



eNGAGE

An “engage” activity should:

1. Make connections between past and present learning experiences.
2. Anticipate activities and focus students' thinking on the learning outcomes of current activities.
 - a. Students should become mentally engaged in the concept, process, or skill to be learned.

What does it look like in the classroom?

Suggested Activity	Suggested Digital Media	Teacher's Role	Student's Role
<ul style="list-style-type: none">• Demonstrate• Interpret an image• Reading• Free write• KWL Chart	<ul style="list-style-type: none">• Images• Clip Art• Animations• Simulations• Songs• Sound Effects• Video Segments• Writing Prompts	<ul style="list-style-type: none">• Creates interest• Generates curiosity• Raises questions• Elicits responses that uncover prior knowledge and opinions	<ul style="list-style-type: none">• Asks questions such as: Why did this happen? What do I already know about this? What can I find out about this?• Shows interest in the topic



Explore:

This phase of the 5 E's provides students with a common base of experiences. They identify and develop concepts, processes, and skills. During this phase, students actively explore their environment or manipulate materials.

What does it look like in the classroom?

Suggested Activity	Suggested Digital Media	Teacher's Role	Student's Role
<ul style="list-style-type: none">• Hands on activity• Perform an investigation• Read authentic resource to collect information• Solve a problem• Construct a model	<ul style="list-style-type: none">• Fun-damental• Exploration• Virtual Lab• Simulated Science• Simulations• Reading passages• E-books	<ul style="list-style-type: none">• Encourages students to work together without direct instruction• Observes and listens to the students as they interact• Asks probing questions and redirects students investigations when necessary• Provides time for students to puzzle through problems	<ul style="list-style-type: none">• Thinks freely but within the limits of the activity• Tests predictions and hypothesis• Forms new predictions and hypothesis• Tries alternatives and discusses them with others• Records observations and ideas



xplain:

This phase of the 5 E's helps students explain the concepts they have been exploring. They have opportunities to verbalize their conceptual understanding or to demonstrate new skills or behaviors.

What does it look like in the classroom?

Suggested Activity	Suggested Digital Media	Teacher's Role	Student's Role
<ul style="list-style-type: none">• Supporting ideas with evidence• Structured questioning• Reading and discussion• Teacher explanations	<ul style="list-style-type: none">• Video Segments• E-books• Reading passages• Interactive videos• Interactive glossary	<ul style="list-style-type: none">• Formally provides definitions, explanations, and new labels• Uses students' previous experiences as a base for explaining concepts• Encourages students to explain concepts and definitions in their own words	<ul style="list-style-type: none">• Listens officially to others explanations• Questions others' explanations• Makes connections to prior knowledge• Records observations and explanations• Explains possible solutions to others



E Laborate / Extend:

This phase of the 5 E's extends students' conceptual understanding and allows them to practice skills and behaviors. Through new experiences, the learners develop deeper and broader understanding of major concepts, obtain more information about areas of interest, and refine their skills.

What does it look like in the classroom?

Suggested Activity	Suggested Digital Media	Teacher's Role	Student's Role
<ul style="list-style-type: none"> • Problem solving • Decision making • Creating products • Experiments • Inquiry • Think skill activities (compare, classify, apply) 	<ul style="list-style-type: none"> • Virtual Labs • Integrated Science Simulations • Science Sleuths • Writing Prompts • Video creation • Digital storytelling • Web 2.0 tools 	<ul style="list-style-type: none"> • Encourages students to apply or extend concepts to new situations • Makes real life connections • Have students construct learning artifacts to demonstrate synthesis. 	<ul style="list-style-type: none"> • Applies formal definitions, explanations, and labels in new ways • Uses previous information to ask questions, propose solutions, make decisions, and design experiments • Draws reasonable conclusions from evidence • Records observations • Checks understanding among peers

★ Over half of DE content is editable so there are no copyright concerns. ★



valuate:

This phase of the 5 E's encourages learners to assess their abilities and lets teachers evaluate students' understanding of key concepts and skill development.

- Teachers can use Discovery Education SCIENCE pre-built formative assessments or each unit or create customized assessments built around state standards.

What does it look like in the classroom?

Suggested Activity	Suggested Digital Media	Teacher's Role	Student's Role
<ul style="list-style-type: none"> • Tests/quizzes • Performance assessments • Producing an artifact • Journal entry • Portfolio 	<ul style="list-style-type: none"> • Student self assessments • Custom assessments • Writing prompts • Blogs • Wikis • Web 2.0 tools 	<ul style="list-style-type: none"> • Observes students as they apply new concepts and skills • Assesses students' knowledge and/or skills • Looks for evidence of shifts in thinking or behavior • Asks open ended questions 	<ul style="list-style-type: none"> • Answers open ended questions using evidence, observations, and previously accepted explanations • Demonstrates an understanding or knowledge of the concept or skill • Self evaluation • Asks leading questions