

COHORT 2023 GRADUATION REQUIREMENTS

Menu of Options to Demonstrate College and/or Career Readiness

Revised 8/19/2020

In what subject areas does a student need to show demonstration of competency?

In addition to meeting course requirements, New Mexico public high school students who entered grade 9 in school year 2019-2020 must be able to demonstrate postsecondary and/or workforce readiness in five content areas: Math, Reading, Writing, Science, and Social Studies.

What policy change now allows for multiple ways for students to demonstrate competency?

Until 2019, New Mexico required students to use the Every Student Succeeds Act (ESSA) required proficiency assessment as a **primary** demonstration of competency and to request a waiver from the PED to use an **alternative** demonstration of competency. Students may now choose from a **menu of options** to demonstrate competency without a waiver. [PED is no longer using primary and alternative structures.](#)

Local school boards **have** the flexibility to make available all or some of the menu options **or can develop Local Demonstration of Competency (LDC) Requirements.**

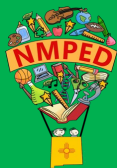
ESSA-REQUIRED ASSESSMENTS	OTHER DEMONSTRATION OF COMPETENCY	
<p>Math: Transition Algebra I*, Geometry, or Integrated Math II (725) SAT School Day Mathematics (TBD)¹</p> <p>Reading: SAT School Day Reading and Writing TBD Spanish Reading SBA (1137)</p> <p>Writing: SAT School Day Reading and Writing (TBD) SAT School Day Essay (TBD)</p> <p>Science: NM Assessment of Science Readiness (NM-ASR) (TBD)</p> <p><small>* Transition Algebra I can only serve as a demonstration of competency if a student has passed the Algebra II course</small></p>		
	<p style="background-color: #002060; color: white; padding: 5px;">LOCAL DEMONSTRATION OF</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>A variety of local demonstrations including rigorous portfolio projects and competency-based options may be used as LDCs. LDCs other than the portfolio and competency-based options must be approved by PED.</p> </div>	<p style="background-color: #002060; color: white; padding: 5px;">INNOVATIVE ASSESSMENT OPTION</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>In partnership with a Community of Practice, NMPED is developing a new statewide graduation option that culminates with student exhibitions to demonstrate learning. Guidelines will be provided in August 2021.</p> </div>
OTHER NATIONAL ASSESSMENTS		
<p>Math: Next-Gen ACCUPLACER Quantitative Reasoning (252) Advanced Algebra (252) ACT Mathematics (19), Pre-ACT Mathematics (19) ACT ASPIRE Mathematics (431) ACT WorkKeys Applied Mathematics (3) ACT WorkKeys Graphic Literacy (3) AP Calculus AB or BC or Statistics (2) ASVAB AFQT Composite (31) IB Mathematics (4) PSAT 10 Mathematics TBD SAT Subject Mathematics Level 1 (580) or Level 2 (640)</p> <p>Reading: Next-Gen ACCUPLACER Reading (241) ACT Reading (18), Pre-ACT Reading (18) ACT ASPIRE Reading (424) ACT WorkKeys Workplace Documents (3) AP English Language & Composition or English Literature & Composition (2) ASVAB AFQT Composite (31) IB Language & Literature (4) PSAT 10 Evidence-based Reading & Writing (430) SAT Subject Literature (570) SAT Evidence-based Reading & Writing (430)</p>	<p>Writing: Next-Gen ACCUPLACER Writing (236) ACT English (18), Pre-ACT English (15) ACT ASPIRE English (428) or Writing (428) ACT WorkKeys Business Writing (3) AP English Language & Composition or English Literature & Composition (2) IB Language & Literature (4) PSAT 10 Evidence-based Reading & Writing (430) SAT Evidence-based Reading & Writing (430)</p> <p>Science: ACT Science (20), Pre-ACT Science (20) ACT Aspire Science (431) ACT WorkKeys Applied Technology (3) AP Biology, Chemistry, Computer Science, Environmental Science, or Physics (2) ASVAB AFQT Composite (31) IB Experimental Sciences (4) SAT Subject Chemistry (640), Ecological Biology (590), Molecular Biology (620) or Physics (630)</p> <p>Social Studies: AP Art History, European History, Government & Politics (Comparative), Government & Politics (US), Human Geography, Macroeconomics, Microeconomics, Psychology, US History, or World History (2) IB Individuals and Society (4)</p>	
<p>Abbreviations: ACT: American College Testing</p>	<p>AP: Advanced Placement ASVAB: Armed Services Vocational Aptitude Battery</p>	<p>AFQT: Armed Forces Qualification Test IB: International Baccalaureate</p>

¹ SAT and PSAT 10 Results are TBD as standards setting will take place following the initial administration in spring 2021

² An EOC score earned prior to, and after, the COVID-19 release can be used as an LDC.

Students following the **modified option**, whose IEPs establish individualized passing scores, should default to their individualized score when determining demonstration of competency. Students following the ability option, PED encourages the use of local demonstration of competency as well as DLM as the primary assessment.

For additional information, visit the Graduation Requirements page at:
<https://webnew.ped.state.nm.us/bureaus/college-career-readiness/graduation/>



COHORT 2024 GRADUATION REQUIREMENTS

Menu of Options to Demonstrate College and/or Career Readiness

Revised 8/26/2021

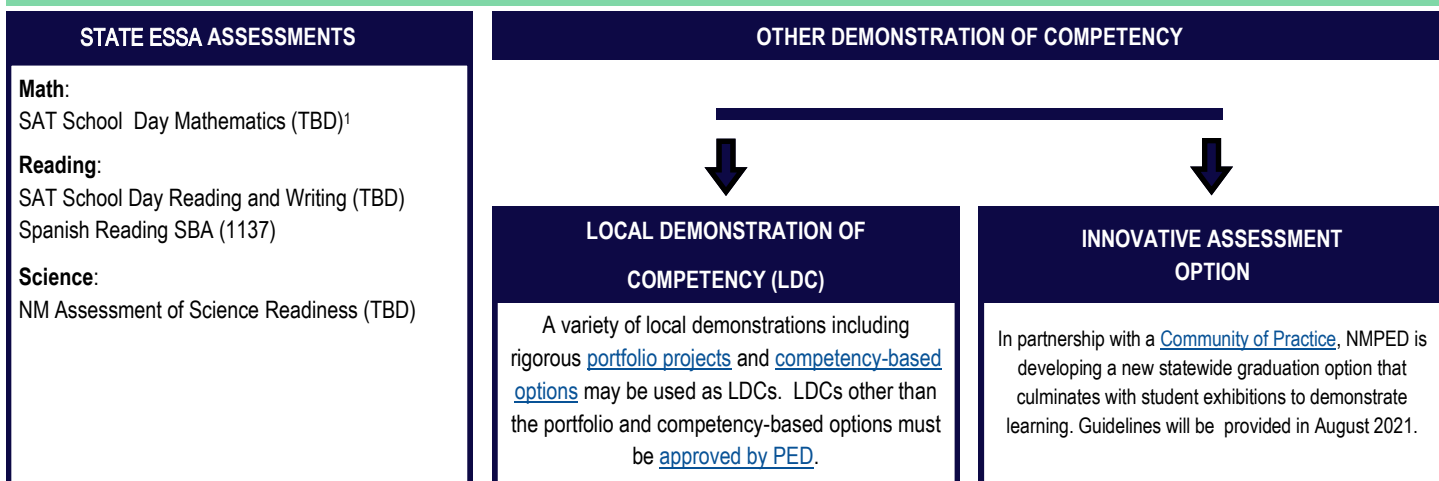
In what subject areas does a student need to show demonstration of competency?

In addition to meeting course requirements, New Mexico public high school students who entered grade 9 in school year 2020-2021 must be able to demonstrate postsecondary and/or workforce readiness in five content areas: Math, Reading, Writing, Science, and Social Studies.

What policy change now allows for multiple ways for students to demonstrate competency?

Students may choose from the **menu of options** to demonstrate competency. **PED no longer uses primary and alternative structures.** All assessments shown below are ways that students can demonstrate competency.

Local school boards **have** the flexibility to make available all or some of the menu options **or can develop Local Demonstration of Competency (LDC) Requirements.**



OTHER NATIONAL ASSESSMENTS

<p>Math: Next-Gen ACCUPLACER Quantitative Reasoning (252) Advanced Algebra (252) ACT Mathematics (19), Pre-ACT Mathematics (19) ACT ASPIRE Mathematics (431) ACT WorkKeys Applied Mathematics (3) ACT WorkKeys Graphic Literacy (3) AP Calculus AB or BC or Statistics (2) ASVAB AFQT Composite (31) IB Mathematics (4) PSAT 10 Mathematics TBD SAT Subject Mathematics Level 1 (580) or Level 2 (640)</p> <p>Reading: Next-Gen ACCUPLACER Reading (241) ACT Reading (18), Pre-ACT Reading (18) ACT ASPIRE Reading (424) ACT WorkKeys Workplace Documents (3) AP English Language & Composition or English Literature & Composition (2) ASVAB AFQT Composite (31) IB Language & Literature (4) PSAT 10 Evidence-based Reading & Writing (430) SAT Subject Literature (570) SAT Evidence-based Reading & Writing (430)</p>	<p>Writing: Next-Gen ACCUPLACER Writing (236) ACT English (18), Pre-ACT English (15) ACT ASPIRE English (428) or Writing (428) ACT WorkKeys Business Writing (3) AP English Language & Composition or English Literature & Composition (2) IB Language & Literature (4) PSAT 10 Evidence-based Reading & Writing (430) SAT Evidence-based Reading & Writing (430)</p> <p>Science: ACT Science (20), Pre-ACT Science (20) ACT Aspire Science (431) ACT WorkKeys Applied Technology (3) AP Biology, Chemistry, Computer Science, Environmental Science, or Physics (2) ASVAB AFQT Composite (31) IB Experimental Sciences (4) SAT Subject Chemistry (640), Ecological Biology (590), Molecular Biology (620) or Physics (630)</p> <p>Social Studies: AP Art History, European History, Government & Politics (Comparative), Government & Politics (US), Human Geography, Macroeconomics, Microeconomics, Psychology, US History, or World History (2) IB Individuals and Society (4)</p>
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Abbreviations:	AP: Advanced Placement	AFQT: Armed Forces Qualification Test
ACT: American College Testing	ASVAB: Armed Services Vocational Aptitude Battery	IB: International Baccalaureate

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For additional information, visit the Graduation Requirements page at:
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Standards-Based Portfolios

Overview

With the support of stakeholders and field experts, PED has developed the requirements and grading protocols for standards-based portfolios to be used uniformly across the state. Portfolio outlines for writing, science, and social studies follow in pages 25 – 51 and include the following key components:

- Requirements
- Sample portfolios
- Checklists
- Score summary
- Rubrics

It is the responsibility of schools, districts, and local review team participants to ensure that all requirements for standards-based portfolios **and** any additional requirements adopted by the local school district or state-chartered charter school are met.

Schools and Districts

Each district or state-charter school choosing to allow standards-based portfolios as a demonstration of competency will have **primary ownership over key procedural and implementation decisions**. These decisions include, but are not limited to, the following:

- How to provide support for students when determining their options for demonstrating competency and what is best for them
- Whether to provide teacher or counselor advisement and/or create an elective to support students with compiling and finalizing portfolios
- Whether to require more than what is required by the portfolio outlines and rubrics (schools and districts may add to, but not take away from the minimum requirements established in this manual)
- How to recruit and select local review team members
- Whether to compensate local review team members
- All scheduling decisions, including the selection of a final submittal date that is at least 30 days prior to the graduation date
- How to store and collect student artifacts over time, so long as the requirement to store student portfolios and scoring documents for five years is met

Local Review Teams

Review team members shall independently grade the portfolio using the PED checklists and rubrics. The score given by each reviewer should be added to score summary and averaged to calculate the student's final score. **No partial points may be given.**

Standards-Based Writing Portfolio

Portfolio Requirements

A portfolio in writing must include a minimum of **three** artifacts and a written reflection for each artifact. Any work completed in English language arts from grades 10–12 may be included in the portfolio.

Permitted Artifacts	
<ul style="list-style-type: none"> • Argumentative essay • Blogs or Wiki page • Cause/effect analysis • Compare/contrast analysis • Editorial • Fictional writing (including short stories, scripts, storyboards, novel excerpts, etc.) • Lab report 	<ul style="list-style-type: none"> • Literary analysis essay • Memoir • News article • Position paper • Procedural writing • Pro-con analysis • Proposal • Research paper

The portfolio must meet the following requirements:

Requirement One: The **three artifacts** represent at least two of the three writing genres addressed in the Grade 11–12 New Mexico Common Core Writing Standards.

+

Requirement Two: The **three artifacts** align with the Grade 11–12 New Mexico Common Core Writing Standards for the applicable genre.

+

Requirement Three: Each artifact includes a **written reflection** of 250 to 500 words in length.

Requirement One: The three artifacts represent at least two of the three writing genres addressed in the Grade 11–12 New Mexico Common Core Writing Standards.		
Artifact One	Artifact Two	Artifact Three
Independently completed sample of narrative writing	Independently completed sample of informational/explanatory writing	Independently completed sample of argumentative writing

Requirement Two: The three artifacts align with the Grade 11–12 New Mexico Common Core Writing Standards for the applicable genre.

Genre	New Mexico Common Core Writing Standard
All genres	<ul style="list-style-type: none"> • Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. • Develop and strengthen writing—as needed—by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
Narrative	<ul style="list-style-type: none"> • Write a narrative to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
Informational/ Explanatory	<ul style="list-style-type: none"> • Write an informative/explanatory text, including the narration of historical events, scientific procedures/experiments, or technical processes. • Conduct a research project to answer a question (including a self-generated question) or solve a problem, narrow or broaden the inquiry when appropriate, and synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. • Gather relevant information from multiple, authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas; avoid plagiarism and overreliance on any one source; and follow a standard format for citation.
Argumentative	<ul style="list-style-type: none"> • Write an argument to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. • Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source; and follow a standard format for citation.

Requirement Three: Each artifact includes a written reflection of 250 to 500 words in length. Students must consider the following questions.

Reflection Questions

Part One: All three reflections must answer questions 1–4.

1. What is the artifact?
2. What was the assignment?
3. How does the artifact align to the writing standard(s)? When possible, annotate the artifact.
4. What changes in your thought process occurred as a result of working on this artifact? (i.e., Did your opinion or perspectives change?)

Part Two: Each reflection must also address at least **two** of the following questions.

- What academic strengths does the artifact highlight?
- What areas for improvement does the artifact highlight?
- How does the artifact demonstrate your ability to think critically?
- How could your work on the artifact be applied to the real world? / What makes the artifact relevant to the real world?

Sample Portfolios

The sample artifacts below are intended to guide students, teachers, and counselors when brainstorming the types of work students might choose to submit as artifacts. The list of sample artifacts below is not exclusive, nor is it nearly extensive enough to represent all possibilities.

Portfolio Sample: Two Writing Genres

- **Argumentative Writing:** Editorial arguing for the replacement of fossil fuels with solar and wind power as energy sources
- **Informational/Explanatory Writing:** Compare/contrast essay detailing and explaining the differences between North and South Korea
- **Informational/Explanatory Writing:** Blog post describing how to set up your own blog, including detailed descriptions of copyright considerations, coding, marketing, and available interfaces

Portfolio Sample: Three Writing Genres

- **Argumentative Writing:** Literary analysis essay on the poem, "Out, Out—" by Robert Frost
- **Informational/Explanatory Writing:** Research paper (with citations) on a topic of student interest
- **Narrative Writing:** Fictional short story

Combination Portfolios

Writing artifacts may simultaneously be used as an artifact in a social studies or science portfolio, so long as two separate reflections are completed. Below are samples of combination portfolios.

Portfolio Sample: Writing + Science

- **Informational/Explanatory Writing:** Research paper (with citations) analyzing three different species, explaining their evolutionary progress, and detailing potential threats to their continued survival.
- **Argumentative Writing:** Argumentative essay proposing a possible solution(s) to climate change, supported by scientific reasoning for the success of the proposal
- **Argumentative Writing:** Literary analysis essay on the poem, "Out, Out—" by Robert Frost

Portfolio Sample: Writing + Social Studies

- **Argumentative Writing:** Argumentative essay utilizing research that supports/opposes the implementation of protectionist tariffs on the US economy
- **Informational/Explanatory Writing:** Compare/contrast essay on the effectiveness of checks and balances between local, state, tribal, and/or national governments, or between two administrations, Congress/legislatures, or courts
- **Argumentative Writing:** Literary analysis essay on the poem, "Out, Out—" by Robert Frost

Writing Portfolio Checklist

Student Name: _____

Cumulative Requirements

- Portfolio contains three independently created student artifacts
- Combined, the three artifacts represent at least **two** different writing genres
- Each artifact includes a written reflection of 250 to 500 words in length

Artifact One

Title: _____

Writing genre: Narrative Informational/Explanatory Argumentative

Artifact type:

- | | |
|--|--|
| <input type="checkbox"/> Argumentative essay | <input type="checkbox"/> Literary analysis essay |
| <input type="checkbox"/> Blogs or Wiki page | <input type="checkbox"/> Memoir |
| <input type="checkbox"/> Cause/effect analysis | <input type="checkbox"/> News article |
| <input type="checkbox"/> Compare/contrast analysis | <input type="checkbox"/> Position paper |
| <input type="checkbox"/> Editorial | <input type="checkbox"/> Procedural writing |
| <input type="checkbox"/> Fictional writing (including short stories, scripts, storyboards, novel excerpts, etc.) | <input type="checkbox"/> Pro-con analysis |
| <input type="checkbox"/> Lab report | <input type="checkbox"/> Proposal |
| | <input type="checkbox"/> Research paper |

Artifact Two

Title: _____

Writing genre: Narrative Informational/Explanatory Argumentative

Artifact type:

- | | |
|--|--|
| <input type="checkbox"/> Argumentative essay | <input type="checkbox"/> Literary analysis essay |
| <input type="checkbox"/> Blogs or Wiki page | <input type="checkbox"/> Memoir |
| <input type="checkbox"/> Cause/effect analysis | <input type="checkbox"/> News article |
| <input type="checkbox"/> Compare/contrast analysis | <input type="checkbox"/> Position paper |
| <input type="checkbox"/> Editorial | <input type="checkbox"/> Procedural writing |
| <input type="checkbox"/> Fictional writing (including short stories, scripts, storyboards, novel excerpts, etc.) | <input type="checkbox"/> Pro-con analysis |
| <input type="checkbox"/> Lab report | <input type="checkbox"/> Proposal |
| | <input type="checkbox"/> Research paper |

Artifact Three**Title:** _____**Writing genre:** Narrative Informational/Explanatory Argumentative**Artifact type:**

- | | |
|--|--|
| <input type="checkbox"/> Argumentative essay | <input type="checkbox"/> Literary analysis essay |
| <input type="checkbox"/> Blogs or Wiki page | <input type="checkbox"/> Memoir |
| <input type="checkbox"/> Cause/effect analysis | <input type="checkbox"/> News article |
| <input type="checkbox"/> Compare/contrast analysis | <input type="checkbox"/> Position paper |
| <input type="checkbox"/> Editorial | <input type="checkbox"/> Procedural writing |
| <input type="checkbox"/> Fictional writing (including short stories, scripts, storyboards, novel excerpts, etc.) | <input type="checkbox"/> Pro-con analysis |
| <input type="checkbox"/> Lab report | <input type="checkbox"/> Proposal |
| | <input type="checkbox"/> Research paper |

Writing Portfolio Score Summary

Student Name: _____

The signatures below indicate that each reviewer has independently reviewed each artifact using the PED rubric and can verify that each artifact is authentic and independently-created by the student.

Score Summary		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Student Average		
Passing Score: 15/20 (75%)		____/20
Competency Demonstrated?		<input type="checkbox"/> yes <input type="checkbox"/> no

Writing Portfolio Rubric

Directions: All rows of the rubric must be scored. No partial scores (e.g., 2.5 points, 3.75 points) may be given. Students must meet all of the criteria in each box in order to receive the correlating score.

Criterion	Below Expectations (1 point)	Approaching Expectations (2 points)	Meets Expectations (3 points)	Exceeds Expectations (4 points)	Score
Development of Ideas	Presents inappropriate, irrelevant, or undeveloped ideas or claims to task, purpose, and audience.	Presents inconsistent ideas or claims that are less appropriate or partially developed to the task, purpose, and audience.	Mostly presents consistent ideas or claims that are appropriate to the task, purpose, and audience.	Clearly and consistently presents meaningful and relevant ideas or claims in a logical way that is appropriate to the task, purpose, and audience.	<u> </u> /4
Organization	Presents an undeveloped central idea or claim that is irrelevant or inappropriate to the audience, purpose, and task. Lacks introduction and/or conclusion. Unclear progression of ideas.	Partially establishes and inconsistently develops a central idea or claim that is loosely appropriate to the audience, purpose, and task, with an introduction and conclusion that minimally connects ideas for the reader with very few transitions.	Mostly establishes and consistently maintains a central idea or claim that is appropriate to the audience, purpose, and task, with an introduction and conclusion that leads the reader through a mostly clear progression of ideas with appropriate transitions.	Clearly establishes and consistently maintains a central idea or claim that is appropriate to the audience, purpose, and task, with a strong introduction and conclusion that leads the reader through a logical progression of ideas with varied and appropriate transitions.	<u> </u> /4
Tone and Style	Tone or style is inappropriate, irrelevant, or undeveloped, with little to no sentence variety and word choice that is inappropriate to the audience, purpose, and task.	Partially establishes and inconsistently develops an appropriate tone, with limited word choice and minimal sentence variety that is appropriate to the audience, purpose, and task.	Mostly establishes and maintains a tone, with accurate word choice and a variety of sentences that are appropriate to the audience, purpose, and task.	Clearly establishes and consistently maintains a tone, with precise word choice and varied sentences that are appropriate to the audience and purpose and clearly convey the writer's meaning.	<u> </u> /4
Writing Conventions	Lacks command of grammar, conventions, fluency, and spelling. Frequent errors interfere with understanding.	Demonstrates partial command of grammar, conventions, fluency, and spelling. Errors partially impede understanding.	Mostly demonstrates command of grammar, conventions, fluency, and spelling. Errors are limited and do not impede understanding.	Clearly and consistently demonstrates strong command of grammar, conventions, fluency, and spelling. Few to no errors are present and meaning is clear.	<u> </u> /4
Reflection	Reflections do not relate to the artifact and include little to no supporting details. Student lacks annotations and/or does not connect the artifact to the appropriate grade-level standards.	Reflections attempt to relate to the artifact but include limited examples and supporting details. Student partially annotates and/or connects the artifact to the appropriate grade-level standards.	Reflections are related to the artifact and include some examples and supporting details. Student annotates and/or connects the artifact to the appropriate grade-level standards.	Reflections relate to the artifact, are thorough, and include examples and supporting details. Student clearly and consistently annotates and/or connects the artifact to the appropriate grade-level standards.	<u> </u> /4
TOTAL					/20

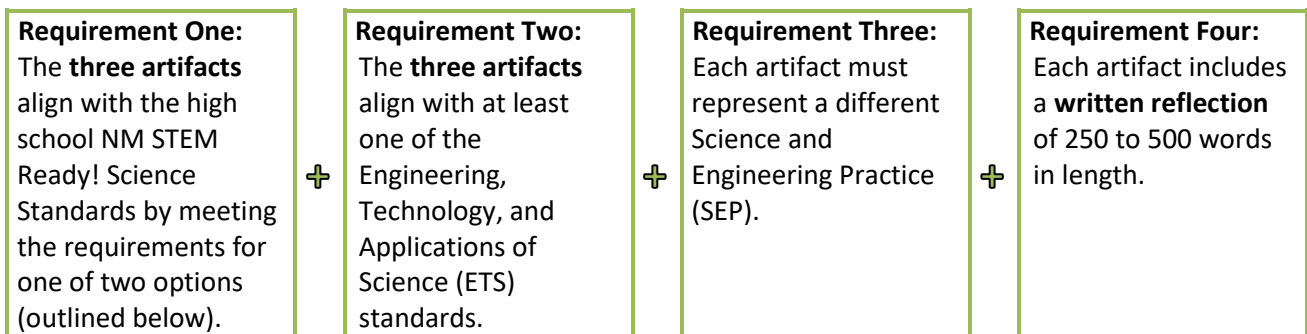
Standards-Based Science Portfolio

Portfolio Requirements

A portfolio in science must include a minimum of **three** artifacts and a written reflection for each artifact. Any work completed in science courses from grades 10–12 may be included in the portfolio.

Permitted Artifacts	
<ul style="list-style-type: none"> • Data models, including graphs, charts, diagrams, computer graphics, etc. • Lab reports 	<ul style="list-style-type: none"> • Research projects and/or presentations (including citations)

The portfolio must meet the following requirements:



Requirement One: The three artifacts align with the high school NM STEM Ready! Science standards by representing student knowledge of the science domains and the topics falling under each domain.			
Domain	Earth and Space Science	Life Science	Physical Science
Topics	<ul style="list-style-type: none"> • Space Systems • History of Earth • Earth’s Systems • Weather and Climate • Human Sustainability 	<ul style="list-style-type: none"> • Structure and Function • Matter and Energy in Organisms and Ecosystems • Interdependent Relationships in Ecosystems • Inheritance and Variation of Traits • Natural Selection and Evolution 	<ul style="list-style-type: none"> • Structure and Properties of Matter • Chemical Reactions • Forces and Interactions • Energy • Waves and Electromagnetic Radiation

Requirement One, continued:

Option 1 One domain

Students may choose to focus on **one domain**, but the portfolio must include artifacts that represent at least **three different topics**.

OR

Option 2 Different domains

Students may choose to focus on **different domains** (either two or three). Each artifact should represent a **different topic**.

Requirement Two: The three artifacts align with at least one of the Engineering, Technology, and Applications of Science (ETS) standards seen below. It is equally as acceptable for a student to submit only one artifact in alignment with an ETS standard as it is for a student to submit two or three artifacts that align with an ETS standard.

ETS Standards

1. **HS-ETS1-1:** Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
2. **HS-ETS1-2:** Design a solution to a complex, real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
3. **HS-ETS1-3:** Evaluate a solution to a complex, real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
4. **HS-ETS1-4:** Use a computer simulation to model the impact of proposed solutions to a complex, real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.

Requirement Three: Each artifact must represent a different Science and Engineering Practice (SEP). Artifacts may reflect more than one SEP.

Science and Engineering Practices

- Asking questions and defining problems
- Developing and using models
- Planning and carrying out investigations
- Analyzing and interpreting data
- Using mathematics and computational thinking
- Constructing explanations and designing solutions
- Engaging in argument from evidence
- Obtaining, evaluating, and communicating information

Requirement Four: Each artifact includes a written reflection of 250 to 500 words in length. Students must consider the following questions.

Reflection Questions

Part One: All three reflections must answer questions 1–4.

1. What is the artifact?
2. What was the assignment?
3. How does the artifact align to the standard(s) in science? When possible, annotate the artifact.
4. What changes in your thought process occurred as a result of working on this artifact? (i.e., Did your opinion or perspectives change?)

Part Two: Each reflection must also address at least **two** of the following questions.

- What academic strengths does the artifact highlight?
- What areas for improvement does the artifact highlight?
- How does the artifact demonstrate your ability to think critically?
- How could your work on the artifact be applied to the real world? / What makes the artifact relevant to the real world?

Sample Portfolios

The sample portfolios below are intended to guide students, teachers, and counselors when brainstorming the types of work students *might* choose to submit as artifacts and how the artifacts *might* be combined to meet the science portfolio requirements. The list of artifacts in the sample portfolios below is not exclusive, nor is it nearly extensive enough to represent all possibilities.

Option 1 One domain

	Topic	Artifact	SEP	ETS Standard
Sample: Earth & Space Science	Artifact One: History of Earth	Gather evidence and support the claim that life on Earth co-evolved with Earth's systems. (HS-ESS2-7)	Obtaining, evaluating, and communicating information	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants
	Artifact Two: Weather and Climate	Compile real-time and historical data to predict future weather patterns citing evidence. (HS-ESS3-5)	Analyzing and interpreting data	
	Artifact Three: Human Sustainability	Research why a global phenomenon impacting the Earth's systems has occurred and propose possible correctives in a research paper or presentation. (HS-ESS3-4)	Engaging in argument from evidence	

	Topic	Artifact	SEP	ETS Standard
Sample: Life Science	Artifact One: Structure and Function	Use data to create visual representations to support findings that plants have feedback mechanisms to maintain homeostasis related to the amount of water in their cells. (HS-LS1-3)	Using mathematics and computational thinking	Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints—including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts
	Artifact Two: Interdependent Relationships in Ecosystems	Design two interacting ecosystems, each with their own limiting factors, and determine the implications of each on the other. (HS-LS2-6)	Developing and using models	
	Artifact Three: Natural Selection and Evolution	Research how three different species have evolved and develop an argument for why one will either evolve or go extinct and the reasons why. (HS-LS4-5)	Constructing explanations and designing solutions	

	Topic	Artifact	SEP	ETS Standard
Sample: Physical Science	Artifact One: Structure and Properties of Matter	Use molecular models and the periodic table to develop models of the atoms involved in the energy production at a coal-fired power plant and nuclear plant. Analyze the differences in the type and amount of energy released. (HS-PS1-1)	Asking questions and defining problems	Design a solution to a complex, real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering
	Artifact Two: Forces and Interactions	Design a device to land cargo on a planetary surface. Include design modifications needed, charts, and graphs. (HS-PS2-3)	Constructing explanations and designing solutions	
	Artifact Three: Energy	Research and predict which of the various energy production methods conserves the most energy when considering the entire energy production cycle. (HS-PS3-3)	Obtaining, evaluating, and communicating information	

Option 2 Different domains

	Topic	Artifact	SEP	ETS Standard
Combo	Physical Science Artifact: Structure and Properties of Matter	Use molecular models and the periodic table to develop models of the atoms involved in the energy production at a coal-fired power plant and nuclear plant. Analyze the differences in the type and amount of energy released. (HS-PS1-1)	Asking questions and defining problems	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering
	Life Science Artifact: Interdependent Relationships in Ecosystems	Design two interacting ecosystems, each with their own limiting factors, and determine the implications of each on the other. (HS-LS2-6)	Developing and using models	
	Earth Science Artifact: Weather and Climate	Compile real-time and historical data to predict future weather patterns citing evidence. (HS-ESS3-5)	Analyzing and interpreting data	

Science Portfolio Checklist

Student Name: _____

Cumulative Requirements

- Portfolio contains three independently created student artifacts
 - Each artifact aligns with the NM STEM Ready! Science Standards and represents a different science topic
 - At least one of the artifacts represents a high school ETS standard
 1. Analyze a major global challenge
 2. Design a solution to a complex, real-world problem
 3. Evaluate a solution to a complex, real-world problem
 4. Use a computer simulation to model the impact of proposed solutions to a complex, real-world problem
- Standard # _____ represented by: Artifact One Artifact Two Artifact Three
- Each artifact represents a different SEP
 - Each artifact includes a written reflection of 250 to 500 words in length

Artifact One

Title: _____

- | | | | |
|----------------|--|--|--|
| Domain: | <input type="checkbox"/> Earth and Space Science | <input type="checkbox"/> Life Science | <input type="checkbox"/> Physical Science |
| Topic: | <input type="checkbox"/> Space Systems | <input type="checkbox"/> Structure and Function | <input type="checkbox"/> Structure and Prop. of Matter |
| | <input type="checkbox"/> History of Earth | <input type="checkbox"/> Matter and Energy in Organisms and Ecosystems | <input type="checkbox"/> Chemical Reactions |
| | <input type="checkbox"/> Earth's Systems | <input type="checkbox"/> Inter. Relat. in Ecosystems | <input type="checkbox"/> Forces and Interactions |
| | <input type="checkbox"/> Weather and Climate | <input type="checkbox"/> Inher. and Variation of Traits | <input type="checkbox"/> Energy |
| | <input type="checkbox"/> Human Sustainability | <input type="checkbox"/> Nat. Selection and Evolution | <input type="checkbox"/> Waves and Elec. Radiation |

Science and Engineering Practice (at least one must be represented):

- | | |
|---|---|
| <input type="checkbox"/> Asking questions and defining problems | <input type="checkbox"/> Constructing explanations and designing solutions |
| <input type="checkbox"/> Developing and using models | <input type="checkbox"/> Engaging in argument from evidence |
| <input type="checkbox"/> Planning and carrying out investigations | <input type="checkbox"/> Obtaining, evaluating, and communicating information |
| <input type="checkbox"/> Analyzing and interpreting data | |
| <input type="checkbox"/> Using mathematics and computational thinking | |

Artifact type: Lab report Data modeling Research project

Artifact Two

Title: _____

Domain: Earth and Space Science Life Science Physical Science

Topic:

<input type="checkbox"/> Space Systems	<input type="checkbox"/> Structure and Function	<input type="checkbox"/> Structure and Prop. of Matter
<input type="checkbox"/> History of Earth	<input type="checkbox"/> Matter and Energy in Organisms and Ecosystems	<input type="checkbox"/> Chemical Reactions
<input type="checkbox"/> Earth's Systems	<input type="checkbox"/> Inter. Relat. in Ecosystems	<input type="checkbox"/> Forces and Interactions
<input type="checkbox"/> Weather and Climate	<input type="checkbox"/> Inher. and Variation of Traits	<input type="checkbox"/> Energy
<input type="checkbox"/> Human Sustainability	<input type="checkbox"/> Nat. Selection and Evolution	<input type="checkbox"/> Waves and Elec. Radiation

Science and Engineering Practice (at least one must be represented):

<input type="checkbox"/> Asking questions and defining problems	<input type="checkbox"/> Constructing explanations and designing solutions
<input type="checkbox"/> Developing and using models	<input type="checkbox"/> Engaging in argument from evidence
<input type="checkbox"/> Planning and carrying out investigations	<input type="checkbox"/> Obtaining, evaluating, and communicating information
<input type="checkbox"/> Analyzing and interpreting data	
<input type="checkbox"/> Using mathematics and computational thinking	

Artifact type: Lab report Data modeling Research project

Artifact Three

Title: _____

Domain: Earth and Space Science Life Science Physical Science

Topic:

<input type="checkbox"/> Space Systems	<input type="checkbox"/> Structure and Function	<input type="checkbox"/> Structure and Prop. of Matter
<input type="checkbox"/> History of Earth	<input type="checkbox"/> Matter and Energy in Organisms and Ecosystems	<input type="checkbox"/> Chemical Reactions
<input type="checkbox"/> Earth's Systems	<input type="checkbox"/> Inter. Relat. in Ecosystems	<input type="checkbox"/> Forces and Interactions
<input type="checkbox"/> Weather and Climate	<input type="checkbox"/> Inher. and Variation of Traits	<input type="checkbox"/> Energy
<input type="checkbox"/> Human Sustainability	<input type="checkbox"/> Nat. Selection and Evolution	<input type="checkbox"/> Waves and Elec. Radiation

Science and Engineering Practice (at least one must be represented):

<input type="checkbox"/> Asking questions and defining problems	<input type="checkbox"/> Constructing explanations and designing solutions
<input type="checkbox"/> Developing and using models	<input type="checkbox"/> Engaging in argument from evidence
<input type="checkbox"/> Planning and carrying out investigations	<input type="checkbox"/> Obtaining, evaluating, and communicating information
<input type="checkbox"/> Analyzing and interpreting data	
<input type="checkbox"/> Using mathematics and computational thinking	

Artifact type: Lab report Data modeling Research project

Science Portfolio Score Summary

Student Name: _____

The signatures below indicate that each reviewer has independently reviewed each artifact using the PED rubric and can verify that each artifact is authentic and independently-created by the student.

Score Summary		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/20
Signature _____		
Student Average		____/20
Passing Score: 15/20 (75%)		
Competency Demonstrated?		<input type="checkbox"/> yes <input type="checkbox"/> no

Science Portfolio Rubric

Directions: Not all rows of the rubric will be utilized. Please indicate the three Science and Engineering Practices you are evaluating (one per artifact) by selecting the boxes below. Four boxes should remain unselected and not factor into the student's score. No partial scores (i.e. 2.5 points, 3.75 points, etc.) may be given. Students must meet all of the criterion in each box in order to receive the correlating score.

Criterion	Below Expectations (1 point)	Approaching Expectations (2 points)	Meets Expectations (3 points)	Exceeds Expectations (4 points)	Score
<input type="checkbox"/> Asking Questions and Defining Problems	<ul style="list-style-type: none"> ●Asks general, imprecise questions that require greater specificity to be testable. ●Identifies variables with unclear predicted relationships. ●Identifies inappropriate control(s) (if applicable) and/or inappropriate model(s). ●Defines a problem or design statement that partially matches the intent of the problem or the constraints. 	<ul style="list-style-type: none"> ●Asks testable questions that require sufficient and relevant evidence to answer. ●Identifies predicted relationships between variables with minor errors. ●Identifies control(s) (if applicable) OR relationships in the relevant model(s) with minor errors or omissions. ●Defines a problem or design statement that matches the intent of the problem and identifies the constraints. 	<ul style="list-style-type: none"> ●Asks precise, testable questions that require sufficient and relevant evidence to answer. ●Discusses predicted relationships between variables. ●Identifies appropriate control(s) (if applicable) OR relationships in the relevant model(s). ●Defines a problem and explains specific design elements necessary for a suitable design (e.g., fit to the problem, addresses the constraints). 	<ul style="list-style-type: none"> ●Asks precise, testable questions that require sufficient and relevant evidence to answer and evaluates the ability to test the questions. ●Discusses predicted relationships, including quantitative relationships, between variables and appropriate controls (if applicable). ●Thoroughly explains the predicted relationships in the relevant model(s). ●Defines a problem precisely and thoroughly explains why specific design elements are necessary for a suitable design (e.g., fit to the problem, addresses the constraints). 	<u> </u> /4
<input type="checkbox"/> Developing and Using Models	<ul style="list-style-type: none"> ●Designs and explains a model that generates data to support explanations, predict phenomena, analyze systems, and/or solve problems. Design or explanation of the model includes major errors or omissions. ●Uses or tests the model and identifies the limitations OR accuracy of the model (with minor errors or omissions) to support explanations, predict phenomena, analyze systems, or solve problems. ●Explanation or evaluation of the model includes major errors or omissions. 	<ul style="list-style-type: none"> ●Designs and explains a model that generates data to support explanations, predict phenomena, analyze systems, and/or solve problems. Design or explanation of the model includes minor errors or omissions. ●Uses or tests the model and evaluates the accuracy and limitations of the model to support explanations, predict phenomena, analyze systems, or solve problems. ●Explanation or evaluation of model includes minor errors or omissions. 	<ul style="list-style-type: none"> ●Designs and explains a model that generates data to support explanations, predict phenomena, analyze systems, and/or solve problems. ●Uses or tests the model and evaluates the accuracy and limitations of the model to support explanations, predict phenomena, analyze systems, or solve problems. ●Makes recommendations to revise the model. 	<ul style="list-style-type: none"> ●Designs, explains, and evaluates a model to generate data to support explanations, predict phenomena, analyze systems, and/or solve problems. ●Uses or tests two different models of the same proposed tool, process, mechanism, or system. ●Evaluates the accuracy and limitations of the two different models in order to select a model that best fits the evidence or design criteria. 	<u> </u> /4

Science Portfolio Rubric

<p>□ Planning and Carrying out Investigations</p>	<ul style="list-style-type: none"> ● Designs an investigation that will produce relevant data. ● Includes incomplete description of data collection procedures that impede replication. ● Describes general evidence to be used to answer the question(s) with minimal detail. ● Uses appropriate methods and collects multiple trials (if appropriate) of relevant data, but the data is not consistent within a reasonable range. 	<ul style="list-style-type: none"> ● Designs an investigation that will produce relevant data, but with minimal detail of the variables. ● Includes data collection procedures that are mostly replicable. ● Identifies tools/instruments and type of measurements that will produce relevant data and/or evidence to answer the question(s). ● Uses appropriate methods and collects multiple trials (if appropriate) of relevant data consistent within a reasonable range. 	<ul style="list-style-type: none"> ● Designs an investigation identifying and explaining the variables, including which variables are controlled. ● Includes sufficiently detailed description of replicable data collection procedures. ● Describes tools/instrument and type of measurements that will produce relevant data and/or evidence to answer the question(s). ● Uses appropriate methods and systematically collects multiple trials (if appropriate) of relevant data consistent within a reasonable range. ● Evaluates the consistency (precision) of the data. 	<ul style="list-style-type: none"> ● Designs and evaluates an investigation identifying and explaining the data that will be collected as evidence. Identifies possible confounding variables. ● Includes, thorough description of replicable data, collection procedures. ● Justifies the selection of the tools/instruments and type of measurements that will produce relevant data and/or evidence to answer the question(s). ● Uses appropriate methods and systematically collects multiple trials (if appropriate) of relevant data consistent within a narrow range. ● Evaluates the consistency (precision) of the data as well as the appropriateness of the data collection procedures. 	<p>___/4</p>
<p>□ Analyzing and Interpreting Data</p>	<ul style="list-style-type: none"> ● Attempts to analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to identify patterns, to make scientific claims, or to determine an optimal design solution. Analysis or explanation includes major errors or omissions. ● Identifies the limitations of the data analysis (e.g., measurement error, sample selection) with incomplete or inaccurate elements. 	<ul style="list-style-type: none"> ● Analyzes and explains data using tools, technologies, and/or models (e.g., computational, mathematical) in order to identify patterns, to make reasonable scientific claims, or to determine an optimal design solution. Analysis or explanation includes minor errors or omissions. ● Identifies the limitations of the data analysis (e.g., measurement error, sample selection). 	<ul style="list-style-type: none"> ● Analyzes and explains data using tools, technologies, and/or models (e.g., computational, mathematical) in order to identify patterns, to make reasonable and supported scientific claims, or to determine an optimal design solution. ● Evaluates the limitations of the data analysis (e.g., measurement error, sample selection) and identifies some implications for the findings. 	<ul style="list-style-type: none"> ● Analyzes and evaluates data using tools, technologies, and/or models (e.g., computational, mathematical) in order to identify patterns, to make reasonable and well-supported scientific claims, or to determine an optimal design solution. ● Distinguishes between correlation and causation. ● Thoroughly evaluates the limitations of data analysis (e.g., measurement error, sample selection) and provides a detailed explanation of the implications for the findings. 	<p>___/4</p>

Science Portfolio Rubric

<p><input type="checkbox"/> Using Mathematics and Computational Thinking</p>	<ul style="list-style-type: none"> ●Identifies mathematical concepts or methods (e.g., ratio, rate, percent, basic operations, algebra, functions) relevant to scientific questions or engineering problems but applies them with major errors or omissions. 	<ul style="list-style-type: none"> ●Applies appropriate mathematical concepts or methods (e.g. ratio, rate, percent, basic operations, algebra, functions) relevant to scientific questions or engineering problems but applies them with minor errors or omissions. 	<ul style="list-style-type: none"> ●Accurately applies appropriate mathematical concepts and methods (e.g., ratio, rate, percent, basic operations, algebra, functions) to answer scientific questions or engineering problems. 	<ul style="list-style-type: none"> ●Accurately applies appropriate mathematical concepts and methods (e.g., ratio, rate, percent, basic operations, algebra, functions) to represent and solve scientific questions or engineering problems and explains whether the answer “makes sense”. 	<p>___/4</p>
<p><input type="checkbox"/> Constructing Explanations and Designing Solutions</p>	<ul style="list-style-type: none"> ●Proposes a design plan and description that misses one or more important aspects of the criteria, constraints, OR intent of the problem. ●Uses inaccurate or irrelevant evidence (data or scientific knowledge) to explain how the design addresses the problem/constraints OR identifies an impractical redesign without explanation or supporting evidence. 	<ul style="list-style-type: none"> ●Proposes a design plan and provides a general description that addresses the criteria, constraints, or intent of the problem. ●Uses minimal relevant evidence (data or scientific knowledge) to explain how the design addresses the problem/constraints OR identifies a potential redesign with limited explanation and supporting evidence. 	<ul style="list-style-type: none"> ●Proposes a design plan with detailed explanation that completely addresses the criteria and constraints. ●Uses relevant and adequate amounts of evidence (data or scientific knowledge) to explain how the design addresses the problem/constraints AND uses the evidence to explain an appropriate redesign of the original model or prototype. 	<ul style="list-style-type: none"> ●Proposes a design plan and evaluates the suitability of the design to address the criteria, constraints, AND intent of the problem. ●Uses detailed and multiple sources of evidence (data or scientific knowledge) to evaluate how well the design addresses the problem as well as constraints AND provides a detailed rationale with supporting data for the appropriate redesign of the original model or prototype. 	<p>___/4</p>
<p><input type="checkbox"/> Engaging in Argument from Evidence</p>	<ul style="list-style-type: none"> ●The student is able to present arguments on disciplinary content that are unfocused or unsupported with evidence. ●The student is able to communicate some procedures but lacks details needed for others to replicate. 	<ul style="list-style-type: none"> ●The student is able to present arguments on disciplinary content, which are logical and focused, but lack evidence that supports the argument. ●The student is able to provide step-by-step procedures that lack the detail needed for others to replicate. 	<ul style="list-style-type: none"> ●When conducting independent research, selects multiple, relevant scientific sources and evaluates the evidence and credibility of each source. ●The student communicates in a way that is clear and coherent and in which the development, organization and style are appropriate to task, purpose, and audience. 	<ul style="list-style-type: none"> ●When conducting independent research, selects multiple, relevant, high-quality, scientific sources representing a variety of viewpoints and thoroughly evaluates the evidence and credibility of each source. ●The student communicates in a way that is clear and coherent and in which the development, organization, and style are appropriate to the task, purpose, and audience. 	<p>___/4</p>

Science Portfolio Rubric

<input type="checkbox"/> Obtaining, Evaluating, and Communicating Information	<ul style="list-style-type: none"> ●When conducting independent research, relies on one or two relevant sources without evaluating their credibility. ●The student is able to communicate with some clarity but concepts may be inaccurate or inappropriate as related to the task, purpose or audience. 	<ul style="list-style-type: none"> ●When conducting independent research, selects a limited number of relevant scientific sources and evaluates their credibility minimally. ●The student is able to communicate in a way that is clear and coherent, but the organization and style may not be appropriate to the task, purpose or audience 	<ul style="list-style-type: none"> ●When conducting independent research, selects multiple relevant scientific sources, and evaluates the evidence and credibility of each source. ●The student communicates in a way that is clear and coherent, and in which the development, organization and style are appropriate to task, purpose and audience. 	<ul style="list-style-type: none"> ●When conducting independent research, selects multiple relevant, high-quality scientific sources representing a variety of viewpoints, and thoroughly evaluates the evidence and credibility of each source. ●The student communicates in a way that is clear and coherent, and in which the development, organization and style are appropriate to the task, purpose and audience. 	
<input type="checkbox"/> Reflection	<ul style="list-style-type: none"> ●Reflections do not relate to the artifact and include little to no supporting details. Student lacks annotations and/or does not connect the artifact to the appropriate grade-level standards. 	<ul style="list-style-type: none"> ●Reflections attempt to relate to the artifacts but include limited examples and supporting details. Student partially annotates and/or connects the artifact to the appropriate grade-level standards. 	<ul style="list-style-type: none"> ●Reflections are related to the artifacts and include some examples and supporting details. Student annotates and/or connects the artifact to the appropriate grade-level standards. 	<ul style="list-style-type: none"> ●Reflections relate to the artifact, are thorough, and include examples and supporting details. Student clearly and consistently annotates and/or connects the artifact to the appropriate grade-level standards. 	<p>___/4</p>
<p>TOTAL</p> <p>The total will be the sum of the three selected rows and the reflection score.</p>					<p>/16</p>

Rubric content adapted from *Student Work Rubric Optional Dimensions for NGSS Science Integration – Grades 9-12* by the [Literacy Design Collaborative](https://ldc.org/sites/default/files/LDC-SCI-TTRubric-Dimensions-9-12-March2016.pdf). Original source material can be found at: <https://ldc.org/sites/default/files/LDC-SCI-TTRubric-Dimensions-9-12-March2016.pdf>.

Standards-Based Social Studies Portfolio

Portfolio Requirements

A portfolio in social studies must include a minimum of **three** artifacts and a written reflection for each artifact. Any work completed in social studies courses from grades 10–12 may be included in the portfolio.

Permitted Artifacts	
<ul style="list-style-type: none"> • Analysis of an event, period, concept, ideology, or phenomenon • Blog/wiki page • Cause/effect analysis • Compare/contrast analysis • Document-based question (DBQ) essay 	<ul style="list-style-type: none"> • Editorial • Historical fiction writing • Position paper • Pro-con analysis • Research paper or project • Speech (written)

The portfolio must meet the following requirements:

Requirement One:

Each artifact aligns with a different benchmark for US Government or Economics.



Requirement Two:

At least one artifact includes analysis of a primary source document.



Requirement Three:

Each artifact includes a written reflection of 250 to 500 words in length.

Requirement One: Each artifact aligns with a different New Mexico Social Studies benchmark for US Government or Economics.

New Mexico Social Studies Benchmarks

US Government

Benchmark 3-A: Demonstrates student ability to compare and analyze the structure, power, and purpose of government at the local, state, tribal, and national levels, as set forth in their respective constitutions or governance documents.

Benchmark 3-C: Demonstrates student ability to compare and contrast the philosophical foundations of the United States' political system in terms of the purpose of government, including its historical sources and ideals, with those of other governments in the world.

Benchmark 3-D: Demonstrates student ability to understand how to exercise rights and responsibilities as citizens by participating in civic life and using skills that include interacting, monitoring, and influencing.

New Mexico Social Studies Benchmarks

Economics

Benchmark 4-A: Demonstrates student ability to analyze the ways individuals, households, businesses, governments, and societies make decisions, are influenced by incentives (economic and intrinsic) and the availability and use of scarce resources, and that their choices involve costs and varying ways of allocating.

Benchmark 4-B: Demonstrates student ability to analyze and evaluate how economic systems impact the way individuals, households, businesses, governments, and societies make decisions about resources and the production and distribution of goods and services.

Benchmark 4-C: Demonstrates student ability to analyze and evaluate the patterns and results of trade, exchange, and interdependence between the United States and the world since 1900.

Requirement Two: At least one artifact includes analysis of a primary source document.

Permitted primary source documents include:

- Archives and manuscript material
- Autobiographies and memoirs
- Books, newspapers, and magazine clippings published at the time
- Government publications
- Journals, letters, and diaries
- Photographs, cartoons, posters
- Records of organizations
- Research data, such as public opinion polls and census statistics
- Speeches

Requirement Three: Each artifact includes a written reflection of 250 to 500 words in length. Students must consider the following questions.

Reflection Questions

Part One: All three reflections must answer questions 1–4 .

1. What is the artifact?
2. What was the assignment?
3. How does the artifact align to the benchmark in US Government or Economics? When possible, annotate the artifact.
4. What changes in your thought process occurred as a result of working on this artifact? (i.e., Did your opinion or perspectives change?)

Part Two: Each reflection must also address at least **two** of the following questions.

- What academic strengths does the artifact highlight?
- What areas for improvement does the artifact highlight?
- How does the artifact demonstrate your ability to think critically?
- How could your work on the artifact be applied to the real world? / What makes the artifact relevant to the real world?

Sample Portfolios

The sample portfolios below are intended to guide students, teachers, and counselors when brainstorming the types of work students *might* choose to submit as artifacts, and how the artifacts *might* be combined to meet the social studies portfolio requirements. The list of artifacts in the sample portfolios below is not exclusive, nor is it nearly extensive enough to represent all possibilities. Students may choose to create a portfolio in whatever way best represents their social studies knowledge, so long as three different benchmarks are represented.

Portfolio Sample: US Government benchmarks only

- **Artifact One, Benchmark 3-A:** Editorial identifying a policy conflict between levels of government (e.g., state/federal) that analyzes which level of government has legal standing to deal with it and proposes a solution to the conflict. (e.g., gambling, marijuana, water/natural resources, education)
- **Artifact Two, Benchmark 3-C:** Presentation comparing the ideas in a given primary source selection (historical government documents, historical essays, etc.) with the way that the ideas have been implemented in contemporary US government.
- **Artifact Three, Benchmark 3-D:** Policy proposal (from the perspective of media, interest groups, pollsters, lobbyists, grassroots lobbyists, etc.) for an issue of local/state/tribal/national importance that includes development of a strategy to get the policy implemented.

Portfolio Sample: Economics benchmarks only

- **Artifact One, Benchmark 4-A:** Hypothetical investment portfolio that tracks the performance of the portfolio, analyzes economic ramifications, articulates the strategy used, and evaluates its effectiveness.
- **Artifact Two, Benchmark 4-B:** Analysis of economic data (unemployment, inflation, economic growth, etc.) to inform and develop a business plan that can be presented to potential investors from the perspective of a business owner.
- **Artifact Three, Benchmark 4-C:** Newspaper article utilizing primary source documents to evaluate the causes of the Great Depression and the economic impacts of New Deal programs.

Portfolio Sample: Combination of US Government and Economics benchmarks

- **Artifact One, Benchmark 3-C:** Speech taking the position of a federalist or anti-federalist arguing for or against a strong federal government system.
- **Artifact Two, Benchmark 4-A:** Editorial addressing the importance of programs that develop employability skills in the schools, such as school-to-work initiatives, service learning, CTE courses, mentorship, internships, as they relate to the needs of the state and local business community.
- **Artifact Three, Benchmark 3-A:** Compare/contrast essay on the effectiveness of checks and balances between local, state, tribal, and/or national governments or between two administrations, Congress/legislatures, or courts.

The sample artifacts above could include, but not be exclusively limited to, student-created political cartoons, data collection/analysis (polls), maps, brochures/magazines, recorded participation in a discussion/debate, PowerPoint presentations, student-created websites, interactive games/projects, and infographics.

Social Studies Portfolio Checklist

Student Name: _____

Cumulative Requirements

- Portfolio contains three independently created student artifacts
- Each artifact represents a different US Government or Economics benchmark
- At least one artifact includes analysis of a primary source
- Each artifact includes a written reflection of 250 to 500 words in length

Artifact One

Title: _____

Benchmark: Government 3-A Government 3-C Government 3-D
 Economics 4-A Economics 4-B Economics 4-C

Artifact type:

- | | |
|---|---|
| <input type="checkbox"/> Analysis of an event, period, concept, ideology, or phenomenon | <input type="checkbox"/> Editorial |
| <input type="checkbox"/> Blog/wiki page | <input type="checkbox"/> Historical fiction writing |
| <input type="checkbox"/> Cause/effect analysis | <input type="checkbox"/> Position paper |
| <input type="checkbox"/> Compare/contrast analysis | <input type="checkbox"/> Pro-con analysis |
| <input type="checkbox"/> Document-based question (DBQ) essay | <input type="checkbox"/> Research paper or project |
| | <input type="checkbox"/> Speech (written) |

Primary Source analyzed: yes no

If yes, name of primary source: _____

Artifact Two

Title: _____

Benchmark: Government 3-A Government 3-C Government 3-D
 Economics 4-A Economics 4-B Economics 4-C

Artifact type:

- | | |
|---|---|
| <input type="checkbox"/> Analysis of an event, period, concept, ideology, or phenomenon | <input type="checkbox"/> Editorial |
| <input type="checkbox"/> Blog/wiki page | <input type="checkbox"/> Historical fiction writing |
| <input type="checkbox"/> Cause/effect analysis | <input type="checkbox"/> Position paper |
| <input type="checkbox"/> Compare/contrast analysis | <input type="checkbox"/> Pro-con analysis |
| <input type="checkbox"/> Document-based question (DBQ) essay | <input type="checkbox"/> Research paper or project |
| | <input type="checkbox"/> Speech (written) |

Artifact Two (continued)

Primary Source analyzed: yes no

If yes, name of primary source: _____

Artifact Three

Title: _____

Benchmark: Government 3-A Government 3-C Government 3-D
 Economics 4-A Economics 4-B Economics 4-C

Artifact type:

- | | |
|---|---|
| <input type="checkbox"/> Analysis of an event, period, concept, ideology, or phenomenon | <input type="checkbox"/> Editorial |
| <input type="checkbox"/> Blog/wiki page | <input type="checkbox"/> Historical fiction writing |
| <input type="checkbox"/> Cause/effect analysis | <input type="checkbox"/> Position paper |
| <input type="checkbox"/> Compare/contrast analysis | <input type="checkbox"/> Pro-con analysis |
| <input type="checkbox"/> Document-based question (DBQ) essay | <input type="checkbox"/> Research paper or project |
| | <input type="checkbox"/> Speech (written) |

Primary Source analyzed: yes no

If yes, name of primary source: _____

Social Studies Portfolio Score Summary

Student Name: _____

The signatures below indicate that each reviewer has independently reviewed each artifact using the PED rubric and can verify that each artifact is authentic and independently-created by the student.

Score Summary		
Name of Reviewer _____	Title/Position _____	Score: ____/16
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/16
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/16
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/16
Signature _____		
Name of Reviewer _____	Title/Position _____	Score: ____/16
Signature _____		
Student Average		
Passing Score: 12/16 (75%)		____/16
Competency Demonstrated?		<input type="checkbox"/> yes <input type="checkbox"/> no

Social Studies Portfolio Rubric

Directions: All rows of the rubric must be scored. No partial scores (e.g., 2.5 points, 3.75 points) may be given. Students must meet all of the criteria in each box in order to receive the correlating score.

Criterion	Below Expectations (1 point)	Approaching Expectations (2 points)	Meets Expectations (3 points)	Exceeds Expectations (4 points)	Score
Benchmark Alignment	<ul style="list-style-type: none"> ●Artifacts do not align with the selected benchmarks. ●Artifacts demonstrate little to no mastery of the relevant performance standards for each of the selected benchmarks. 	<ul style="list-style-type: none"> ●Artifacts attempt to, but do not sufficiently align to, the selected benchmarks. ●Artifacts demonstrate developing mastery of the relevant performance standards for each of the selected benchmarks. 	<ul style="list-style-type: none"> ●Artifacts mostly align with the selected benchmarks. ●Artifacts demonstrate mastery of the relevant performance standards for each of the selected benchmarks. 	<ul style="list-style-type: none"> ●Artifacts fully align with the selected benchmarks. ●Artifacts demonstrate mastery of the relevant performance standards for each of the selected benchmarks and make purposeful connections to additional content standards. 	<p>___/4</p>
Use of Evidence/ Citations	<ul style="list-style-type: none"> ●Lacks evidence or includes evidence that does not contribute to the overall purpose and quality of the artifacts. ●Contains gross factual inaccuracies that detract from the product's purpose and effectiveness. ●Evidence is not cited or does not come from credible sources. 	<ul style="list-style-type: none"> ●Selects evidence that is weak, misinterpreted, or underdeveloped and minimally contributes to the overall purpose and quality of the artifacts. ●Contains factual inaccuracies that slightly detract from the overall purpose and effectiveness of the product. ●Evidence is referenced but attempts at citation are inaccurate or incomplete. Some evidence may come from questionable sources. 	<ul style="list-style-type: none"> ●Selects evidence that appropriately and adequately contributes to the overall purpose and quality of the artifacts. ●Contains no factual inaccuracies. ●Evidence is accurately cited and pulled from credible sources. 	<ul style="list-style-type: none"> ●Precisely selects evidence that appropriately and substantially contributes to the overall purpose and quality of the artifacts. ●Contains no factual inaccuracies. ●Evidence is accurately cited and pulled from a variety of credible sources. 	<p>___/4</p>

Social Studies Portfolio Rubric

<p>Presentation & Conventions</p>	<ul style="list-style-type: none"> ●Organization and presentation detracts from the quality of the artifacts. ●Language is undeveloped or unclear. 	<ul style="list-style-type: none"> ●Organization and presentation somewhat detracts from the quality of the artifacts. ●Language is understandable but lacks clarity, specificity, and academic vocabulary. 	<ul style="list-style-type: none"> ●Organization and presentation adequately supports the quality of the artifacts. ●Language is mostly clear, specific, and utilizes academic vocabulary. 	<ul style="list-style-type: none"> ●Organization and presentation enhances the quality of the artifacts. ●Language is consistently clear, specific, and utilizes academic vocabulary precisely and purposefully. 	<p>___/4</p>
<p>Reflection</p>	<ul style="list-style-type: none"> ●Reflections do not relate to the artifacts and include little to no supporting details. ●Student lacks annotations and/or does not connect the artifact to the appropriate grade-level standards. 	<ul style="list-style-type: none"> ●Reflections attempt to relate to the artifacts but include limited examples and supporting details. ● Student partially annotates and/or connects the artifact to the appropriate grade-level standards. 	<ul style="list-style-type: none"> ●Reflections are related to the artifacts and include some examples and supporting details. ● Student annotates and/or connects the artifact to the appropriate grade-level standards. 	<ul style="list-style-type: none"> ●Reflections relate to the artifact, are thorough, and include examples and supporting details. ●Student clearly and consistently annotates and/or connects the artifact to the appropriate grade- 	<p>___/4</p>
<p style="text-align: right;">TOTAL</p>					<p>/16</p>

Demonstration of Competency

Programs of Study Required Coursework Option

For each program of study below, students must complete **THREE courses in sequence with a GPA of at least 3.0** in order for a program of study to be used as a demonstration of competency. Courses are listed below in their appropriate sequence.

Content Area	Program of Study	Course Code	Course Name
Mathematics	Finance/Accounting	0207	Accounting
		0210	Advanced Accounting
		0212	Cost Accounting
		0299 or 2060	Dual Credit in Finance/Accounting or AP Statistics
Science Reading	Animal Systems	0133	Intro to the Science of Agriculture
		0161	Science of Large Agriculture Animals
		0162	Science of Small Animals
		0199	Dual Credit in Animal Systems
Writing Reading	Multimedia Production	1905	Introduction to Multimedia Writing & Technology
		1906	Multimedia Productions I
		1907	Multimedia Productions II
		1904 or 1999	Multimedia Productions III or Dual Credit in Multimedia Communications
Mathematics Science	Clean Energy Technology – Advanced Career SREB	1678	Advanced Career - Clean Energy Systems
		1679	Advanced Career - Clean Energy Applications
		1680	Advanced Career - Clean Energy Strategies
		1681	Advanced Career - Clean Energy Innovations
Mathematics Science	Programming & Cybersecurity - PLTW	0344	PLTW Computer Science Essentials
		0345	AP PLTW Computer Science Principles
		0346	AP PLTW Computer Science A
		0347	PLTW Cybersecurity
Social Studies	Emergency & Fire Management Services	2503	Community Protection
		2523	Fire Fighting
		1517	Emergency Medical Technician
		2599	Dual Credit in Emergency & Fire Management Services
Science Reading	Plant & Biotechnology Systems	0133	Intro to the Science of Agriculture
		0141 or 0143	Horticulture/Botany or Greenhouse/Nursery Operations
		0144 or 145	Landscape or Floriculture
		0199	Dual Credit in Plant & Biotechnology Systems
Science	Transportation/Auto	0912	Auto Technologies
		0920	Auto Tech 2
		0921	Auto Tech 3
		0999	Dual Credit in Transportation/Auto

Content Area	Program of Study	Course Code	Course Name
Social Studies	Foreign Services	2752	Contemporary World Issues
		2504	Public Administration
		0294 or 0295	AP Microeconomics or AP Macroeconomics
		0299	Dual Credit in Foreign Services
Social Studies	Business Management	0221	Introductory Business
		0223	Business Management
		0294 or 0295	AP Microeconomics or AP Macroeconomics
		0299	Dual Credit in Business Management
Mathematics	Computer Technology Assistant - GenYES	0320	Computer Technology Assistant I - GenYES
Science		0321	Computer Technology Assistant II - GenYES
		0322	Computer Technology Assistant III - GenYES
		0336	AP Computer Science Principles
Writing	Law	2761	Law Studies
		2762	Consumer Law
		2763	Business Law
		2765 or 2773	Mock Trial or AP Psychology
Reading	Global Logistics & Supply Chain Management – Advanced Career SREB	0925	Advanced Career- Introduction to Logistics
		0926	Advanced Career- Functional Areas in Logistics
		0927	Advanced Career- Global Logistics Management
		0928	Advanced Career- Logistics & Supply Chain Management
Mathematics	Carpentry - NCCER	0480	NCCER Core Curriculum-Intro
		0481	NCCER Carpentry Level 1
		0482	NCCER Carpentry Level 2
		0483	NCCER Carpentry Level 3
Mathematics	Database Design & Programming – Oracle Academy	0314	Database Foundations – Oracle Academy
Science		0330	Database Design & Programming – Oracle Academy
		0331	Database Programming with SQL – Oracle Academy
		0399	Dual Credit in Computer & Information Technology

Content Area	Program of Study	Course Code	Course Name
Mathematics	Database Design & Programming – Oracle Academy	0314	Database Foundations – Oracle Academy
		0330	Database Design & Programming – Oracle Academy
0331		Database Programming with SQL – Oracle Academy	
0399		Dual Credit in Computer & Information Technology	
Science	Manufacturing - Welding	2414	Welding
Science		2416	Welding 2
		2417	Welding 3
		2499	Dual Credit in Manufacturing - Welding
Science	Engineering - PLTW	1615	PLTW Intro to Engineering Design
		1617	PLTW Principles of Engineering
		1616 or 1739	PLTW Digital Electronics or AP Physics 1
		1620 or 1740	PLTW Capstone-Engineering Design/Development or AP Physics 2
Science	Biomedical Sciences - PLTW	1660	PLTW Principles of Biomedical Sciences
		1661	PLTW Human Body Systems
		1662	PLTW Medical Intervention
		1664	PLTW Biomedical Innovation
Social Studies	Restaurants & Food/Beverage Services	0504	Nutrition
		0532	ProStart I
		0533	ProStart II
		0539 or 0599	ProStart Internship or Dual Credit in Restaurants & Food/Beverage Services
Mathematics	Java Programming - Oracle	0323	Computer Science/Programming
		0324	Programming
Science		0325 or 0326	Advanced Programming or Computer Programming-Other Lang
		0327 or 0336	AP Computer Science A or AP Computer Science Principles
Science	Health Informatics-Advanced Careers SREB	1560	Advanced Career-Health Informatics Data & Use
		1561	Advanced Career-Health Informatics Transforming Data into Information
		1562	Advanced Career-Health Informatics Transforming Info into Knowledge
		1563	Advanced Career-Health Informatics Problems & Solutions

Content Area	Program of Study	Course Code	Course Name
Science	Innovations in Science & Technology – Advanced Careers SREB	1670	Advanced Career-Nature of Science & Technology
		1671	Advanced Career-Core Applications of Science/Technology
		1672	Advanced Career-Impacts of Science & Technology
		1673	Advanced Career-Creativity & Innovations
Mathematics	Aerospace Engineering – Advanced Careers SREB	1674	Advanced Career-Fundamentals Aerospace Tech
Science		1675	Advanced Career-Advanced Aerospace Technology
		1676	Advanced Career-Aeronautics Engineering Apps
		1677	Advanced Career-Astronautics Engineering Apps
Social Studies	Teacher Education	0550	Child Development
Reading		0562	Teacher Academy 1
		0563	Teacher Academy 2
		0597 or 0599	Teaching & Practicum or Dual Credit Teacher Education

Demonstration of Competency Industry-Recognized Credential and Certificate Option

The options available to students in the world of Career and Technical Education are constantly evolving and growing. However, with the exception of additions to the list of credentials and certificates below, the list will not be subject to change for the class of 2022.

The PED will continue to review and explore new certificates and credentials and welcomes petitions for the inclusion of new credentials and certificates. Those seeking to make a petition should email the College and Career Readiness Bureau at grad.questions@state.nm.us. Petitions should be supported by a rationale (e.g., XYZ certification is a rigorous assessment that is aligned with industry standards, is valued in the field among hiring managers, and assesses high levels of math that correspond with common core algebra I and geometry standards.)

Decisions of whether to accept petitions for additional credentials and certificates will be made by the PED on a case-by-case basis.

Content Area	Industry-Recognized Credentials and Certificates
Mathematics	Auto CAD Automotive Technician (ASE) National Center for Construction Education & Research (NCCER) Carpentry NCCER Electrical NCCER HVAC NCCER Industrial Maintenance NCCER Masonry NCCER Plumbing NCCER Sheet Metal NCCER Welding Welding Certification - AWS
Reading	Certified Landscape Technician (CLT) Certified Veterinary Assistant Floriculture Adobe Certified Professional
Writing	Adobe Certified Professional DECA School Based Enterprise Individual Certification
Social Studies	A*S*K Assessment of Skills and Knowledge for Business Certificate Film Production Certificate Child Development Associate Educational Assistant License Paraprofessional Certification NM Early Care Education and Family Support Police Explorer Certification

Content Area	Industry-Recognized Credentials and Certificates
Science	Automotive Service Technician (ASE) Basic Wildland Firefighting Certification Certificate in Biofuels Certificate in Emergency Medical Technician —Basic Certification: Gas Metal Arc Welding Certification: Gas Tungsten Arc Welding Certification: Shielded Metal Arc Welding Certified Coding Associate (CCA) Certified Medical Assistant (CMA) Certified Novell Administrator Certified Nurse Aide (CNA) Certified Web Designer Certified Internet Webmaster Certified Cisco Network Associate Certified Web Technician Comp TIA Security+ Comp TIA Server+ Computer Maintenance Technician Dental Assistant (CDA) Emergency Medical Technician (EMT) Flux Core Arc Welding D9.4 4 2F i-Net+ Certification jCert JAVA Programmer Certification Pharmacy Technician (CPhT) PhlebFlux Core Arc Welding D9.4 4 2F i-Net+ Certification jCert JAVA Programmer Certification Licensed Vocational Nurse (LVN) Macromedia Director Certification Microsoft Technology Associate: Windows Operating System Fundamentals National Health Care Foundation Skill Standards NCCER Welding Phlebotomy Technician (CPT) Health Assistant License Welding Technician Certified Veterinary Assistant