

The 5 E's: Planning Activities to Best Support Learning

Title:

Teacher:

Grade Level(s):

Length of Lesson:

Next Generation Science Standards:	What NGSS practice(s) does this lesson plan or activity tie into?
Enduring Understandings:	What important ideas and core concepts should students understand from this lesson and carry on through other content areas?
Content Objective:	What do students need to know and be able to do by the end of this lesson?

Vocabulary	Materials
What key vocabulary will be used during this lesson?	What materials are needed to complete this lesson?

Seasonality: Is this lesson tied to a specific seasonal or environmental event? If so, when?				
Monsoon July-Sept.	Autumn Oct.-Nov.	Winter Dec.-Feb.	Spring Mar.-Apr.	Dry Summer May-June

Engage: Use questions to help generate interest, help students become curious, and focus on observation and details in nature. Help students connect past experiences to new observations and topics, raise questions, and assess current knowledge and misconceptions.

Examples: Have you ever seen...? What did you observe...? Did you notice...?

Explore: Give participants a chance to explore ideas or physical materials *before* explaining the content. Ask probing questions to redirect students' investigations when necessary.

Examples: What happened when...? What did you discover...? What do you think will happen if...? What questions do you have about...? What could we do to find out...?

Explain: Use students' previous experiences as a basis for explaining concepts. Encourage students to explain definitions in their own words, *then* provide scientific explanations and vocabulary.

Examples: What did you notice...? How is this the same or different from...? Can you compare this to something else? What do you think is the explanation for...? Can you explain your evidence for...? What might another explanation be...?

Elaborate: Use broad questions to encourage reasoning and analysis—involve students in authentic problem solving and critical thinking—help students generalize their knowledge and test their hypothesis.

Examples: What do you now know about the characteristics of...? What other factors do you think might be involved...? What does this remind you of?

Evaluate: Observe and assess students as they apply new concepts and skills. Allow students to assess their own learning and group process skills.

Examples: Use questions to encourage students to think back on what they have done and how they made sense of what they have explored. What surprised you? Did you change any of your initial thinking? How did you figure out...?

Teacher Reflection:

Teacher writes down his/her own reflections on how the lesson went. What went well, what could be improved upon, what you will keep in mind for the next lesson, etc.