Technology: 2000

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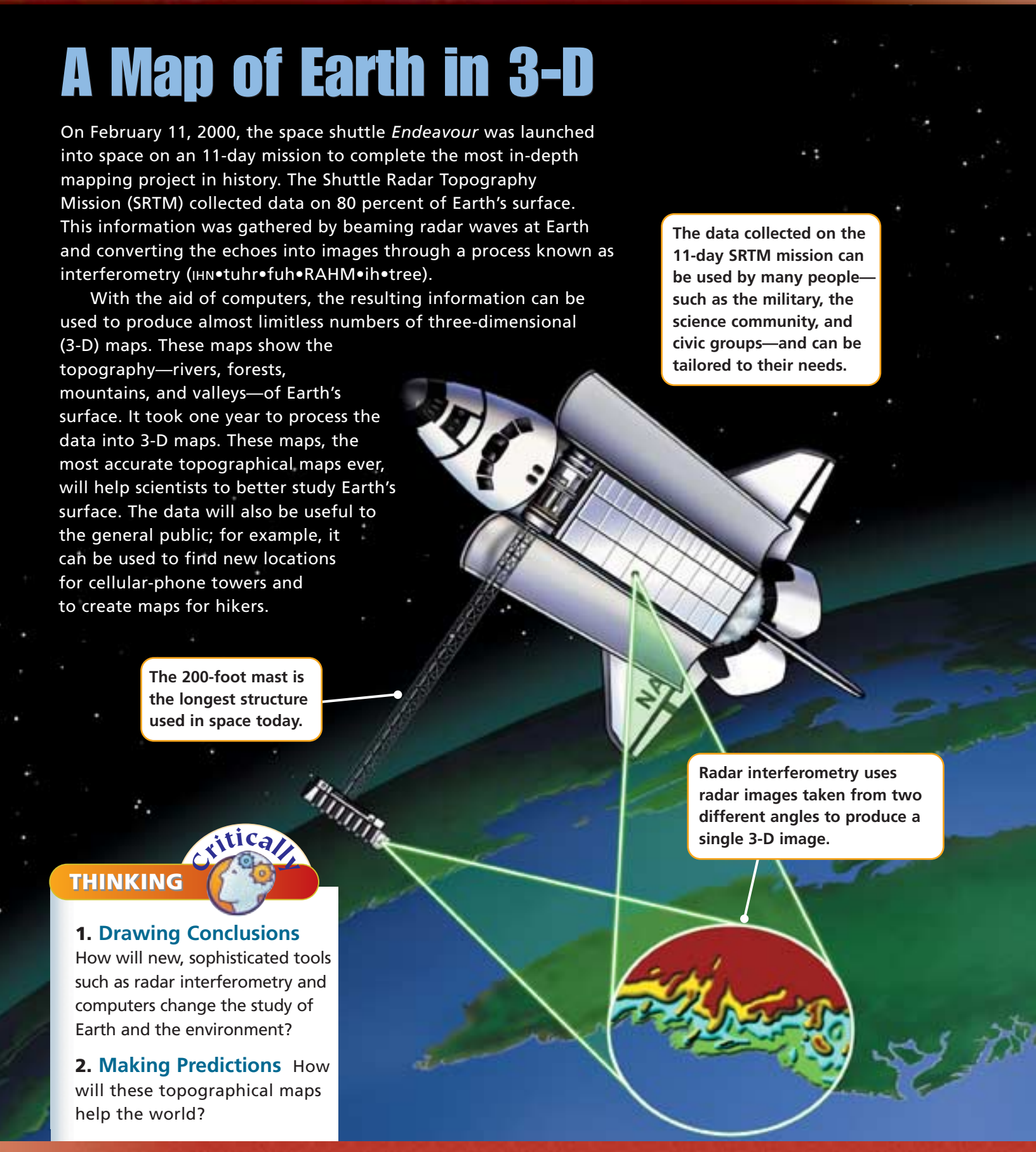
A Map of Earth in 3-D

On February 11, 2000, the space shuttle *Endeavour* was launched into space on an 11-day mission to complete the most in-depth mapping project in history. The Shuttle Radar Topography Mission (SRTM) collected data on 80 percent of Earth's surface. This information was gathered by beaming radar waves at Earth and converting the echoes into images through a process known as interferometry (IHN•tuhr•fuh•RAHM•ih•tree).

With the aid of computers, the resulting information can be used to produce almost limitless numbers of three-dimensional (3-D) maps. These maps show the topography—rivers, forests, mountains, and valleys—of Earth's surface. It took one year to process the data into 3-D maps. These maps, the most accurate topographical maps ever, will help scientists to better study Earth's surface. The data will also be useful to the general public; for example, it can be used to find new locations for cellular-phone towers and to create maps for hikers.



Critically THINKING

1. Drawing Conclusions How will new, sophisticated tools such as radar interferometry and computers change the study of Earth and the environment?

2. Making Predictions How will these topographical maps help the world?