

# Mars Rover Celebration NGSS Alignment

**WEEK 2:** INVESTIGATING MARS

**LESSON 4:** INVESTIGATE MARS

**GRADE LEVEL:** 3-5

## PERFORMANCE EXPECTATIONS

In the NGSS framework, one of the important things that teachers need to do is explicitly identify when Science and Engineering Practices (SEP) and Cross Cutting Concepts (CCC) are being covered. The SEP's and CCC's are pervasive throughout the Mars Rover Celebration curriculum. The tables here are intended to assist the teacher in deciding when to mention that an SEP or CCC is part of the material being presented.

Lesson Objectives		
Students who demonstrate understanding can: <ul style="list-style-type: none"><li>Identify important details in informational texts</li><li>Learn and or review summarizing skills</li><li>Work collaboratively to locate important information about Mars such as terrain, climate, and atmosphere</li><li>Understand the rationale and importance of note-taking</li><li>Develop effective note-taking strategies</li><li>Apply note-taking skills to record key information in students' Science Notebooks</li></ul>		
Interdependent Relationships in Ecosystems		
<b>3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</b>		
SCIENCE AND ENGINEERING PRACTICES (SEP)	DISCIPLINE CORE IDEAS (DCI)	CROSSCUTTING CONCEPTS (CCC)
<b>Obtaining, Evaluating, and Communicating Information</b> Obtain and combine information from books and other reliable media to explain phenomena.  <b>Analyzing and Interpreting Data</b>	<b>ESS1: Earth's Place in the Universe:</b> ESS1.B: Earth and the Solar System	<b>Constructing Explanation and Designing Solutions</b> Use evidence to construct an explanation.

Analyze and interpret data to make sense of phenomena using logical reasoning.

## SUMMARY OF THE THREE DIMENSIONS

The 5E lesson model provides the 5 phases of learning that helps to facilitate the process of science understanding. Teachers are encouraged to use the table below to help align their teaching methods with the embedded Science and Engineering Practices (SEP), Disciplinary Core Ideas (DCI) and Cross Cutting Concepts (CCC) present in the lesson.

5E MODEL PHASE	SCIENCE AND ENGINEERING PRACTICES (SEP)	DISCIPLINE CORE IDEAS (DCI)	CROSSCUTTING CONCEPTS (CCC)
<b>ENGAGE</b>	Obtaining, Evaluating and Communicating Information	Earth and the Solar System	Constructing Explanations and Designing Solutions
<b>EXPLORE</b>	Analyzing and Interpreting Data	Earth and the Solar System	Constructing Explanations and Designing Solutions
<b>EXPLAIN</b>	Obtaining, Evaluating and Communicating Information	Earth and the Solar System	Constructing Explanations and Designing Solutions
<b>ELABORATE</b>	Obtaining, Evaluating and Communicating Information	Earth and the Solar System	Constructing Explanations and Designing Solutions
<b>EVALUATE</b>	Performance Expectations	Performance Expectations	Performance Expectations