

## InSight Mars Lander

<b>Performance Expectations</b>	<b>SEP: 2ESS2-1: Construction explanations and designing solutions. MS-ESS2-5</b>	<b>DCI: 2ESS2.A: Wind &amp; water can change the shape of land. 5ESS2.A; 4ETS1.A</b>	<b>CCC: 2ESS-2/3: Patterns in the natural world can be observed.</b>
<b>NGSS</b>	<b>ESS2.A. Earth Materials and Systems</b> <b>PS4.A. Wave Properties</b>		
<b>Content</b>	<p>NASA’s Interior Exploration using Seismic Investigations, Geodesy and Heat transport or InSight Mars Lander which was the first planetary mission to take off from the West Coast launched aboard a United Launch Alliance Atlas V rocket. InSight will be the first mission to look deep beneath the Martian surface. It will study the planet’s interior by measuring its heat output and listen for mars quakes. The spacecraft will use the seismic waves generated by mars quakes to develop a map of the planet’s deep interior. The resulting insight into Mars’ formation will provide a better understanding of how other rocky planets, including Earth, were created. InSight launched on May 5, 2018.</p> <p>Now, InSight is dedicated to studying the deep interior of the planet and is the first mission to do so. NASA will try to safely set InSight on Mars’ surface on November 26, 2018.</p> <p>Landing on Mars is hard and only 40 percent of the missions to Mars (by any space agency) have been successful. The US is the only nation whose missions have actually survived a Mars landing.</p> <p>In the resources section, you will be directed to sites that will give you an overview of the mission as well as the important things to know about InSight’s Mars Landing.</p>		
<b>Instrument</b>	 <p style="text-align: center;">InSight before mating to the Atlas V rocket.</p>		
<b>Connections</b>	<p>JPL manages the InSight mission for the agency’s Science Mission Directorate in Washington. InSight is part of NASA’s Discovery Program, managed by the agency’s Marshall Space Flight Center in Huntsville, Alabama. The spacecraft including cruise stage and lander was built and tested by Lockheed Martin Space in Denver.</p> <p>Several European partners, including France’s space agency, the Centre National d’Etude Spatiales (CNES) and Germany’s DLR are supporting the mission.</p> <p>ULA of Centennial, Colorado, is providing the Atlas V launch service. The Launch Services Program at NASA’s Kennedy Space Center in Florida, is responsible for launch management.</p>		
<b>Resources</b>	<p><b>For more information on InSight, visit:</b> <a href="https://www.nasa.gov/mission_pages/insight/main/index.html">https://www.nasa.gov/mission_pages/insight/main/index.html</a>  <a href="https://www.nasa.gov/feature/jpl/five-things-to-know-about-insights-mars-landing">https://www.nasa.gov/feature/jpl/five-things-to-know-about-insights-mars-landing</a></p> <p><b>For classrooms activities:</b>  <a href="https://mars.nasa.gov/files/mep/Mystery%20Planet%20Lesson.pdf">https://mars.nasa.gov/files/mep/Mystery%20Planet%20Lesson.pdf</a></p> <p><b>Teacher Information:</b>  <a href="https://www.jpl.nasa.gov/edu/events/2018/9/29/the-insight-mission-arriving-on-mars/">https://www.jpl.nasa.gov/edu/events/2018/9/29/the-insight-mission-arriving-on-mars/</a></p>		