



## Cosmic Art Challenge



Link to full directions from NASA: <https://www.jpl.nasa.gov/edu/teach/activity/art-the-cosmic-connection/>

Materials – Drawing paper, drawing materials (pastels recommended but crayons/colored pencils/markers work too), Q-tips for blending, dictionary (optional)

**Elements of Art and Their Geology Matches:** The elements of art – *shape, line, color, value, texture* – offer an amazing way to make sense of planetary geology and atmospheres.

- **Circles** – When circles are viewed on a planetary image, it often indicates an impact feature, a crater.
- **Blobs** – Organic shapes, or blobs, can often be interpreted in two ways. Blobs frequently mean that one is viewing volcanic processes and lava flows. They can also indicate existing bodies of surface liquid (rivers and seas) or ancient bodies of liquid that left remnants of dried beds.
- **Straight Lines** – The presence of straight lines on a planetary body is often indicates tectonic activity, including faults, ridges, cracks and mountains.
- **Squiggly Lines** – The presence of squiggly lines on the surface often tells us forces of erosion are at work, including that of liquid and wind.
- **Color** – Can highlight distinct aspects of a planet: topography, mineral composition, even gravity!
- **Value** – Value is the contrast of light and dark. Its scientific counterpart is called albedo - the measure of the reflectivity of a surface.
- **Texture** – Implied texture, we can see with our eyes, yet not touch. Images of planetary bodies have a lot of various textures that correspond to their geologic history.

### Challenge Directions: Do/Reflect/Apply

1. Select an image to draw: [https://www.jpl.nasa.gov/edu/pdfs/cosmicart\\_images.pdf](https://www.jpl.nasa.gov/edu/pdfs/cosmicart_images.pdf)
2. Make a drawing inspired by one of the images. *What do you see in the images? What do you notice?* Pay special attention to the elements of art shared above and how you could use them in your drawing. If any of the vocabulary is new to you, be sure to use a dictionary (book or online) to help.
3. When done, think about the following questions: *How can science inspire art – or art inspire science? How does examining the image help you tell its story?*
4. Share your drawing with others. With an adult's permission, share a photo of your drawing with us!  
Hashtags: #4hAtHome or #IowaSpaceGrantConsortium

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