

General Session Note Catcher

1. Standard (underline action verbs):

Clarifying information related to standard--note *Further Explanation, Content Limits, and Supporting Material sections (Idaho Science Standards)*

From previous classes, what knowledge and skills are students coming in with? How will they extend in later grades? *DCIs across grade levels (NGSS)*

Idaho Core Standards summarized

Literacy / ELA

Mathematics

Science practices

Any practices that stand out with this standard
OR ones you can see focusing on with an assessment

- SP1: Asking Question
- SP2: Develop and Use Models
- SP3: Plan and Carry Out Investigations
- SP4: Analyze and Interpret Data
- SP5: Use Math and Computational Thinking
- SP6: Construct Explanations
- SP7: Engage in Argument from Evidence
- SP8: Obtain, Evaluate and Communicate Information from a variety of sources

Cross cutting concepts

Any CCC that stand out or will be focused on

- CC1: Patterns
- CC2: Cause and Effect
- CC3: Scale, Proportion and Quantity
- CC4: Systems and System Models
- CC5: Energy and Matter
- CC6: Structure and Function
- CC7: Stability and Change

Similar or related standards that may be taught in same unit with this standard

General Session Note Catcher

2. Performance Assessment

Core content objectives of standard (*DCIs NGSS*) *Could look back at Day 1 note catcher*

Skills that students will perform (action verbs of standard and review Science Practices in unpacking section) and level(s) of inquiry that can / should be used.

Student Evidence of Standard--how will students demonstrate their learning?
(*NGSS Evidence Statements*)

Authenticity--are there real life or community topics that relate to standard that can be applied or connected to the assessment?

Brainstorm PBL / Performance assessment ideas

General Session Note Catcher

3. Harnessing Relevancy - Essential Questions and Field Work

Remember: Some questions function to **WIDEN** the relevance of unit... Some questions allow you to **FOCUS** the instruction from a case-in-point.

To Consider:

How does your essential question give students permission to take risks, join the learning, chart the course, and personally invest in their products, the data, and their own writing?

Of course you may use:	Who...?	Some other options might be:	
	What...?	Do...?	Does it...?
	Why...?	Is it...?	Was it...?
	When...?	Should you/it/humans/societies ...?	
	Where...?	Would you/it...?	Could/can...?
	How...?	Who can...?	Who should...?

You might also try:

To what extent ____?	Under what conditions ____?
Who is benefiting from ____?	What if ____?
Is it ever acceptable to ____?	
What is the controversy ____?	
What are the negative externalities of ____?	
What are the unseen consequences of ____?	

Possible "Power" WORDS for generating INQUIRY QUESTIONS:

Value	Benefit	Protection	Respect
Worth	Treasure	Consequence	Depletion
Cost	Purpose	Public	Evaluate
Price	Principle	Community	Attach importance to
Significance	Merit	Intent/Intentions	Unrestricted
Goal	Open	Resolve	Free/Freedom
Conservation	Communal	Preservation	Common
Accumulation	Shared	Responsibility	Own/Ownership
Judge	Fair	Appropriate	Tolerate

Other "powerful" words in your discipline or classroom:

Draft potential essential questions related to your class below:

General Session Note Catcher

3. Thinking Through Field Work Experiences:

Field trip → **field work** -- What, why, how?

1. When someone says “field trip” what does it make you think? What type of places do students go? What types of things do they do? For what purposes do these trips occur?
2. Think about your personal experiences with field trips - as a learner, teacher, parent, chaperone. How do they match or differ from what you described above?
3. When someone says “field work” what does it make you think? What type of places do scientists go? What types of things do they do? For what purposes does this work occur? Do you have field work experience? What did you do?

How do we create field trips that are purposeful and meaningful learning experiences?

As you think about potential opportunities outside your classroom, how could you shift it to make meaningful connections to engage students in data gathering and meaning-making while out in the field?

Is there any equipment that you've included in your kit that you could take with you in a meaningful way?

Brainstorm Ideas Here:

General Session Note Catcher

4. Instructional Sequence (using the 5E model)

Engage / Activate Prior knowledge: How will you capture student interest? What phenomena can you use to peak interest? How will you frontload your unit to access and build on prior knowledge? What information needs to be reviewed or provided that is essential for student success?

Hook or phenomena:

Frontloading (accessing or sharing prior knowledge/skills and important background information needed):

Explore / Investigate: How will students start to explore content and begin to practice skills? What activities will you do to begin to construct knowledge and practice skills associated with standard? *Guided inquiry is commonly used with exploration or a more open-ended approach can be used with specific, guided explanation after exploration.*

Key concepts to explore and how will students explore? What skills will students start using / practicing?

Level of inquiry:

Explain / Synthesize and Reflect: How will you allow students to begin to analyze and explain their explorations and/or phenomena they have observed? How student-centered can this be? Where will the teacher need to step in to help explain?

How will students analyze collected data?

How can students use explorations to construct key scientific concept(s)? Is teacher assistance needed?

General Session Note Catcher

Extend / Create and Design: How will you continue to build on student knowledge and skills? What content and skills will you continue to extend and build upon as you go deeper into your unit? How will you continue to extend knowledge and skills? What will you do to continue to allow students to practice needed skills? *Inquiry may be able to move or shift to a more open-ended or student-centered form. Guided inquiry can still be used at any time in the unit.*

What concepts have students learned? What concepts do students still need to learn?

How will students learn or construct these new concepts or extend previous learning?

What skills have students learned or practiced? What skills need to continue to be practiced? What new skills need to be practiced?

Evaluate / Communication: What is your end product students will produce that allows for you and the student to evaluate their progress towards achieving the standard? What formative assessments should be used along the way?

Summative assessment(s):

Cumulative assessment (PBL, authentic, student-centered)

Other smaller summative assessments:

Formative assessments: What knowledge and skills should be informally assessed before students begin any summative assessment?