Contents

NAME: _____

Before You Read

Space Technology

1. a) Use a dictionary to look up the word SATELLITE. Write the definition on the spaces provided.

The definition of **satellite** is:

_____

_____

b) Where have you heard the word satellite? What products, services, or activities are associated with satellite technologies? Write your responses on the spaces provided.

_____

_____

_____

_____

_____

2. Write each term beside its meaning. You may use a dictionary to help you.

Cold War	astronaut	borders	navigate

_____ **a)** lines that mark the boundary between nations, states, or other geographic or political regions

_____ **b)** a person that travels in space for research or exploration

_____ **c)** a period of tensions between the United States and the former Soviet Union, lasting from the end of World War II to the late 1980s.

_____ **d)** to find one's way from one location to another

Reading Passage

NAME: _____

Space Technology

The Space Race

Many of the technologies needed to explore space were first developed during the Cold War between the United States and the former Soviet Union, which lasted from the end of World War II to the 1980s. During this time, the competing powers sought to outdo one another in the race to put technology and people into space. In 1957, the Soviet Union launched the first human-made **satellite**—an object that orbits a planet—and in 1961, put the first human into orbit. The United States landed the first **astronaut**—a scientist who travels in space—on the moon in 1969. In recent decades, many nations have developed space technologies. Nations now work in a spirit of international collaboration on space projects, such as the International Space Station, an orbiting science laboratory that allows astronauts to stay for months at a time conducting space research.

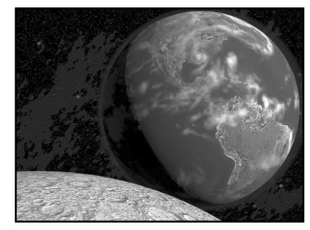
STOP

What is a satellite?

_____

_____

A Small World



"Earthrise" from lunar orbit

When astronauts traveled to the Moon, they brought back the first photos of Earth taken from a distance in space. Although people had known that our world was a small, rocky, spherical planet, people's everyday experience of the world was more nationalistic. Countries seemed very distinct from one another. The world seemed like it was made up of very different places and people. At the time of the first photos of Earth from space, international tensions were high with the Cold War, and the memory of the two World Wars was fresh. The impact of seeing the planet as a whole entity had a dramatic effect on people's consciousness. From space, Earth looked very small. It also looked whole, with no visible borders between nations or differences between groups of people. Seeing Earth from space helped people understand that our world is one small entity in space and that whatever our differences, it is important to work in cooperation for peace and protection of our planet. Images of Earth from space helped people develop a global consciousness.

After You Read

NAME: _____

Space Technology

1. Fill in each blank with the correct word, date, or phrase from the reading.

a) In 1957, the Soviet Union launched the first human-made _____.

b) In _____, the Soviet Union put the first human into orbit.

c) The United States landed the first astronaut on the moon in _____.

d) The _____ is an orbiting science laboratory that allows astronauts to stay for months at a time conducting space research.

e) The development of _____ technology allowed Earth to be studied as a whole planetary entity.

f) _____ satellites send information about the location of vehicles, such as jets, ships, and even cars, which helps pilots and drivers navigate.

g) Communications satellites are in _____ orbit, which means they always stay above the same location on Earth.

2. Before you read, you wrote about uses of satellite technology that you had heard about. What satellite technologies did you already know about before reading the passage? What new ones did you learn about? Write a list of satellite technologies on the spaces provided. Draw a star next to the ones you learned about during the reading.

_____ _____

_____ _____

_____ _____

_____ _____

Hands-On Activity # 4

Activity Four

Communications Technology Fair

In this activity, you and your classmates will learn about many different modern communications technologies that help people around the world stay connected and exchange information for business, research, and educational purposes.

First, use the internet or library resources to research a list of 10–20 different communications technologies that people use for any of the following uses:

- staying in touch with family and friends
- keeping up with news and world events
- work and business
- education

Second, have each student in your class choose a technology from the list to learn more about. Students may work alone or in teams.

Once you have chosen your product, research answers to the following questions:

- How does the technology work?
- What devices do people use to access the technology?
- What other technologies support the use of this technology?
- How does the technology help people?
- How does the technology affect globalization?

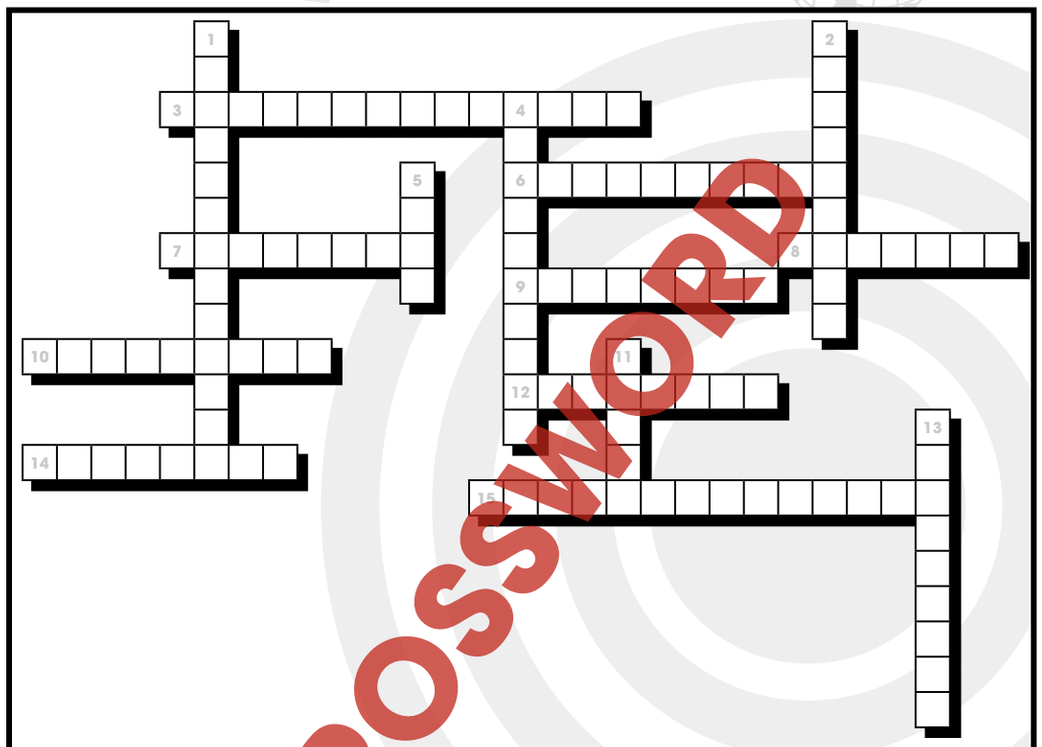
Make a poster presentation that answers all of the questions above and contains photographs of the technology and/or its applications.

Third, set up a Communications Technology Fair in your classroom or common school area, such as the auditorium. Display the posters and products on tables, and have students stand near their displays to answer questions. Invite students, teachers, parents, and other members of your school community to walk through the Communications Technology Fair.

After You Read

NAME: _____

Crossword Puzzle!



Across

3. _____ technology helps people exchange information
6. a nation that is undergoing industrialization
7. able to read
8. increased greenhouse gas concentration leads to global _____
9. fabrics, such as cotton and wool
10. harmful substances that people put into the environment
12. technology for air travel
14. a giant, international network of computers
15. movement of people and goods from place to place

Down

1. the movement of people, ideas, and goods around the world
2. a 19th century invention using codes to send messages along wires
4. related to the use of manufacturing and machines
5. petroleum gas is a fossil _____
11. greenhouse _____ trap heat in the atmosphere
13. a source of energy that can be used again and again or does not run out

Word List

aviation
communications
developing
fuel
gases
globalization
industrial
internet
literate
pollution
renewable
telegraph
textiles
transportation
warming

NAME: _____

After You Read

Word Search

Find all of the words in the Word Search. Words are written horizontally, vertically, diagonally, and some are even written backwards.

astronaut	energy	literate	space
aviation	fuel	migrate	technology
communications	globalization	nation	telegraph
container	greenhouse	ocean	textiles
correspondence	Industrial Revolution	orbit	transportation
developed	industrialization	pollution	warming
digitize	internet	renewable	World Wide Web

G	E	D	T	Y	H	I	D	B	E	L	B	A	W	E	N	E	R
A	T	W	O	E	S	J	M	A	W	G	D	J	M	L	I	G	C
W	R	O	P	R	C	R	W	I	S	I	D	U	O	K	J	R	S
A	A	R	O	T	B	H	Y	U	G	O	H	B	J	D	I	B	N
R	N	L	L	D	F	I	N	I	N	R	M	X	V	T	S	D	O
M	S	D	L	C	J	K	T	O	E	C	A	A	F	H	B	H	I
I	P	W	U	K	M	I	H	T	L	S	F	T	U	L	X	V	T
N	O	I	T	A	Z	I	L	A	B	O	L	G	E	S	E	E	U
G	R	D	I	E	S	L	J	V	C	Y	G	U	U	N	N	D	L
A	T	E	O	H	E	P	S	E	D	F	F	Y	E	R	N	R	O
D	A	W	N	J	K	Y	A	W	D	B	J	R	E	A	Q	E	V
I	T	E	G	J	L	N	J	C	W	E	G	T	T	Y	U	N	E
F	I	B	S	T	E	B	K	N	E	Y	N	I	L	M	I	I	R
C	O	M	M	U	N	I	C	A	T	I	O	N	S	E	G	A	L
M	N	B	E	T	J	G	A	L	S	N	D	F	G	S	V	T	A
B	N	O	T	T	A	Z	I	L	A	I	R	T	S	U	D	N	I
H	U	K	M	F	S	T	F	J	K	U	E	E	G	O	B	O	R
Y	E	S	F	J	E	Y	R	S	A	X	A	W	F	H	U	C	T
J	A	S	T	R	O	N	A	U	T	K	L	A	S	N	R	D	S
G	T	E	A	V	I	A	T	I	O	N	U	L	U	E	S	D	U
F	J	T	H	N	T	E	L	E	G	R	A	P	H	E	C	N	D
O	E	U	H	J	D	E	V	E	L	O	P	E	D	R	E	B	N
C	O	R	R	E	S	P	O	N	D	E	N	C	E	G	B	R	I

NAME: _____

After You Read

Comprehension Quiz

Part C

Answer each question in complete sentences.

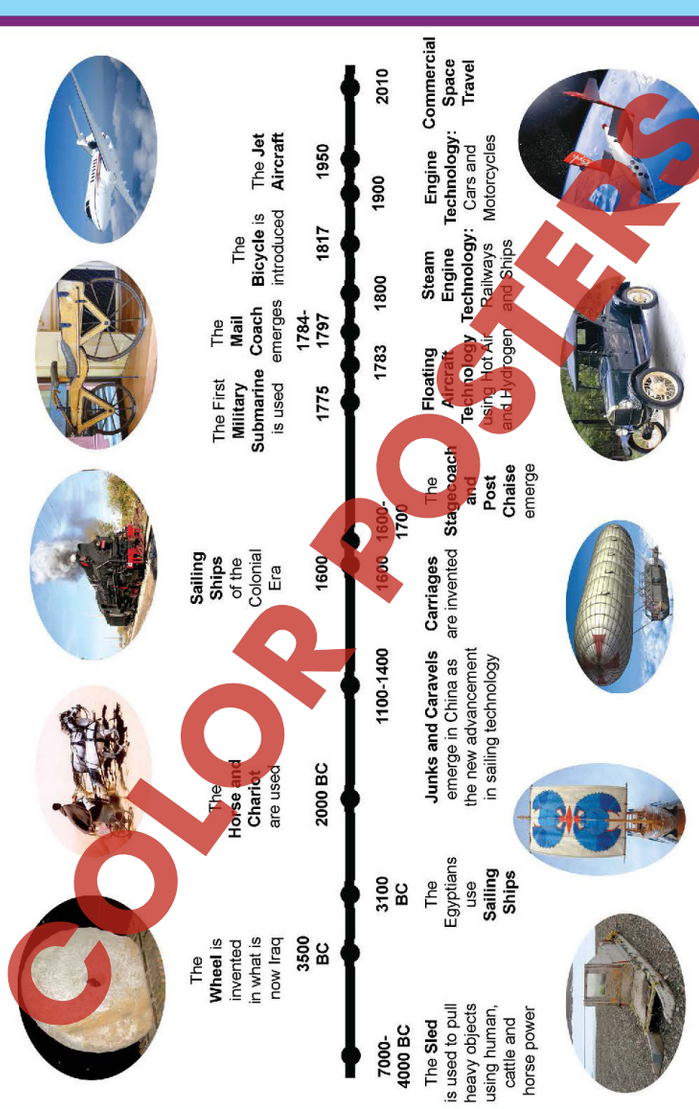
1. Explain how developments in transportation technology have increased the pace of global travel during the last 200 years. (2)

2. Explain how technology allows goods to be shipped efficiently around the world. (2)

3. Describe two ways that satellite technology is used to help people communicate, get information, or travel in a globalized world. (2)

4. Compare and contrast how people in the 19th century and modern people communicated with faraway family members. (2)

Travel Technology Timeline



NAME: _____

After You Read

Space Technology

3. **a)** On the spaces provided, describe how seeing the first photographs of Earth from space changed the way people felt about the world.

_____

_____

_____

_____

b) Explain how advances in space technology have impacted globalization.

_____

_____

_____

_____

Research

Make a Poster

4. Find out more about how space technologies are used in everyday tools that help people function in a globalized world. First, brainstorm a list of technologies that depend on satellites or other space technologies. Then, choose one of the technologies to create a poster about. Use the internet or library resources to try to find out:

- when the technology was developed;
- how it is used;
- what devices, tools, or other inventions were created to make use of the new technology;
- how the new technology relates to globalization.

Use this information to create a poster that shows the main ideas about the technology. Use drawings or a collage to create images that provide visual information about the technology. Be sure to add labels and descriptive captions. Display your poster in your classroom. Study and ask questions about other students' posters.

EASY MARKING ANSWER KEY

EZ

3.

a) People could see that the planet is one small entity in space, and borders and boundaries between people were invisible and seemed less important.

b) Answers will vary but may include, [illegible] allowing [illegible] air and [illegible] avel to be done safely, communications satellites allowing for the faster flow of information.