



Sally Ride EarthKAM

on the International Space Station



Teacher Guide

Earth Images Bingo

Key idea: An observer can get different information by viewing Earth's features from the ground, from an airplane, and from space.

Time: 50 minutes

Objective

Students play a game that helps them get familiar with different views of Earth and helps prepare them to interpret Sally Ride EarthKAM images. Students use bingo boards with images of Earth features from a ground view, an aerial view, and a satellite view.

Before you play

Before you play, have students practice looking at objects or land features from a number of different views.

- > Have students observe and draw an object from three views: from straight above, from above at an angle, and from the side.
- > Have students imagine and draw what a building or tree might look like from the three different views.

Play the game

1. Give each student an *Earth Images Bingo* Board and about 20 markers for covering spaces on the board. Tell students that the goal is to be the first player to cover five spaces in a row horizontally, vertically, or diagonally.
2. Have the caller—you or a student—pull a calling piece out of the container and read it out loud.
3. All players should find and cover that square on their Earth Images Bingo Board. Encourage your students to help each other find each view.
4. Continue until one player (or more than one player) completes a row and calls out “bingo!”
5. If time permits, have players remove all pieces from their boards and play again.

STANDARDS ALIGNMENT

Geography

- I.3:** The World in Spatial Terms: How to analyze the spatial organization of people, places, and environments on Earth's surface.
- II.4:** Places and Regions: The physical and human characteristics of places.
- IV.14:** Human Systems: How human actions modify the physical environment.

CCSS

- RTS.6-8.3:** Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

MATERIALS AND PREPARATION

- > Make color printouts of the *Earth Images Bingo* Boards. There are 10 different boards, so if there are more than 10 players, there may be more than one winner in a game.
- > Gather markers (about 20 per player), such as pieces of paper or paper clips.
- > Cut up the Calling Pieces sheet on page 3 of the *Earth Images Bingo* Teacher Guide. Put the calling pieces in a hat or other container.



Sample board and key

Each *Earth Images Bingo* Board contains the same 24 views in different arrangements. The 24 views are of eight subjects: airports, beaches, cities, dams, farm fields, forests, mountains, and stadiums. Each feature is shown from a satellite view (space), aerial view (airplane), and ground view. The 25th square is a free space.



Key to sample board

Beach—air	Beach—ground	Mountains—air	Airport—air	Forest—ground
Dam—air	Farm fields—space	Airport—space	Mountains—space	Stadium—air
Stadium—ground	Stadium—space	Free Space	Dam—space	City—air
Airport—ground	Forest—air	Farm fields—ground	City—space	Beach—space
Mountains—ground	Farm fields—air	City—ground	Dam—ground	Forest—space

Calling pieces

Airport Ground	Airport Aerial/Air	Airport Satellite/Space
Beach Ground	Beach Aerial/Air	Beach Satellite/Space
City Ground	City Aerial/Air	City Satellite/Space
Dam Ground	Dam Aerial/Air	Dam Satellite/Space
Farm Fields Ground	Farm Fields Aerial/Air	Farm Fields Satellite/Space
Forest Ground	Forest Aerial/Air	Forest Satellite/Space
Mountain Ground	Mountain Aerial/Air	Mountain Satellite/Space
Stadium Ground	Stadium Aerial/Air	Stadium Satellite/Space