

The Art of Spaceflight

Space art has long been a key part of the exploration of space. In the 1950s, space artists such as Chesley Bonestell illustrated space exploration concepts for books and magazine articles. At the same time, animation artists at Disney Studios, working with space experts such as Dr. Werner von Braun, showed what the first missions to space, the Moon, and beyond might look like. The American public was enchanted by dreams of spaceflight, and the American effort to explore outer space was born.

Space art continues to support the exploration of space. Besides promoting mission concepts with decision makers and the public, space art also provides scientists, engineers, and technicians a concept picture of what they are trying to do. They see what the myriad systems they are working on look like assembled together. Furthermore, space art excites and motivates students to pursue careers in science, technology, engineering, and mathematics.

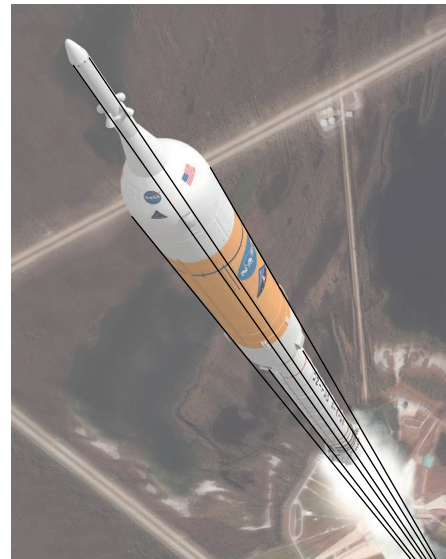
Early space art was created using traditional materials and techniques. Many space artists still portray their dreams this way, but computer art has also found a place in space art. Spacecraft are created using wire-frame technology that permits them to be rotated, enlarged or reduced, and brought forward or backward and layered on one of many backgrounds.

To create excitement, space artists often take advantage of forced perspective. Seeing a rocket launched from above provides a unique and exciting experience for the viewer. To create such a view, a horizon line and a vanishing point are laid out on the canvas or screen. Lines merging into the vanishing point provide guides for the 3D effect. Rockets, drawn within the lines, appear to go into or out of the picture.

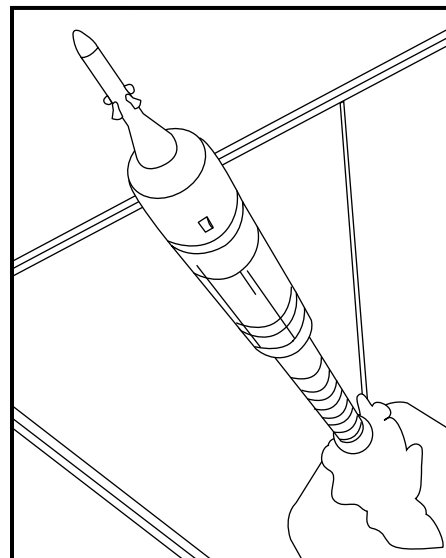
Invite students to create their own space art. Space art begins with a mission.



NASA artist's concept for Ares I launch



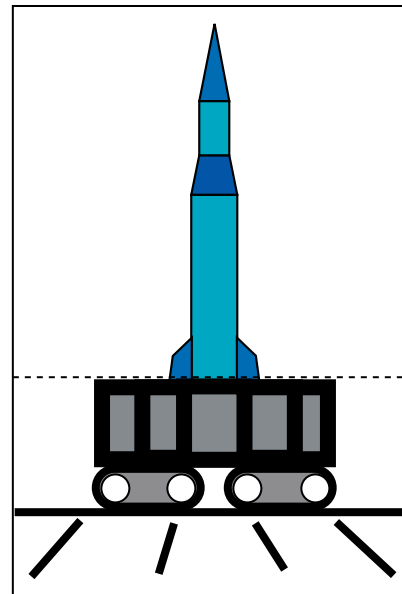
The horizon line and vanishing point for this illustration is just off the lower right corner of the canvas.



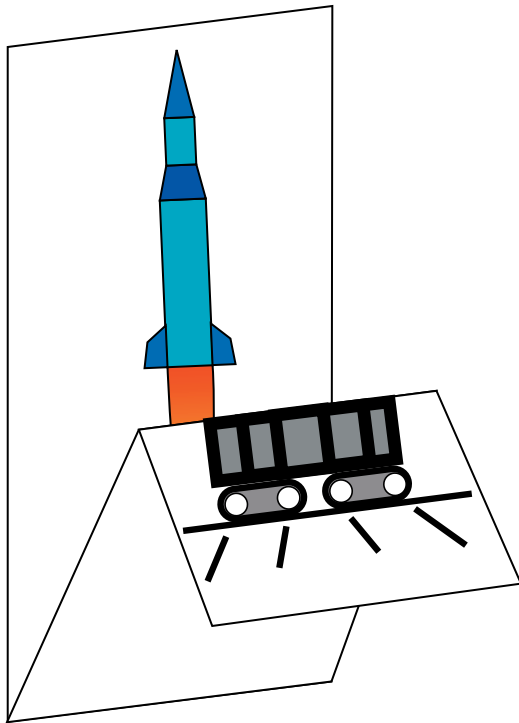
Students should first decide where they want their spacecraft to go. If the destination is Mars, what will the Mars spacecraft require for the mission? The length of time required to reach Mars will necessitate a larger vehicle than a vehicle for going to the Moon. More supplies and more crew will be needed, etc.

Have students review the space art of NASA's Constellation program. Refer to the resources section for more information.

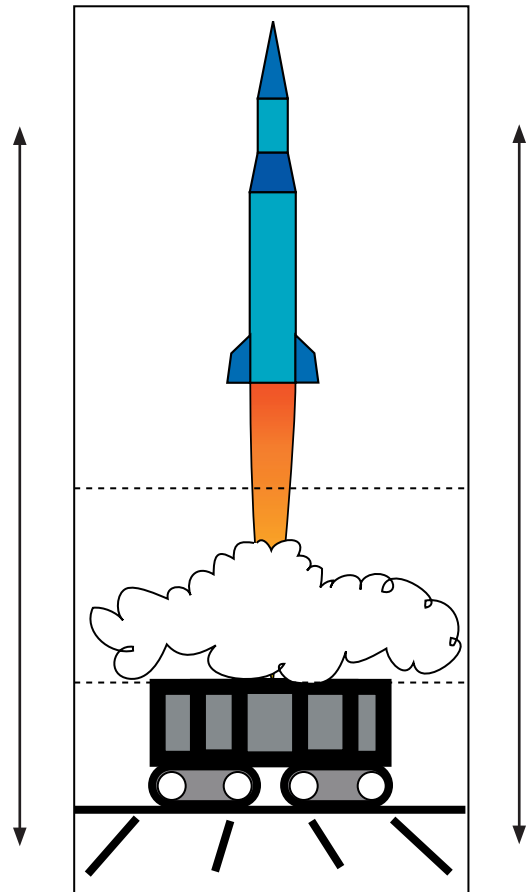
Space art is something that students of all ages can do. Young students can create an animated space launch with a simple paper fold trick.



Fold the paper to prepare the rocket for launch.



Make two folds in a strip of paper. Draw a launch platform on the lower segment. Draw a rocket launching on the upper two segments.



Pull on the top and bottom of the paper to open the folds and launch the rocket.