

# Understanding the World

## Teacher's Guide



**Grade Level:** 3–6

**Curriculum Focus:** Technology

**Lesson Duration:** 2 class periods

### Program Description

Do you know your RAM from your ROM? How do magnets work? Get the answer to these questions and investigate the history of television; viruses, the smallest creatures on Earth; and why volcanoes can erupt at anytime.

### Discussion Questions

Pre-viewing Question

What would life be like without computers or television?

Post-viewing Questions

What technological advances resulted in the invention of the computer and television?

How have these devices improved over the past 60 years?

---

### Lesson Plan

#### *Student Objectives*

Discuss the role of computers and television in our society.

Interview an older adult about what life was like before the invention of computers and television.

Write a report summarizing the results of the interviews.

Share the interviews with the class.

Discuss the advantages and disadvantages of being a part of a technologically advanced society.

#### *Materials*

Computer(s) with Internet access

Newsprint and markers

Paper and pencils

## Procedures

1. Begin the lesson by asking students the following question: What do you think life would be like without computers or television? Write their responses on a sheet of newsprint. Students may suggest the following:
  - Life would be very boring.
  - I wouldn't be able to research my reports at home.
  - I wouldn't be able to stay in touch with friends and relatives who live far away.
  - I wouldn't be able to get movie tickets online.
  - I wouldn't have anything to play electronic games in my spare time.
2. Tell students that most people didn't begin to watch television until the late 1940s and early 1950s, after World War II. And computers were not available to most people until the 1980s. To give students some background about how these inventions made their way into society, have them view *Understanding the World*.
3. Remind students that their older friends and relatives remember a time when television and computers were not available. Tell students that their homework assignment is to interview an older friend or relative who can give insight into what living in a less technological society was like and how society has changed.
4. As a class, develop a list of questions that students can use as a guide for conducting their interviews. Below are sample questions:
  - What was life like without computers and television?
  - What positive changes have resulted from these inventions?
  - What negative changes have resulted from these inventions?
  - How would you compare life in a less technologically advanced time with life today?
  - How would you summarize the overall quality of life today compared with life about 40 years ago?
5. Tell students to write a summary of their interviews. During the next class period, have them share the results of their interviews. Were their subjects nostalgic for a simpler time, or did they appreciate the changes made possible by technology?
6. At the end of the class, collect the interviews. Post them so that students and visitors can read them and learn about people's impressions of life then and now.

## Assessment

Use the following three-point rubric to evaluate students' work during this lesson.

3 points: Students were highly engaged in class and group discussions; did a thorough job interviewing an older friend or relative; and submitted an accurate, thoughtful interview sheet, including all of the requested information.

2 points: Students participated in class and group discussions; did an adequate job interviewing an older friend or relative; and submitted a satisfactory interview sheet, including most of the requested information.

1 point: Students participated minimally in class and group discussions; did not complete the interview with an older friend or relative; and submitted an incomplete interview sheet with little or none of the requested information.

## Vocabulary

### central processing unit (CPU)

*Definition:* The “brain” of the computer, which stores information and oversees the computer’s operations

*Context:* If the central processing unit, or CPU, malfunctions, it usually means that it’s time to buy a new computer.

### computer

*Definition:* An electronic device with the capacity to store, process, and retrieve information

*Context:* Personal computers today are 400 times faster and 3,000 times lighter than the first American computer built in 1946.

### RAM

*Definition:* Stands for “Random Access Memory;” the part of the CPU responsible for short-term memory or temporary storage

*Context:* When you turn the computer off, information stored in RAM will be lost.

### ROM

*Definition:* Stands for “Read Only Memory;” refers to information stored permanently in the computer

*Context:* Valuable data should be stored in ROM because it will be saved when the computer is turned off.

### technology

*Definition:* The practical solution to a given problem or question; scientific methods and materials often are used to solve the problem.



*Context:* After laying out the challenges involved in space travel, new technology was invented that addressed these issues.

### **television**

*Definition:* An electronic device that transmits images and sounds via satellite to our homes

*Context:* A cathode ray tube inside the television can convert video signals into a pattern of light.

## **Academic Standards**

### **Mid-continent Research for Education and Learning (McREL)**

McREL's Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education addresses 14 content areas. To view the standards and benchmarks, visit <http://www.mcrel.org/compendium/browse.asp>.

This lesson plan addresses the following national standards:

- Technology: Understands the relationships among science, technology, society, and the individual
- Language Arts: Viewing— Uses viewing skills and strategies to understand and interpret visual media; Writing: Uses the general skills and strategies of the writing process, Gathers and uses information for research purposes

### **National Academy of Sciences**

The National Academy of Sciences provides guidelines for teaching science in grades K-12 to promote scientific literacy. To view the standards, visit this Web site: <http://books.nap.edu/html/nses/html/overview.html#content>.

This lesson plan addresses the following national standard:

- Science and Technology Understandings about science and technology

---

## **Support Materials**

Develop custom worksheets, educational puzzles, online quizzes, and more with the free teaching tools offered on the Discoveryschool.com Web site. Create and print support materials, or save them to a Custom Classroom account for future use. To learn more, visit

- <http://school.discovery.com/teachingtools/teachingtools.html>

