

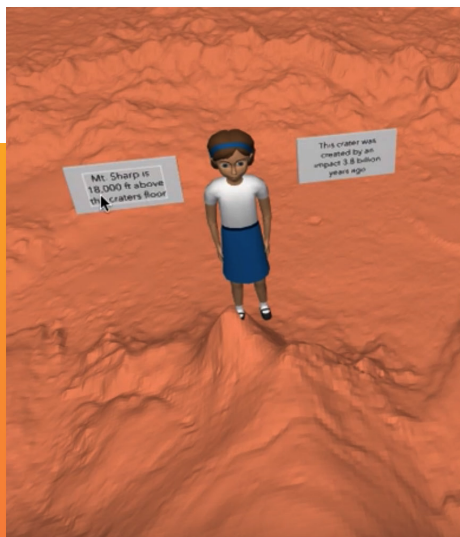
# Welcome to Mars

Grades

4-7

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\*Requires accounts with CoSpaces Edu Pro and Tinkercad



Difficulty **3**



3-45 minutes



small group

**Tags:** Solar System, Mars, Design, CoSpaces Edu, Tinkercad

## App/Tech Tools

CoSpaces Edu Pro accounts, Tinkercad account, MERGE Cube, MERGE Headset (optional), device (phone/tablet)

## Materials

### Learning Objectives

- Develop a presentation on a specific topographical feature on Mars.
- Create interactive presentations while communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate.
- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest.
- Transfer and apply learning to new situations.

## Activity

In this lesson students will be observing a 3D virtual tour of a specific Mars topographical feature then rebuilding that tour (or pieces of it) inside CoSpaces, finally displaying it in AR on the Merge cube or in VR.

1. Start by having students explore the amazing virtual reality audio tour of the Gale Crater on Mars [here](#) (LA Times, Discovering Gale Crater) They should take notes on what they see and perhaps even sketch out interesting features that can be included in their final presentation.
2. Next have students drag and drop the .stl file of the crater to place into their CoSpaces.
3. Browse through NASA's 3D models on their 3D Resources page [here](#) (NASA 3D Resources). You are looking for the model of the Gale Crater.
4. Have students log into their CoSpaces account then proceed to the video to learn how to build your presentation.



Now load the scene onto your Merge cube or into your VR goggles!

## Suggested Questions

- Could you create other maps of locations on Mars and create AR presentations on them?
- There are many different .stl models on the NASA 3D Resources site. Could you place a satellite above your scene and have it move in a circular pattern?
- Can you find a way to include the Curiosity rover in your scene and talk about what it was doing there?
- There is another Merge lesson where you create our solar system, how could you link this presentation with that model?
- Could you build a living space in Tinkercad and bring that into CoSpaces, then talk about how it would function?

## Extension Ideas

- Gale crater is the landing site of the Mars rover, Curiosity. Have students log into their Tinkercad account then "Copy and Tinker" the Curiosity file [here](#) (Mars Rover designed by Nate Lott)
- Can you recreate the rover and bring it into your scene?

