

**CALIFORNIA CONTENT STANDARD 11.8.7** 

### Advances in Technology

Specific Objective: Describe the effects on society and the economy of technological developments since 1945, including the computer revolution, changes in communication, advances in medicine, and improvements in agricultural technology.

Read the diagram to answer questions on the next page.

#### Medicine

- Advances in diagnosis and treatment allow people to live longer than ever; e.g., U.S. life expectancy in 1950 was about 58 years, while in 2000 it was almost 77 years.
- The use of new technology improves eyesight, new products help regulate the heart, and better artificial limbs give greater mobility and function
- New diagnosis tools (MRI, ultrasound) help in the early treatment of many diseases and disabilities.
- New drugs are being used for a variety of physical and mental illnesses, allowing improved quality of life.

#### Communication

- Television first became popular in 1950s and increased the spread of a common culture. Now about 99 percent of all households in the United States have a TV. People spend an average of almost 4 hours each day watching it.
- Satellites and other advances bring world events into U.S. homes as the events occur.
- Portable and cellular phones allow people to communicate from almost any location around the world.
- The Internet was first designed for use by the military. It combines computer and communication technology and allows communication by text, audio, and video images. It allows access to worldwide sources of information.

Effects of New **Technology** 

#### Computers

- Computers have become smaller, more powerful, and less expensive.
- Computer technology is now used in nearly every area of life: banking and finance, manufacturing, the medical field, transportation, entertainment, communication, the military, government and elections, appliances, education, science and research
- At the beginning of the 21st century, it was estimated there were about six computers for every ten people in the United States.

#### **Agriculture**

- New strains of crops make them more resistant to drought and insects. They can be grown in areas previously not suited or can increase yields per acre. Some people have concerns about genetically modified crops.
- There has been a huge increase in yields during the years since World War II; world food supply can now be almost guaranteed, although distribution is still uneven. Many people in the United States and around the world are hungry and poorly nourished.

# PRACTICE

#### CALIFORNIA CONTENT

#### Advances in Technology

Directions: Choose the letter of the best answer.

**STANDARD 11.8.7** 

## 1 Which statement *best* describes computer technology today?

- **A** Computers improved rapidly at first, but changes have now slowed down.
- **B** Everyone in the United States currently owns a computer.
- C Computer technology is involved in nearly every area of our lives.
- **D** Computers now are smaller, faster, and more expensive than early ones.

# 2 How has satellite technology changed television since it began in the 1950s?

- A Satellites have increased the cost of television sets dramatically.
- **B** Satellites have brought worldwide events into American homes.
- C Satellites have decreased the number of news broadcasts on TV.
- **D** Satellites have increased the number of television stations.

## 3 How have cellular phones changed the way people communicate?

- **A** They allow people to communicate easily from almost anywhere.
- B They prevent businesses from using the phone for sales.
- C They limit the number of individuals who can afford phone service.
- **D** They have become less popular with the increase in e-mail.

## 4 The Internet was *first* designed for use by

- A businesses.
- **B** medical researchers.
- C the military.
- **D** students.

#### 5 Since 1950, life expectancy in the United States has

- A remained about the same.
- **B** increased slightly, by about 5 years.
- **C** increased greatly, by about 20 years.
- **D** dropped slightly because of diseases like cancer and AIDS.

## 6 Which statement *best* describes changes in agriculture since World War II?

- A Crop yields have gone up; new strains of crops are more resistant to disease and drought.
- **B** Crops have stayed about the same, but farms are bigger and more efficient.
- C The government has used technology to support the return of families to farming.
- **D** Better agricultural distribution leaves few people hungry in today's world.