



## Where in the World?

### Interpret an EarthKAM image

When you first look at a Sally Ride EarthKAM image, you probably won't know exactly what you are seeing. It takes a little practice to learn to interpret images of Earth from space. Let's go through the steps of pinpointing the location and orientation of an EarthKAM image.

### Do the activity

1. Look at the EarthKAM photo on page 3 of this handout. It was taken during the 2012 Sally Ride EarthKAM mission. Look at the Image Properties information. What are the latitude and longitude of the image?  

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2. Use a world atlas to find the location, based on the latitude and longitude coordinates. Where was the image taken?  

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3. Find a map in the atlas or on the Internet that shows the area of Earth where the image was taken. On the map, north is up and south is down. What about in the EarthKAM image? Turn the image until it is in the same orientation as the map, with north up. Draw a compass rose on the image.
4. Now figure out the scale of the image. Identify two points on the map—the two ends of the hammer-shaped landmass. Use the map scale to determine how far apart the two points are. What is the distance from one side of the landmass to the other?  

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Now find the same two places on the EarthKAM image. Use a metric ruler to find the distance in centimeters between the two points.

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What distance on the EarthKAM image corresponds to 1 kilometer on Earth? Show your calculation.

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5. Refer to the labels on the map. On the EarthKAM image, label towns, islands, bays, and other features.

### MATERIALS

- > *Where in the World?* Student Handout (It includes an EarthKAM image with Image Properties information.)
- > Atlases
- > Metric ruler



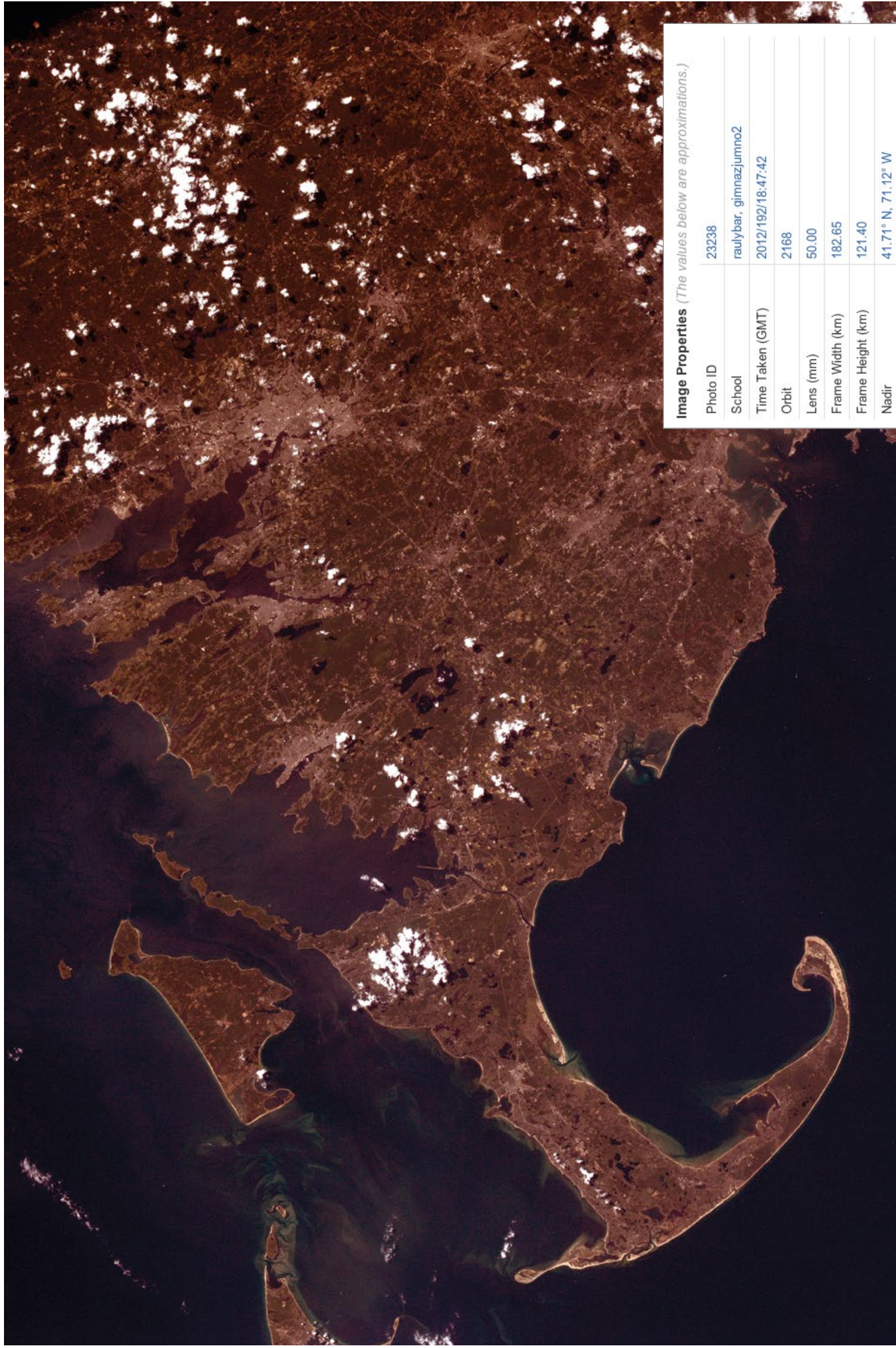
**Investigate further**

Now you know where in the world the EarthKAM image was captured. But that's only the beginning. List three questions you could investigate to learn more about the place pictured and what the EarthKAM image reveals about it. Then research the answers.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_



**Image Properties** (The values below are approximations.)

Photo ID	23238
School	raulybar, gimnazjumno2
Time Taken (GMT)	2012/192/18:47:42
Orbit	2168
Lens (mm)	50.00
Frame Width (km)	182.65
Frame Height (km)	121.40
Nadir	41.71° N, 71.12° W
Center	41.71° N, 71.12° W