

8th Grade Science

Solar System Choice Board

There are nine activities to choose from, pick as many as you wish to explore!

<p>Let's Explore Mars!</p> <p>Click the link below to take a virtual trip to the Red Planet: https://share.nearpod.com/vsph/5HvSvkT3Mu</p> <p>Create a data table that includes similarities and differences that you observe in the Martian landscape compared to Earth's landscape.</p> <p>Answer the question: Do you think life could exist on Mars?</p> <p>Provide evidence from what you observed and recorded from your virtual trip to support your answer.</p>	<p>Choose One Planet to Explore!</p> <p>https://solarsystem.nasa.gov/planets/overview/</p> <p>Create a travel brochure that shares why this planet would be the best planet for humans to explore beyond Earth. Include text and pictures regarding:</p> <ul style="list-style-type: none"> • size • mass • Gravitational pull • moons • length of year • length of day • special or unique characteristics 	<p>What's Up in the Sky?</p> <p>Click the link below to watch tips from NASA on what to look for in the March night sky: https://youtu.be/wf5ZE15ocCo</p> <p>Observe as many objects in the night sky that you can view from your house.</p> <p>Write a summary of your observations, including types of objects (stars, planets, comets, satellites, etc.) and what evidence is present to correctly identify each object.</p>
<p>The Mars Maneuver</p> <p>Where can you safely land on Mars? NASA solves this real problem to explore the Red Planet and – with pi as your guide- so can you!</p> <p>Click the link below to explore Curiosity's landing ellipse compared to Perseverance's landing ellipse: https://snohomishschoolistrict-my.sharepoint.com/:b:/g/personal/erika_robbins_sno_wednet_edu/EVvQfBg3G1pEtT7-OYGtsIUBL7KN5tr2Y127VR34jZKU5A?e=ufcVge</p>	<p>Soft Landing!</p> <p>Spacecraft use airbags. Cars use airbags. Packages use airbags. Air makes a great cushion. Three rovers have landed safely on Mars using an airbag system.</p> <p>See the animations below of one rover landing: https://youtu.be/KyktvC7w7Js</p> <p>We challenge you to....</p> <ul style="list-style-type: none"> • Design and build an airbag system that can safely land an egg (<i>hardboiled!</i>) dropped onto the floor. <p>Click the link below to access this design challenge! https://snohomishschoolistrict-my.sharepoint.com/:b:/g/personal/erika_robbins_sno_wednet_edu/ETiifv_bo1FBITCKBnEoRU0Bs8U5BTkhtgFrzzJFZTW8Aw?e=dxoG3B</p>	<p>Gravity Assist! What happens when Astronauts go back to Moon School?</p> <p>Listen to the podcast linked below: https://www.nasa.gov/sites/default/files/atoms/audio/ga_kelsey_young_mix_3.mp3</p> <p>Click here to view a transcript of the podcast: https://www.nasa.gov/mediacast/gravity-assist-astronauts-go-back-to-moon-school-with-kelsey-young</p> <p>As you listen or read, record the following:</p> <ul style="list-style-type: none"> • Two things you were already familiar with from class. • Three things you thought were interesting or cool! • If you were to go to Moon School, what would you be excited and nervous about?

NASA's Planet Hunter

NASA's TESS spacecraft will scan for closer Earth-like exoplanets.

Click the link below to open the article:

https://snohomishschoolistrict-my.sharepoint.com/:b:/g/personal/erika_robbins_sno_wednet_edu/EXzxpAvyVIGncQBEVrNKmoBJBviHaTCpmmf68cP9xX9YA?e=f1fZCe

After **reading the article**, respond to the following questions and use **evidence** from the article to support your answers:

1. What do you think the American public should know about the TESS program?
2. Why is finding habitable planets a worthwhile endeavor?

Exoplanet Travel Bureau

Click the link to take a trip outside of our Solar System!

<https://exoplanets.nasa.gov/alien-worlds/exoplanet-travel-bureau/>

- Select "**Explore the Galaxy**"
- Choose a destination by using the side arrows to see options and select "**Explore the Surface**" on the Exoplanet you want to travel to.

Record your observations from the surface of this Exoplanet. Planet features are shared with hyperlinks and active buttons seen as you explore the surface. **Write a summary of what the surface is like and if this Exoplanet could be habitable for life.**

Your Age on other Worlds

How old would you be if you were a Martian? Let's find out!

Click the link below to see the Solar System Birthday Calculator:

<https://www.exploratorium.edu/ronh/age/index.html>

Find which planet you are the oldest on.

Find which planet you are the youngest on.

Write a summary sharing your age difference between Earth and the planets you are oldest and youngest on and **why** your age would be different on those planets.

