# **ACT Connections**

Utah Core State Standards and ACT Subtests

Content, Assessment, & Design | March 2024



# **Table of Contents**

#### Contents

Table of Contents	2
Introduction	3
Suggestions for Use	4
Frequently Asked Questions ACT	5
ACT English Test Connections with Utah Core State Standards	8
Grades K–5, English	. 10
Grades 6–8, English	21
Grades 9–12, English	26
ACT Reading Test Connections with Utah Core State Standards	32
Grades K–5, Reading	34
Grades 6–8, Reading	38
Grades 9–12, Reading	43
ACT Mathematics Test Connections with Utah Core State Standards	48
Big Picture of Utah MathematicsConcepts, K–12	50
Side-by-Side Example: Number and Quantity: Connectivity Between the ACT and Utah Core State Standar in Mathematics	ds 51
Side-by-Side Example: Strand Comparison Chart: Connectivity Between Utah Mathematics Strands and A Mathematics Domains	CT 62
ACT Science Test Connections with Utah Core State Standards	63
Grades K–5, Science	65
Grades 6–8, Science	67
Grades 9–12 (Earth Science, Biology I, Chemistry I, Physics)	69
ACT Writing Test Connections with Utah Core State Standards	71
Grades K–5, Writing	72
Grades 6–8, Writing	82
Grades 9–12, Writing	87

The format of this crosswalk is based on Tennessee's ACT Connections document (Tennessee Department of Education, 2017). This document is adapted for Utah with permission from Philip Jacobs, Tennessee Department of Education.

# Introduction

The Utah State Board of Education's plan, Education Elevated, lays out the state's goal to increase the number of students earning an ACT composite score of 18 or higher. The desire to raise Utah's ACT average is rooted in our vision to improve postsecondary and career readiness for all Utah students. To reach our goal, it is essential that administrators, educators, parents, and students know that **all grade levels play an important part in ensuring college and career readiness**.

This document provides a snapshot of the academic skills students need to meet or exceed expectations for college and career readiness as assessed by the ACT. The document also highlights important connections between ACT College and Career Readiness Standards and Utah Core State Standards.

#### Notes

- The ACT is a summative assessment used by postsecondary institutions and employers to measure college and career readiness.
- The ACT as administered through state-funded testing for all public high school juniors in Utah consists of four multiple-choice subtests (English, mathematics, reading, and science) and participation in the writing test, as directed by the Utah State Board of Education.
- The development of academic skills necessary to be successful on the ACT extends across all grade levels.
- This document is not about "test prep;" it is about the progression of learning across grade levels and the connections between Utah expectations for what students should know in each subject each year and ACT expectations for what students should know by the end of high school.
- This document highlights some of the connections between the Utah Core State Standards and the ACT assessment, but it is not an exhaustive document.

# **Suggestions for Use**

The intent of this guide is to provide LEAs, schools, and teachers with a **starting point** for aligning instruction across content areas and grade levels to support student success on the ACT. While this document focuses on standards in English language arts, mathematics, and science, **teachers of all content areas play an essential role** in preparing students for college and career.

By providing this basic overview of the connections between our Utah Core State Standards and ACT College and Career Readiness Standards, we believe that Utah educators will be better equipped to align their curriculum planning, pacing, and daily instruction to ensure student success.

We recommend that districts and schools take the following next steps:

- **Conduct a curriculum review.** Instructional supervisors and content experts can utilize the following worksheets to chart when and where students are exposed to ACT standards within their current curriculum.
  - English Curriculum Review Worksheet
  - <u>Mathematics Curriculum Review Worksheet</u>
  - Reading Curriculum Review Worksheet
  - Science Curriculum Review Worksheet
  - Writing Curriculum Review Worksheet
- Gather elementary, middle, and high school instructional leaders to vertically align curriculum.
  - Once teachers understand how their standards connect to ACT College and Career Readiness Standards, it is important to understand how a student's knowledge and skills are developed over time.
  - If teachers throughout K–12 are making explicit connections between the standards they teach and the ACT, they can make students and parents aware of student progress toward college and career readiness well before they take the official ACT exam.
- Provide targeted support to students based on their current progress.
  - a. <u>Ideas for Progress in College and Career Readiness</u>: On their website, ACT, Inc. provides lists of recommended instructional activities organized according to skills tested in each subject area and grouped by score ranges (e.g., 1–12, 13–15, 16–19, etc.).
  - b. By matching required skills to scores in specific ranges on the ACT, teachers can understand how their content and grade-level standards impact students' ability to progress toward college and career readiness.

# Frequently Asked Questions

ACT

#### 1. What is the purpose or goal of the ACT?

The ACT is a nationally recognized benchmark assessment for college and career readiness that provides a snapshot of a student's K-12 academic career. The ACT assesses students' cumulative knowledge from grades K-12 while end-of-year tests, like RISE, assess content in specific grades and subjects more deeply. By taking the ACT, students gain valuable information on their readiness for postsecondary education and the workforce. A student's ACT results can be used for the following:

Admission to postsecondary education

Opportunities for scholarships (e.g., University tuition scholarships, Sterling Scholar consideration, etc.) Placement into postsecondary coursework (including remedial, non-credit bearing courses, as well as advanced college entry courses)

Prediction of postsecondary success

#### 2. Why does improving ACT scores matter?

The desire to increase student ACT scores is rooted in improving postsecondary and career readiness for all Utah students. This goal reflects the reality that Utah students will enter a workforce that requires some type of postsecondary training. The Utah State Board of Education's plan, Education Elevated, lays out the state's goal to increase the percentage of students in the state who achieve an ACT composite score of 18 or higher. With a composite score of 18 or higher, students are predicted to be more successful in both college and career.

#### 3. How is the ACT designed?

The ACT is an assessment that consists of four multiple-choice tests and one open-ended writing test. The four subtests include English, reading, mathematics, and science. The ACT allows students to demonstrate skills that predict success in college and career including critical thinking, problem solving, complex reading, and cross-curricular knowledge; additionally, the ACT provides a culminating view of a student's entire academic career. The skills and knowledge assessed on the ACT are introduced in early elementary grades.

Subject	ACT
English	On the English subtest, students have 45 minutes to answer 75 questions about usage/mechanics (punctuation, grammar and usage, sentence structure) and rhetorical skills (strategy, organization, and style).
Reading	On the reading subtest, students have 35 minutes to read four complex passages and answer 40 questions. The reading test is made up of four sections, each containing one long or two shorter prose passages that are representative of the level and kinds of text commonly encountered in first-year college curricula. Passages are on topics in social studies, natural sciences, literary narrative (including prose fiction), and the humanities (fine arts, philosophy).

Mathematics	ACT measures how quickly and accurately a student can employ a wide variety of mathematical skills and procedures that have been taught over a student's entire academic career. Questions are multiple choice and designed to assess specific mathematical skills. This is a 60-question, 60-minute test designed to assess mathematics skills students have typically acquired in courses taken up through grade 12. For example, students will be assessed on fourth grade, seventh grade, and high school skills all intertwined within the same assessment. Students may use an approved calculator on the entire mathematics portion of the ACT.
Science	The science subtest of the ACT does not assess specific understanding or comprehension of scientific subject areas (e.g., biology, chemistry, physics). Instead, the ACT aims to measure a student's ability to solve problems and interpret information under strict time constraints and use scientific reasoning. The test presents several sets of scientific information, each followed by several multiple-choice test questions, including data representation, research summaries, and conflicting viewpoints. This subtest has 40 questions to complete in 35 minutes.
Writing	The ACT writing test is designed to assess students' ability to take a position on an issue, develop the position with supporting ideas, and articulate the position and ideas through effective use of language. The prompt briefly describes an issue and provides three different perspectives on the issue. Students are required to develop and communicate their own perspective, while incorporating an analytical comparison to one of the provided perspectives. Students have 40 minutes to complete the essay.

#### 4. Are the Utah Core State Standards aligned to ACT expectations?

The ACT standards are encompassed within the Utah Core State Standards, ensuring that students who show strong growth and achievement on RISE and Utah Aspire Plus will also be well prepared to meet the collegeand career-readiness benchmarks on the ACT.

#### Mathematics:

Mastery of the Utah Core State Standards in Mathematics prepares a student to be successful on the ACT assessment. The expectation for the ACT mathematics assessment is that students should be able to quickly and accurately answer a wide variety of mathematics questions, many of which are grounded in the procedural fluency and problem-solving expectations embedded in the Utah mathematics standards. By stressing conceptual understanding at all levels, the Utah mathematics standards are designed to prepare students not only to master this wide array of mathematical skills but also to retain conceptual knowledge from year to year.

#### English language arts:

The skills of the ACT English and reading subtests extend across grade levels; however, the biggest differentiator of success is the ability to read complex text proficiently. The Utah Core State Standards call for students to have regular practice with complex text. Students should read a range of nonfiction/informational text from the natural sciences, social sciences, and humanities throughout the school year and across all content areas.

#### Science:

ACT's science assessment measures students' ability to apply scientific reasoning regardless of the subject area focus of the assessment questions. The science subtest evaluates students' interpretive, analytical, reasoning, and problem-solving skills when applied in a scientific context. The questions are drawn largely from the domains of biology, chemistry, Earth/space sciences, and physics and ask students to read graphs, interpret data, read graphs, identify hypotheses and conclusions, and analyze conflicting hypotheses based on evidence presented in articles. These skills are integral parts of the Utah Science Core State Standards and are taught across subject areas.

#### Writing:

Writing is included in all core subject areas in the Utah Core State Standards. Cross-curricular writing experience provides Utah students with the skills necessary to effectively analyze, organize, and convey written information. These abilities are developed starting in kindergarten and continue to build in complexity throughout a student's educational career. The ACT writing test is a 40-minute essay test that measures students' writing skills. Students develop and convey their own perspective on a given issue, and analyze the relationship between their own perspective and one or more other perspectives. By emphasizing skilled cross-curricular writing, the Utah Core State Standards guide student mastery of effective written communication.

#### 5. Can we use Utah Aspire Plus to compute ACT score projections?

The Utah Aspire Plus generates composite scores that can be used to project ACT composite scores.

#### 6. How are ACT composite scores used for school accountability purposes?

ACT composite scores from the state's eleventh grade ACT administration are used in calculating part of the Postsecondary Readiness accountability indicator for ACT performance at the school level.

#### 7. How should I be preparing my students for the ACT and in the limited time I have?

The best way teachers can prepare students for the ACT is by implementing high-quality instruction in the Utah Core Standards every day. Rigorous, evidence-based, student-centered instruction aligned to the Utah Core State Standards is strong preparation for the ACT. While students will benefit from regular practice and familiarity with the format of the ACT exam, the skills that they need to do well (strong reading fluency, comprehension, and stamina; strong critical thinking and analytical skills in mathematics, including algebra and geometry; data interpretation and scientific reasoning in biology and other science courses) are encompassed in the Utah Core State Standards.

English, mathematics, and science ACT questions are based on skills and standards taught from elementary school through high school. This means that students who have a strong foundation in mathematics and reading and who consistently perform well on RISE and Utah Aspire Plus will use the same skills to perform well on the ACT. Additionally, all academic areas have a crucial part to play in preparing students for ACT success. Science teachers at all grade levels should encourage experimentation, data collection and analysis, and use of evidence to support conclusions. Social studies teachers at all grade levels should teach students to read and analyze complex text in their content areas. English, mathematics, and science teachers at all levels should be aware of ACT benchmarks that are addressed within their grade level, some as early as the second grade.

### **ACT English Test** Connections with Utah Core State Standards

#### **Questions & Answers**

#### 1. What determines student success on the ACT English subtest?

The skills measured on the ACT English subtest extend across grade levels. Students begin studying the foundational rules of usage, punctuation, and sentence composition in the early grades. In the upper grades, students hone these skills as they compose sentences and paragraphs with more complex structures to convey more sophisticated ideas. Students' ability to manipulate language in their writing and speaking for different purposes, audiences, and styles is crucial for communicating their ideas effectively.

#### 2. How do the English and reading subtests differ?

The ACT assesses English and reading separately. The English subtest consists of five essays or passages, each of which is accompanied by a sequence of multiple-choice questions that ask students to revise or edit the passage as needed, measuring their ability to edit for usage, mechanics, and rhetorical skills. The reading subtest blends text from four major disciplines and measures students' ability to read closely, discern key ideas, analyze craft and structure, and integrate information.

#### 3. How is the ACT English subtest structured?

The English subtest is a 45-minute test with 75 questions divided into three major categories: Production of Writing (e.g., organization, cohesion, and topic focus), Knowledge of Language (e.g., rhetoric and style), and Conventions of Standard English Grammar (e.g., sentence structure, usage conventions, punctuation conventions).

#### 4. When should we begin preparing students for the ACT English subtest?

Effective language instruction goes beyond rote memorization of grammar rules. Research emphasizes a contextualized approach that integrates grammar and language with meaningful communication. Early grades are incredibly important to a student's academic journey. In the elementary grades, students learn the foundational rules of usage and mechanics. In the secondary grades, students build upon this foundational knowledge.

**Please note:** This document is intended to highlight connections between the Utah Core State Standards and the ACT College and Career Readiness Standards, but it is <u>not</u> an exhaustive document that details every standard or every connection.

While the <u>Utah Core State Standards for English Language Arts</u> are organized by domain and grade level, the <u>ACT</u> <u>College and Career Readiness Standards</u> are organized by reporting category (domain) and score range.

ACT Score Range	ACT Standard Coding
13–15	200
16–19*	300
20-23	400
24–27	500
28-32	600
33–36	700

\*The benchmark score for the ACT English subtest is 18. Many of the ACT English benchmark standards can be found in the Utah English, Reading and Writing standards for grades K–5.

#### What could this look like in ACT Readiness Standards: Utah Core Standards: Category practices in grades Snapshot of Expected Skills **Snapshot of Expected Skills** K-5?\* **Production of Writing** Have students regularly write TOD 301 Delete material \*The ACT standards are written from the Questions in this category perspective of a selected-response informal and formal responses to because it is obviously test how well students irrelevant in terms of the topic assessment (i.e., recognizing errors literary and informational text to embedded in text and correcting them). develop a given topic (TOD) of the essay gain writing fluency. by choosing expressions **ORG 201** Determine the need The Utah Core Standards are written appropriate to an essay's for transition words or phrases with an instructional focus on producing Have students reread their drafts audience and purpose; to establish time relationships an authentic product (e.g., writing an and check that their ideas are judging the effect of adding, in simple narrative essays (e.g., essay). Although students do not communicated clearly. revising, or deleting then, this time) compose a written response on the ACT supporting material; judging ORG 405 Rearrange the English subtest, the skills they have Take a model essay or paragraph the relevance of statements sentences in a straightforward developed through the Utah writing and cut it into paragraphs or in context; organizing ideas; paragraph for the sake of logic standards will help them in selecting the sentences. Have students work in and choosing effective appropriate corrections or revisions on teams to organize the essay or opening, transitional, and the English subtest. paragraph logically. closing sentences (ORG). **1.W.1:** Write opinion pieces that Give students a model essay with introduce the topic, state an opinion, supply evidence for the opinion, and missing words and phrases. Have provide a concluding statement. students work in pairs to provide **1.W.2:** Write informative/explanatory the most appropriate transitional pieces that introduce a topic, supply words and phrases. facts about the topic, and provide a Give students a paragraph with one concluding statement. 2.W.1: Write opinion pieces that or more unrelated sentences. Have introduce the topic, state an opinion, students work in pairs to determine supply evidence that supports the which sentence(s) is irrelevant and opinion, use linking words to connect should be omitted from the opinion and evidence, and provide a paragraph. concluding statement. **2.W.2:** Write informative/explanatory Give students a paragraph and/or paragraphs from an authentic pieces that introduce a topic, supply

Grades K–5, English

#### 10

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
		<ul> <li>facts and definitions to develop points, and provide a concluding statement.</li> <li><b>3.W.1:</b> Write argumentative pieces on topics and/or texts, supporting a point of view with evidence, using linking words</li> </ul>	student response. Have students work in pairs to determine which edits need to be made to improve the writing for clarity.
		<ul> <li>and phrases to connect the claim to the evidence, and provide a concluding statement.</li> <li>a. Introduce the topic, state a claim, and create an organizational structure that</li> </ul>	*Additional ideas for instructional practices can be found in the resource <u>Ideas for Progress in</u> <u>College and Career Readiness</u> on the ACT website.
		provides evidence. <b>3.W.2:</b> Write informative/explanatory pieces to examine a topic that conveys ideas and information clearly, link ideas within categories of information using	
		words and phrases, and provide a concluding statement. <b>a.</b> Introduce and develop a topic using facts, definitions, details, and group	
		related information and graphics together. <b>4.W.1:</b> Write argumentative pieces on topics and/or texts, supporting a point of view with evidence and information	
		using linking words and phrases to connect the claim to the evidence, and provide a concluding section related to the claim presented.	
		<b>a.</b> Introduce a topic, state a claim that is supported by evidence, produce complex sentences, and create an organizational structure in which related	

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
		<ul> <li>ideas are grouped to support the writer's purpose.</li> <li><b>4.W.2:</b> Write informative/explanatory pieces to examine a topic that conveys ideas and information clearly, link ideas within categories of information using words and phrases, and provide a concluding section related to the information or explanation presented.</li> <li><b>a.</b> Introduce a topic and group related information in paragraphs and/or sections using organizational structures, produce complex sentences, and text features to support the writer's purpose.</li> <li><b>b.</b> Develop the topic using relevant facts, definitions, concrete details, quotations, or examples.</li> <li><b>c.</b> Use precise language and contentspecific vocabulary to inform about or explain the topic.</li> <li><b>5.W.1:</b> Write argumentative pieces on topics and/or texts, supporting a point of view with evidence and information, using linking words, phrases, and clauses to connect the claim to the evidence, and provide a concluding section related to the claim presented.</li> <li><b>a.</b> Introduce a topic, state a claim supported by evidence, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.</li> </ul>	

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
		<ul> <li>b. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style to develop the argument.</li> <li>5.W.2: Write informative/explanatory pieces to examine a topic that links and conveys ideas and information clearly, using words, phrases, and clauses to show the relationship between ideas, paragraphs, and/or sections, and provide a concluding section related to the information or explanation presented.</li> <li>a. Introduce a topic and group related information in paragraphs and/or sections using organizational structures, produce complex sentences, and text features, including multimedia when useful, to support the writer's purpose.</li> <li>b. Develop the topic using relevant facts, definitions, concrete details, quotations, or examples.</li> <li>c. Use precise language and content- specific vocabulary to inform about or explain the topic.</li> </ul>	
Knowledge of Language (KLA) Questions in this category test how well students choose precise and appropriate words and images; maintain the level of style and tone in an essay;	KLA 403 Determine the need for conjunctions to create straightforward logical links between clauses KLA 404 Use the word or phrase most appropriate in terms of the content of the	<ul> <li>K.R.9: Determine or clarify the meaning of multiple-meaning words and phrases in context. (RL &amp; RI)</li> <li>1.R.8: Identify specific words and phrases that express emotion, appeal to the senses, and/or determine the meaning of content-specific words within a text. (RL &amp; RI)</li> </ul>	Provide students with a paragraph containing only simple sentences. Have students work in pairs to combine the sentences into compound and complex sentences by adding appropriate conjunctions.

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
manage sentence elements for rhetorical effectiveness; and avoid ambiguous pronoun references, wordiness, and redundancy.	sentence when the vocabulary is relatively common	<ul> <li>1.R.9: Determine or clarify the meaning of unknown and multiple meaning words and phrases, choosing flexibly from a range of strategies. (RL &amp; RI)</li> <li>a. Begin using sentence-level context as a clue to the meaning of a word</li> <li>b. Identify frequently occurring root words and their inflectional forms.</li> <li>2.R.8: Explain how specific words and phrases express emotion, appeal to the senses, or determine the meaning of content specific words within a text. (RL &amp; RI)</li> <li>2.R.9: Determine or clarify the meaning of unknown and multiple meaning words and phrases, choosing flexibly from a range of strategies. (RL &amp; RI)</li> <li>a. Use sentence-level context as a clue to the meaning of a word.</li> <li>b. Determine the meaning of a new word when a known prefix or root is used.</li> <li>c. Predict the meaning of compound words using knowledge of the meaning of the individual words.</li> <li>d. Use glossaries and dictionaries to determine the meaning of words and phrases.</li> <li>3.R.8: Determine the meaning of words, phrases, similes, metaphors, and academic and content-specific words within a text. (RL &amp; RI)</li> </ul>	Try out different words in a draft; discuss the words' connotations and effect on meaning. Begin building capacity for conjunctions as transitional terms. Use the anchors of "and," "but," and "so" to begin charting synonyms more commonly used as transitional terms. Build students' academic vocabulary by presenting them with content-rich complex texts.

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
		<ul> <li>3.R.9: Determine or clarify the meaning of unknown and multiple meaning words and phrases choosing flexibly from a range of strategies. (RL &amp; RI)</li> <li>a. Use sentence-level context as a clue to the meaning of a word or phrase.</li> <li>b. Determine the meaning of a new word when a known affix or root is used.</li> <li>c. Use glossaries or dictionaries to determine or clarify the precise meaning of key words and phrases.</li> <li>4.R.8: Determine the meaning of words, phrases, figurative language, academic and content-specific words within a text. (RL &amp; RI)</li> <li>4.R.9: Determine or clarify the meaning of unknown and multiple meaning words and phrases, choosing flexibly from a range of strategies. (RL &amp; RI)</li> <li>a. Use context as a clue to the meaning of a word.</li> <li>c. Consult reference materials to find the pronunciation and determine or clarify the precise meaning of a words.</li> <li>5.R.8: Determine the meaning of words, phrases, figurative language, academic and roots as clues to the meaning of a word.</li> </ul>	

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
		<ul> <li>their effect on meaning within a text. (RL &amp; RI)</li> <li>5.R.9: Determine or clarify the meaning of unknown and multiple meaning words and phrases, choosing flexibly from a range of strategies. (RL &amp; RI)</li> <li>a. Use context as a clue to the meaning of a word or phrase.</li> <li>b. Use Greek and Latin affixes and roots as clues to the meaning of a word.</li> </ul>	
		<b>c.</b> Consult reference materials to find the pronunciation and determine the precise meaning of key words and phrases.	

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
Conventions of Standard English Grammar, Usage, and Punctuation	<b>SST 201</b> Determine the need for punctuation or conjunctions to join simple clauses	*These standards are reinforced in the upper grade levels as sentence structure becomes increasingly complex. K.W.1, K.W.2, K.W.3:	When reading, have students highlight the author's correct use of agreement, verb tense, adjectives, conjunctions, and punctuation.
Questions in the sentence	<b>SST 202</b> Recognize and correct	<b>a.</b> Write, produce, and expand a	
structure and formation	inappropriate shifts in verb	complete sentence.	In a writers' workshop, have
subcategory (SST) assess	tense between simple clauses	<b>b.</b> Use appropriate capitalization and	students rewrite a short piece in
students' understanding of	in a sentence or between	end punctuation.	different tenses (i.e., rewrite a piece
relationships between and	simple adjoining sentences	K.SL.3: Use age-appropriate language,	in present tense in past and in
among clauses, placement of	SST 301 Determine the need	grammar, volume, and pronunciation	future tense) or word choices and
modifiers, and shifts in	for punctuation or	when speaking or presenting and use	discuss the difference in the
construction.	conjunctions to correct	visual displays, when appropriate, to	message.
	awkward-sounding fragments	describe information to others.	
Questions in the usage	and fused sentences	1.W.1, 1.W.2, 1.W.3:	During an editing workshop, have
conventions subcategory	USG 201 Form the past tense	<b>a.</b> Write, produce, and expand complete	students look for errors in
(USG) assess students'	and past participle of irregular	simple sentences.	agreement, verb tenses, run-ons, or
understanding of agreement	but commonly used verbs	<b>b:</b> Use appropriate conventions when	fragments in their own writing.
between subject and verb,	USG 202 Form comparative	writing.	
between pronoun and	and superlative adjectives	<b>1.SL.3:</b> Use age-appropriate language,	Differentiate student feedback by
antecedent, and between	USG 302 Ensure	grammar, volume, and clear	focusing on specific usage and
modifiers and the word	straightforward subject-verb	pronunciation when speaking or	punctuation errors at different
modified; verb formation;	agreement	presenting and use visual displays, when	points throughout the year.
pronoun case; formation of	USG 303 Ensure	appropriate, to describe or clarify	
comparative and superlative	straightforward pronoun-	information to others.	Create an anchor chart with
adjectives and adverbs; and	antecedent agreement	2.W.1, 2.W.2, 2.W.3:	examples of common incorrect
idiomatic usage.	PUN 302 Use appropriate	a. Write, produce, expand, and	grammar, usage, and/or
	punctuation in straightforward	rearrange complete simple and	punctuation. Send students on a
Questions in the punctuation	situations (e.g., simple items in	compound sentences.	"scavenger hunt" to find incorrect
conventions subcategory	a series)	<b>b.</b> Use appropriate conventions when	uses in everyday experiences (e.g.,
(PUN) assess students'	PUN 404 Delete apostrophes	writing.	signs, advertisements, etc.). Invite
knowledge of the	used incorrectly to form plural	2.SL.3: Use age-appropriate language,	students to contribute to the list
conventions of internal and	nouns	grammar, volume, and clear	with their observations.

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
end-of-sentence punctuation, with emphasis on the relationship of punctuation to meaning (e.g., avoiding ambiguity, indicating appositives).		<ul> <li>pronunciation when speaking or presenting.</li> <li><b>3.W.1, 3.W.2:</b></li> <li><b>b.</b> Write, produce, and expand simple, compound, and complex sentences.</li> <li><b>c.</b> Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>3.W.3:</b></li> <li><b>b.</b> Write, produce, and expand simple, compound, and complex sentences.</li> <li><b>d.</b> Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>3.SL.3:</b> Use age-appropriate language, grammar, volume, and clear pronunciation when speaking or presenting.</li> <li><b>4.W.1:</b></li> <li><b>b.</b> Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>4.W.1:</b></li> <li><b>b.</b> Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>4.W.2:</b></li> <li><b>c.</b> Use precise language and content- specific vocabulary to inform about or explain the topic.</li> <li><b>d.</b> Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>4.W.2:</b></li> <li><b>c.</b> Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>4.W.3:</b></li> </ul>	Expose students to several complete, simple sentences. Have them combine them into one complex sentence and discuss their choices.

Category S	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
		<ul> <li>d. Use concrete words, phrases, complex sentences, and sensory details to convey experiences and events precisely.</li> <li>e. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li>4.SL.3: Use age-appropriate language, grammar, volume, and clear pronunciation when speaking or presenting.</li> <li>5.W.1:</li> <li>b. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style to develop the argument.</li> <li>c. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li>5.W.2:</li> <li>c. Use precise language and content-specific vocabulary to inform about or explain the topic.</li> <li>d. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li>5.W.3:</li> <li>d. Use concrete words, phrases, complex sentences, and sensory details to convey experiences and events precisely.</li> <li>e. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li>5.W.3:</li> <li>d. Use concrete words, phrases, complex sentences, and sensory details to convey experiences and events precisely.</li> <li>e. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> </ul>	

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
		<b>5.SL.3:</b> Use age-appropriate language, grammar, volume, and clear pronunciation when speaking or presenting.	

#### Grades 6–8, English

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades
<b>Production of Writing</b> Questions in this category test	<b>TOD 501</b> Determine the relevance of material in	*The ACT standards are written from the perspective of a selected-response	Have students routinely write informal and formal responses to
how well students develop a given topic by choosing expressions appropriate to an	terms of the focus of the paragraph <b>ORG 401</b> Determine the need	assessment (i.e., recognizing errors embedded in text and correcting them). The Utah Core Standards are written with	strengthen writing fluency.
essay's audience and purpose; judging the effect of adding,	for transition words or phrases to establish	an instructional focus on producing an authentic product (e.g., writing an essay).	Give students an authentic student essay. Have students work in teams
revising, or deleting supporting material; judging the relevance of statements in	straightforward logical relationships <b>ORG 403</b> Provide an	Although students do not compose a written response on the ACT English subtest, the skills they have developed	to evaluate the relevance of the information presented. Where material is deemed irrelevant, have
context; organizing ideas; and choosing effective opening,	introduction to a straightforward paragraph	through the Utah writing standards will help them in selecting the appropriate	students provide suggestions for revisions.
sentences.	conclusion to a paragraph or essay	<i>subtest.</i> <b>6.W.1:</b> Write arguments to support claims	Recognize and experiment with sophisticated organizational
	<b>ORG 505</b> Rearrange the paragraphs in an essay for the sake of logic	with clear reasons and relevant evidence, and provide a concluding section related	structures (problem/solution, cause/effect, etc.).
		<b>a.</b> Introduce claims supported by evidence from credible sources, and create an	Take a model essay and cut it into paragraphs or sentences. Have
		organizational structure in which claims are logically grouped to support the writer's purpose	students work in teams to organize the essay logically.
		<b>6.W.2:</b> Write informative/explanatory texts to examine a topic that conveys	Give students a model essay with missing words and phrases. Have
		ideas and information clearly and provide a concluding section that supports the information or explanation presented.	students work in pairs to provide the most appropriate transitional words and phrases.
		<b>a.</b> Introduce a topic; organize ideas, concepts, and information, using	During a writing workshop, have
		structures such as definition, classification,	students focus on improving their

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades 6-8?*
		<ul> <li>comparison/contrast, and cause/effect; include formatting, graphics, and multimedia when useful.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, and examples.</li> <li><b>7–8.W.1:</b> Write arguments to support claims with logical reasoning, relevant evidence from accurate and credible sources, and provide a conclusion that follows from and supports the argument presented.</li> <li>a. Introduce claims, distinguish the claims from alternate or opposing claims, and organize the reasons and evidence logically.</li> <li><b>7–8.W.2:</b> Write informative/explanatory texts to examine a topic and convey ideas and information through the selection, organization, and analysis of relevant content, and provide a conclusion that supports the information or explanation presented.</li> <li>a. Introduce a topic, previewing what is to follow; organize ideas and information into broader categories; utilize formatting, graphics, and multimedia related to the topic.</li> <li>b. Develop the topic with relevant facts, definitions, concrete details, quotations, and examples</li> </ul>	introduction and conclusion in an essay through constructive feedback from teachers and peers. *Additional ideas for instructional practices can be found in the resource Ideas for Progress in <u>College and Career Readiness</u> on the ACT website.

Knowledge of Language Questions in this category test how well students choose precise and appropriate words and images; maintain the level of style and tone in an essay;KLA 402 Revise expressions that deviate from the style and tone of the essay6.R.8: Determine the meaning of words and phrases, including figurative language, connotative meanings, and figures of speech. Analyze the impact of specific word choices on meaning and tone, including words with multiple meaningsHave students discuss the purpose and audience w reading a mentor text.	
manage sentence elements for rhetorical effectiveness; and avoid ambiguous pronoun references, wordiness, and redundancy.phrase most appropriate in terms of the content of the socabulary is uncommonwithin a text. (RL & RI) on the first stat audience a unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies. (RL & RI) a. Consistently use context as a clue to the meaning of a word or phrase. b. Consistently use Greek or Latin affixes and roots as clues to the meaning of a word.within a text. (RL & RI) und the differe between repetition for a and repetition that is re b. Consistently use Greek or Latin affixes and roots as clues to the meaning of a word or determine its precise meaning or its part of speech.Provide students with a student work. Challenge revise the essay for com without oversimplifying the writer's original ide.7-8.R8: Determine the meanings within a text. (RL & RI) a. Determine or clarify the meaning of unknown and multiple-meaning swithin a text. (RL & RI)Try out different words discuss the words' conn effect on the daft's sty000 <td>he author's when their own when with a tone and purpose. me writing ence emphasis edundant. outhentic e them to cision g or altering as. in a draft; notations and le and tone. ic ng them with exts.</td>	he author's when their own when with a tone and purpose. me writing ence emphasis edundant. outhentic e them to cision g or altering as. in a draft; notations and le and tone. ic ng them with exts.

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades 6-8?*
		pronunciation of a word or determine its precise meaning or its part of speech.	
Conventions of Standard	SST 301 Recognize and	6.W.1:	When reading, discuss the author's
English Grammar, Usage, and	correct inappropriate shifts in	<b>b.</b> Use words, phrases, and clauses to	correct use of agreement, verb
Punctuation	verb tense and voice when	clarify the relationships among claims and	tense, and commas.
	the meaning of the entire	evidence.	
Questions in the sentence	sentence must be considered	c. Use appropriate conventions and style	Have students focus on revising
structure and formation	SST 401 Recognize and	for the audience, purpose, and task.	misplaced modifiers and unclear
subcategory assess students'	correct marked disturbances	6.W.2:	pronoun references in an editing
understanding of relationships	in sentence structure	<b>d.</b> Use precise language and content-	workshop.
between and among clauses,	SST 602 Maintain consistent	specific vocabulary to inform about or	
placement of modifiers, and	and logical verb tense and	explain the topic.	Differentiate student feedback by
shifts in construction.	voice and pronoun person on	e. Use appropriate conventions and style	focusing on specific usage and
	the basis of the paragraph or	for the audience, purpose, and task.	punctuation errors at different
Questions in the usage	essay as a whole	6.W.3:	points throughout the year.
conventions subcategory	USG 503 Recognize and	<b>c.</b> Use a variety of transition words,	
assess students'	correct vague and ambiguous	phrases, and clauses to convey sequence	Have students record a peer's
understanding of agreement	pronouns	and signal shifts from one time frame or	retelling of a story and then type up
between subject and verb,	PUN 401 Delete commas	setting to another.	the story using correct punctuation.
between pronoun and	when an incorrect	a. Use precise words, phrases and	
antecedent, and between	understanding of the	complex sentences, relevant descriptive	Have students work with peers to
modified work formation	that should be punctuated	oversion sets of y language to convey	create a punctuation handbook for
nouned, verb formation,	<b>PLIN 404</b> Use commas to set	e Use appropriate conventions and style	avamples from their own drafts
comparative and superlative	off parenthetical elements	for the audience, purpose, and task	
adjectives and adverts; and		6 SI 3: Use appropriate language	Expose students to several
idiomatic usage		grammar organization development and	complete simple sentences. Have
		delivery styles appropriate to purpose and	them combine them into one
Questions in the punctuation		audience for formal or informal contexts.	complex sentence and discuss their
conventions subcategory		7–8.W.1:	choices.
assess students' knowledge of		c. Use appropriate conventions and style	
the conventions of internal		for the audience, purpose, and task.	

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades 6-8?*
and end-of-sentence punctuation, with emphasis on the relationship of punctuation to meaning (e.g., avoiding ambiguity, indicating appositives).		<ul> <li>7–8.W.2:</li> <li>d. Use precise language and content-specific vocabulary to inform about or explain the topic.</li> <li>e. Use appropriate conventions and style for the audience, purpose, and task.</li> <li>7–8.W.3:</li> <li>e. Use appropriate conventions and style for the audience, purpose, and task.</li> <li>7–8.SL.3: Use appropriate language, grammar, organization, development, and delivery styles appropriate to purpose and audience for formal or informal contexts.</li> </ul>	

#### Grades 9–12, English

Production of Writing Questions in this category test how well studentsTOD 601 Determine relevance when considering material that is plausible*The ACT standards are written from the perspective of a selected-response and formal, on-demand an research responses to liter	n fromHave students regularly write inf esponseand formal, on-demand and exter rorsand formal, on-demand and exter research responses to literary an informational text to broaden an strengthen their writing fluency.t (e.g.,When reading mentor texts, have	*The ACT standards are written from the perspective of a selected-respons assessment (i.e., recognizing errors embedded in text and correcting the The Utah Core Standards are written with an instructional focus on	<b>TOD 601</b> Determine relevance when considering material that is plausible but potentially irrelevant at	<b>Production of Writing</b> Questions in this category
develop a given topic by choosing expressions appropriate to an essay's audience and purpose; judging the effect of adding, revising, or deleting supporting material; judging the relevance of statements in context; organizing ideas; and choosing effective opening, transitional, and closing sentences.but potentially irrelevant a a given point in the essay TOD 703 Use a word, phrase or sentence to accomplish a subtle purpose <i>imformational text to broad</i> strengthen their writing flu <i>writing an essay. Although students do</i> <i>author's use of evidence a</i> <i>to compose a written response on the</i> <i>author's use of evidence a</i> <i>to compose a written response on the</i> <i>atadards will help them in selecting</i> <i>the appropriate corrections or revisions</i> or text using logical reasoning and relevant evidence, and provide a supports the argument presented. 	dents dostudents evaluate the relevancee on theauthor's use of evidence and valihey havereasoning.ritingWhen reading mentor texts, havesupportHave students analyze rhetorical stratesupportHave students rewrite essays to astopicsfor a new audience or purpose.andDiscuss how the tone, meaning, oeaDiscuss how the tone, meaning, opurpose of a sentence changes wsingle word or phrase is altered.otheDuring a writing workshop, havestudents focus on improving theirintroduction and conclusion in ar, andHave students engage in regulareas andHave students engage in regularediting workshops.	producing an authentic product (e.g. writing an essay). Although students not compose a written response on t ACT English subtest, the skills they he developed through the Utah writing standards will help them in selecting the appropriate corrections or revisio on the English subtest. <b>9–10.W.1:</b> Write arguments to suppor claims in an analysis of complex topi or texts using logical reasoning and relevant evidence, and provide a conclusion that follows from and supports the argument presented. <b>a.</b> Introduce claims, distinguish the claims from alternate or opposing claims, and create an organization the establishes clear relationships amon claims, counterclaims, reasons, and evidence <b>9–10.W.2:</b> Write informative/explanatory texts to examine and convey related ideas an information clearly and accurately	a given point in the essay <b>TOD 703</b> Use a word, phrase or sentence to accomplish a subtle purpose <b>ORG 702</b> Provide a sophisticated introduction or conclusion to or transition within a paragraph or essay, basing decision on a thorough understanding of the paragraph and essay	develop a given topic by choosing expressions appropriate to an essay's audience and purpose; judging the effect of adding, revising, or deleting supporting material; judging the relevance of statements in context; organizing ideas; and choosing effective opening, transitional, and closing sentences.

Category	ACT Readiness Standards:	Utah Core Standards:	What could this look like in practices in grades
	Snapshot of Expected Skills	Snapshot of Expected Skills	9-12?*
		organization, and analysis of content, and provide a conclusion that follows from and supports the information or explanation presented. <b>a.</b> Introduce a topic; organize related ideas and information to make important connections and distinctions; utilize formatting, graphics, and multimedia to show relationships. <b>b.</b> Develop the topic with relevant facts, extended definitions, concrete details, quotations, and examples. <b>9–10.SL.3:</b> Use appropriate language, grammar, organization, development, and delivery styles appropriate to purpose and audience for formal or informal contexts. <b>11–12.W.1:</b> Write arguments to support claims in an analysis of complex topics or texts, using logical reasoning and relevant, sufficient evidence, and provide a conclusion that follows from and supports the argument presented. <b>a.</b> Introduce claims, establish the significance of the claims, distinguish the claims from alternate or opposing claims, and create an organization that logically sequences claims, counterclaims, reasons, and evidence.	*Additional ideas for instructional practices can be found in the resource <u>Ideas for Progress in College and Career</u> <u>Readiness</u> on the ACT website.

Category	ACT Readiness Standards:	Utah Core Standards:	What could this look like in practices in grades
	Snapshot of Expected Skills	Snapshot of Expected Skills	9-12?*
		<ul> <li>b. Develop claims and counterclaims by interpreting the most relevant evidence from accurate, credible sources for each; elaborate on the strengths and limitations that anticipate the audience.</li> <li>11–12.W.2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content, and provide a conclusion that follows from and supports the information or explanation presented.</li> <li>a. Introduce a topic; organize complex ideas and information so that each new element builds on that which precedes it to create a unified whole; utilize formatting, graphics, and multimedia to illustrate complexities.</li> <li>b. Develop the topic thoroughly with relevant and sufficient facts, extended definitions, concrete details, quotations, examples, and figurative language.</li> <li>11–12.SL.3: Use appropriate language, grammar, organization, development, and delivery styles appropriate to purpose and audience for formal or informal contexts.</li> </ul>	

Category	ACT Readiness Standards:	Utah Core Standards:	What could this look like in practices in grades
	Snapshot of Expected Skills	Snapshot of Expected Skills	9-12?*
Knowledge of Language Questions in this category test how well students choose precise and appropriate words and images, maintain the level of style and tone in an essay, manage sentence elements for rhetorical effectiveness, and avoid ambiguous pronouns references, wordiness, and redundancy.	KLA 601 Revise vague, clumsy, and consuming writing involving sophisticated language KLA 702 Use the word or phrase most appropriate in terms of the content of the sentence when the vocabulary is sophisticated	<ul> <li>9–10.R.8: Determine the meaning and impact of words and phrases on meaning, tone, and mood. Analyze figurative language and connotative meanings. Examine domain-specific vocabulary and how language differs across genres and text types. (RL &amp; RI)</li> <li>9–10.R.9: Determine or clarify the meaning of unknown and multiple-meaning words and phrases choosing flexibly from a range of strategies. (RL &amp; RI)</li> <li>a. Identify and correctly use patterns of word parts that indicate different meanings or parts of speech.</li> <li>b. Determine and consult appropriate reference materials to find the pronunciation of a word, its precise meaning, its part of speech, or its etymology including Greek or Latin affixes and roots.</li> <li>11–12.R.8: Determine the meaning and impact of words and phrases on tone and mood, including words with multiple-meanings. Analyze figurative language, connotative meanings, and figures of speech. Examine how the author uses and refines the meaning of domain-specific vocabulary and how language differs across historical time periods, cultures, regions, and genres. (RL &amp; RI)</li> </ul>	During a writers' workshop, focus on revising for precision and concision. Select mentor texts that are rich in interesting word choice. Have students write a response to a text, mirroring the tone or mood of the original mentor text. Discuss the grammar in a mentor text and connect it to the meaning it enhances in the text. Build students' academic vocabulary by presenting them with content-rich complex texts.

Category	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades 9-12?*
		<ul> <li>11–12.R.9: Determine or clarify the meaning of unknown and multiplemeaning words and phrases, choosing flexibly from a range of strategies. (RL &amp; RI)</li> <li>a. Analyze patterns of word changes that indicate different meanings or parts of speech.</li> <li>b. Determine and consult appropriate reference materials, to find the pronunciation of a word, its precise meaning, its part of speech, its etymology including Greek or Latin affixes and roots, and its usage.</li> </ul>	
Conventions of Standard	SST 601 Recognize and	9–10.W.1:	When reading, discuss the author's
English Grammar, Usage, and	correct subtle disturbances	<b>d.</b> Use appropriate conventions and	effective use of parallelism and stylistic
Punctuation	in sentence structure (e.g.,	style for the audience, purpose, and	punctuation.
	weak conjunctions between	task.	
Questions in the sentence	independent clauses, run-	9–10.W.2:	During an editing workshop, have
structure and formation	ons that would be	<b>d.</b> Use precise language and content-	students look for examples of ineffective
subcategory assess students'	acceptable in	specific vocabulary to clarify the	style and make suggestions for revisions.
understanding of	conversational English, lack	relationships of the ideas.	
relationships between and	of parallelism within a	e. Use appropriate conventions and	Differentiate student feedback by
among clauses, placement of	complex series of phrases	style for the audience, purpose, and	focusing on specific usage and
modifiers, and shifts in	or clauses)	task.	punctuation errors at different points
construction.	PUN 501 Delete commas in	9–10.W.3:	throughout the year.
	long or involved sentences	e. Use appropriate conventions and	
Questions in the <b>usage</b>	when an incorrect	style for the audience, purpose, and	Expose students to several complete,
conventions subcategory	understanding of the	task.	simple sentences. Have them combine
assess students'	sentence suggests a pause		them into one complex sentence and
understanding of agreement	that should be punctuated		discuss their choices.
between subject and verb,			

Category	ACT Readiness Standards:	Utah Core Standards:	What could this look like in practices in grades
	Snapshot of Expected Skills	Snapshot of Expected Skills	9-12?*
between pronoun and antecedent, and between modifiers and the word modified; verb formation; pronoun case; formation of comparative and superlative adjectives and adverbs; and idiomatic usage. Questions in the <b>punctuation</b> <b>conventions</b> subcategory assess students' knowledge of the conventions of internal and end-of-sentence punctuation, with emphasis on the relationship of punctuation to meaning (e.g., avoiding ambiguity, indicating appositives).	PUN 601 Use commas to avoid ambiguity when the syntax or language is sophisticated PUN 604 Use a semicolon to link closely related independent clauses PUN 702 Use a colon to introduce an example or elaboration	<ul> <li>11–12.W.1:</li> <li>d. Use appropriate conventions and style for the audience, purpose, and task.</li> <li>11–12.W.2:</li> <li>d. Use precise language and content-specific vocabulary to clarify the complexity of the ideas.</li> <li>e. Use appropriate conventions and style for the audience, purpose, and task.</li> <li>11–12.W.3:</li> <li>e. Use appropriate conventions and style for the audience, purpose, and task.</li> </ul>	

# ACT Reading Test Connections with Utah Core State Standards

#### **Questions & Answers**

#### 1. What determines student success on the ACT reading subtest?

The **biggest** differentiator of success on the ACT reading subtest is the ability to read **complex** text proficiently. Therefore, when we say students will attain a score of 21 or higher, we are really saying that we are committed to presenting students with appropriately complex informational and literary texts at each grade level. The work that happens in early grades impacts the work in upper grades.

# 2. Did you know that three of the four passages students read on the ACT are nonfiction/informational texts?

Passages are on topics in social studies, natural sciences, the humanities (fine arts, philosophy), and literary narrative (including prose fiction). This does not mean that 75 percent of instructional time should be spent on nonfiction/informational text. It does mean that students should read a range of nonfiction/informational text from the natural sciences, social sciences, and humanities throughout the school year *across* content areas in *all* grade levels. **Reading should be fostered in all core and elective courses and not only in English Language Arts classes.** 

#### 3. Are students asked to bring prior knowledge to the ACT reading subtest?

No, students are not asked to bring any prior knowledge of any specific subject to the reading subtest of the ACT. Students are asked to read text independently and proficiently on grade level. In fact, much of the text on the ACT is complex and will require close, careful reading to determine the correct answer to questions.

#### 4. When should we begin preparing students for the ACT reading subtest?

Beginning in kindergarten, the Utah Core State Standards expect students to interact with complex texts to discern meaning, ask questions, make inferences, synthesize information, and generate new ideas. This document is not about "test prep;" it is about building upon a strong foundation to achieve success by grade 11.

**Please note**: This document is intended to highlight connections between the Utah Core State Standards and the ACT College and Career Readiness Standards, but it is <u>not</u> an exhaustive document that details every standard or every connection. Many of the ACT standards are aligned to the Utah Core State Standards, which most spiral through each grade level. Instead of listing every connection, this document may list a single grade-level standard as an example.

While the <u>Utah Core State Standards for English Language Arts</u> are organized by domain and grade level, the <u>ACT College and Career Readiness Standards</u> are organized by reporting category (domain) and score range.

ACT Score Range	ACT Standard Coding
13–15	200
16–19	300
20-23*	400
24–27	500
28-32	600
33-36	700

\*The benchmark score for the ACT Reading subtest is 22. Many of the skills found in the ACT Reading benchmark standards are first introduced in the Utah reading standards for grades K-5. In the middle grades, students strengthen this reading foundation and build stamina as they encounter increasingly complex texts. In high school, the standards focus on students' ability to recognize archetypal patterns, nuances of language, and intertextual connections.

#### Grades K–5, Reading

Reading Reporting Categories	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
Key Ideas and Details	CLR 302 Draw simple logical	3.R.5 Ask and answer questions to	Read relevant and interesting
Questions in this category test	conclusions in somewhat	demonstrate understanding of a text,	literary texts (e.g., short stories,
students' ability to read texts	challenging passages	referring explicitly to the text as the	novels, memoirs, poems, and
closely in order to determine	IDT 402 Identify a clear	basis for the answers.(RL & RI)	personal essays) that are
central ideas and themes;	central idea or theme in	<b>4.R.5</b> Refer to details and evidence in a	quantitatively and qualitatively
summarize information and	somewhat challenging	text when explaining what the text	complex.
ideas accurately; understand	passages or their paragraphs	says explicitly and when drawing	
relationships; and draw logical	IDT 403 Summarize key	inferences from the text. (RL & RI)	Read relevant and interesting
inferences and conclusions.	supporting ideas and details	<b>5.R.5</b> Identify and refer to evidence	informational texts about social
	in somewhat challenging	from a text when explaining what the	sciences, natural sciences, and
	passages	text says explicitly and when drawing	humanities that are quantitatively
	REL 301 Identify clear	inferences from the text. (RL & RI).	and qualitatively complex.
	comparative relationships	<b>3.R.6</b> Read a variety of texts including	
	between main characters in	those from diverse cultures, retell the	Ask text-dependent questions
	somewnat challenging	text according to the text structure	that require a close, careful
	REL 402 Identify clear cause	details support the main idea and now key	reading of the text.
	offect relationships in	<b>4 P.6</b> Road a variety of text types	Encourage active reading with
	somewhat challenging	including those from diverse cultures	text markers and annotations
	nassages	to determine a theme or main idea	
	pussages	and explain how it is supported by key	Ask students to find evidence in a
		details: summarize texts using textual	text by paving attention to
		evidence. (RL & RI)	specific details in text that help
		<b>5.R.6</b> Determine the theme or main	develop the main idea.
		idea of a text including those	
		from diverse cultures and how it is	Ask students to visualize
		conveyed through particular details	characters, settings, or events and
		and summarize the text. (RL & RI)	sketch relevant and challenging
		3.R.7 Describe characters in a story	scenes with details from the text.
		and explain how their actions	

		contribute to the sequence of events.	Ask students to search for
		(RL) Describe the relationship between	patterns or clues that indicate
		a series of historical events, scientific	cause-effect relationships.
		ideas or concepts, or steps in technical	
		procedures in a text, using language	*Additional ideas for instructional
		that pertains to time, sequence, and	practices can be found in the
		cause/effect. (RI)	resource <u>Ideas for Progress in</u>
		<b>4.R.7</b> Explain events, procedures,	<u>College and Career Readiness</u> on
		ideas, or concepts in a historical,	the ACT website.
		scientific, or technical text, including	
		what happened and why, based on	
		specific information in the text. (RI)	
		5.R.7 Compare two characters,	
		settings, or events in a story or drama,	
		drawing on specific details in the text.	
		(RL)	
Craft and Structure	WME 301 Analyze how the	<b>3.R.8</b> Determine the meaning of	Work with students to build
Questions in this category test	choice of a specific word or	words, phrases, similes, metaphors,	vocabulary and word knowledge,
students' ability to determine	phrase shapes meaning or	and academic and content-specific	including Tier II vocabulary,
the meaning of words and	tone in somewhat	words within a text. (RL & RI)	through building an
phrases; analyze author's	challenging passages when	<b>4.R.8</b> Determine the meaning of	understanding of how to use
word choice; analyze text	the effect is simple	words, phrases, figurative language,	context clues.
structure; and analyze the	WME 302 Interpret basic	academic and content-specific words	
author's purpose and	figurative language as it is	within a text. (RL & RI)	Help students build Tier III
perspective.	used in a passage	<b>5.R.8</b> Determine the meaning of	vocabulary through word study
	TST 404 Analyze the overall	words, phrases, figurative language,	and reading several texts on the
	structure of somewhat	academic and content-specific words,	same topic or idea.
	challenging passages	and analyze their effect on meaning	
	PPV 401 Identify a clear	within a text. (RL & RI)	Help students to differentiate
	purpose of somewhat	3.R.10 Identify and discuss the	between denotative and
	challenging passages and	structural elements of different types	connotative meanings of words in
	how that purpose shapes	of text when writing or speaking about	complex texts.
	content and style	a text. (RL) Use text features and	
	PPV 402 Understand point of	search tools to build comprehension	Have students explore how an

	view in somewhat	and locate relevant information	author's or narrator's word choice
	challenging passages	efficiently. (RI)	can shape meaning and affect
		<b>4.R.10</b> Analyze and discuss the parts of	readers' understanding.
		literary text using terms such as	5
		chapter, scene, and stanza. (RL)	Have students examine the
		Describe the overall structure using	organization patterns used by the
		terms such as sequence, comparison,	author of a text.
		cause/effect, and problem/solution.	
		(RI)	Provide examples of one event or
		5.R.11 Explain how a narrator's or	topic from the perspective of two
		speaker's point of view influences	different narrators or authors.
		how events are described. (RL)	
Integration of Knowledge and	ARG 201 Analyze how one or	3.R.12 Explain how specific	Have students read a traditional
Ideas	more sentences in somewhat	illustrations or text features contribute	fairy tale or fable and compare it
Questions in this category test	challenging passages offer	to what is conveyed by the words in a	to one written by another author,
students' ability to evaluate	reasons for or support a	text. (RL & RI)	particularly one that is derived
authors' claims, differentiate	claim	4.R.12 Compare a visual or oral	from the original source.
between facts and opinions,	SYN 301 Make	presentation of a story or drama with	
and use evidence to make	straightforward comparisons	the text itself and identify where each	Use selections from literary texts
connections between	between two passages	version reflects specific descriptions	to supplement informational
different texts that are related	SYN 501 Draw logical	and directions in the text. (RL)	units; for instance, when studying
by topic.	conclusions using	Interpret information presented	U.S. history, read an excerpt of a
	information from two	visually, orally, or quantitatively and	literary text set in the same time
	informational texts	explain how the information	period.
		contributes to an understanding of the	
		text in which it appears. (RI)	Use text in science and social
		<b>5.R.12</b> Analyze how the visual and	studies instruction.
		multimedia elements contribute to the	
		meaning, tone, or beauty of a text. (RL)	Build student knowledge through
		Draw on information from multiple	a deep exploration of one topic.
		sources including media to locate an	
		problem (PI)	
		Problem. (KI)	
		<b>5.R.13</b> Explain now claims in a text are	
supported by relevant reasons and			
--	--		
ovidence (PI)			
<b>4.R.13</b> Analyze and discuss the parts of			
literary text using terms such as			
chapter, scene, and stanza. (RL) Explain			
how an author uses reasons and			
evidence to support particular claims			
in a text. (RI)			
5.R.13 Explain how an author uses			
reasons and evidence to support			
particular claims in a text, identifying			
which reasons and evidence support			
which claims. (RI)			
<b>3.R.14</b> Compare the most important			
points and key details presented in			
two texts on the same tonic (RI)			
<b>4 P 14</b> Integrate information from two			
4.K.14 integrate information from two			
write or speak about the subject			
knowledgeably. (RI)			
5.R.14 Compare stories in the same			
genre on their approaches to similar			
themes and topics. (RL)			

### Grades 6–8, Reading

Reading Reporting	ACT Readiness Standards:	Utah Core Standards:	What could this look like in
Categories	Snapshot of Expected Skills	Snapshot of Expected Skills	practices in grades 6-8?*
Key Ideas and Details	CLR 402 Draw logical	6.R.5 Cite textual evidence to support	Read relevant and interesting
Questions in this category	conclusions in somewhat	analysis of what the text says explicitly as	literary texts (e.g., short stories,
test students' ability to read	challenging passages	well as inferences drawn from the text.	novels, memoirs, poems, and
texts closely in order to	IDT 501 Infer a central idea or	(RL & RI)	personal essays) that are
determine central ideas and	theme in somewhat	<b>7–8.R.5</b> Cite textual evidence that	appropriately quantitatively and
themes; summarize	challenging passages or their	supports an analysis of what the text says	qualitatively complex.
information and ideas	paragraphs	explicitly as well as inferences drawn from	
accurately; understand	IDT 503 Summarize key	the text. (RL & RI)	Read relevant and interesting
relationships; and draw	supporting ideas and details	<b>6.R.6</b> When reading texts, including those	informational text about the social
logical inferences and	in more challenging passages	from diverse cultures, determine the	sciences, natural sciences, and
conclusions.	REL 502 Understand implied	theme, how characters respond to	humanities that are quantitatively
	or subtly stated comparative	conflict or how the speaker reflects upon	and qualitatively complex.
	relationships in somewhat	a topic, and summarize the text. (RL)	
	challenging passages	When reading texts, including those from	Ask text-dependent questions that
	REL 504 Understand implied	diverse cultures, determine the main idea	require a close, careful reading of
	or subtly stated cause-effect	of a text, explain how they are supported	the text.
	relationships in somewhat	by key details and summarize the text.	
	challenging passages	(RI)	Ask students to find evidence in
		<b>7–8.R.6</b> When reading texts, including	text by paying attention to specific
		those from diverse cultures, determine a	details in text that help create the
		theme, analyze its development including	claim or central idea.
		its relationship to the characters, settings,	
		and plot, and provide an objective	Encourage active reading with text
		summary that includes textual evidence.	markers and annotations.
		(RL) When reading texts, including those	
		from diverse cultures, determine the	Ask students to trace character
		main idea, analyze its relationship to	development through literature by
		supporting ideas, and provide an	looking for specific places in the
		objective summary that includes textual	text that highlight how the
		evidence. (RI)	characters change.

		<b>6.R.7</b> Compare two or more characters,	Ask students to examine events in
		settings, or events in a story or drama,	text to determine the primary
		drawing on specific details in the text.	cause(s) and final outcome(s).
		(RL) Analyze in detail how a key	
		individual, event, or idea is introduced,	*Additional ideas for instructional
		illustrated, and elaborated in a text. (RI)	practices can be found in the
		<b>7–8.R.7</b> Analyze the impact of character	resource Ideas for Progress in
		and plot development on the overall story	College and Career Readiness on
		or drama. (RL) Analyze a complex set of	the ACT website.
		ideas or sequence of events and explain	
		how specific individuals, ideas, or events	
		interact and develop over the course of	
		the text. (RI)	
Craft and Structure	WME 401 Analyze how the	6.R.8 Determine the meaning of words	Work with students to build
Questions in this category	choice of a specific word or	and phrases, including figurative	vocabulary and word knowledge,
test students' ability to	phrase shapes meaning or	language, connotative meanings, and	including Tier II vocabulary,
determine the meaning of	tone in somewhat challenging	figures of speech. Analyze the impact of	through building an understanding
words and phrases; analyze	passages	specific word choices on meaning and	of how to use context clues.
author's word choice; analyze	WME 402 Interpret most	tone, including words with multiple	
text structure; and analyze	words and phrases as they	meanings within a text.(RL & RI)	Help students build Tier III
the author's purpose and	are used in somewhat	<b>7–8.R.8</b> Determine the meaning of words	vocabulary through word study and
perspective.	challenging passages,	and phrases, including figurative,	reading several texts on the same
	including determining	connotative, and technical meanings.	topic or idea.
	technical, connotative, and	Analyze the impact of specific word	
	figurative meanings	choices on meaning, tone, and mood,	Have students predict how changes
	TST 401 Analyze how one or	including words with multiple meanings	to the wording of a text might
	more sentences in somewhat	within a text. (RL & RI)	convey a different tone or attitude.
	challenging passages relate to	<b>6.R.10</b> Analyze how a sentence,	
	the whole passage	paragraph, stanza, chapter, scene, or	Provide examples of text where
	TST 505 Analyze the overall	section fits into the overall structure and	structure contributes to meaning:
	structure of more challenging	now it contributes to the development of	For example, have students read a
	passages	theme, main idea, settings, or plot. (RL)	graphic novel and contrast its
	PPV 501 Infer a purpose in	Analyze now a particular sentence,	structure and its impact on
	somewhat challenging	paragraph, chapter, or section fits into	meaning to the structure of a

passages and how that	the overall structure of a text and how it	traditional text about the same
purpose shapes content and	contributes to the development of the	event or topic.
style	main idea. (RI)	
	7–8.R.10 Analyze the structure an author	Have students analyze the
	uses to organize a text, and how it	relationship between an author's
	contributes to the text meaning. (RL & RI)	or narrator's intended message and
	6.R.11 Explain how an author's	the rhetorical devices used to
	perspective develops the point of view of	convey that message.
	the narrator or speaker in multiple texts.	
	(RL) Analyze how the author distinguishes	Have students search for clues in a
	a perspective and/or position from that of	text that convey the author's or
	others. (RI)	narrator's point of view.
	<b>7–8.R.11</b> Analyze how an author develops	
	and contrasts the points of view of	
	different characters or narrators in a text	
	and how this creates a variety of effects	
	(e.g., humor, sadness, suspense). (RL)	
	Determine an author's point of view or	
	purpose in a text and analyze how the	
	author distinguishes their position from	
	that of others and responds to conflicting	
	evidence or viewpoints. (RI)	

Integration of Knowledge	ARG 501 Analyze how one or	6.R.12 Compare how different mediums,	Use text in science and social
and Ideas	more sentences in more	including print and digital media,	studies instruction.
Questions in this category	challenging passages offer	contribute to the understanding of a text.	
test students' ability to	reasons for or support a claim	(RL & RI)	Have students defend or challenge
evaluate authors' claims,	ARG 502 Infer a central claim	7–8.R.12 Compare a text to another text	an author's assertions by locating
differentiate between facts	in somewhat challenging	in a different medium about the same	several key pieces of evidence in a
and opinions, and use	passages	topic and evaluate the impact of the	text.
evidence to make	SYN 401 Draw logical	differences on the audience. (RL & RI)	
connections between	conclusions using information	<b>6.R.13</b> Evaluate the argument and specific	Build student knowledge through
different texts that are	from two literary narratives	claims in a text, distinguishing claims that	reading multiple texts on the same
related by topic.	SYN 501 Draw logical	are supported by reasons and evidence	topic and asking students to
	conclusions using information	from claims that are not. (RI)	synthesize information across the
	from two informational texts	7–8.R.13 Evaluate an argument and	texts.
		specific claims in a text, assessing the	
		validity of key statements by examining	Use selections from literary
		whether the supporting evidence is	nonfiction to supplement
		relevant and sufficient. (RI)	informational units; for instance,
		6.R.14 Compare texts across different	when studying the Great
		mediums or genres in terms of their	Depression, read an excerpt of a
		approaches to similar themes and topics.	memoir from the same time
		(RL) Compare one author's presentation	period.
		of events with that of another. (RI)	
		7–8.R.14 Compare two or more works of	
		fiction with similar themes or topics,	
		drawing on patterns of events or	
		character types. (RL) Compare how two	
		or more texts about the same topic shape	
		their presentations by emphasizing	
		different evidence or advancing different	
		interpretations of facts; identify where	
		the texts disagree on matters of fact or	
		interpretation. (RI)	

### Grades 9–12, Reading

Pooding Poporting Cotogorios	ACT Readiness Standards:	Utah Core Standards:	What could this look like in
Reading Reporting Categories	Snapshot of Expected Skills	Snapshot of Expected Skills	practices in grades 9-12?*
Key Ideas and Details	CLR 603 Draw subtle logical	<b>9–10.R.5</b> Cite relevant textual evidence	Read relevant and interesting
Questions in this category test	conclusions in more challenging	to support analysis of what the text	literary texts (e.g., short stories,
students' ability to read texts	passages	says explicitly as well as what	novels, memoirs, poems, and
closely in order to determine	IDT 701 Identify or infer a	inferences can be drawn from the text,	personal essays) that are
central ideas and themes;	central idea or theme in	including identifying where the text	quantitatively and qualitatively
summarize information and	complex passages or their	implies ambiguity. (RL & RI)	complex.
ideas accurately; understand	paragraphs	11–12.R.5 Cite relevant textual	
relationships; and draw logical	IDT 602 Summarize key	evidence to support analysis of what	Read relevant and interesting
inferences and conclusions.	supporting ideas and details in	the text says explicitly as well as	informational text about the social
	complex passages	inferences drawn from the text,	sciences, natural sciences, and
	<b>REL 702</b> Understand implied or	including analyzing where the text	humanities that is quantitatively
	subtly stated comparative	implies ambiguity. (RL & RI)	and qualitatively complex.
	relationships in complex	<b>9–10.R.6</b> When reading texts, including	
	passages	those from diverse cultures, determine	Use text in science and social
	REL 704 Understand implied or	a theme, analyze its development in	studies instruction.
	subtly stated cause-effect	detail, including how it emerges and is	
	relationships in complex	shaped and refined by specific details;	Ask text-dependent questions that
	passages	provide an objective summary that	require a close, careful reading of
		includes textual evidence. (RL) When	the text.
		reading texts, including those from	
		diverse cultures, determine two or	Ask students to find evidence in a
		more main ideas, analyze the main	text by examining specific details in
		ideas' relationship to supporting ideas,	text that help create the claim or
		and provide an objective summary that	central idea.
		includes textual evidence. (RI)	Encourage active reading through
		<b>11–12.R.6</b> When reading texts,	the use of text markers and
		including those from diverse	annotations.
		cultures, determine two or more	
		themes and analyze their	Have students analyze subtle
		development, including how they	relationships between and among
		interact and build on one another to	

	produce a complex account, and	people, objects, events, and ideas
	provide an objective summary that	in complex texts.
	includes textual evidence. (RL) When	
	reading texts, including those from	Have students identify implications
	diverse cultures, determine main ideas	and possible consequences of
	of two or more texts, analyze the main	actions in complex texts.
	ideas, supporting details, and the	
	relationship between/among the texts;	*Additional ideas for instructional
	provide an objective synthesis of the	practices can be found in the
	texts that includes textual evidence.	resource <u>Ideas for Progress in</u>
	(RI)	<u>College and Career Readiness</u> on
	9–10.R.7 Analyze how plot elements	the ACT website.
	and dialogue interact, shape the	
	characters, and propel the action. (RL)	
	Analyze how a text makes connections	
	among and distinctions between	
	individuals, ideas, or events through	
	comparisons, analogies, or categories.	
	(RI)	
	11–12.R.7 Analyze how an author	
	develops a text through complex	
	and/or dynamic characters, interaction	
	with other characters, and	
	advancement of the plot or	
	development of the theme. (RL)	
	Analyze how the author develops a	
	text through an analysis or argument,	
	including the sequence, the	
	introduction and development and	
	connections of ideas. (RI)	

Craft and Structure	WME 701 Analyze how the	9–10.R.8 Determine the meaning and	Help students build academic and
Questions in this category test	choice of a specific word or	impact of words and phrases on	Tier II vocabulary through an
students' ability to determine	phrase shapes meaning or tone	meaning, tone, and mood. Analyze	understanding of how to use
the meaning of words and	in passages when the effect is	figurative language and connotative	context to discern meaning.
phrases; analyze author's	subtle or complex	meanings. Examine domain-specific	
word choice; analyze text	WME 702 Interpret words and	vocabulary and how language differs	Help students build Tier III
structure; and analyze the	phrases as they are used in	across genres and text types. (RL & RI)	vocabulary through word study and
author's purpose and	complex passages, including	<b>11–12.R.8</b> Determine the meaning and	reading several texts on the same
perspective.	determining technical,	impact of words and phrases on tone	topic or idea.
	connotative, and figurative	and mood, including words with	
	meanings	multiple meanings. Analyze figurative	Have students predict how changes
	TST 601 Analyze how one or	language, connotative meanings, and	to the wording of a text might
	more sentences in complex	figures of speech. Examine how the	convey a different tone or attitude.
	passages relate to the whole	author uses and	
	passage	refines the meaning of domain-specific	Have students explain how some
	TST 602 Infer the function of	vocabulary and how language differs	sentence constructions (e.g., using
	paragraphs in more challenging	across historical time periods, cultures,	parallel structures, many or no
	passages	regions, and genres. (RL & RI)	conjunctions, purposeful repetition)
	TST 603 Analyze the overall	<b>9–10.R.10</b> Analyze and evaluate the	affect the meaning of the text.
	structure of complex passages	effectiveness of the structures an	
	PPV 701 Identify or infer a	author uses in an exposition,	Have students analyze the
	purpose in complex passages	argument, or narrative, including	relationship between an author's or
	and how that purpose shapes	whether the structure makes points or	narrator's intended message and
	content and style	events clear, effective, convincing, or	the rhetorical devices used to
		engaging. (RL & RI)	convey that message.
		11–12.R.10 Analyze and evaluate the	
		effectiveness of structures	Have students search for subtle
		across multiple texts about similar	evidence in a text that conveys the
		topics/themes, including whether the	author's or narrator's point of view.
		structures make points or events clear,	
		effective, convincing, or engaging. (RL	
		& RI)	
		9–10.R.11 Analyze how an author's	
		geographic location, identity or	
		background, culture, and time period	

		affect the perspective, point of view, purpose, and implicit/explicit messages of a text. (RL & RI) <b>11–12.R.11</b> Analyze how an author's geographic location, identity or background, culture, and time period affect the perspective, point of view, purpose, and implicit/explicit messages of a collective body of work. (RL & RI)	
Integration of Knowledge and Ideas Questions in this category test students' ability to evaluate authors' claims, differentiate between facts and opinions, and use evidence to make connections between different texts that are related by topic.	ARG 701 Analyze how one or more sentences in passages offer reasons for or support a claim when the relationship is subtle or complex SYN 401 Draw logical conclusions using information from two literary narratives SYN 501 Draw logical conclusions using information from two informational texts	<ul> <li>9–10.R.12 Compare a text to another text in a different medium analyzing the portrayal of the subject, evaluate the advantages and disadvantages of using the different mediums, and explain how and why the content stays faithful to or departs from the text or script. (RL &amp; RI)</li> <li>11–12.R.12 Analyze how a subject and/or content is presented in two or more mediums by determining which details are emphasized, altered, or absent in each account and how these details influence audiences' experiences and interpretations. (RL &amp; RI)</li> <li>9–10.R.13 Delineate and evaluate an argument and specific claims in a text, assessing the validity or fallacy of key statements by examining whether the supporting evidence is relevant and sufficient. Recognize when irrelevant evidence is introduced. (RI)</li> </ul>	Build student knowledge through reading multiple texts on the same topic and asking students to synthesize information across the texts. Encourage students to conduct research on topics of personal interest that require reading of complex informational text. Use selections from literature and literary nonfiction to supplement informational units; for instance, when studying the Holocaust, include an excerpt from a personal memoir from the same time period or a literary text set in the same time period. Have students analyze details in a complex text in order to verify or contradict a specific point or claim

	arguments and specific claims	
	across multiple texts on the same	
	subject, assessing the validity or fallacy	
	of key statements by examining	
	whether the supporting evidence is	
	relevant and sufficient	
	Recognize when irrelevant evidence is	
	introduced (RI)	
	9–10 R 14 Analyze two or more works	
	of fiction with similar themes or topics	
	drawing on patterns of events	
	characters types, and stylistic choices	
	(PL) Applyze how two or more toyts	
	(RL) Analyze now two of more texts	
	about the same topic shape their	
	presentations by emphasizing unrerent	
	evidence or advancing different	
	interpretations of facts; identify where	
	the texts disagree on matters of fact or	
	interpretation. (RI)	
	<b>11–12.R.14</b> Analyze two or more texts	
	of literary significance across	
	and within time periods with similar	
	topics and themes, drawing on their	
	purposes, stylistic choices, and	
	rhetorical features. (RL) Analyze and	
	evaluate works of cultural significance	
	for the way in which these works treat	
	similar themes, conflicts, issues, or	
	topics, and maintain relevance for	
	current audiences. (RI)	

## **ACT Mathematics Test** Connections with Utah Core State Standards

#### **Questions & Answers**

#### 1. What determines student success on the ACT mathematics subtest?

The mathematics skills assessed on the ACT extend across all grade levels. The ACT College and Career Readiness Standards for mathematics are a combination of skills taught beginning as early as grade 2 and extending through the Secondary Mathematics III course. For a student to attain an 18 or higher, the student needs instruction focused on developing a content-rich, conceptual understanding of mathematics at all grade levels. Additionally, students need to have developed a strong foundation in procedural fluency and problem solving. To be successful on the ACT mathematics subtest, students need to develop an understanding of the following:

- which ideas are useful in a particular context for problem solving;
- *why and how* certain key ideas aid in problem solving, through the systematic progression of mathematics;
- *how and why* an idea or procedure is mathematically defensible and *when* it is most efficient to use a particular procedure; and
- *how* to flexibly adapt previous experience to new-problem-solving situations.

#### 2. What is the structure of the ACT mathematics test?

The ACT mathematics test is a 60-minute test with 60 questions that are designed to assess the mathematical skills students have acquired across the entirety of their mathematical academic career and the efficiency with which they are able to access and apply those skills. The test presents multiple-choice questions that require a student to use reasoning skills grounded in both procedural fluency and to utilize problem-solving strategies to work through practical problems in mathematics. In preparation for the ACT mathematics test, it is essential to have working knowledge of basic formulas and computational skills but recall of complex formulas and extensive computation is not required.

#### 3. When should we begin preparing students for the ACT mathematics subtest?

The ACT mathematics questions are based on skills and standards taught from elementary school through high school. This means that students who have a strong foundation in mathematics and who consistently perform well in each grade level will use the same skills to perform well on the ACT. Therefore, all academic grades have a crucial part to play in preparing students for ACT mathematics success.

**Please note**: This document is intended to highlight connections between Utah Core Standards and the ACT mathematics test, but it is not an exhaustive document that details every connection.

While the <u>Utah Core Standards for Mathematics</u> are organized by strands and standards, the <u>ACT College and</u> <u>Career Readiness Standards</u> are organized by reporting category (domain) and score range.

ACT Score Range	ACT Standard Coding
13-15	200
16-19	300
20-23*	400
24-27	500
28-32	600
33-36	700

\*The ACT College and Career Readiness benchmark score for the ACT mathematics subtest is 22. Many of the skills a student needs to master to reach this benchmark are embedded in the Utah Core State Standards for mathematics in grades 6-8. In the middle grades, students develop an understanding of quantities, operations with rational numbers, and basic algebraic thinking. These skills are anchored in concepts introduced in earlier grades (such as fractions). Reinforcing these foundational connections as students continue into high school courses (such as Secondary Mathematics I, II, and III) is necessary for students to be successful on the foundational skills that define the readiness benchmark.

#### Big Picture of Utah Mathematics Concepts, K–12

Mathematics is broken into strands, which are the buckets of main concepts that students learn over the course of time. As previously mentioned, success on the ACT is dependent upon the **entirety of a student's mathematics career from elementary school through high school**. The following chart shows how the strands within the current Utah Core State Standards in mathematics build on one another. In the chart below, you will see which mathematics strands students are learning holistically throughout a given year and how the mathematics strands build on one another across a student's academic career.

## **Utah Core State Standards Domain Progressions**

К	1	2	3	4	5	6	7	8	HS
Counting and Cardinality									
	Number and Operations in Base Ten     Ratios and Proportional Relationships						Number &		
Number and Operations - Fractions				- Fractions	The	Number Syst	æm	Quantity	
Expressions and Equations						Algebra			
Operations and Algebraic Thinking							Functions	Functions	
Geometry						Geometry			
	Measurement and Data Statistics and Probability					Statistics & Probability			

The domains of the ACT College and Career Readiness Standards for mathematics are similar to the strands of the Utah mathematics standards: geometry, statistics and probability, number and quantity, algebra, and functions. Standards unique to ACT are assigned to each category and can be found here: <u>ACT mathematics college and career standards</u>.

#### Side-by-Side Example: Number and Quantity Strand

#### Connectivity Between the ACT and Utah Core State Standards in Mathematics

Multiple Utah Core State Standards are embedded within a single ACT College and Career Readiness Standard for mathematics. The following chart highlights a small, representative sample of connections between selected ACT standards and the Utah Core State Standards in the domains that are tested. This is for illustrative purposes only, as students should be consistently exposed to all of the Utah Core State Standards to be successful on the ACT mathematics subtest.

These examples illustrate how the ACT mathematics subtest assesses the entirety of a student's academic career in mathematics. Even though students take the ACT in high school, if building blocks are left out—even in the early grades—students are less prepared to be successful on this important measure of college and career readiness.

Category	ACT Readiness Standards	Utah Core State Standards
Number and Quantity (N) Questions in this category test students' ability to understand and reason with numerical quantities in many forms in the real and complex number systems.	N 201. Perform one-operation computation with whole numbers and decimals	<ul> <li>2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</li> <li>3.OA.7a. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8)</li> <li>3.OA.7b. By the end of Grade 3, know from memory all products of two one-digit numbers</li> <li>3.NBT.2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</li> <li>4.NBT.4. Fluently add and subtract multi-digit whole numbers using the standard algorithm (Expectations in this strand are limited to whole numbers less than or equal to 1,000,000).</li> <li>4.OA.3. Solve multi-step word problems posed with whole numbers and having whole-</li> </ul>
		<ul> <li>number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies, including rounding.</li> <li>5.NBT.5. Fluently multiply multi-digit whole numbers using the standard algorithm.</li> <li>5.NBT.7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and</li> </ul>

Category	ACT Readiness Standards	Utah Core State Standards
		<ul> <li>explain the reasoning used. In this standard, dividing decimals is limited to a whole number dividend with a decimal divisor or a decimal dividend with a whole number divisor. Compare the value of the quotient on the basis of values of the dividend and divisor.</li> <li>6.NS.2. Fluently divide multi-digit numbers using the standard algorithm.</li> <li>6.NS.3. Fluently add, subtract, multiply, and divide multi-digit decimals using a standard algorithm for each operation. Fluently divide multi-digit decimals using the standard algorithm, limited to a whole number dividend with a decimal divisor or a decimal dividend with a whole number divisor. Solve division problems in which both the dividend and the divisor are multi-digit decimals; develop the standard algorithm by using models, the meaning of division, and place value understanding.</li> </ul>
Number and Quantity (N)	<b>N 202</b> . Recognize equivalent fractions and fractions in lowest terms	<ul> <li>3.NF.3a. Understand two fractions as equivalent if they are the same size, or the same point on a number line.</li> <li>3.NF.3b. Recognize and generate simple equivalent fractions, such as 1/2 =2/4, 4/6 = 2/3. Explain why the fractions are equivalent by using a visual fraction model, for example.</li> <li>3.NF.3c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. For example, express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.</li> <li>4.NF.1. Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</li> </ul>
Number and Quantity (N)	N 302. Identify a digit's place value	<ul> <li>2.NBT.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; for example, 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: 100 can be thought of as a bundle of ten tens called a "hundred". The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</li> <li>4.NBT. Generalize place value understanding for multi-digit whole numbers by analyzing patterns, writing whole numbers in a variety of ways, making comparisons, and rounding. Use place value understanding and properties of operations to perform multi-digit addition, subtraction, multiplication, and division using a one-digit divisor. Expectations in this strand are limited to whole numbers less than or equal to 1,000,000.</li> </ul>

Category	ACT Readiness Standards	Utah Core State Standards
		<b>5.NBT.</b> Understand the place value system. Perform operations with multi-digit whole numbers and with decimals to hundredths.
Number and Quantity (N)	N 404. Understand absolute value in terms of distance	<ul> <li>6.NS.7c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world context. For example, an account balance of -30 dollars, write  -30  = 30 to describe the size of the debt in dollars.</li> <li>7.NS.1b. Understand p + q as the number located a distance  q  from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by</li> </ul>
Number and Quantity (N)	N 603. Apply number properties involving positive/negative numbers	<b>6.NS.5.</b> Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (for example, temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of zero in each situation. <b>6.NS.6a.</b> Recognize opposite signs of numbers as indicating locations on opposite sides of zero on the number line; recognize that the opposite of the opposite of a number is the number itself. For example, $-(-3) = 3$ , and zero is its own opposite. <b>7.NS. 1a.</b> Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged. <b>7.NS. 1b.</b> Understand $p + q$ as the number located a distance $ q $ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. <b>7.NS. 1c.</b> Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$ . Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. <b>7.NS. 1d.</b> Apply properties of operations as strategies to add and subtract rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers.

Category	ACT Readiness Standards	Utah Core State Standards
		<ul> <li>7.NS.2b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then -(p/q) = (-p)/q = p/(-q). Interpret quotients of rational numbers by describing real world contexts.</li> <li>7.NS.2c. Apply properties of operations as strategies to multiply and divide rational numbers.</li> <li>7.NS.3. Solve real-world and mathematical problems involving the four operations with rational numbers. Computations with rational numbers extend the rules for manipulating fractions to complex fractions.</li> </ul>
Number and Quantity (N)	N 606. Multiply two complex numbers	<b>SII.N.CN.2</b> . Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers. Limit to multiplications that involve $i^2$ as the highest power of <i>i</i> .

Category	ACT Readiness Standards	Utah Core State Standards
Algebra (A)	A 401.	<b>3.OA.4.</b> Determine the unknown whole number in a multiplication or division equation
Questions in this	Evaluate algebraic	relating three whole numbers. For example, determine the unknown number – product,
category test	expressions by	factor, quotient, dividend, or divisor – that makes the equation true in each of the equations
students' ability to	substituting integers	$8 \times ? = 45, 5 = ? \div 3, 6 \times 6 = ?.$
solve, graph, and	for unknown quantities	<b>6.EE.2c.</b> Evaluate expressions at specific values of their variables. Include expressions that
model multiple		arise from formulas used in real-world problems. Perform arithmetic operations, including

Category	ACT Readiness Standards	Utah Core State Standards
types of expressions. Students will see but are not limited to linear, polynomial, radical, and exponential relationships.		those involving whole-number exponents, applying the Order of Operations when there are no parentheses to specify a particular order. For example, use the formulas $V = s^3$ and $A=6s^2$ to find the volume and surface area of a cube with sides of length $s=1/2$ . <b>6.EE.5.</b> Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
Algebra (A)	A 406. Exhibit knowledge of slope	<ul> <li>6.RP.3a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.</li> <li>7.RP.2a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.</li> <li>7.RP.2b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</li> <li>8.EE.6. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation y = mx for a line through the origin and the equation y = mx + b for a lint intercepting the vertical axis at b.</li> <li>SMI.F.IF.6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.</li> </ul>
Algebra (A)	<b>A 505.</b> Add, subtract, and multiply polynomials.	<b>SMII.A.APR.1.</b> Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.
Algebra (A)	AF 603. Interpret and use information from graphs in the coordinate plane	<b>8.F.4.</b> Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two $(x, y)$ values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

Category	ACT Readiness Standards	Utah Core State Standards
		<ul> <li>8.F.5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.</li> <li>SMI.A.REI.10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).</li> <li>SMI.F.IF.4, SMII.F.IF.4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. <i>Key features include intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior.</i></li> <li>SMI.F.IF.7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.</li> </ul>
Functions (F) Questions in this category test students' knowledge of function definition, notation, representation, and application. Students will see but are not limited to linear, radical, piecewise, polynomial, and logarithmic functions.	<b>F 201/301.</b> Extend a given pattern by a few terms for patterns that have a constant increase or decrease/factor between terms	<ul> <li>2.NBT.2. Count within 1,000; skip-count by fives, tens, and hundreds.</li> <li>3.OA.9. Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations. For example, observe that four times a number is always even, and explain why four times a number can be decomposed into two equal addends.</li> <li>4.OA.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</li> <li>5.OA.3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "add 3" and the starting number 0, and given the rule "add 6" and the starting number 0, generate terms in the resulting sequences. Explain informally why the starting number 0, generate terms in the resulting sequences. Explain informally why the starting number 0, generate terms in the resulting sequences. Explain informally why the starting number 0, generate terms in the resulting sequences. Explain informally why the starting number 0, generate terms in the resulting sequences. Explain informally why this is so.</li> </ul>
Functions (F)	AF 402.	<b>3.OA.8b.</b> Represent two-step problems using equations with a letter standing for the unknown quantity. Create accurate equations to match word problems.

Category	ACT Readiness Standards	Utah Core State Standards
	Perform straightforward word- to-symbol translations.	<ul> <li>4.OA.3a. Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using an equation with a letter standing for the unknown quantity.</li> <li>6.EE.2a. Write expressions that record operations with numbers and with letters representing numbers. For example, express the calculations "Subtract y from 5" and 5 – y and express "Jane had \$105.00 in her bank account. One year later she had x dollars more." Write an expression that shows her new balance as \$105.00 = x.</li> <li>6.EE.6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</li> <li>7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</li> </ul>
Functions (F)	<b>F 502.</b> Find the next term in a sequence described recursively	<b>SMI.F.IF.3.</b> Recognize that sequences are functions, sometimes defined recursively, whose strand is a subset of the integers. Emphasize arithmetic and geometric sequences as examples of linear and exponential functions. For example, the Fibonacci sequence is defined recursively by $f(0) = f(1)-1$ , $f(n + 1) = f(n) + f(n - 1)$ for $n \ge 1$ . <b>SMI.F.BF.2.</b> Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms. Limit to linear and exponential functions. Connect arithmetic sequences to linear functions and geometric sequences to exponential functions. <b>SMII.F.BF.1a.</b> Write a quadratic or exponential function that describes a relationship between two quantities. Determine an explicit expression, a recursive process, or steps for calculation from a context.
Functions (F)	<b>F 706.</b> Use trigonometric concepts and basic identities to solve problems	<b>SMII.F.TF.8.</b> Prove the Pythagorean identity $sin^2(\theta) + cos^2(\theta) = 1$ and use it to find $sin sin(\theta)$ , $cos cos(\theta)$ , or $tan tan(\theta)$ given $sin sin(\theta)$ , $cos cos(\theta)$ , or $tan tan(\theta)$ and the quadrant of the angle. <b>SMIII.F.TF.7.</b> Use inverse functions to solve trigonometric equations that arise in modeling context; evaluate the solutions using technology and interpret them in terms of context. Limit solutions to a given interval.

Category	ACT Readiness Standards	Utah Core State Standards
Geometry (G) Questions in this category test students' knowledge of shapes and solids, such as congruence and similarity relationships or surface area and volume measurements, understanding composition of objects, solving for missing values, and using trigonometric ratios and equations.	<b>G 203.</b> Perform common conversions of money and of length, weight, mass, and time within a measurement system (e.g., dollars to dimes, inches to feet, and hours to minutes)	<ul> <li>2.MD.7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.</li> <li>2.MD.8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and \$ symbols appropriately. For example, if you have 2 dimes and 3 pennies, how many cents do you have?</li> <li>3.MD.1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction time intervals in minutes, for example, by representing the problem on a number line diagram.</li> <li>4.MD.1. Know relative sizes of measurement units within each system of units (standard and metric), including kilometers, meters, and centimeters; liters and milliliters; kilograms and grams; pounds and ounce; hours, minutes, and seconds. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that one foot is 12 times as long as one inch. Express the length of a four-foot snake as 48 inches. Know that one meter is 100 times as long as one centimeter. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36)</li> <li>4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money</li> <li>5.MD.1. Convert among different-sized standard measurement units within a given measurement system (for example, convert 5 cm to 0.05 m); use these conversions in solving multi-step, real-world problems.</li> </ul>
Geometry (G)	<b>G 301.</b> Exhibit some knowledge of the angles associated with parallel lines	<ul> <li>4.G.1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.</li> <li>4.G.2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.</li> <li>SMI.G.GPE.5. Prove the slope criteria for parallel and perpendicular lines; use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).</li> <li>SMII.G.CO.11. Prove theorems about parallelograms. <i>Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals</i></li> </ul>

Category	ACT Readiness Standards	Utah Core State Standards
Geometry (G)	G 501.	<b>4.MD.7.</b> Recognize angle measure as additive
	properties to find an	multi-step problem to write and solve simple equations for an unknown angle in a figure
	unknown angle	<b>8.G.5.</b> Use informal arguments to establish facts about the angle sum and exterior angle of
	measure	triangles, about the angles created when parallel lines are cut by a transversal, and the
		angle-angle criterion for similarity of triangles. For example, arrange three copies of the
		same triangle so that the sum of the three angles appears to form a line, and give an
		argument in terms of transversals why this is so.
		SMII.G.CO.9. Prove theorems about lines and angles. Theorems include: vertical angles are
		and corresponding angles are congruent: points on a perpendicular hisector of a line
		segment are exactly those equidistant from the segment's endpoints.
		SMII.G.CO.10. Prove theorems about triangles. Theorems include: measures of interior
		angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the
		segment joining midpoints of two sides of a triangle is parallel to the third side and half the
		length; the medians of a triangle meet at a point.
Geometry (G)	G 506.	<b>3.MD.6.</b> Measure area by counting unit squares (square centimeters, square meters, square
	Compute the area of	inches, square feet, and improvised units)
	triangles and	<b>3.MD.7.</b> Relate area to the operation of multiplication and addition.
	rectangles when one or	<b>4.MD.3.</b> Apply the area and perimeter formulas for rectangles in real-world and
	more additional simple	mathematical problems. For example, find the width of a rectangular room given the area of
	steps are required	the flooring and the length, by viewing the area formula as a multiplication equation with an
		<b>6.G.1.</b> Find the area of right triangles, other triangles, special quadrilaterals, and polygons by
		composing into rectangles or decomposing into triangles and other shapes; apply these
		techniques in the context of solving real-world and mathematical problems.
Geometry (G)	G 604.	<b>8.G.7.</b> Apply the Pythagorean Theorem to determine unknown side lengths in right triangles
	Apply basic	in real -world and mathematical problems in two and three dimensions.
	trigonometric ratios to	SMII.G.SRT.7. Explain and use the relationship between sine and cosine of complementary
	solve right-triangle	angles.
	problems	<b>SIVILI.G.SRI.8.</b> Use trigonometric ratios and the Pythagorean Theorem to solve right triangles
		In applied problems

Category	ACT Readiness Standards	Utah Core State Standards
Statistics and Probability (S) Questions in this category test students' knowledge of center and spread of distribution, data collection methods, relationships in bivariate data, and probability calculations	<b>S 201.</b> Calculate the average of a list of positive whole numbers	<ul> <li>6.SP.2. Understand that a set of data collected to answer a statistical question has a distribution that can be described by its center, spread/range, and overall shape.</li> <li>6.SP.5c. Summarize numerical data sets in relation to their context, such as by: giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.</li> <li>SMI.S.ID.2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.</li> </ul>
Statistics and Probability (S)	<b>S 403.</b> Determine the probability of a simple event	<ul> <li>7.SP.6.5. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.</li> <li>7.SP.6. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. <i>For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.</i></li> <li>7.SP.8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.</li> </ul>
Statistics and Probability (S)	<b>S 502.</b> Manipulate data from tables and charts	<ul> <li>4.MD.4. Make a line plot to display a data set of measurements in fractions of a unit (halves, quarters, and eighths). Solve problems involving addition and subtraction with like denominators of fractions by using information presented in line plots. For example, use a line plot to find and interpret the difference in length between the longest and shortest pencils in a classroom</li> <li>8.SP.1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.</li> </ul>

t patterns of association can also be seen in bivariate categorical data
es and relative frequencies in a two-way table. Construct and ole summarizing data on two categorical variables collected from the ative frequencies calculated for rows or columns to describe possible be two variables. For example, collect data from students in your class have a curfew on school nights and whether or not they have be. Is there evidence that those who have a curfew also tend to have
e categorical data for two categories in two-way frequency tables. encies in the context of the data (including joint, marginal, and uencies). Recognize possible associations and trends in the date and interpret two-way frequency tables of data when two categories ch object being classified. Use the two-way table as a sample space to dependent and to approximate conditional probabilities. <i>For example,</i> <i>dom sample of students in your school on their favorite subject among</i> <i>and English. Estimate the probability that a randomly selected student</i> <i>twor science given that the student is in tenth grade. Do the same for</i> <i>pare the results.</i> and explain the concepts of conditional probability and day language and everyday situations. <i>For example, compare the</i> <i>cancer if you are a smoker with the chance of being a smoker if you</i> conditional probability of <i>A</i> given <i>B</i> as the fraction of <i>B</i> 's outcomes that

Side-by-Side Example: Strand Comparison Chart Connectivity Between Utah Mathematics Strands and ACT Mathematics Domains

Multiple Utah Core Standards are embedded within a single ACT College and Career Readiness Standard for mathematics. The following chart shows the connection and overlap between the strands of the current Utah mathematics standards and the domains of ACT standards. The navy-blue areas indicate where Utah mathematics standards overlap with ACT standards within each domain.

## Side-by-Side Example: Domain Comparison Chart

К	1	2	3	4	5	6	7	8	HS
Counting and Cardinality									
Number and Operations in Base Ten The Number System					Number & Quantity				
ACT Readiness Domain: Number and Quantity									
			Number an	d Operations	s - Fractions	Ratios & Pr Relatio	oportional nships	Functions	Functions
	ACT Readiness Domain: Functions								
Operations and Algebraic Thinking Expressions and Equations				Algebra					
ACT Readiness Domain: Algebra									
Geometry Geom					Geometry				
ACT Readiness Domain: Geometry									
Measurement and Data Statistics and Probability				Statistics & Probability					
						ACT Readir	ness Domain:	Statistics &	Probabilty

## ACT Science Test Connections with Utah Core State Standards

#### **Questions & Answers**

#### 1. What determines student success on the ACT science test?

Although basic content knowledge in biology, chemistry, physics, and earth science is recommended, advanced knowledge of the subject-specific content is not expected. Instead, the ACT science test measures a student's scientific reasoning abilities, such as analysis, interpretation, evaluation, and problem solving under strict time conditions: 40 questions in 35 minutes.

# 2. Did you know that scientific information is presented in three distinct formats on the ACT science test?

The ACT science test consists of seven passages presented in one of the following formats:

- **Data Representation** (30-40 percent): This format includes graphics and tables for student analysis and interpretation. These questions measure a student's ability to read graphs, interpret scatterplots, and interpret information presented in tables.
- **Research Summaries** (45-55 percent): This format includes descriptions of one or more related experiments. These questions measure the student's ability to interpret experimental design and associated results.
- **Conflicting Viewpoints** (15-20 percent): This format presents alternative hypotheses expressed in response to incomplete data or differing views. These questions measure the student's ability to understand, analyze, and compare inconsistent viewpoints or hypotheses.

#### 3. How can we support the development of scientific reasoning skills from grades K–12?

Preparation begins with developing in our students' critical thinking skills that enable them to interpret data, understand methodology used in complex experimental design, and evaluate both models and experimental results. The development of these skills is best fostered through consistent exposure to the process of science, both through inquiry and text, beginning in kindergarten. The instructional crosswalk beginning on the next page connects our current Utah Core State Standards with the science skills tested on the ACT and shares some suggestions for practice within each grade band. Preparing our students to meet or exceed the ACT College Readiness Benchmark is possible through intentional, thoughtful and rigorous teaching of our current K–12 science standards with emphasis on science literacy and the embedded inquiry and technology and engineering standards.

**Please note**: This document is intended to highlight connections between Utah's Core State Standards and the ACT science test, but it is not an exhaustive document that details every connection.

While the <u>Utah Core State Standards for Science</u> are organized by Disciplinary Core Ideas, the <u>ACT College and</u> <u>Career Readiness Standards</u> are organized by reporting category (domain) and score range.

ACT Score Range	ACT Standard Coding
13–15	200
16–19	300
20–23*	400
24–27	500
28–32	600
33–36	700

\*The benchmark score for the ACT Science subtest is 23. It is important to note that the ACT benchmark standards are content-agnostic, meaning they represent critical science reasoning skills and knowledge that are found across disciplines and content areas. Many of these skills are introduced as early as elementary school and are used to describe, model, and communicate science content across all areas through high school. It is critical that elementary and middle school science teachers are aware of these skills and introduce them as they teach their content standards. It is critical that high school science teachers are also asking their students to use these skills to demonstrate their knowledge of specific scientific concepts. For example, determining if data is consistent with a prediction can be introduced as early as K–5 and reinforced through formative assessment and activities in upper grades.

### Grades K–5, Science

Catagony	ACT Readiness Standards in	Example(s) of Related Utah	What could this look like in
Category	Science	Science Standards	practices in grades K–5?
Interpretation of Data	<b>IOD 201</b> . Select one piece of data from	Grade 3 Standard V. Objective 2c:	Have students locate data in simple
(IOD) This category	a simple data presentation (e.g., a	Predict, measure, and graph the	tables and graphs.
measures students'	simple food web diagram).	temperature changes produced by a	
ability to manipulate	IOD 202. Identify basic features of a	variety of mechanical or electrical	Have students become familiar with
and analyze scientific	table, graph, or diagram (e.g. units of	devices while they are operating.	different types of graphs (e.g., line
data presented in	measurement).	Grade 4 Standard II. Objective 2:	graphs, pie charts, bar graphs).
tables, graphs and	<b>IOD 203.</b> Find basic information in text	Interpret recorded weather data for	
diagrams.	that describes a simple data	simple patterns.	Have students become familiar with
Approximately 45-55%	presentation.	b. Graph recorded data to show daily	units of measurement commonly
of the science subtest		and seasonal <i>patterns</i> in weather.	used in science.
questions are in this			
category.			
		-	
Scientific Investigation	SIN 202. Understand the tools and	Grade 3 ILO.2.c: Pose questions	Have students observe experiments
(SIN) This category	functions of tools used in a simple	about objects, events and processes.	being performed and discuss what
measures student	experiment.	Grade 4 ILO.2.h: Use observations to	was done and why.
knowledge of	SIN 401. Understand a simple	construct a reasonable explanation	
experimental tools,	experimental design.	Grade 5 ILO.1.f: Plan and conduct	Have students design a procedure to
procedures and		simple experiments.	investigate a specific research
experimental design –		Grade 5 ILO.1.g: Formulate simple	question.
including identifying		research questions	
variables and controls.			
Questions in this			
category may ask			
students to compare,			
extend, and modify			
experiments.			
Approximately 20-30%			
or the science subtest			
questions are in this			
category.			

Evaluation of Models,	EMI 201. Find basic information in a	Grade 4 Standard III. Objective 3b:	Discuss what hypotheses and
Inferences, and	model (conceptual).	Diagram or model a soil profile	conclusions are and how they are
<b>Experimental Results</b>	EMI 401. Determine which simple	showing topsoil, subsoil, and bedrock,	different from each other.
(EMI) Questions on	hypothesis, prediction, or conclusion	and how the layers differ in	
EMI ask students to	is, or is not, consistent with a data	composition.	Have students analyze data and
judge the validity of	presentation, model, or piece of	Grade 4 ILO.1.c: Make simple	conclusions from multiple
scientific information	information in text.	predictions and inferences based upon	investigations and text.
and formulate		observations.	
conclusions and			Discuss why scientists may have
predictions based on			differing viewpoints or conclusions
the provided			based on an incomplete data set.
information. These			
questions comprise			
about 25-35% of the			
science subtest.			

\*Italicized sections indicate direct alignment of the Utah Science Standard to the ACT

### Grades 6–8, Science

Catagory	ACT Readiness Standards in	Example(s) of Related Utah Science	What could this look like in
Category	Science	Standards	practices in grades 6–8?
	IOD 301. Select two or more pieces of	Standard 6.3.2 Investigate the interactions	Have students examine line
	data from a simple data presentation.	between air masses that cause changes in	graphs to determine if they
	<b>IOD 304.</b> Determine how the values of	weather conditions. Collect and analyze	show a direct or inverse
	variables change as the value of	weather data to provide evidence for how air	relationship between
	another variable changes in a simple	masses flow from regions of high pressure to	variables.
	data presentation.	low pressure causing a change in weather.	
		Standard 7.5.2. Analyze and interpret data	Have students become familiar
Interpretation of Data		for patterns in the fossil record that	with scatterplots.
(IOD) This category		document the existence, diversity,	
measures students'		extinction, and change of life forms	Have students determine a
ability to manipulate		throughout the history of life on Earth, under	simple mathematical
and analyze scientific		the assumption that natural laws operate	relationship between two
data presented in		today as in the past.	variables.
tables, graphs and		Standard 8.2.1 Use computational thinking	
diagrams.		to analyze data about the relationship	Integrate scientific information
Approximately 45-55%		between the mass and speed of objects and	from popular sources (e.g.,
of the science subtest		the relative amount of kinetic energy of the	newspapers, magazines, the
questions are in this		objects. Emphasis should be on the quantity	internet) with that found in
category.		of mass and relative speed to the observable	textbooks.
		effects of the kinetic energy. Examples could	
		include a full cart vs. an empty cart or rolling	Have students collect and
		spheres with different masses down a ramp	analyze data. Examples of data
		to measure the effects on stationary masses.	collection could include field
		Calculations of kinetic and potential energy	observations, laboratory
		will be learned at the high school level.	experiments, weather maps,
			or diagrams.
Scientific Investigation	<b>SIN 201.</b> Find the basic information in	Standard 6.2.3 Plan and carry out an	Have students perform several
(SIN) This category	text that describes a simple	investigation to determine the relationship	repetitions of an experiment
measures student	experiment.	between temperature, the amount of heat	to determine the reliability of
knowledge of	SIN 301. Understand the methods	transferred, and the change of average	results.
experimental tools,	used in a simple experiment.	particle motion in various types or amounts	

procedures and		of matter. Emphasize recording and	Have students plan and
experimental design –		evaluating data, and communicating the	conduct experiments and
including identifying		results of the investigation.	identify the procedures and
variables and controls.		Standard 8.3.1 Plan and conduct an	steps required to complete
Questions in this		investigation and use the evidence to	their experiments.
category may ask		construct an explanation of how	
students to compare,		photosynthetic organisms use energy to	Have students identify a
extend, and modify		transform matter. Emphasize molecular and	researcher's question,
experiments.		energy transformations during	method, and conclusion in a
Approximately 20-30%		photosynthesis.	simple research article or
of the science subtest			summary.
questions are in this			
category.			
	EMI 301. Identify implications in a	Standard 7.4.4 Obtain, evaluate, and	Have students evaluate
	model.	communicate information about the	whether the data produced by
Evaluation of Models,	EMI 302. Determine which models	technologies that have changed the way	an experiment adequately
Inferences, and	present certain basic information.	humans affect the inheritance of desired	supports a given conclusion.
<b>Experimental Results</b>	EMI 401. Determine which simple	traits in organisms. Analyze data from tests	
(EMI) Questions on	hypothesis, prediction, or conclusion	or simulations to determine the best solution	Have students compare and
EMI ask students to	is, or is not, consistent with a data	to achieve success in cultivating selected	contrast two different models
judge the validity of	presentation, model, or piece of	desired traits in organisms. Examples could	about a scientific
scientific information	information in text.	include artificial selection, genetic	phenomenon.
and formulate		modification, animal husbandry, and gene	
conclusions and		therapy.	Have students evaluate the
predictions based on		Standard 8.2.3 Engage in argument to	effectiveness of two different
the provided		identify the strongest evidence that supports	experimental designs or
information. These		the claim that the kinetic energy of an object	models.
questions comprise		changes as energy is transferred to or from	
about 25-35% of the		the object. Examples could include observing	
science subtest.		temperature changes as a result of friction,	
		applying force to an object, or releasing	
		potential energy from an object.	

\* Italicized sections indicate direct alignment of the Utah Science Standard to the ACT

### Grades 9–12 (Earth Science, Biology I, Chemistry I, Physics)

Catagory	ACT Readiness Standards in	Example(s) of Related Utah Science	What could this look like in
Category	Science	Standards	practices in grades 9–12?
Interpretation of	IOD 401. Select data from a	Earth Science Standard III, Objective 2 e.	Have students relate scientific
Data (IOD) This	complex data presentation (e.g.	Design and conduct a weather	information contained in written text
	phase diagram).	investigation, use an appropriate display of	to numerical data.
students' ability to	IOD 402. Compare or combine	the data, and interpret the observations	
maninulate and	data from a simple data	and data.	Have students manipulate algebraic
analyze scientific	presentation (e.g., order or sum	Chemistry Standard V Objective 1 b. Use	equations that represent data.
data presented in	data from a table).	information from graphs to draw	
tables granhs and	IOD 404. Perform a simple	warranted conclusions about reaction	Have students draw conclusions by
diagrams	interpolation or simple	rates.	reading data tables and using graphs
Annroximately 45-	extrapolation using data in a table	Physics Standard 1 Objective 1 e. Collect,	
55% of the science	or graph.	graph, and interpret data for position vs.	Have students analyze relationships
subtest questions are		time <i>to describe</i> the motion of an object	between variables and make
in this category.		and compare this motion to the motion of	predictions based on the
		another object.	relationships.
Scientific	SIN 402. Understand the methods	Biology Standard I Objective 3 b.	Have students determine the
Scientific Investigation (SIN)	<b>SIN 402.</b> Understand the methods used in a complex experiment.	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to	Have students determine the hypothesis of an experiment that
Scientific Investigation (SIN) This category	<ul><li>SIN 402. Understand the methods used in a complex experiment.</li><li>SIN 403. Identify a control in an</li></ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon	Have students determine the hypothesis of an experiment that requires more than one step.
Scientific Investigation (SIN) This category measures student	<ul><li>SIN 402. Understand the methods used in a complex experiment.</li><li>SIN 403. Identify a control in an experiment.</li></ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem	Have students determine the hypothesis of an experiment that requires more than one step.
Scientific Investigation (SIN) This category measures student knowledge of	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b>	Have students determine the hypothesis of an experiment that requires more than one step. Have students determine alternate
Scientific Investigation (SIN) This category measures student knowledge of experimental tools,	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the	Have students determine the hypothesis of an experiment that requires more than one step. Have students determine alternate methods of testing a hypothesis.
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the	Have students determine the hypothesis of an experiment that requires more than one step. Have students determine alternate methods of testing a hypothesis.
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and experimental design	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the findings to generalize the results of other	<ul> <li>Have students determine the hypothesis of an experiment that requires more than one step.</li> <li>Have students determine alternate methods of testing a hypothesis.</li> <li>Have students argue and defend the students argue argue argue argues argu</li></ul>
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and experimental design – including	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the findings to generalize the results of other reactions.	<ul> <li>Have students determine the hypothesis of an experiment that requires more than one step.</li> <li>Have students determine alternate methods of testing a hypothesis.</li> <li>Have students argue and defend the presentation of data through</li> </ul>
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and experimental design – including identifying variables	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the findings to generalize the results of other reactions.	<ul> <li>Have students determine the hypothesis of an experiment that requires more than one step.</li> <li>Have students determine alternate methods of testing a hypothesis.</li> <li>Have students argue and defend the presentation of data through scientific reasoning and fact.</li> </ul>
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and experimental design – including identifying variables and controls.	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the findings to generalize the results of other reactions.	<ul> <li>Have students determine the hypothesis of an experiment that requires more than one step.</li> <li>Have students determine alternate methods of testing a hypothesis.</li> <li>Have students argue and defend the presentation of data through scientific reasoning and fact.</li> </ul>
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and experimental design – including identifying variables and controls. Questions in this	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the findings to generalize the results of other reactions.	<ul> <li>Have students determine the hypothesis of an experiment that requires more than one step.</li> <li>Have students determine alternate methods of testing a hypothesis.</li> <li>Have students argue and defend the presentation of data through scientific reasoning and fact.</li> </ul>
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and experimental design – including identifying variables and controls. Questions in this category may ask	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the findings to generalize the results of other reactions.	<ul> <li>Have students determine the hypothesis of an experiment that requires more than one step.</li> <li>Have students determine alternate methods of testing a hypothesis.</li> <li>Have students argue and defend the presentation of data through scientific reasoning and fact.</li> </ul>
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and experimental design – including identifying variables and controls. Questions in this category may ask students to compare,	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the findings to generalize the results of other reactions.	<ul> <li>Have students determine the hypothesis of an experiment that requires more than one step.</li> <li>Have students determine alternate methods of testing a hypothesis.</li> <li>Have students argue and defend the presentation of data through scientific reasoning and fact.</li> </ul>
Scientific Investigation (SIN) This category measures student knowledge of experimental tools, procedures and experimental design – including identifying variables and controls. Questions in this category may ask students to compare, extend, and modify	<ul> <li>SIN 402. Understand the methods used in a complex experiment.</li> <li>SIN 403. Identify a control in an experiment.</li> <li>SIN 404. Identify similarities and differences between experiments.</li> </ul>	<b>Biology Standard I Objective 3</b> b. Formulate and test a hypothesis specific to the effect of changing one variable upon another in a small ecosystem <b>Chemistry Standard V Objective 1 a.</b> Design and conduct an investigation of the factors affecting reaction rate and use the findings to generalize the results of other reactions.	<ul> <li>Have students determine the hypothesis of an experiment that requires more than one step.</li> <li>Have students determine alternate methods of testing a hypothesis.</li> <li>Have students argue and defend the presentation of data through scientific reasoning and fact.</li> </ul>

Approximately 20- 30% of the science subtest questions are in this category.			
Evaluation of Models, Inferences, and Experimental Results (EMI) Questions on EMI ask students to judge the validity of scientific information and formulate conclusions and predictions based on the provided information. These questions comprise about 25-35% of the science subtest.	<ul> <li>EMI 402. Identify key assumptions in a model.</li> <li>EMI 404. Identify similarities and differences between models.</li> <li>EMI 501. Determine which simple hypothesis, prediction, or conclusion is, or is not, consistent with two or more data presentations, models, and/or pieces of information in text.</li> <li>EMI 502. Determine whether presented information, or new information, supports or contradicts a simple hypothesis or conclusion, and why.</li> </ul>	<ul> <li>Biology Standard V Objective 2 e. Review a scientific article and identify the research methods used to gather evidence that documents the evolution of a species.</li> <li>Biology Standard III Objective 2 e. Compare the structure and function of organ systems in one organism to the structure and function in another organism (e.g., chicken to sheep digestive system; fern to peach reproductive system).</li> <li>Chemistry Standard VI Objective 1 d. Design and conduct an experiment to determine the factors (e.g., agitation, particle size, temperature) affecting the relative rate of dissolution.</li> </ul>	<ul> <li>Have students communicate the findings of an experiment and compare conclusions with peers.</li> <li>Have students formulate hypotheses, predictions, or conclusions by comparing and contrasting several different sets of data from different experiments.</li> <li>Have students evaluate the merits of a conclusion based on the analysis of several sets of data.</li> <li>Have students compare and contrast the utility and accuracy of different models.</li> </ul>

\* Italicized sections indicate direct alignment of the Utah Science Standard to the ACT

## ACT Writing Test Connections with Utah Core State Standards

#### **Questions & Answers**

#### 1. What determines student success on the ACT writing test?

The ability to communicate effectively is one of the most important skills students must master for college and career readiness. The ACT writing test measures the writing skills taught in high school English classes and entry-level college composition courses. Students must take a clear position on an issue; support that position with focused ideas, meaningful examples, and sound reasoning; and explain the significance of their ideas in the broader context of the issue. Student writing is measured on a four-trait rubric: ideas and analysis, development and support, organization, and language and conventions.

#### 2. How is the ACT writing test constructed?

ACT assesses only argumentative writing. No authentic stimulus text is provided; instead, students are presented with three different perspectives on a contemporary issue. Students are asked to analyze the perspectives and write an essay explaining their own position. Students are given 40 minutes to plan and write their essay. The writing test is not optional for ACT in Utah.

#### 3. Are students asked to bring prior knowledge to the ACT writing test?

Because the ACT does not provide a stimulus text, students must use general background knowledge of the issue and critical thinking skills to develop their position and ideas.

#### 4. When and how should we begin preparing students for the ACT writing test?

At all grade levels, students need many opportunities to write on various topics and for a variety of audiences and purposes. Building students' world knowledge through reading content-rich texts and exploring application, analysis, and synthesis of these ideas through writing will best prepare students to be successful on the ACT writing test.

**Please note**: This document is intended to highlight connections between the Utah Core State Standards and the ACT writing test, but it is not an exhaustive document that details every connection.

While the <u>Utah Core State Standards for English Language Arts</u> are organized by domain and grade level, the <u>ACT College and Career Readiness Standards</u> are organized by reporting category and score range. The ACT writing test is scored on a <u>12-point rubric</u>.

ACT Writing Score Range	ACT Writing Standard Coding
3–4	200
5–6	300
7–8	400
9–10	500
11–12	600
## Grades K–5, Writing

Writing Reporting Categories	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core State Standards: Snapshot of Expected Skills	What could this look like in practices in grades K–5?*
Ideas and Analysis	EXJ 301 Show a basic	K.W.1: Use a combination of drawing and	Have students discuss the goal of
Scores in this domain reflect	understanding of the	writing to compose opinion pieces that	a persuasive essay with a
neductive ideas and engage	task by taking a position on	<b>K W 2:</b> Use a combination of drawing and	partner.
critically with multiple	the issue in the prompt	writing to compose informative/explanatory	Have students identify a local
perspectives on the given		pieces and provide information about the	community or school issue:
issue. Competent writers		topic.	phrase the issue in the form of a
understand the issue they are		1.W.1: Write opinion pieces that introduce	question; and experiment with
invited to address, the		the topic, state an opinion, supply evidence	ways to clearly answer that
purpose for writing, and the		for the opinion, and provide a concluding	question.
audience. They generate		statement.	
ideas that are relevant to the		<b>1.W.2:</b> Write informative/explanatory pieces	Have students generate a list of
Situation.		topic, and provide a concluding statement	nosition: decide which of those
		<b>2.W.1:</b> Write opinion pieces that introduce	reasons are most relevant to the
		the topic, state an opinion, supply evidence	overall argument; explain how
		that supports the opinion, use linking words to	the reasons were chosen and
		connect opinion and evidence, and provide a concluding statement.	why they are relevant.
		2.W.2: Write informative/explanatory pieces	*Additional ideas for
		that introduce a topic, supply facts and	instructional practices can be
		definitions to develop points, and provide a	found in the resource <u>Ideas for</u>
		concluding statement	Progress in College and Career
		<b>3.W.1</b> Write argumentative pieces on topics	<u>Readiness</u> on the ACT website.
		and/or texts, supporting a point of view with	
		connect the claim to the evidence, and	
		provide a concluding statement.	

Development and SupportDEV 401 Provide adequate1.W.1: Write opinion pieces that introduceProvide students with modelScores in this domain reflect the ability to discuss ideasideas: clarify ideas by usingideas: clarify ideas by usingin teams to analyze the tonic			<ul> <li>3.W.2: Write informative/explanatory pieces to examine a topic that conveys ideas and information clearly, link ideas within categories of information using words and phrases, and provide a concluding statement.</li> <li>4.W.1: Write argumentative pieces on topics and/or texts, supporting a point of view with evidence and information, using linking words and phrases to connect the claim to the evidence, and provide a concluding section related to the claim presented.</li> <li>4.W.2: Write information using words and information clearly, link ideas within categories of information using words and phrases, and provide a concluding section related to the claim presented.</li> <li>5.W.1: Write information using words and phrases, and provide a concluding section related to the information using words and phrases, and provide a concluding section related to the information or explanation presented.</li> <li>5.W.1: Write argumentative pieces on topics and/or texts, supporting a point of view with evidence and information, using linking words, phrases, and clauses to connect the claim to the evidence, and provide a concluding section related to the claim presented.</li> <li>5.W.2: Write informative/explanatory pieces to examine a topic that links and conveys ideas and information clearly, using words, phrases, and clauses to show the relationship between ideas, paragraphs, and/or sections, and provide a concluding section related to</li> </ul>	
Development and SupportDEV 401 Provide adequate1.W.1: Write opinion pieces that introduceProvide students with modelScores in this domain reflectdevelopment in support ofthe topic, state an opinion, supply evidenceparagraphs and have them workthe ability to discuss ideasideas: clarify ideas by usingideas: clarify ideas by usingin teams to analyze the topic			the information or explanation presented.	
the ability to discuss ideas ideas: clarify ideas by using	<b>Development and Support</b> Scores in this domain reflect	<b>DEV 401</b> Provide adequate	<b>1.W.1:</b> Write opinion pieces that introduce	Provide students with model
In teams to analyze the topic	the ability to discuss ideas,	ideas; clarify ideas by using	the topic, state an opinion, supply evidence	in teams to analyze the topic

offer rationale, and bolster an	some specific reasons,	for the opinion, and provide a concluding	sentences and identify how the
argument. Competent writers	details, and examples	statement.	idea in each topic sentence is
explain and explore their		<b>1.W.2:</b> Write informative/explanatory pieces	explained by the rest of the
ideas, discuss implications,		that introduce a topic, supply facts about the	sentences in that paragraph.
and illustrate through		topic, and provide a concluding statement.	
examples. They help the		<b>2.W.1:</b> Write opinion pieces that introduce	Provide students with a model
reader understand their		the topic, state an opinion, supply evidence	essay to discuss how the
thinking about the issue.		that supports the opinion, use linking words to	supporting details help to clarify
		connect opinion and evidence, and provide a concluding statement.	the main idea.
		<b>2.W.2:</b> Write informative/explanatory pieces	Have students use prewriting
		that introduce a topic, supply facts and	strategies to explain or illustrate
		definitions to develop points, and provide a	ideas.
		concluding statement.	
		<b>3.W.1:</b> Write argumentative pieces on topics	
		and/or texts, supporting a point of view with	
		evidence, using linking words and phrases to	
		connect the claim to the evidence, and	
		provide a concluding statement.	
		a. Introduce the topic, state a claim, and	
		create an organizational structure that	
		provides evidence.	
		<b>3.W.2:</b> Write informative/explanatory pieces	
		to examine a topic that conveys ideas and	
		information clearly, link ideas within	
		categories of information using words and	
		phrases, and provide a concluding statement.	
		<b>a.</b> Introduce and develop a topic using facts,	
		definitions, details, and group related	
		information and graphics together.	
		<b>4.W.1</b> : Write argumentative pieces on topics	
		and/or texts, supporting a point of view with	
		evidence and information, using linking words	
		and phrases to connect the claim to the	

	-	
	evidence, and provide a concluding section	
	related to the claim presented.	
	a. Introduce a topic, state a claim that is	
	supported by evidence, produce complex	
	sentences, and create an organizational	
	structure in which related ideas are grouped	
	to support the writer's purpose.	
	4.W.2: Write informative/explanatory pieces	
	to examine a topic that conveys ideas and	
	information clearly, link ideas within	
	categories of information using words and	
	phrases, and provide a concluding section	
	related to the information or explanation	
	presented.	
	<b>a.</b> Introduce a topic and group related	
	information in paragraphs and/or sections	
	using organizational structures, produce	
	complex sentences, and text features to	
	support the writer's purpose.	
	<b>b.</b> Develop the topic using relevant facts,	
	definitions, concrete details, quotations, or	
	examples.	
	<b>c.</b> Use precise language and content-specific	
	vocabulary to inform about or explain the	
	topic.	
	<b>5.W.1:</b> Write argumentative pieces on topics	
	and/or texts, supporting a point of view with	
	evidence and information, using linking words,	
	phrases, and clauses to connect the claim to	
	the evidence, and provide a concluding	
	section related to the claim presented.	
	<b>a.</b> Introduce a topic, state a claim supported	
	by evidence, and create an organizational	
	structure in which ideas are logically grouped	
	to support the writer's purpose.	

		<ul> <li>b. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style to develop the argument.</li> <li>5.W.2: Write informative/explanatory pieces to examine a topic that links and conveys ideas and information clearly, using words, phrases, and clauses to show the relationship between ideas, paragraphs, and/or sections, and provide a concluding section related to the information or explanation presented.</li> <li>a. Introduce a topic and group related information in paragraphs and/or sections using organizational structures, produce complex sentences, and text features, including multimedia when useful, to support the writer's purpose.</li> <li>b. Develop the topic using relevant facts, definitions, concrete details, quotations, or examples.</li> </ul>	
		vocabulary to inform about or explain the	
Organization	ORI 401 Provide an	<b>1.W.1:</b> Write opinion pieces that introduce	Have students use clustering,
Scores in this domain reflect	adequate but simple	the topic, state an opinion,	concept mapping, or another
the ability to organize ideas	organizational structure by	supply evidence for the opinion, and provide a	visual organizer to identify
Organizational choices are	ideas	<b>1 W 2:</b> Write informative explanatory nieces	Have students create a list of
integral to effective writing	ORI 402 Lise some	that introduce a topic supply facts about the	transitional words and discuss
Competent writers arrange	appropriate transitional	topic, and provide a concluding statement.	when and where to use them.
their essay in a way that	words and phrases	<b>2.W.1:</b> Write opinion pieces that introduce	
clearly shows the	ORI 403 Present a	the topic, state an opinion, supply evidence	Have students analyze
relationships between ideas,	somewhat developed	that supports the opinion, use linking words to	introductions and conclusions of
and they guide the reader	introduction and	connect opinion and evidence, and provide a	model essays, paying careful
through their discussion.	conclusion	concluding statement.	

a. Write, produce, expand, and rearrange complete simple and compound sentences. 2.W.2: Write informative/explanatory pieces that introduce a topic, supply facts and definitions to develop points, and provide a concluding statement. a. Write, produce, expand, and rearrange complete simple and compound sentences.attention to their structure and function.3.W.1: Write argumentative pieces on topics and/or texts, supporting a point of view with evidence, using linking words and phrases toattention to their structure and function.
<ul> <li>connect the claim to the evidence, and provide a concluding statement.</li> <li>a. Introduce the topic, state a claim, and create an organizational structure that provides evidence.</li> <li>c. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>3.W.2:</b> Write informative/explanatory pieces to examine a topic that conveys ideas and information clearly, link ideas within categories of information using words and phrases, and provide a concluding statement.</li> <li>a. Introduce and develop a topic using facts, definitions, details, and group related information and graphics together.</li> <li>c. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>4.W.1:</b> Write argumentative pieces on topics and/or texts, supporting a point of view with evidence and information, using linking words and phrases to connect the claim to the</li> </ul>

	evidence, and provide a concluding section	
	related to the claim presented.	
	<b>a.</b> Introduce a topic, state a claim that is	
	supported by evidence, produce complex	
	sentences, and create an organizational	
	structure in which related ideas are grouped	
	to support the writer's purpose.	
	<b>b.</b> Use appropriate conventions when writing	
	including text cohesion, sentence structure,	
	and phrasing.	
	4.W.2: Write informative/explanatory pieces	
	to examine a topic that conveys ideas and	
	information clearly, link ideas within	
	categories of information using words and	
	phrases, and provide a concluding section	
	related to the information or explanation	
	presented.	
	<b>a.</b> Introduce a topic and group related	
	information in paragraphs and/or sections	
	using organizational structures, produce	
	complex sentences, and text features to	
	support the writer's purpose.	
	<b>d.</b> Use appropriate conventions when writing	
	including text cohesion, sentence structure.	
	and phrasing.	
	<b>5.W.1:</b> Write argumentative pieces on topics	
	and/or texts, supporting a point of view with	
	evidence and information using linking words	
	nhrases and clauses to connect the claim to	
	the evidence	
	and provide a concluding section related to	
	the claim presented	
	a Introduce a topic state a claim supported	
	a. Incoduce a copic, state a claim supported	
	by evidence, and create an organizational	

			•
		<ul> <li>structure in which ideas are logically grouped to support the writer's purpose.</li> <li>b. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style to develop the argument.</li> <li>c. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li>5.W.2: Write informative/explanatory pieces to examine a topic that links and conveys ideas and information clearly, using words, phrases, and clauses to show the relationship between ideas, paragraphs, and/or sections, and provide a concluding section related to the information or explanation presented.</li> <li>a. Introduce a topic and group related information in paragraphs and/or sections using organizational structures, produce complex sentences, and text features, including multimedia when useful, to support the writer's purpose.</li> <li>d. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing</li> </ul>	
Language and Conventions Scores in this domain reflect the ability to use written	<b>USL 401</b> Show adequate use of language to communicate by	<b>K.W.1, K.W.2, K.W.3</b> : <b>a.</b> Write, produce, and expand a complete sentence.	Have students routinely write informal entries in a journal.
language to convey arguments with clarity. Competent writers make use of the conventions of grammar, syntax, word usage.	-correctly employing many of the conventions of standard English grammar, usage, and mechanics -choosing words that are	<ul> <li>b. Use appropriate capitalization and end punctuation.</li> <li>1.W.1, 1.W.2, 1.W.3:</li> <li>a. Write, produce, and expand complete simple sentences.</li> </ul>	Have students read model essays, noting their use of language. Have students practice peer
and mechanics. They are also aware of their audience and	appropriate	<ul> <li>b: Use appropriate conventions when writing.</li> <li>2.W.1, 2.W.2, 2.W.3:</li> </ul>	editing to identify errors in

adjust the style and tone of their writing to communicate effectively.	<ul> <li>a. Write, produce, expand, and rearrange complete simple and compound sentences.</li> <li>b. Use appropriate conventions when writing.</li> <li><b>3.W.1, 3.W.2:</b></li> <li>b. Write, produce, and expand simple, compound, and complex sentences.</li> <li>c. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>3.W.3:</b></li> <li>b. Write, produce, and expand simple, compound, and complex sentences.</li> <li>d. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>4.W.1:</b></li> <li>b. Use appropriate conventions when writing including text cohesion, sentence structure, and phrasing.</li> <li><b>4.W.2:</b></li> <li>c. Use precise language and content-specific</li> </ul>	conventions of standard English grammar, usage, and mechanics.
	compound, and complex sentences.	
	including text cohesion, sentence structure,	
	and phrasing.	
	<b>b.</b> Use appropriate conventions when writing	
	including text cohesion, sentence structure,	
	and phrasing.	
	4.W.2:	
	<b>c.</b> Use precise language and content-specific	
	vocabulary to inform about or explain the	
	d Use appropriate conventions when writing	
	including text cohesion, sentence structure.	
	and phrasing.	
	4.W.3:	
	d. Use concrete words, phrases, complex	
	sentences, and sensory details to convey	
	experiences and events precisely.	
	e. Use appropriate conventions when writing	
	including text cohesion, sentence structure,	
	and phrasing.	
	5.VV.1:	

	<b>b.</b> Expand, combine, and reduce sentences for	
	meaning, reader/listener interest, and style to	
	develop the argument.	
	c. Use appropriate conventions when writing	
	including text cohesion, sentence structure,	
	and phrasing.	
	5.W.2:	
	c. Use precise language and content-specific	
	vocabulary to inform about or explain the	
	topic.	
	<b>d.</b> Use appropriate conventions when writing	
	including text cohesion, sentence structure,	
	and phrasing	
	5.W.3:	
	<b>d.</b> Use concrete words, phrases, complex	
	sentences, and sensory details to convey	
	experiences and events precisely.	
	e. Use appropriate conventions when writing	
	including text cohesion, sentence structure.	
	and phrasing	

Grades 6–8, Writing

Writing Reporting	ACT Readiness	Utah Core State Standards:	What could this look like in
Categories	Standards:	Snapshot of Expected Skills	practices in grades 6-8?*

	Snapshot of Expected Skills		
Ideas and Analysis Scores in this domain reflect the ability to generate productive ideas and engage critically with multiple perspectives on the given issue. Competent writers understand the issue they are invited to address, the purpose for writing, and the audience. They generate ideas that are relevant to the situation.	<b>EXJ 401</b> Show clear understanding of the persuasive purpose of the task by taking a position on the issue in the prompt and offering some context for discussion	<ul> <li>6.W.1: Write arguments to support claims with clear reasons and relevant evidence, and provide a concluding section related to the argument presented.</li> <li>6.W.2: Write informative/explanatory texts to examine a topic that conveys ideas and information clearly and provide a concluding section that supports the information or explanation presented.</li> <li>7–8.W.1: Write arguments to support claims with logical reasoning, relevant evidence from accurate and credible sources, and provide a conclusion that follows from and supports the argument presented.</li> <li>7–8.W.2: Write informative/explanatory texts to examine a topic and convey ideas and information that follows from and supports the argument presented.</li> <li>7–8.W.2: Write informative/explanatory texts to examine a topic and convey ideas and information through the selection, organization, and analysis of relevant content, and provide a conclusion that supports the information or</li> </ul>	Have students choose an issue and discuss possible contexts in which the issue might exist. Have students take a position on the issue and generate a list of supporting reasons and identify which are best; generate a list of possible objections others might have to that position; and list possible outcomes if this position were adopted or enacted. *Additional ideas for instructional practices can be found in the resource Ideas for Progress in College and Career Readiness on the ACT website.
<b>Development and Support</b> Scores in this domain reflect the ability to discuss ideas, offer rationale, and bolster an argument. Competent writers explain and explore their ideas, discuss implications, and illustrate through examples. They help the reader understand their thinking about the issue.	<b>DEV 501</b> Provide thorough development in support of ideas; extend ideas by using specific, logical reasons and illustrative examples	<ul> <li>6.W.1: Write arguments to support claims with clear reasons and relevant evidence, and provide a concluding section related to the argument presented.</li> <li>a. Introduce claims supported by evidence from credible sources, and create an organizational structure in which claims are logically grouped to support the writer's purpose.</li> <li>6.W.2: Write informative/explanatory texts to examine a topic that conveys ideas and information clearly and provide a concluding</li> </ul>	Have students identify the thesis statements in a variety of model essays. Have students generate an outline or visual representation of all major ideas in a model essay and the examples and details that support them. In a writers' workshop, have students submit and critique

	eastion that are not the information of	
	section that supports the information or	writing to identify ideas that
	explanation presented.	need further development to be
	a. Introduce a topic; organize ideas, concepts,	persuasive or clear.
	and information, using structures such as	
	definition, classification, comparison/contrast,	
	and cause/effect; include formatting, graphics,	
	and multimedia when useful.	
	<b>b.</b> Develop the topic with relevant facts,	
	definitions, concrete details, quotations, and	
	examples.	
	7–8.W.1: Write arguments to support claims	
	with logical reasoning, relevant evidence from	
	accurate and credible sources, and provide a	
	conclusion that follows from and supports the	
	argument presented.	
	<b>a.</b> Introduce claims, distinguish the claims from	
	alternate or opposing claims, and organize the	
	reasons and evidence logically.	
	<b>7–8.W.2:</b> Write informative/explanatory texts	
	to examine a topic and convey ideas and	
	information through the selection, organization.	
	and analysis of relevant content, and provide a	
	conclusion that supports the information or	
	explanation presented.	
	$\mathbf{a}_{i}$ Introduce a tonic previewing what is to	
	follow: organize ideas and information into	
	broader categories: utilize formatting graphics	
	and multimedia related to the tonic	
	<b>b</b> Develop the tonic with relevant facts	
	definitions concrete details quetations and	
	avamples	
	examples.	

Organization	<b>ORI 501</b> Provide a coherent	<b>6.W.1:</b> Write arguments to support claims with	Have students compare the
Scores in this domain reflect	organizational structure	clear reasons and relevant evidence, and	outline of an original essay to
the ability to organize ideas	with some logical	provide a concluding section related to the	the outline of a model essay and
with clarity and purpose.	sequencing of ideas	argument presented.	discuss ways to reorganize the
Organizational choices are	ORI 502 Use accurate and	a. Introduce claims supported by evidence from	original writing to make it more
integral to effective writing.	clear transitional words and	credible sources, and create an organizational	effective.
Competent writers arrange	phrases to convey logical	structure in which claims are logically grouped	
their essay in a way that	relationships between ideas	to support the writer's purpose.	In an editing workshop, have
clearly shows the	<b>ORI 503</b> Present a generally	<b>b.</b> Use words, phrases, and clauses to clarify the	students review others' writing
relationships between ideas,	well-developed	relationships among claims and evidence.	to see if smooth transitions are
and they guide the reader	introduction and conclusion	6.W.2: Write informative/explanatory texts to	provided from one paragraph to
through their discussion.		examine a topic that conveys ideas and	the next.
		information clearly and provide a concluding	
		section that supports the information or	Have students practice writing
		explanation presented.	an introduction that briefly but
		a. Introduce a topic; organize ideas, concepts,	effectively introduces a context
		and information, using structures such as	for the discussion as well as a
		definition, classification, comparison/contrast,	thesis.
		and cause/effect; include formatting, graphics,	
		and multimedia when useful.	Encourage students to consider
		c. Use appropriate transitions to clarify the	ways to conclude an essay that
		relationships among ideas and concepts.	emphasizes the thesis without
		<b>7–8.W.1:</b> Write arguments to support claims	restating the discussion or
		with logical reasoning, relevant evidence from	otherwise being repetitive.
		accurate and credible sources, and	
		provide a conclusion that follows from and	
		supports the argument presented.	
		<b>a.</b> Introduce claims, distinguish the claims from	
		alternate or opposing claims, and organize the	
		reasons and evidence logically.	
		<b>b.</b> Use words, phrases, and clauses to create	
		cohesion and clarify the relationships among	
		claims, counterclaims, reasons, and evidence.	
		<b>7–8.W.2:</b> Write informative/explanatory texts	
		to examine a topic and convey ideas and	

		<ul> <li>information through the selection, organization, and analysis of relevant content, and provide a conclusion that supports the information or explanation presented.</li> <li>a. Introduce a topic, previewing what is to follow; organize ideas and information into broader categories; utilize formatting, graphics, and multimedia related to the topic.</li> <li>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas.</li> </ul>	
Language and Conventions Scores in this domain reflect the ability to use written language to convey arguments with clarity. Competent writers make use of the conventions of grammar, syntax, word usage, and mechanics. They are also aware of their audience and adjust the style and tone of their writing to communicate effectively.	USL 501 Show competent use of language to communicate ideas by -correctly employing most conventions of standard English grammar, usage, and mechanics -generally choosing words that are precise and varied -using several kinds of sentence structures to vary pace and to support meaning	<ul> <li>6.W.1:</li> <li>b. Use words, phrases, and clauses to clarify the relationships among claims and evidence.</li> <li>c. Use appropriate conventions and style for the audience, purpose, and task.</li> <li>6.W.2:</li> <li>d. Use precise language and content-specific vocabulary to inform about or explain the topic.</li> <li>e. Use appropriate conventions and style for the audience, purpose, and task.</li> <li>6.W.3:</li> <li>c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.</li> <li>d. Use precise words, phrases and complex sentences, relevant descriptive details, and sensory language to convey experiences and events.</li> <li>e. Use appropriate conventions and style for the audience, purpose, and task.</li> </ul>	<ul> <li>Have students read original writing aloud to hear and identify language errors.</li> <li>In an editing workshop, have students revise writing to reduce unnecessary repetition of words or phrases and to replace vague language with more precise words.</li> <li>In a writer's workshop, have students experiment with more sophisticated sentence structure.</li> </ul>

<ul> <li>c. Use appropriate conventions and style for the audience, purpose, and task.</li> <li>7–8.W.2:</li> <li>d. Use precise language and content-specific vocabulary to inform about or explain the topic.</li> <li>e. Use appropriate conventions and style for the audience, purpose, and task.</li> </ul>	
7–8.W.3:	
e. Use appropriate conventions and style for the	
audience, purpose, and task.	

## Grades 9–12, Writing

Writing Reporting Categories	ACT Readiness Standards: Snapshot of Expected Skills	Utah Core State Standards: Snapshot of Expected Skills	What could this look like in practices in grades 9-12?*
Ideas and Analysis Scores in this domain reflect the ability to generate productive ideas and engage critically with multiple perspectives on the given issue. Competent writers understand the issue they are invited to address, the purpose for writing, and the audience. They generate ideas that are relevant to the situation.	<b>EXJ BUT</b> Snow advanced understanding of the persuasive purpose of the task by taking a position on the specific issue in the prompt and offering a critical context for discussion	<ul> <li>9-10.W.1: Write arguments to support claims in an analysis of complex topics or texts using logical reasoning and relevant evidence, and provide a conclusion that follows from and supports the argument presented.</li> <li>9-10.W.2: Write informative/explanatory texts to examine and convey related ideas and information clearly and accurately through the effective selection, organization, and analysis of content, and provide a conclusion that follows from and supports the information or explanation presented.</li> <li>11-12.W.1: Write arguments to support claims in an analysis of complex topics or texts, using logical reasoning and relevant, sufficient evidence, and provide a conclusion that follows from and supports the argument presented.</li> <li>11-12.W.2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content, and provide a conclusion that follows from and supports the argument presented.</li> <li>11-12.W.2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content, and provide a conclusion that follows from and supports the information or explanation presented.</li> </ul>	Select an argument from a published text and have students identify assumptions on which the arguments rest and determine if the assumptions are reasonable and open to challenge. *Additional ideas for instructional practices can be found in the resource <u>Ideas for</u> <u>Progress in College and Career</u> <u>Readiness</u> on the ACT website.

Development and Support	EV 601 Provide ample	<b>9–10.W.1:</b> Write arguments to support claims in	During a writers' workshop,
Scores in this domain reflect	development in support	an analysis of complex topics or texts using	have students practice
the ability to discuss ideas,	of ideas; substantiate	logical reasoning and relevant evidence, and	elaborating on ideas fully by
offer rationale, and bolster an	ideas with precise use of	provide a conclusion that follows from and	describing their logical
argument. Competent writers	specific, logical reasons	supports the argument presented.	connection to the essay's main
explain and explore their	and illustrative examples	a. Introduce claims, distinguish the claims from	idea and checking to see if the
ideas, discuss implications,		alternate or opposing claims, and create an	essay's treatment of each idea
and illustrate through		organization that establishes clear relationships	is proportional to the idea's
examples. They help the		among claims, counterclaims, reasons, and	importance.
reader understand their		evidence	
thinking about the issue.		9–10.W.2: Write informative/explanatory texts	
		to examine and convey related ideas and	
		information clearly and accurately through the	
		effective selection, organization, and analysis of	
		content, and provide a conclusion that follows	
		from and supports the information or	
		explanation presented.	
		a. Introduce a topic; organize related ideas and	
		information to make important connections and	
		distinctions; utilize formatting, graphics, and	
		multimedia to show relationships.	
		<b>b.</b> Develop the topic with relevant facts,	
		extended definitions, concrete details,	
		quotations, and examples.	
		<b>11–12.W.1:</b> Write arguments to support claims	
		in an analysis of complex topics or texts, using	
		logical reasoning and relevant, sufficient	
		evidence, and provide a conclusion that follows	
		from and supports the argument presented.	
		a. Introduce claims, establish the slaims from alternation	
		the claims, distinguish the claims from alternate	
		that logically sequences claims, and create an organization	
		that logically sequences claims, counterclaims,	
		reasons, and evidence.	

		<ul> <li>b. Develop claims and counterclaims by interpreting the most relevant evidence from accurate, credible sources for each; elaborate on the strengths and limitations that anticipate the audience.</li> <li>11–12.W.2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content, and provide a conclusion that follows from and supports the information or explanation presented.</li> <li>a. Introduce a topic; organize complex ideas and information so that each new element builds on that which precedes it to create a unified whole; utilize formatting, graphics, and multimedia to illustrate complexities.</li> <li>b. Develop the topic thoroughly with relevant and sufficient facts, extended definitions, concrete details, guotations, examples, and</li> </ul>	
		figurative language.	
Organization	ORI 601 Provide a unified,	<b>9–10.W.1</b> : Write arguments to support claims in	During a writers' workshop,
Scores in this domain reflect	conerent organizational	an analysis of complex topics or texts using	have students practice
the ability to organize ideas	structure that presents a	logical reasoning and relevant evidence, and	composing thesis statements
With clarity and purpose.	ideas	provide a conclusion that follows from and	that clearly state a position on
integral to offective writing	OPI 602 Lico prociso	a Introduce claims distinguish the claims from	for taking that position
Competent writers arrange	transitional words	a. Introduce claims, distinguish the claims from	
their essay in a way that	nhrases and sentences to	organization that establishes clear relationships	During a writers' workshop
clearly shows the relationships	convey logical	among claims counterclaims reasons and	encourage students to
between ideas, and they guide	relationships between	evidence.	experiment with how to
the reader through their	ideas	<b>b.</b> Develop claims and counterclaims by	conclude an essay while
discussion.	ORI 603 Present a well-	supplying evidence from accurate, credible	continuing to challenge the
	developed introduction		

that effectively frames	sources for each: point out the strengths and	audience with critical questions
the prompt's issue and	limitations that consider the audience.	or implications.
writer's argument:	<b>c.</b> Use words, phrases, and clauses to link the	
present a well-developed	major sections of the text create cohesion and	Have students consider how
conclusion that extends	clarify the relationships between claims and	transitional phrases and
the essav's ideas	reasons, between reasons and evidence, and	sentences can help convey
	between claims and counterclaims.	logical connections between
	9–10.W.2: Write informative/explanatory texts	ideas and between paragraphs.
	to examine and convey related ideas and	
	information clearly and accurately through the	
	effective selection, organization, and analysis	
	of content, and provide a conclusion that follows	
	from and supports the information or	
	explanation presented.	
	<b>a.</b> Introduce a topic: organize related ideas and	
	information to make important connections and	
	distinctions; utilize formatting, graphics, and	
	multimedia to show relationships.	
	<b>b.</b> Develop the topic with relevant facts,	
	extended definitions, concrete details,	
	quotations, and examples.	
	c. Use appropriate and varied transitions to link	
	the major sections of the text, create cohesion,	
	and clarify the relationships among related ideas.	
	d. Use precise language and content-specific	
	vocabulary to clarify the relationships of the	
	ideas.	
	11–12.W.1: Write arguments to support claims	
	in an analysis of complex topics or texts, using	
	logical reasoning and relevant, sufficient	
	evidence, and provide a conclusion that follows	
	from and supports the argument presented.	
	a. Introduce claims, establish the significance of	
	the claims, distinguish the claims from alternate	
	or opposing claims, and create an organization	

that logically sequences claims, counterclaims,	
reasons, and evidence.	
b. Develop claims and counterclaims by	
interpreting the most relevant evidence from	
accurate, credible sources for each; elaborate on	
the strengths and limitations that anticipate the	
audience.	
<b>c.</b> Use words, phrases, and clauses as well as	
varied syntax to link the major sections of the	
text, create cohesion, and clarify the	
relationships between claims and reasons,	
between reasons and evidence, and between	
claims and counterclaims.	
11–12.W.2: Write informative/explanatory texts	
to examine and convey complex ideas and	
information clearly and accurately through the	
effective selection, organization, and analysis	
of content, and provide a conclusion that follows	
from and supports the information or	
explanation presented.	
a. Introduce a topic: organize complex ideas and	
information so that each new element huilds on	
that which precedes it to create a unified whole:	
utilize formatting graphics and multimedia to	
illustrate complexities	
h Develop the topic thoroughly with relevant	
and sufficient facts, extended definitions	
concrete details quotations, examples and	
figurative language	
ngui alive idiiguage.	
c. Use appropriate and varied transitions and	
syntax to link the major sections of the text,	
create conesion, and clarify the relationships	
among complex ideas.	
d. Use precise language and content-specific	
vocabulary to clarify the complexity of the ideas.	

Language and Conventions	USL 601 Show effective	9–10.W.1:	Have students read a variety of
Scores in this domain reflect	use of language to	d. Use appropriate conventions and style for the	texts to improve vocabulary
the ability to use written	communicate ideas	audience, purpose, and task.	and gain exposure to precise
language to convey arguments	clearly by	9–10.W.2:	and effective language use.
with clarity. Competent	-correctly employing most	<b>d.</b> Use precise language and content-specific	
writers make use of the	conventions of standard	vocabulary to clarify the relationships of the	Present students with model
conventions of grammar,	English grammar, usage,	ideas.	essays and have them discuss
syntax, word usage, and	and mechanics	e. Use appropriate conventions and style for the	the effects of rhetorical
mechanics. They are also	-consistently choosing	audience, purpose, and task.	devices.
aware of their audience and	words that are precise	9–10.W.3:	
adjust the style and tone of	and varied	e. Use appropriate conventions and style for the	In an editing workshop, have
their writing to communicate	-using a variety of kinds of	audience, purpose, and task.	students edit sentences for
effectively.	sentence structures to	11–12.W.1:	meaningless words, wordiness,
	vary pace and to support	<b>d.</b> Use appropriate conventions and style for the	and redundancy.
	meaning	audience, purpose, and task.	
		11–12.W.2:	
		<b>d.</b> Use precise language and content-specific	
		vocabulary to clarify the complexity of the ideas.	
		e. Use appropriate conventions and style for the	
		audience, purpose, and task.	
		11–12.W.3:	
		e. Use appropriate conventions and style for the	
		audience, purpose, and task.	