

Name of Lesson/Topic of Study \_\_\_\_\_ Grade Level(s) \_\_\_\_\_ Duration of Lesson/Unit \_\_\_\_\_

Curriculum Resources:

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State Standards (all standards that apply including science, literacy and mathematics)

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Learning Goals (to be written on board or overhead and in student note books) \_\_\_\_\_

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Key Vocabulary: \_\_\_\_\_

Preparation \_\_\_\_\_

Safety Considerations \_\_\_\_\_

What to Do: (see explanation on page 2)

Lesson Phase	Notes and Discussion (Details of what the teacher and students will do.)	Materials Needed	Essential Questions (Probes/Questions to ask students at every phase in the lesson)	Evaluate (Student outcomes to “Look For”, products, or performances at every phase of the lesson)
<b>Engage</b> mentally engage students with an event or question.				
<b>Explore</b> hands-on experiences to explore the concept further.				
<b>Explain</b> provide the scientific explanation and terms for what they are studying...via lecture, demonstration, reading, or multimedia (video, computer-based).				
<b>Elaborate/Extend</b> opportunities to apply the concept in unique situations, or they are given related ideas to explore and explain using the information and experiences they have accumulated so far. ...discussing their ideas with others, students can construct a deeper understanding of the concepts.				

Note: This lesson template is adapted from the 5E Instructional Model developed by the Biological Sciences Curriculum Study.

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### Engage

These activities mentally engage students with an event or question. Engagement activities capture students' interest and help them to make connections with what they know and can do. The teacher provides an orientation to the unit and assesses students' prior understanding of the concepts addressed in the unit.

### Explore

Students encounter hands-on experiences in which they explore the concept further. They receive little explanation and few terms at this point, because they are to define the problem or phenomenon in their own words. The purpose at this stage of the model is for students to acquire a common set of experiences from which they can help one another make sense of the concept. Students must spend significant time during this stage of the model talking about their experiences, both to articulate their own understanding and to understand another's viewpoint.

### Explain

Only after students have explored the concept does the curriculum and/or teacher provide the scientific explanation and terms for what they are studying. The teacher may present the concepts via lecture, demonstration, reading, or multimedia (video, computer-based). Students then use the terms to describe what they have experienced, and they begin to examine mentally how this explanation fits with what they already know.

### Elaborate/Extend

Students elaborate on their understanding of the concept. They are given opportunities to apply the concept in unique situations, or they are given related ideas to explore and explain using the information and experiences they have accumulated so far. Interaction between the students is essential during the elaboration stage. By discussing their ideas with others, students can construct a deeper understanding of the concepts