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What the Teacher Does		
Stage	That is <i>consistent</i> with the BSCS 5E Instructional Model	That is <i>inconsistent</i> with the BSCS 5E Instructional Model
Engage	<ul style="list-style-type: none"> • Piques students' curiosity and generates interest • Determines students' current understanding (prior knowledge) of a concept or idea • Invites students to express what they think • Invites students to raise their own questions 	<ul style="list-style-type: none"> • Introduces vocabulary • Explains concepts • Provides definitions and answers • Provides closure • Discourages students' ideas and questions
Explore	<ul style="list-style-type: none"> • Encourages student-to-student interaction • Observes and listens to the students as they interact • Asks probing questions to help students make sense of their experiences • Provides time for students to puzzle through problems 	<ul style="list-style-type: none"> • Provides answers • Proceeds too rapidly for students to make sense of their experiences • Provides closure • Tells students that they are wrong • Gives information and facts that solve the problem • Leads the students step-by-step to a solution
Explain	<ul style="list-style-type: none"> • Encourages students to use their common experiences and data from the Engage and Explore lessons to develop explanations • Asks questions that help students express understanding and explanations • Requests justification (evidence) for students' explanations • Provides time for students to compare their ideas with those of others and perhaps to revise their thinking • Introduces terminology and alternative explanations after students express their ideas 	<ul style="list-style-type: none"> • Neglects to solicit students' explanations • Ignores data and information students gathered from previous lessons • Dismisses students' ideas • Accepts explanations that are not supported by evidence • Introduces unrelated concepts or skills
Elaborate	<ul style="list-style-type: none"> • Focuses students' attention on conceptual connections between new and former experiences • Encourages students to use what they have learned to explain a new event or idea • Reinforces students' use of scientific terms and descriptions previously introduced • Asks questions that help students draw reasonable conclusions from evidence and data 	<ul style="list-style-type: none"> • Neglects to help students connect new and former experiences • Provides definitive answers • Tells the students that they are wrong • Leads students step-by-step to a solution
Evaluate	<ul style="list-style-type: none"> • Observes and records as students demonstrate their understanding of the concepts and performance of skills • Provides time for students to compare their ideas with those of others and perhaps to revise their thinking • Interviews students as a means of assessing their developing understanding • Encourages students to assess their own progress 	<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 the concept or skill

What the Students Do		
Stage	That is <i>consistent</i> with the BSCS 5E Instructional Model	That is <i>inconsistent</i> with the BSCS 5E Instructional Model
Engage	<ul style="list-style-type: none"> • Become interested in and curious about the concept or topic • Express current understanding of a concept or idea • Raise questions such as, What do I already know about this? What do I want to know about this? How could I find out? 	<ul style="list-style-type: none"> • Ask for the “right” answer • Offer the “right” answer • Insist on answers or explanations • Seek closure
Explore	<ul style="list-style-type: none"> • “Mess around” with materials and ideas • Conduct investigations in which they observe, describe, and record data • Try different ways to solve a problem or answer a question • Acquire a common set of experiences so they can compare results and ideas • Compare their ideas with those of others 	<ul style="list-style-type: none"> • Let others do the thinking and exploring (passive involvement) • Work quietly with little or no interaction with others (only appropriate when exploring ideas or feelings) • Stop with one solution • Demand or seek closure
Explain	<ul style="list-style-type: none"> • Explain concepts and ideas in their own words • Base their explanations on evidence acquired during previous investigations • Record their ideas and current understanding • Reflect on and perhaps revise their ideas • Express their ideas using appropriate scientific language • Compare their ideas with what scientists know and understand 	<ul style="list-style-type: none"> • Propose explanations from “thin air” with no relationship to previous experiences • Bring up irrelevant experiences and examples • Accept explanations without justification • Ignore or dismiss other plausible explanations • Propose explanations without evidence to support their ideas
Elaborate	<ul style="list-style-type: none"> • Make conceptual connections between new and former experiences • Use what they have learned to explain a new object, event, organism, or idea • Use scientific terms and descriptions • Draw reasonable conclusions from evidence and data • Communicate their understanding to others 	<ul style="list-style-type: none"> • Ignore previous information or evidence • Draw conclusions from “thin air” • Use terminology inappropriately and without understanding
Evaluate	<ul style="list-style-type: none"> • Demonstrate what they understand about the concept(s) and how well they can implement a skill • Compare their current thinking with that of others and perhaps revise their ideas • Assess their own progress by comparing their current understanding with their prior knowledge • Ask new questions that take them deeper into a concept or topic area 	<ul style="list-style-type: none"> • Disregard evidence or previously accepted explanations in drawing conclusions • Offer only yes-or-no answers or memorized definitions or explanations as answers • Fail to express satisfactory explanations in their own words • Introduce new, irrelevant topics