



Reach for the Stars

	Time	Grade Level	Content Area [s]	Materials
	60–75 minutes	9–12	All	<ul style="list-style-type: none"> • Reach for the Stars Video • Research Gathering Sheet • Poster Outline • Markers/crayons

Objective

Students will research and describe the science behind a product that has changed over time and improved life. Students will then identify how this object could still be improved and what will need to change in science/STEM for that to happen.

Activity Outline

- 1 Play the video from NSTA for your class for the first 59 seconds to the point where the screen asks “Who can we count on for the future?”. Ask the students to take note of the different images they see, as well as, consider the events or products accomplished due to science. If necessary, play the video more than once for the students.
- 2 Ask the students to discuss the video clip and images, consider what events or products were accomplished or produced due to science, and describe what technology from the video has changed over time.
- 3 Ask students to individually or in pairs to select a piece of technology or discovery that has changed over time and improved life. Common objects might be computers, cell phones, how songs are now shared in digital format, cars, or even medical discoveries such as x-rays or techniques for surgery. Have them complete research using the internet to learn more about the technology and have them complete the research information sheet.
- 4 Bring the class back together and have each student or pair share what they researched and how it changed over time due to breakthroughs in science/STEM. Ask them to consider and describe “How Science Helped the World Change Between Then and Now.”
- 5 Ask the students to imagine the future and identify one way that the object researched might still improve in the future and how that will help people. Have them think about how that process will require science, creativity, and persistence for success. Ask them to portray this change in a poster format which could be drawn, a collage, computer generated or use any additional media. Ask the students to complete the statement of “Science will be needed to imagine this future because...”.

Imagine the Future

“Science will be needed to imagine this future because...”

Research Gathering Sheet

Name: _____ Date: _____

The technology or discovery being researched is:

Using the internet or other resource materials, conduct a search to learn about the history of this piece of technology or discovery. List the milestones, key changes, and time frame for what changed over time. For example, if you were researching how information was communicated over time, you might start with people sending smoke signals, the telephone, the use of a telegraph to send immediate messages from town to town, the development of a short-wave radio, and finally the development of cell phones.

Milestones in the Development	Key Changes that Occurred and the Science	Time Frame

1. One way that this technology or discovery could continue to be improved in the future is...

2. What discoveries in science or technology would be needed?