



# SPACE COMMUNICATIONS AND NAVIGATION (SCaN) CHOICE BOARD

Grades 6-8

## Engineer

Research Tracking and Data Relay Satellite (TDRS) online. Then, using materials found inside your home or classroom, build your own satellite for SCaN. Share a photo with your class.

## Write

Imagine that you are a famous author writing your next story. Use your creative writing skills to tell a captivating story about Artemis, NASA's mission to land the first woman and the next man to the lunar surface.

## Visualize

Use your artistic skills to draw a six-box comic strip that explains three aspects of space communications and navigation. Your comic should include color, dialogue, and SCaN related vocabulary.

## Analyze



Compare and contrast NASA's Apollo and Artemis missions.

## Solve



Scan the QR code and solve the Message Decoder Activity.

## Read



Learn about lasers and write down six uses for laser technology.

## Teach

Visit [images.nasa.gov](https://images.nasa.gov) and search "space communications". Print ten of your favorite photos, create a poster with one fun communications fact for each photo, then present it to your class.

## Record

Write a short script for a new TV commercial that includes four facts about how NASA communicates with spacecraft. Record and edit your TV commercial, then share it with your teacher.

## Collaborate

Form a team of four classmates and research the Engineering Design Process (EDP). Then evaluate how each of the seven steps in the EDP would apply to an engineer designing a new navigation system for NASA SCaN.

## Did You Know?



NASA SCaN utilizes a constellation of Tracking and Data Relay Satellites (TDRS) located 22,300 miles above the Earth's surface to provide communications and navigation services to missions in low Earth orbit.