

In Good Hands: Designing Space Gloves

Tips for Interactivity highlight free digital resources that educators and kids can access to complement the work completed in the Engineering Journal. These resources offer opportunities to use technology to support kids as they collect data on their designs and processes, communicate about their engineering work, and visualize scientific concepts. Use the tips below to build on these learning goals and leverage resources to further engage in planetary science!

Access to the Internet and a digital tool, such as a phone, iPad, and/or computer, are required. Suggestions for when to use the tip during the teaching of the unit are highlighted in red.

ALL ADVENTURES

Photo and Video Documentation

Have kids use a digital notebooking tool or their smartphone to record data that they can share during the Engineering Showcase (A7). Kids can:

- Take a short video of how their materials performed during testing. (A2, A3, A4)
- Take photos to keep track of different versions of designs. Consider drawing on top of these to plan improvements! (A5)
- Take a video of their technology as they are in the Create step. (A5)
- Document the testing of their technologies with photo and slow-motion video. Kids can annotate photos to show what worked, what did not work, and what they will change after each test. (A5)

ADVENTURE 1

Clickable Spacesuit

https://www.nasa.gov/audience/foreducators/spacesuits/home/clickable_suit.html



This interactive resource from NASA highlights different parts of a spacesuit and how they fit together to protect astronauts from various space hazards. Kids can use this resource to build on their background knowledge of spacesuits and materials engineering.

ADVENTURE 2

Temperature Conversion Tool

<https://www.sensorsone.com/temperature-converter/>

Use a temperature conversion tool like the one developed by Sensors One to help kids easily switch between Celsius and Fahrenheit temperature readings. In this unit, students record temperatures taken in Celsius, a temperature scale preferred by scientists around the world. Students can access this conversion tool to compare their Celsius readings to the more familiar Fahrenheit scale and can gain more experience switching between the two.

ADVENTURE 4

World Wide Telescope

<http://www.worldwidetelescope.org/webclient/>



Kids can use this free, web-based visualization tool from the American Astronomical Society to zoom into the sites on their mission profile and experience them in immersive panorama. The World Wide Telescope can display asteroids, Mars, Earth's Moon, and much more in 3D, providing kids with a real view into the universe.