social and emotional development in toddlers

    4.2 Describe language and communication (verbal and nonverbal) development in toddlers

    4.3 Describe cognitive development in toddlers

    4.4 Explain the general progression of physical and sensory development in toddlers

    4.5 Select equipment that promotes the development of toddlers in all developmental areas (domains)

    4.6 Describe and facilitate developmentally appropriate play for toddlers

    4.7 Identify characteristics of atypical/typical development in toddlers

STANDARD 5.0 EXAMINE PRESCHOOL DEVELOPMENT (3 TO 5 YEARS)

    5.1 Describe social and emotional development in preschoolers

    5.2 Describe language and communication (verbal and nonverbal) development in preschoolers

    5.3 Describe cognitive development in preschoolers

    5.4 Explain the general progression of physical and sensory development in preschoolers

    5.5 Select equipment that promotes the development of preschoolers in all developmental areas (domains)

Update – 2 Use the Blueprint for Instruction and Assessment, Instructional Framework, and Instructional Terminology to inform teaching and learning.

(Below are examples of the Blueprint for Instruction and Assessment, Instructional Framework, and Instructional Terminology for the Early Childhood Education program.)

BLUEPRINT FOR INSTRUCTION AND ASSESSMENT

Domain	Related Standards	Instructional Time
Domain 1 Prenatal through Elementary Development	**STANDARD 1.0** EXAMINE THE FOUNDATIONAL CONCEPTS AND THEORETICAL APPROACHES OF EARLY CHILDHOOD EDUCATION **STANDARD 2.0** EXAMINE THE FACTORS INFLUENCING PRENATAL DEVELOPMENT **STANDARD 3.0** EXAMINE INFANT D **STANDARD 4.0** EXAMINE TODDLER **STANDARD 5.0** EXAMINE PRESCHC **STANDARD 6.0** EXAMINE EARLY EL	40-50%
Domain 2 Working with Children	**STANDARD 9.0** EXAMINE STRATEG **STANDARD 10.0** EXAMINE DEVELO LEARNING EXPERIENCES **STANDARD 11.0** EXAMINE DEVELO **STANDARD 12.0** EXAMINE DEVELOPMENTALLY APPROPRIATE LEARNING EXPERIENCES **STANDARD 13.0** EXAMINE STRATEGIES THAT PROMOTE PROSOCIAL BEHAVIOR IN YOUNG CHILDREN **STANDARD 14.0** EXAMINE OBSERVATION AND ASSESSMENT STRATEGIES IN EARLY CHILDHOOD SETTINGS	35-45%

- **The Blueprint for Instruction and Assessment illustrates the relationship among program standards, instructional time, and student success on the Technical Skills Assessment.**
- **Blueprints are developed by teachers and used by teachers to develop test items for the Technical Skills Assessment Item Banks.**

INSTRUCTIONAL FRAMEWORK

Domain 1: Prenatal through Elementary Development--Instructional Time: 40-50%	
STANDARD 1.0 EXAMINE THE FOUNDATIONAL CONCEPTS AND THEORETICAL APPROACHES OF EARLY CHILDHOOD EDUCATION	
1.1 Explore influences on human development (e.g., environmental, psychological, cultural, genetic, and hereditary)	• Nature vs. Nurture • Socioeconomic impact
1.2 Compare and contrast child development theories and their implications (e.g., Piaget, Vygotsky, Gardner, and Erickson)	• Stages of Cognitive Development • Scaffolding • Multiple Intelligences • Psychosocial Stages
1.3 Compare and contrast teaching approaches to early childhood education and their implications (e.g., Montessori, Reggio, and Head Start)	• Self-direction • Hundred Languages of Children • Federal programs and school readiness

INSTRUCTIONAL TERMINOLOGY

A

Accessible- able to be reached or approached, able to be used or obtai
easy to appreciate or understand (Domain 3)

Accommodations-generally thought of as a change in the course, stand
test preparation, location, timing, scheduling, expectations, student
response and/or other attribute which provides access for a student w
disability to participate in a course, standard or test, it does not
fundamentally alter or lower the standard or expectation of the course

- **The Instructional Framework identifies, explains, and expands the content of the standards and measurement criteria and is used to guide the development of multiple-choice items for the Technical Skills Assessments.**
- **Instructional Terminology provides consistent definitions used in teaching the program standards.**

Update – 3 Use the Assessment Reports as a planning tool.

THE TECHNICAL SKILLS ASSESSMENTS REPORTS—WHAT THEY ARE AND HOW TO USE THEM

All roles and permission levels for the CTE Technical Skills Assessments can access the reports. All reports are easy to build from the requested information. See the next page for how to access the Technical Skills Assessments Dashboard to register students to take the test and to get the TSA reports and other assessment-related resources.

Student and Program Assessment Results

This report is organized by a single student or a single program. The Student Report shows the percentage of correct responses for each standard and the overall assessment score based on the student's total percentage of correct responses. The Program Report shows the percentage of correct responses for each standard based on the responses of all students. Administrators and teachers can review the results to make curricular changes in the scope and sequence and to identify program strengths to facilitate best practices among campuses. Available formats: web page with easy conversion to PDF and Excel.

Statewide Performance Results

This report is organized by Statewide results, Non-CTED results, All CTEDs results, or for a Single CTED selection. Sorted by highest to lowest assessment scores, it shows the number of students tested, the average score, and the percentage of students who passed. In this report, student counts under 10 are suppressed (*). Administrators and teachers can view each school's performance relative to other districts and schools that offered the same program. Available formats: web page with easy conversion to PDF and Excel.

Total Program Results

This *multiple program report is organized by CTED, district, school, and teacher.* It shows the Student Unique ID, program assessment, testing date, student score, school of attendance, gender, special population classification, grade level, and teacher email. Administrators and teachers can review the number of students tested and pass scores by program. Available formats: web page with easy conversion to PDF and Excel.

The TSA score for a program is shown as a percentage (60% of 80 operational items passed).
When comparing the scores of two or more programs in a school/district or when comparing a single program's score with the statewide score, there are several variables to consider when interrupting the score/score differences. For example,

- Number of program sites being compared
- Number of students being tested (consider also gender and grade level)
- Number of students with special needs/accommodation requirements
- Newness of the program's technical standards
- Teacher turnover (consider background and experience)
- Teacher commitment to the TSAs (i.e., Are you involved in writing and reviewing the assessment items? Do the assessment item banks sufficiently match the domain percentages of the Blueprint for Instruction and Assessment?)

Update – 3 Use the Assessment Reports as a planning tool *continued.*

HOW TO ACCESS THE TECHNICAL SKILLS ASSESSMENTS DASHBOARD
TO REGISTER STUDENTS TO TAKE THE TSA AND TO GET REPORTS

Go to the ADE website, click on ADEConnect at the top of the page, click on Applications, and select CTE Technical Skills Assessments. This will take you to the Technical Skills Assessments Dashboard. The Reports tab is open in the illustration below.

IF YOU DO NOT HAVE ADECONNECT…All test coordinators and teachers must be assigned access to ADEConnect. Work with your District Entity Administrator to get access to ADEConnect and to assign assessment roles and permissions. Note: **You must login through ADEConnect not through the district's SIS**.

ADEConnect Roles and Permissions for Technical Skills Assessments		
Level I	CTED/District/School Coordinator	Provides access to enter, modify, view, and maintain registration, rosters, assessment time, and reports at the CTED/District/School.
Level II	Teachers	Provides access to view, print, and download reports for the School/Teacher.
Level III	CTED/District/School (read only)	Provides access to view the registration, roster, and reports at the CTED/District/School.

QUESTIONS ABOUT ACCESS TO ADECONNECT are directed to ADESupport adesupport@azed.gov, 602-542-7378.
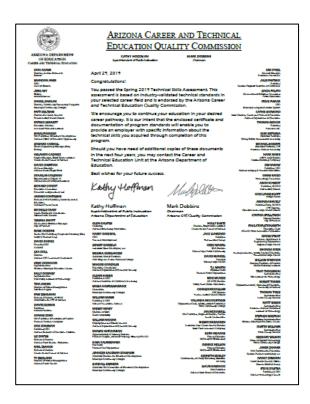
QUESTIONS ABOUT THE APPLICATION AND ROLE ASSIGNMENT are directed to the District Entity Administrator or send an email to CTEAssessmentHelp@azed.gov.

FOR COMPLETE TSA INFORMATION CONSULT the CTE Technical Skills Assessments User Guide available on the TSA Dashboard under the Help tab.

STUDENT ELIGIBILITY TO TAKE THE TECHNICAL SKILLS ASSESSMENTS

A. **In a traditional or block schedule** a student should take the test when completing two courses worth one credit each in a single CTE program or when completing three courses worth one credit each in a single CTE program. <u>The student can only take the test one time.</u>

B. **If a district has added courses** to a program beyond the state's designated course sequence in a single CTE program, it will be the district's decision as to when the student will take the test, that is, after the 2nd, 3rd, or 4th course. <u>A student can only take the test one time</u>.

C. **If a student fails the test and retakes the course or takes an additional course** in a single CTE program, the student can retake the test in the next school year prior to graduation <u>through special arrangements made with ADE/CTE</u>. <u>The last test score counts</u>.

D. **If an IEP or 504 plan states that a student can take the test more than one time**, the student can retake the test in the current or next school year prior to graduation <u>through special arrangements made with ADE/CTE</u>. <u>The last test score counts</u>.

Students who receive a passing score on the Technical Skills Assessment receive a congratulatory letter and certificate endorsed by Arizona's industry leaders.

CTE PROGRAMS WITH TECHNICAL SKILLS ASSESSMENTS (TSAS) FOR 2022-2023

Programs with new/updated standards tested on for the first-time in the Fall and Spring are highlighted below.

CIP	PROGRAM	CIP	PROGRAM
52.0301.00	Accounting (2021 updated standards)	52.1900.20	Fashion Design and Merchandising
01.0000.00	AgriScience	50.0602.00	Film and TV Production
47.0600.50	Aircraft Mechanics	52.0801.00	Finance
49.0100.00	Air Transportation	43.0200.00	Fire Service
15.1300.20	Architectural Drafting	50.0409.00	Graphic Design
48.0500.20	Automation and Robotics (2020 updated standards)	49.0200.00	Heavy Equipment Operations
47.0600.30	Automotive Collision Repair	51.2602.00	Home Health Aide
47.0600.20	Automotive Technologies (2022 updated standards)	52.0900.00	Hospitality Management
41.0100.00	Bioscience (2021 updated standards)	52.1900.30	Interior Design and Merchandising
52.0201.00	Business Management (2021 updated standards)	51.0802.00	Laboratory Assisting
52.0408.00	Business Operations	43.0100.00	Law and Public Safety
48.0703.00	Cabinetmaking	52.1801.00	Marketing
46.0400.30	Carpentry	15.1300.40	Mechanical Drafting (2020 updated standards)
46.0400.20	Construction Technologies (2019 updated standards)	51.0801.00	Medical Assisting Services
12.0400.00	Cosmetology and Related Services	51.1502.00	Mental and Social Health Technician
12.0500.00	Culinary Arts	15.0307.00	Music and Audio Production
51.0600.00	Dental Assisting (2021 updated standards)	11.1999.00	Network Security
47.0600.40	Diesel Engine Repair (2019 updated standards)	51.3902.00	Nursing Services
10.0304.00	Digital Animation	51.0805.00	Pharmacy Support Services (2021 updated standards)
09.0702.00	Digital Communication (2021 updated standards)	48.0500.30	Precision Machining
50.0605.00	Digital Photography	11.0202.00	Software and App Design
10.0200.20	Digital Printing	51.0913.00	Sports Medicine and Rehabilitation
13.1210.00	Early Childhood Education	50.0599.00	Stagecraft
13.1200.00	Education Professions	15.1202.20	Technology Devices Maintenance
14.1001.00	Electronic Technologies	51.3501.00	Therapeutic Massage
51.0904.00	Emergency Medical Services	01.8301.00	Veterinary Assisting
15.0000.00	Engineering	48.0508.00	Welding Technologies (2021 updated standards)

2022-2023 Schedule for the Technical Skills Assessments

FALL 2022	
October 3 - November 28	Registration for Fall Assessments
October 24 - December 2 (testing ends at 12:00 p.m.)	Fall 2022 Assessment Testing Period
December 5 – December 9	Student Congratulatory Letter and Certificates Mailed to Districts
SPRING 2023	
February 27 – May 1	Registration for Spring Assessments
March 20 – May 5 (testing ends at 12:00 p.m.)	Spring 2023 Assessment Testing Period
May 8 – May 12	Student Congratulatory Letter and Certificates Mailed to Districts

TIPS ON PREPARING STUDENTS FOR THE ASSESSMENTS

Assessment Overview:

Why is the assessment important? The assessment verifies students' attainment of the technical knowledge and skills taught as part of the program standards and measurement criteria. Assessment outcomes are used to inform program instruction and to meet Performance Measures and A-F School Accountability reporting.

When should students take the test? The assessment is designed for students who have passed at least two courses of a state-approved program. Students can only take the test once in the fall or in the spring.

How is the test given? The TSA is a computer-based test best given in a computer lab. On the day of testing, a test proctor will check the roster and verify student attendance, see that students correctly login to the assessment site, and instruct students in taking the test.

How long is the test? Ideally, students should have at least 2 hours to take the test. Items are designed with the expectation of a 1-2 minute response time for each item. If the computer lab must be evacuated due to an emergency, students will be able to log back in to finish the assessment. If there is insufficient time to complete the test, the test proctor or test administrator can add additional time.

How can students with IEPs and 504 plans be accommodated for testing purposes? The same accommodations made for teaching students with special needs should also be made for testing. Some examples are extended time, small group setting, use of notes, assistive technology, and paraprofessional assistance. See the **Universal Test Administration Conditions and Accommodations Guide** for suggestions about how to help all students demonstrate their best achievement on the CTE Technical Skills Assessments (TSAs). This guide is available at https://www.azed.gov/cte/assessments.

What are some ways to prepare students to take the assessment?

1. Explain the purpose of the assessment

The assessment measures students' knowledge and skill attainment. Since this is an end-of-program assessment, the items cover a broad range of content. Those who successfully complete the 60% pass score requirement receive an industry-endorsed congratulatory letter, certificate, and documentation of their program standards.

2. Review the mechanics of multiple-choice items.

Each item consists of a stem phrased as a question followed by four options consisting of one correct response and three distractors. Students may be asked a question about a graphic or an image. Graphics and images may also appear as options from which to select the correct response.

3. Review concepts, terms, definitions, symbols, processes, problem-solving strategies, safety requirements, etc., that have been taught in the program. For example:

- Practice reading and interpreting multiple-choice questions.
- Review tests that have been generated for various classroom/lab activities.
- Have students develop multiple-choice items to be assembled as a practice test.
- Post one review question or problem every day for a period of time prior to the test date. Tell students to keep track of the questions and answers in their notebooks.
- Flashcards are an ideal study technique to help students become familiar with vocabulary, definitions, terms, and facts. Students could use flashcards in pairs or small groups.
- Provide an incentive such as extra points for passing the test.
- Talk up the certificate and standards students will get for passing the test. These documents are endorsed by Arizona business and industry and can be used when they apply for a job.

4. Review strategies for maximizing success on multiple-choice items.

- ✓ Don't get distracted by other test-takers.
- ✓ Pace yourself.
- ✓ Read the question and identify key words and phrases.
- ✓ Read all the options before choosing the BEST response.
- ✓ Eliminate the options you know are incorrect.
- ✓ Reread the question for clues to the correct response.
- ✓ If a question is difficult, mark it as skip and come back to it later.
- ✓ If you answer a question, but you are not sure about the answer, mark it for review.
- ✓ Don't change your answer unless you are 100% certain.
- ✓ Use the scratch paper provided or the calculator on the computer for math problems.
- ✓ Take time to return to the items that were skipped and marked for review.
- ✓ Look at your test results and send a copy to your email to review with your teacher later.

5. Tell students what to expect on the day of testing.

- A test proctor will walk you through every step of the testing process.
- You will be told how to log in to the assessment site, and you will be given a password to take your test.
- You will be able to SELECT the correct answer for an item, SKIP the item to come back to later, MARK the item for review, SAVE the answer, and SUBMIT the test.
- Once you have submitted your test, you will be able to REVIEW the results and send a copy to your email address.

NOTE TO TEACHERS:

Remind students to complete and submit the test. Look at the statewide data for Spring 2022 Assessment Participation <u>on the next page</u>. Notice for each program the number of students who were registered for the test (Total Students Registered) and the number of students that finished the test (Students Tested). What happened to the students who did not take or finish the test? Did they just quit, or did they fail to submit the test?

SPRING 2022 ASSESSMENT – STATEWIDE PARTICIPATION SUMMARY

CIP	Program	Total Students Registered	Students Tested	Students Passed	Percent Students Passed	Pass Score	Statewide Average Score Percentage
52.0301.00	ACCOUNTING	140	135	53	39%	60%	52%
01.0000.00	AGRISCIENCE	1028	932	557	59%	60%	61%
49.0100.00	AIR TRANSPORTATION	93	90	69	76%	60%	66%
47.0600.50	AIRCRAFT MECHANICS	40	38	27	71%	60%	66%
15.1300.20	ARCHITECTURAL DRAFTING	69	65	38	58%	60%	61%
48.0500.20	AUTOMATION AND ROBOTICS	64	60	16	26%	60%	50%
47.0600.30	AUTOMOTIVE COLLISION REPAIR	124	116	35	30%	60%	50%
47.0600.20	AUTOMOTIVE TECHNOLOGIES	980	898	245	27%	60%	49%
41.0100.00	BIOSCIENCE	497	487	300	61%	60%	63%
52.0201.00	BUSINESS MANAGEMENT	881	820	584	71%	60%	66%
52.0408.00	BUSINESS OPERATIONS	296	282	183	64%	60%	62%
48.0703.00	CABINETMAKING	313	300	142	47%	60%	57%
46.0400.30	CARPENTRY	201	182	44	24%	60%	48%
46.0400.20	CONSTRUCTION TECHNOLOGIES	935	796	343	43%	60%	55%
12.0400.00	COSMETOLOGY AND RELATED SERVICES	432	416	370	88%	60%	70%
12.0500.00	CULINARY ARTS	4042	3807	2993	78%	60%	69%
51.0600.00	DENTAL ASSISTING	248	243	170	69%	60%	64%
47.0600.40	DIESEL ENGINE REPAIR	69	64	17	26%	60%	50%
10.0304.00	DIGITAL ANIMATION	169	158	141	89%	60%	72%
09.0702.00	DIGITAL COMMUNICATION	277	243	115	47%	60%	56%
50.0605.00	DIGITAL PHOTOGRAPHY	1420	1322	826	62%	60%	63%
10.0200.20	DIGITAL PRINTING	20	19	0	0%	60%	36%
13.1210.00	EARLY CHILDHOOD EDUCATION	1338	1259	1102	87%	60%	73%
13.1200.00	EDUCATION PROFESSIONS	285	272	237	87%	60%	73%
14.1001.00	ELECTRONIC TECHNOLOGIES	18	17	8	47%	60%	55%
51.0904.00	EMERGENCY MEDICAL SERVICES	303	286	231	80%	60%	70%
15.0000.00	ENGINEERING	1075	984	766	77%	60%	70%
52.1900.20	FASHION DESIGN AND MERCHANDISING	220	212	129	60%	60%	62%
50.0602.00	FILM AND TV PRODUCTION	1214	1136	1026	90%	60%	76%
52.0801.00	FINANCE	201	195	152	77%	60%	67%
43.0200.00	FIRE SERVICE	315	306	216	70%	60%	66%
50.0409.00	GRAPHIC DESIGN	1433	1371	1103	80%	60%	68%
49.0200.00	HEAVY EQUIPMENT OPERATIONS	25	22	15	68%	60%	62%
51.2602.00	HOME HEALTH AIDE	175	171	154	90%	60%	71%
52.0900.00	HOSPITALITY MANAGEMENT	195	188	158	84%	60%	71%
52.1900.30	INTERIOR DESIGN AND MERCHANDISING	92	87	49	56%	60%	60%
51.0802.00	LABORATORY ASSISTING	37	37	31	83%	60%	70%
43.0100.00	LAW AND PUBLIC SAFETY	1163	1085	770	70%	60%	64%
52.1801.00	MARKETING	1807	1664	1190	71%	60%	64%
15.1300.40	MECHANICAL DRAFTING	76	74	57	77%	60%	65%
51.0801.00	MEDICAL ASSISTING SERVICES	1076	1050	927	88%	60%	70%
51.1502.00	MENTAL AND SOCIAL HEALTH TECHNICIAN	99	90	83	92%	60%	70%
15.0307.00	MUSIC AND AUDIO PRODUCTION	138	128	87	67%	60%	63%
11.1999.00	NETWORK SECURITY	254	245	157	64%	60%	64%
51.3902.00	NURSING SERVICES	765	751	727	96%	60%	78%
51.0805.00	PHARMACY SUPPORT SERVICES	167	165	131	79%	60%	66%
48.0500.30	PRECISION MACHINING	62	62	49	79%	60%	68%
11.0202.00	SOFTWARE AND APP DESIGN	1413	1328	972	73%	60%	68%
51.0913.00	SPORTS MEDICINE AND REHABILITATION	2735	2629	1823	69%	60%	65%
50.0599.00	STAGECRAFT	446	420	218	51%	60%	59%
15.1202.00	TECHNOLOGY DEVICES MAINTENANCE	208	192	96	50%	60%	60%
51.3501.00	THERAPEUTIC MASSAGE	22	22	22	100%	60%	81%
01.8301.00	VETERINARY ASSISTING	326	320	309	96%	60%	76%
48.0508.00	WELDING TECHNOLOGIES	1179	1031	531	51%	60%	58%
	Total:	**31,200**	**29,272**	**20,794**			