

The ELD Standards Framework: Science

April 29, 2021

Zoom Meeting Protocols

- Mute your mic upon entering the meeting.
- Use the chat to ask questions and share ideas and resources.
- A moderator will let the presenter know if you have a question.



Region 15 Comprehensive Center

- One of 19 federally funded Regional Comprehensive Centers
- Provide capacity-building technical assistance to state education agencies
- Thought partners on this project



Why have an ELD Standards Framework?

- The education of English learners is a **shared responsibility** of **all** educators.
- English learners must have access to **rigorous, standards-based** instruction.

Purpose

This webinar is part of a series designed for educators to learn how to use the ELD Standards Framework to enact best practices for English and other diverse learners.

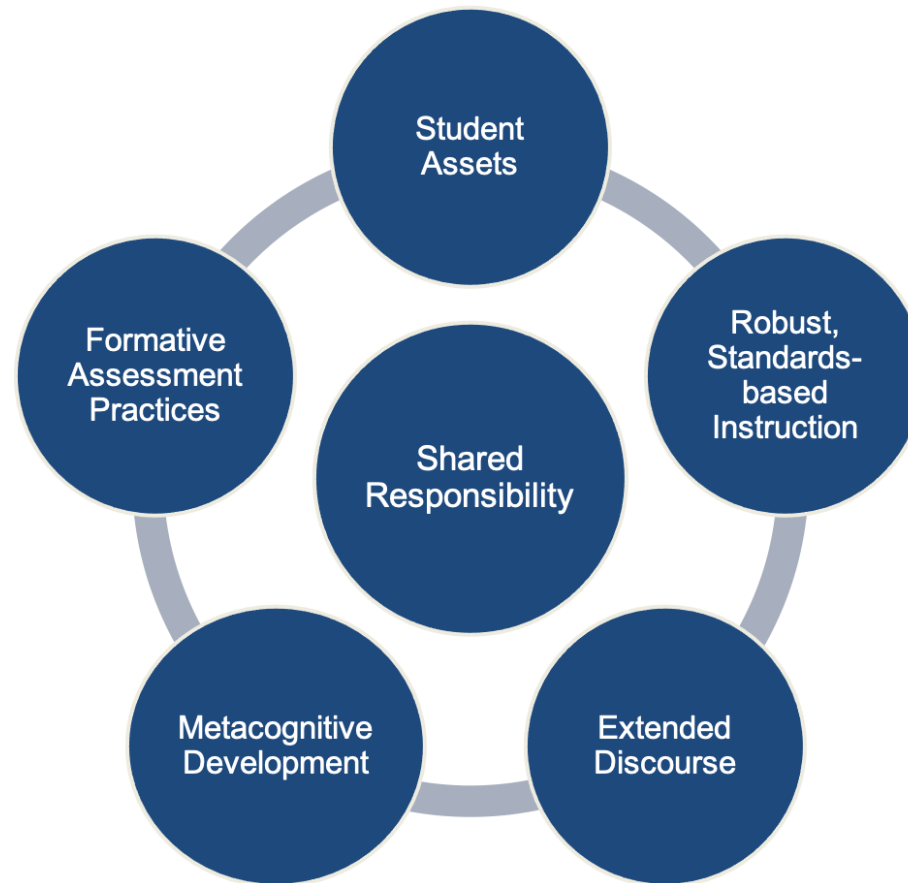
Poll: What's your role?

- Classroom teacher
- Instructional coach
- English learner specialist/teacher on special assignment
- School district office staff
- School administrators/principals
- Regional professional development program staff
- NDE staff
- Other (specify in the chat)

Agenda for Today

- Aligning to the ELD Guiding Principles
- Quality Learning of Science
- Example Lesson
- Applying the ELD Standards Framework for Science
- Questions and Answers

ELD Standards Framework Guiding Principles



ELD Standards Framework Guiding Principles (1)

- **Guiding Principle 1:** Teachers recognize and **value English learners' assets:** home language(s), cultural assets, existing knowledge, prior schooling experiences, and English language and translanguaging abilities; teachers **leverage these assets to accelerate** English language development and content proficiency.
- **Guiding Principle 2:** Teachers provide **robust, grade-level, and content standards-based instruction** to EL students with **intentional scaffolding** designed to support their content understandings, language development, and analytical thinking.
- **Guiding Principle 3:** Teachers provide frequent opportunities for EL students to engage in **extended discourse through multiple modalities**, including oral, written, visual, and kinesthetic modes of communication focused on developing students' content understandings, language, and analytical thinking.

ELD Standards Framework Guiding Principles (2)

- **Guiding Principle 4:** Teachers provide opportunities for EL students to develop metacognitive, metalinguistic, and metacultural awareness and to use this knowledge to develop autonomy and monitor their progress in content, language, and socio-emotional learning.
- **Guiding Principle 5:** Teachers align assessment practices with content and language learning goals; teachers use **formative assessment practices** during instruction to support EL students' content and language learning.

Quality Learning of Science

Dimensions	Characteristics
Conceptual Focus	<ul style="list-style-type: none">• Develops deep, conceptual understanding• Engages student in science practices that promote the learning of science language
Participation by Design	<ul style="list-style-type: none">• Engages students in robust grade-level, cognitive tasks through sustained discourse
Purposeful Focus on Language	<ul style="list-style-type: none">• Develops students' understanding of how language works in doing the discipline of science• Focus on science processes and concepts to develop language

Process Outline for Lesson Planning

- Create extension activities that will enable students to apply their understanding
- Provide opportunities for students to activate relevant prior knowledge and co-construct through the use of language
- Read and analyze the key science concepts and necessary language practices required for the lesson

Scaffolding Throughout the Lesson

- Create extension activities that will enable students to apply their understanding
- Provide opportunities for students to activate relevant prior knowledge and co-construct through the use of language
- Read and analyze the key science concepts and necessary language practices required for the lesson
- Offer designed-in scaffolding:
 - Students serve as each other's critical friend regarding language supports to co-construct meaning
 - Structures for participation and interaction
 - Choices of language to focus on ideas and practices

Lesson Context

- MS-PS2-1. Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.
- Argumentative writing unit
 - Formal essay
 - Open topic
 - Argument structure essay
 - Sources meet criteria
 - Alternative audience
 - Change format and language for a new audience
- Days 1-3 Socratic Seminar
 - Review process, skills, and language for argument writing

Students

- Grades 6–8
- Wide range of knowledge and skills for argumentative thinking and writing and force and interactions
- Long term ELs proficiency levels 3–4



Already in Place

- Instructional routines and procedures for effective academic discourse
- Critical friendships/small groups
- Explicitly taught discourse strategies including paraphrasing, clarifying, supporting, and building on ideas in small group discussions
- Participated in Socratic Seminar 2–3 times



Purpose of Socratic Seminar

- The **goal** of a **Socratic Seminar** is not to debate, but rather to have a dialogue that enables the participants to construct meaning of the concepts presented in the text. Prior to their engagement in the **Socratic Seminar**, students prepare for the discussion by reading and annotating text the teacher has selected. (JustAskPublications.com)
- The **purpose** in this lesson series is to **review** language, skills, and the process for argument writing and to **provide scaffolds** for argument essay writing.
- **Poll:** How familiar are you with the Socratic Seminar?
- **Chat:** Share how you have used a Socratic Seminar to develop language?

Lesson Sequence

Starting with the Task: Four Corners

- Promotes listening, verbal and written communication, critical thinking, and decision making that can be used in a variety of subjects
- In four corners, students are presented with a question. Students express their opinion or response by commenting on one of four statements, and then talking to others about why they have chosen their corner.
- Can be done face-to-face or virtually

Starting with the Task: Riding in the Car

Ina, Rie, Kris, and Roberto were sitting in a car. The car suddenly went around a sharp corner. After the car came out of the turn, they wondered about the forces involved. This is what they said:

Ina: “Wow! Did you feel the force pushing us outward. I was pushed against the passenger door.”

Rie: “I don’t think we were pushed outward. I think we were pushed inward. Otherwise, we wouldn’t be turning.”

Kris: “I could only feel the force pushing us forward. The force must be in this direction because this is the direction we are moving.”

Roberto: “Actually, when we started to turn, I think we slowed down a bit, so I think I felt a push backward.”

With whom do you agree? _____

Starting with the Task: NIAA Responsibility



Which theme do you feel is the biggest reason why NIAA does not provide top-notch equipment for all their activities (baseball, cheerleading, football, soccer, softball, etc.)

1. Moral complexity
 2. The existence of social inequality
 3. Laws and codes
 4. Other (please identify)
- **Chat:** How does this task align with the science standard (MS-PS2-1)?

Connecting to Prior Knowledge



For English learners, what prior knowledge or lived experiences may they bring?

- **Please respond in the chat.**

Activating Prior Knowledge

Think-Pair-Share

- **THINK** about the prompt and write an individual response
- **PAIR** with a partner and exchange ideas
- **SHARE** with the whole class what **your partner** shared

Think-Pair-Share Squared



Dialogue Guide

What you can do?	What you can say?
Share Your Claim	<ul style="list-style-type: none">• The evidence suggests,• Based on... I have come to the conclusion that...• There is ample evidence to suggest that...
Refute Potential Counter Claims	<ul style="list-style-type: none">▪ While some people believe... I think...
Build on the Claims of Others	<ul style="list-style-type: none">▪ What this means is...▪ I have also experienced what you describe when you claim that...▪ What you said about... made me think of...▪ That was a great point because...▪ I agree with your argument there, because...▪ That's a fascinating point. It connects to what I was thinking about...
Respectfully Disagree	<ul style="list-style-type: none">▪ I respect what you claim about..., however, in my opinion...▪ You propose that... I'm going to have to disagree for the following reasons...▪ You make a solid point about..., but the other side of it is...▪ While you make a great point, I'm going to have to disagree because...
Refer to Source	<ul style="list-style-type: none">▪ According to <u>(name and area of expertise)</u>, _____.▪ The evidence from <u>(name source)</u>, states _____.▪ The experts agree that _____ according to <u>(name source)</u>.

Looking Back

Activity	Purpose
Four Corners	<ul style="list-style-type: none">• Activates prior knowledge of scientific concepts• Activates prior knowledge of socio-emotional aspects of Socratic Seminar topic
Think-Pair-Share Squared	<ul style="list-style-type: none">• Allows students to co-construct meaning of concepts with their critical friends
Mini-lecture	<ul style="list-style-type: none">• Provides the foundational scientific knowledge centered on the Nevada Academic Content Standards for Science (NVACSS)
Socratic Seminar	<ul style="list-style-type: none">• To apply newly gained knowledge to novel situations or problem solving• To demonstrate understanding of concepts through the use of language

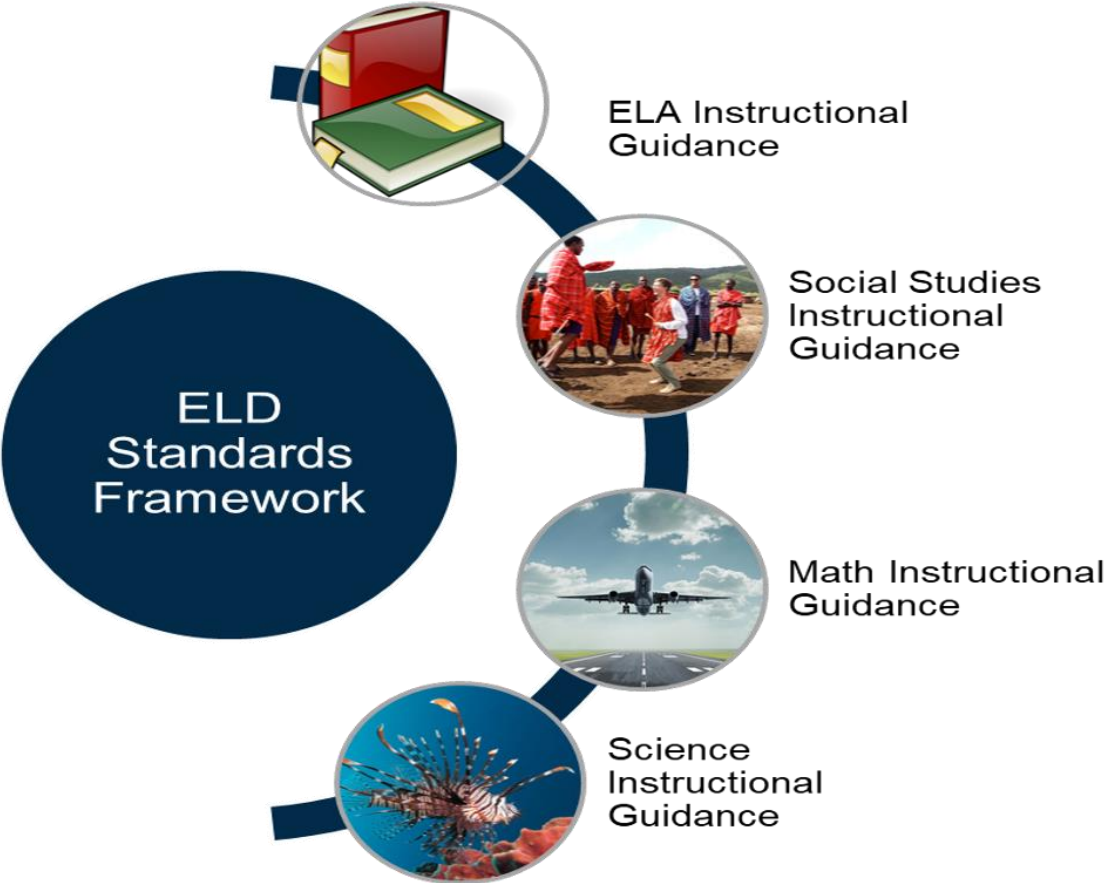
How do these activities support meaningful discourse?

- Look back at the activities.
- Select **one activity** and connect it to:
 - *Guiding Principle 3: Teachers provide frequent opportunities for EL students to engage in **extended discourse through multiple modalities**, including oral, written, visual, and kinesthetic modes of communication focused on developing students' content understandings, language, and analytical thinking.*
- **Please share in the chat.**

Questions



Nevada ELD Standards Framework



A Focus on Science



ELD STANDARDS FRAMEWORK FOR DEVELOPING THE LANGUAGE OF SCIENCE GRADES 6-8



The Structure of the Framework

ELD Standards Framework for Developing the Language of Science Grades 6-8

Table of Contents

SECTION 1: ELD FRAMEWORK FOR DEVELOPING THE LANGUAGE OF SCIENCE GRADES 6-8 - OVERVIEW	3
Section 1: Purpose	3
Section 1: Key Uses of Academic Language	4
SECTION 2: ELD FRAMEWORK FOR DEVELOPING THE LANGUAGE OF SCIENCE GRADES 6-8	5
Section 2A: Student Moves: Language Use Expectations	5
Section 2B: Teacher Moves: Supports for Processing and Producing Language	7
Section 2C: Teacher Moves: Supports for Collaborating in the Academic Language	8
SECTION 3: INSTRUCTIONAL GUIDANCE	9
SECTION 3: INSTRUCTIONAL GUIDANCE: SCIENCE AND ENGINEERING PRACTICES GRADES 6-8	10
Section 3A: Summary: Content Disciplinary Practices and Example Tasks	10
Section 3B: Science and Engineering Disciplinary Practices	15
Practice 1a: Asking Questions and Defining Problems – Teacher Moves	15
Practice 1b: Asking Questions and Defining Problems – Success Criteria	16
Practice 2a: Developing and Using Models – Teacher Moves	17
Practice 2b: Developing and Using Models – Success Criteria	18
Practice 3a: Planning and Carrying out Investigations – Teacher Moves	19
Practice 3b: Planning and Carrying out Investigations – Success Criteria	20
Practice 4a: Analyzing and Interpreting Data – Teacher Moves	21
Practice 4b: Analyzing and Interpreting Data – Success Criteria	22
Practice 5a: Using Mathematics and Computational Thinking – Teacher Moves	23
Practice 5b: Using Mathematics and Computational Thinking – Success Criteria	24
Practice 6a: Constructing Explanations and Designing Solutions – Teacher Moves	25
Practice 6b: Constructing Explanations and Designing Solutions – Success Criteria	27
Practice 7a: Engaging in Argument from Evidence – Teacher Moves	28
Practice 7b: Engaging in Argument from Evidence – Success Criteria	30
Practice 8a: Obtaining, Evaluating, and Communicating Information – Teacher Moves	31
Practice 8b: Obtaining, Evaluating, and Communicating Information – Success Criteria	32

ELD Standards Framework for Developing the Language of Science Grades 6–8

2A: Student Moves: Language Use Expectations

2B: Teacher Moves: Supports for Processing and Producing Language

2C: Teacher Moves: Supports for Collaborating in the Academic Language

2A: Student Moves for Receptive Listening & Reading

Section 2A: Student Moves: Language Use Expectations

TASK SAMPLES from the *WIDA Can Do Descriptors, Key Uses Edition* show us that toward the end of a given level of English language proficiency, and with instructional support, **English learners can process or produce...**

Language Domains	Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
Receptive Listening & Reading	<p>With appropriate visual, graphic, interactive, or L1 support, students can...</p> <ul style="list-style-type: none"> • Match scientific tools or instruments with pictures from oral statements (e.g., sundial). • Classify scientific tools or instruments with pictures and labels from oral directions (e.g., telescopes and sundials go with the sky.). • Match labeled diagrams of cycles or processes with vocabulary from word/phrase banks (e.g., nitrogen cycle). • Sort or classify descriptive phrases and diagrams by cycles or processes. 	<p>With appropriate visual, graphic or interactive support, as necessary, students can...</p> <ul style="list-style-type: none"> • Identify examples of scientific tools or instruments and their uses from pictures and oral discourse. • Compare/contrast examples of scientific tools or instruments and uses from oral descriptions (e.g., differences between telescopes and microscopes). • Sequence descriptive sentences and diagrams according to cycles or processes (e.g., mitosis or meiosis). • Identify cycles or processes from descriptive paragraphs and diagrams. 	<ul style="list-style-type: none"> • Infer uses of scientific tools or instruments from oral reading of grade level materials. • Predict consequences of alteration of cycles or processes from grade-level text.

2A: Student Moves for Productive Speaking & Writing

Section 2A: Student Moves: Language Use Expectations (continued)

TASK SAMPLES from the *WIDA Can Do Descriptors, Key Uses Edition* show us that toward the end of a given level of English language proficiency, and with instructional support, English learners can process or produce...

Language Domains	Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
Productive Speaking & Writing	<p>With appropriate visual, graphic, interactive, or L1 support, students can...</p> <ul style="list-style-type: none"> • Use vocabulary associated with scientific discoveries based on illustrations (e.g., machine or x-ray). • Describe scientific inventions or discoveries based on illustrations. • Match or classify forms of energy from everyday illustrated examples and models (e.g., light, sound, heat). • List and describe examples of illustrated forms of energy from word/phrase banks. 	<p>With appropriate visual, graphic or interactive support, as necessary, students can...</p> <ul style="list-style-type: none"> • Compare/contrast scientific discoveries described orally with visual support (e.g., _____ is similar to/ different from – because _____). • Imagine future scientific inventions or discoveries based on oral and visual clues. • Compare/contrast two forms of energy depicted visually (e.g., _____ and _____ are alike/different in these ways). • Explain uses of different forms of energy depicted visually (e.g., _____ is used to _____). 	<ul style="list-style-type: none"> • Predict potential impact of scientific inventions or discoveries on life based on oral evidence (e.g., “in 100 years, we could/may/might”). • Predict consequences of alternation of cycles or processes from grade-level text.

2B: Teacher Moves: Supports for Processing and Producing Language

Section 2B: Teacher Moves: Supports for Processing and Producing Language

What general supports can teachers provide to students at different language proficiency levels to process or produce academic language in all language domains? (See the [Go to Strategies Matrix](#), page 19.)

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<ul style="list-style-type: none"> • Build background in key language and concepts. • Provide explicit instruction and practice in key social and instructional vocabulary. • Model orally the academic language and specific vocabulary. • Provide explicit instruction and practice for students to construct the language using sentence and discourse starters and visual aids from the text. • Use physical gestures to accompany oral directives. • Label visuals and objects with target vocabulary. • Introduce cognates to aid comprehension. • Give two step Contextualized directions. • Restate/rephrase and use Patterned Oral Language routines. • Preview the text content with pictures, demos, charts, or experiences. • Use K-W-L charts before reading. • Pair students to read one text together. • Preview text with a Picture Walk. • Provide a list of important concepts on a graphic organizer. • Use Shared Reading and/or simplify the text. • Provide a content vocabulary Word Bank with non-linguistic representations. 	<ul style="list-style-type: none"> • Build background in key language and concepts. • Model orally the academic language and specific vocabulary. • Provide explicit instruction and practice for students to construct the language using sentence and discourse starters and visual aids from the text. • Provide a system for students to record and process key academic and content- specific vocabulary. • Check Comprehension of all students frequently. Use Wait Time. • Require full sentence responses by asking open ended questions. • Use Varied Presentation Formats such as role plays. • Scaffold oral reports with note cards and provide time for prior practice. • Require the use of academic language. • Require oral reporting for summarizing group work. • Pair students to read one text together. • Use K-W-L charts before reading. • Provide a list of important concepts on a graphic organizer. • Provide a content vocabulary Word Bank with non-linguistic representations. • Use Jigsaw Reading to scaffold independent reading. 	<ul style="list-style-type: none"> • Build background in key language and concepts. • Use complex sentence and discourse starters. • Model orally the academic language and specific vocabulary. • Use Video Observation Guides. • Confirm students' prior knowledge of content topics. • Ask students to analyze text structure and select an appropriate Graphic Organizer for summarizing. • Use Reciprocal Teaching to scaffold independent reading. • Extend content vocabulary with multiple examples and non-examples.

2C: Teacher Moves: Supports for Collaborating in the Academic Language

Section 2C: Teacher Moves: Supports for Collaborating in the Academic Language

How can teachers provide ongoing opportunities for students to collaborate using academic language?

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p>Prior to reading, writing, and discussion, Teacher prepares collaborative discourse structures for students to...</p> <ul style="list-style-type: none"> • Engage in pair work (in L1 if possible) to prepare questions for discussion using graphic, interactive, and/or language supports. • Participate in pair/triad/small group discussions using graphic, interactive, and/or language supports (including L1 as appropriate). • Use Clock Buddies. • Use Numbered Heads Together. • Use Think-Pair-Share Squared. • Use key sentence frames for pair interactions • Participate with Strategic Partners at a higher English proficiency level and/or with same primary language peer(s). • Use a Roving Chart in small group work. • Use Interactive Journals. • Use Think-Write-Pair Share. • Use Cloze sentences with a Word Bank. • Use dialogue structures (e.g.): My turn/ your turn; Partner A/Partner B; Collaborative groups. 	<p>Prior to reading, writing, and discussion, Teacher prepares collaborative discourse structures for students to...</p> <ul style="list-style-type: none"> • Engage pair work to prepare questions for discussion using graphic, interactive, and/or language supports as needed. • Contribute to pair/triad/small group discussions by supporting with examples, asking clarifying questions, and using graphic, interactive, and/or language supports as needed. • Engage with whole/large group discussions by connecting ideas with supporting details, generating original questions, and using graphic, interactive, and/or language supports as needed. • Use Graphic Organizers or notes to scaffold oral retelling. • Use Think-Pair-Share. • Repeat and expand their responses and other students' responses in a Collaborative Dialogue. • Use dialogue structures (e.g.): My turn/ your turn; Partner A/Partner B; Collaborative groups. 	<p>Prior to reading, writing, and discussion, Teacher prepares collaborative discourse structures for students to...</p> <ul style="list-style-type: none"> • Engage in structured pair work to process. • Inform and formulate thinking, then prepare questions for discussion. • Contribute to pair/triad/small group discussions to share individual ideas and compare with other ideas in the group, using graphic, interactive, and/or language supports as needed. • Engage with whole/large group discussions by generating original questions and/or building on the ideas of others using graphic, interactive, and/or language supports as needed. • Use oral reporting for summarizing group work. • Use dialogue structures (e.g.): My turn/ your turn; Partner A/Partner B; Collaborative groups.

Looking Back for Moves

Activity	Teacher Moves	Student Moves
Four Corners	Structured collaborative work to share experience and activate prior knowledge	Listen, speak, share, and report “corners” ideas
Reading and Understanding the Problem	Structured small group work and chunking parts of the process	Identify what the problem is asking and what resources are needed to solve it
Think-Pair-Share Squared	Structured small group work	Offer ideas, compare solutions with others, co-construct meaning with critical friends
Mini-lecture	Structured introduction of scientific concepts to support phenomena	Comprehend, synthesize, and communicate scientific concepts to support phenomena
Socratic Seminar	Provided discourse language structures and supports to enable students to co-construct meaning	Apply newly gained knowledge and language of discourse to novel situations or problem solving

Focus on Science Practice...



- How does the sequence of activities above provide English learners with opportunities to engage in using appropriate tools strategically?
- What additional supports might they need?

- **Please respond in the chat.**

3B: Teacher Moves for Practice 7: Engaging in Argument from Evidence

Practice 7a: Engaging in Argument from Evidence – Teacher Moves

Teacher Moves: What supports can teachers provide students at different proficiency levels to use language to interpret or make meaning of the content? Examples:

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p>To support engaging in argument from evidence provide illustrated, kinesthetic (sorts), and/or annotated graphic organizers to aid in: connecting evidence to claims and comparing and evaluating evidence based on a claim.</p> <ul style="list-style-type: none"> • Provide language frames to: <ul style="list-style-type: none"> ➢ Compare and critique arguments by citing evidence and posing questions using simple and compound sentences ➢ Use scientific reasoning supported by language frames and language banks to explain why or how evidence supports a claim. ❖ Ex 1 (compare/critique): How are the arguments similar or different? The arguments for both/all claims emphasize (type of evidence). <ul style="list-style-type: none"> ➢ e.g. The arguments for both claims emphasize human population. The argument for claim 1 emphasizes (type of evidence), but the argument for claim 2 emphasizes (different type of evidence). ➢ e.g. The argument for claim 1 emphasizes human population, but the argument for claim 2 emphasizes motor vehicles. ❖ Ex 2 (compare/critique): What is the source of your evidence for (specific claim)? The evidence for (claim) is data from (source). 	<p>To support engaging in argument from evidence provide illustrated, kinesthetic (sorts), and/or annotated graphic organizers to aid in: connecting evidence to claims and comparing and evaluating evidence based on a claim.</p> <ul style="list-style-type: none"> • Provide language frames to: <ul style="list-style-type: none"> ➢ Compare and critique arguments by citing evidence and posing questions using compound and increasingly complex sentences. ➢ Use scientific reasoning supported by complex language frames and language banks to explain why or how evidence supports a claim. ❖ Ex 1 (compare/critique): How are the arguments similar or different? The arguments for both/all claims emphasize (type of evidence). <ul style="list-style-type: none"> ➢ e.g. The arguments for both claims emphasize the effect of human population. The argument for claim 1 emphasizes (type of evidence); however, the argument for claim 2 emphasizes (different type of evidence). ➢ e.g. The argument for claim 1 emphasizes the effect of human population; however, the argument for claim 2 emphasizes motor vehicle emissions. 	<p>To support engaging in argument from evidence, provide graphic organizers to aid in: connecting evidence to claims and comparing and evaluating evidence based on a claim.</p> <ul style="list-style-type: none"> • Provide language frames to: <ul style="list-style-type: none"> ➢ Compare and critique arguments by citing evidence and posing questions using extended sentences and elaboration of content ➢ Use scientific reasoning and extended sentences and elaboration of content to explain why or how evidence supports a claim. ❖ Ex 1 (compare/critique): How are the arguments similar or different? The argument for claim 1 emphasizes (type of evidence), as does the argument for claim 2. <ul style="list-style-type: none"> ➢ e.g. The argument for claim 1 emphasizes the effect of human population, as does the argument for claim 2. The argument for claim 1 emphasizes (type of evidence), while the argument for claim 2 emphasizes (different type of evidence). ➢ e.g. The argument for claim 1 emphasizes the effect of human population, while the argument for claim 2 emphasizes motor vehicle emissions.

3B: Success Criteria for Practice 7: Engaging in Argument from Evidence

Practice 7b: Engaging in Argument from Evidence – Success Criteria

Success Criteria: How will students be able to **communicate or demonstrate their learning** of language and content in at **different language proficiency levels**? Examples: See [STEM Teaching Tool #30, \(pp. 14\)](#)

Entering/Emerging (Levels 1-2)	Developing/Expanding (Levels 3-4)	Bridging/Reaching (Levels 5-6)
<p align="center">Success Criteria</p> <p>Students will read, listen to, and/or observe a simplified and/or illustrated and labeled description of a phenomenon, then, using graphic organizers, simple sentence frames, and glossaries/dictionaries:</p> <ul style="list-style-type: none"> • state a claim about that phenomenon; • identify or match evidence that supports that claim; • match the scientific principle(s) that connect each piece of evidence to the claim. <p>NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p align="center">Success Criteria</p> <p>Students will read, listen to, and/or observe an illustrated and/or labeled description of a phenomenon, then, using graphic organizers, paragraph frames, and/or glossaries or dictionaries as needed:</p> <ul style="list-style-type: none"> • articulate (construct) a claim about that phenomenon; • identify evidence that supports that claim; • articulate or match the scientific principle(s) that connect each piece of evidence to the claim. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>	<p align="center">Success Criteria</p> <p>Students read, listen to, and/or observe a description of a phenomenon, then, using graphic organizers, complex sentence frames, and glossaries or dictionaries as needed:</p> <ul style="list-style-type: none"> • articulate (construct) a claim about that phenomenon; • identify evidence that supports that claim; • articulate the scientific principle(s) that connect each piece of evidence to the claim. <p>(NEPF – IP.1.3; 2.2; 3.4; 5.3)</p>

Questions and Wrap-up





Contact Information

Sophia Masewicz

Email: smasewicz@doe.nv.gov

Phone: 702.668.4347

Kulwadee (Kul) Axtell

Email: kaxtell@doe.nv.gov

Phone: 775.687.9256

Survey

https://uepc.co1.qualtrics.com/jfe/form/SV_29rlaAW38yEMMRM

Disclaimer

The content of this PowerPoint was developed under a grant from the Department of Education through the Office of Program and Grantee Support Services (PGSS) within the Office of Elementary and Secondary Education (OESE), by the Region 15 Comprehensive Center at WestEd under Award #S283B190053. This contains resources that are provided for the reader's convenience. These materials may contain the views and recommendations of various subject matter experts as well as hypertext links, contact addresses, and websites to information created and maintained by other public and private organizations. The U.S. Department of Education does not control or guarantee the accuracy, relevance, timeliness, or completeness of any outside information included in these materials. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service, enterprise, curriculum, or program of instruction mentioned in this document is intended or should be inferred.