



Earth Watch

Scientists estimate that there are currently about 3,000 operational man-made satellites orbiting Earth. These satellites serve different purposes, from communication to navigation and global positioning. Some are weather satellites that collect environmental information.

The International Space Station is the largest man-made satellite that orbits Earth. It serves as a space environment research facility, and it also offers amazing views of Earth. Think about this during the Mathematical Modeling in 3 Acts lesson.

ACT 1 Identify the Problem

1. What is the first question that comes to mind after watching the video?
2. Write down the main question you will answer about what you saw in the video.
3. Make an initial conjecture that answers this main question.
4. Explain how you arrived at your conjecture.
5. What information will be useful to know to answer the main question? How can you get it? How will you use that information?

ACT 2 Develop a Model

6. Use the math that you have learned in this Topic to refine your conjecture.

ACT 3 Interpret the Results

7. Did your refined conjecture match the actual answer exactly? If not, what might explain the difference?