5E Instructional Model

	What the Teacher does Consistent with the 5E Model	What the Teacher does Inconsistent with the 5E Model	What the Student does Consistent with the 5E Model	What the Student does Inconsistent with the 5E Model
ENGAGE	 Generates interest and curiosity Raises questions Assess current knowledge, including misconceptions 	 Explains concepts Provides definitions and conclusions Lectures 	 Ask 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 	 Asks for the "right" answer Offers the "right" answer Insists on answers and explanations
EXPLORE	 Provides time for students to work together Observes and listens to students as they interact Asks probing questions to redirect students' investigations when necessary 	 Explains how to work through the problem or provides answers Tells students they are wrong Gives information or facts that solve the problem 	 Thinks creatively, but within the limits of the activity Tests predictions and hypotheses Records observations and ideas 	 Passively allows others to do the thinking and exploring "Plays around" indiscriminately with no goal in mind Stops with one solution
EXPLAIN	 Asks for evidence and clarification from students Uses students' previous experiences as a basis for explaining concepts Encourages students to explain concepts and definitions in their own words, then provides scientific explanations and vocabulary 	 Does not solicit the students' explanations Accepts explanations that have no justification Introduces unrelated concepts or skills 	 Explains possible solutions to others Listens critically to explanations of other students and the teacher Uses recorded observations in explanations 	 Proposes explanations from "thin air" with no relationship to previous experiences" Brings up irrelevant experiences and examples Accepts explanations without justification
ELABORATE	 Expects students to apply scientific concepts, skills, and vocabulary to new situations Reminds students of alternative explanations Refers students to alternative explanations 	 Provides definite answers Leads students to step-by- step solutions to new problems Lecture 	 Applies new labels, definitions, explanations, and skills in new but similar situations Uses previous information to ask questions, propose solutions, make decision, design experiments Records observation and explanations 	 "Plays around" with no goal in mind Ignores previous information or evidence Neglects to record data
EVALUATE	 Observes and assesses students as they apply new concepts and skills Allows students to assess their own learning and group process skills Asks open-ended questions 	 Tests vocabulary words and isolated facts Introduces new ideas or concepts Promotes open- ended discussion unrelated to the concept 	 Demonstrates an understanding of the concept or skill Answers open-ended questions by using observations, evidence, and previously accepted explanations Evaluates his/her own progress and knowledge 	 Draws conclusions, not using evidence or previously accepted explanations Offers only yes-or-no answers and memorized definitions or explanations Fails to express satisfactory explanations in his/her own words