

Key Components of the 5 E Model*

Stage of the Instructional Model	What the Teacher does that is:	
	Consistent with the Model	Inconsistent with the Model
Engage	<ul style="list-style-type: none"> Creates interest Generates curiosity Raises questions Elicits responses that uncover what students know or think about the concept/subject 	<ul style="list-style-type: none"> Explains concepts Provides definitions and answers States conclusions Provides premature answers to students' questions Provides closure Lectures
Explore	<ul style="list-style-type: none"> Encourages students to work together without direct instruction from the teacher Observes and listens to students as they interact Asks probing questions to redirect students' investigations when necessary Provides time for students to puzzle through problems Acts as a consultant for students Creates a "need to know" setting 	<ul style="list-style-type: none"> Provides answers Tells or explains how to work through the problem Tells students they are wrong Gives information or facts that solve the problem Leads students step-by-step to a solution
Explain	<ul style="list-style-type: none"> Encourages students to explain concepts and definitions in their own words Asks for justification (evidence) and clarification from students Formally provides definitions, explanations, and new labels Uses students' previous experiences as the basis for explaining concepts Assesses students' growing understanding 	<ul style="list-style-type: none"> Accepts explanations that have no justification Neglects to solicit students' explanations Introduces unrelated concepts or skills
Elaborate	<ul style="list-style-type: none"> Expects students to use formal labels, definitions and explanations provided previously Encourages students to apply or extend concepts and skills in new situations Reminds students of alternate explanations Refers students to existing data and evidence and asks "What do you already know?" "Why do you think.....?" (Strategies from Explore also apply here.) 	<ul style="list-style-type: none"> Provides definitive answers Tells students they are wrong Lectures Leads students step-by-step to a solution Explains how to work through the problem
Evaluate	<ul style="list-style-type: none"> Observes students as they apply new concepts and skills Assesses students' knowledge and/or skills Looks for evidence that students have challenged their thinking or behaviors Allows students to assess their own learning and group process skills Asks open-ended questions, such as "Why do you think...?" "What evidence do you have?" "What do you know about x?" "How would you explain x?" 	<ul style="list-style-type: none"> Tests vocabulary words, terms and isolated facts Introduces new ideas or concepts Creates ambiguity Promotes open-ended discussion unrelated to concept or skill

Stage of the Instructional Model	What the Student does that is:	
	Consistent with the Model	Inconsistent with the Model
Engage	<ul style="list-style-type: none"> Asks questions such as <ul style="list-style-type: none"> “Why did this happen?” “What do I already know about this?” “What can I find out about this?” Shows interest in the topic 	<ul style="list-style-type: none"> Asks for the “right” answer Offers the “right” answer Seeks one solution
Explore	<ul style="list-style-type: none"> Thinks freely, within the limits of the activity Tests predictions and hypotheses Forms new predictions and hypotheses Tries alternatives and discusses them with others Records observations and ideas Asks related questions Suspends judgment 	<ul style="list-style-type: none"> Lets others do the thinking and exploring (passive involvement) “Plays around” indiscriminately with no goal in mind Stops with one solution
Explain	<ul style="list-style-type: none"> Explains possible solutions or answers to others Listens critically to others’ explanations Listens to and tries to comprehend explanations that the teacher offers Refers to previous activities Uses recorded observations in explanations Assesses own understanding 	<ul style="list-style-type: none"> Proposes explanations from “thin air” with no relationship to previous experiences Brings up irrelevant experiences and examples Accepts explanations without justification Does not attend to other plausible explanations
Elaborate	<ul style="list-style-type: none"> Applies new labels, definitions, explanations, and skills in new but similar situations Uses previous information to ask questions, propose solutions, make decisions, and design experiments Draws reasonable conclusions from evidence Records observations and explanations Checks for understanding among peers 	<ul style="list-style-type: none"> Plays around with no goal in mind Ignores previous information or evidence Draws conclusions from thin air In discussion, uses only those labels that the teacher provided
Evaluate	<ul style="list-style-type: none"> Answers open-ended questions by using observations, evidence, and previously accepted explanations Demonstrates an understanding or knowledge of the concept or skill Evaluates his or her own progress and knowledge Asks related questions that would encourage future investigations 	<ul style="list-style-type: none"> Draws conclusions, not using evidence or previously accepted explanations Offers only yes-or-no answers and memorized definitions or explanations as answers Fails to express satisfactory explanations in his or her own words

*Adapted from: The BSCS 5E Instructional Model: Origins, Effectiveness, and Applications, July 2006, Bybee, et.al, pp. 33-34, and <http://www.unc.edu/destiny/5Es.htm>