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SOURCES OF ENERGY

- Alternative Ways of Saying Things
- Reading: Sources of Energy
- Writing about Places
- Relative Clauses with Prepositions
- Common Scientific Terms

LISTENING



a) Listen to Part 1 of the passage. Decide whether the following statements are true (T) or false (F). Check (✓) the correct box.

1. The sun is a member of the solar system.
2. The sun is the main source of energy of this system.
3. The sun's movement keeps the other members in orbit.
4. It can be said that life on Earth depends on the sun.

T	F
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

b) Listen to Part 2 of the passage. Unscramble the following phrases. Number 1 is an example.

1. future system the solar the of → the future of the solar system
2. of sun the behavior the → _____
3. the much temperature same size and → _____
4. 4 more billion years or 5 billion → _____
5. all hydrogen of its → _____
6. other reactions nuclear → _____
7. turning a star into red giant → _____

c) Listen again to Part 2 of the passage. Write the complete verb forms or verb groups in which the following verbs appear in the recording. Number 2 is an example.

- | | |
|-----------------|------------------|
| 1. depend _____ | 2. be <u>are</u> |
| 3. have _____ | 4. burn _____ |
| 5. begin _____ | 6. grow _____ |
| 7. turn _____ | |

d) Listen to Part 3 of the passage. Number the following words or phrases in the order in which you hear them. Number 3 is an example.

_____ dwarf	_____ orbit	_____ nonluminous
_____ exhausted	_____ cool down	_____ frozen chunks
_____ shrunken star	—③— evolving	

e) Listen again to Part 3 of the passage. Match the word(s) in column A with their meanings in column B.

A	B
1. exhausted	a. become less hot or lose heat
2. cool down	b. thick; with a lot of substances crowded together
3. dwarf	c. not bright; not shining or emitting light

4. dense	d. reduced in size by being drawn together
5. nonluminous	e. much smaller than the average of their kind
6. chunks	f. completely empty of energy or resources
7. shrunken	g. thick solid masses (large pieces of sth) that do not have definite shapes or forms



SPEAKING

- a) **Before-speaking activity.** Work with a partner, telling what you know about the solar system: the number of the planets; their names, sizes, positions, etc.
- b) Two students – Kim and Phi – are talking about Pluto. With a partner, match what Phi says in column A with what Kim says in column B to make a complete conversation.

A Phi		B Kim	
1.	Kim, did you learn that Pluto is no longer a member of our solar system?	a.	I certainly did, Phi. I can't believe it. It seems like Pluto's been with the system forever.
2.	It's too bad it has to go. I was hoping to write a report about it.	b.	That's right. He's sad that Pluto is removed from the system.
3.	He did? You mean, he's an astronomer?	c.	And the second reason is it has an usual orbit.
4.	And he's watched the night sky ever since?	d.	Me, too. You know, my father used to tell me interesting things about it.
5.	I bet he is, but it's the decision of the scientists anyway.	e.	But it's got an atmosphere. It even has a moon.
6.	Well, let's see. In the first place it's not large enough to be considered a planet.	f.	Yea, he completed a master's degree in astronomy 30 years ago.

7.	Right. Pluto's orbit is elliptical, and it orbits on a different plane from all the other planets of the system.	g.	Okay, let's not go into much detail. I really want the scientists to leave my Pluto in Walt Disney cartoons alone.
8.	That's true. It's just that Neptune's gravity sort of pulls Pluto and...	h.	So what makes Pluto so different that it could be, um... reclassified, as a dwarf planet?
9.	I'm sure your Pluto will be safe there, um... on the screen.	i.	Yeah, they'd better not touch him!

c) **Role play.** Practice the above conversation with a partner, playing the role of Phi and then of Kim.

READING

Read the following passage. Then answer all the questions below it.

Sources of Energy



Horses working for man

When man first appeared on earth, his greatest source of power was his own physical strength. As he grew *wiser*, he learned to make animals supply power for him. Then, many centuries later, he discovered that wind and water were even better power sources than animals. Still later he found that power from steam, coal, and oil was often even better than *these*.

In the latest search for improved living, physicists – scientists who study energy and matter – have been led to the study of the atom. The physicists have found that atomic energy can do such things as supplying

electricity to cities, *blasting out* harbors, running ships and submarines, and may soon provide energy for space flights.

Finding ways to make the atom work for us is a new science. It just started in the twentieth century. However, by working with atoms, scientists have found that these tiny *storehouses of energy* can both help and, unfortunately, harm mankind.

1. Which of the following is the main idea of paragraph 1?
 - A. Man's greatest sources of power
 - B. Man's own physical strength
 - C. Man's earlier sources of energy
 - D. Man's most recent source of power
2. The word *wiser* in paragraph 1 probably means _____.
 - A. older and weaker
 - B. richer and more powerful
 - C. having ability to invent useful things
 - D. having more experience and knowledge
3. The word *these* at the end of paragraph 1 refers to _____.

A. power sources	B. animals
C. coal and oil	D. steam and coal
4. According to paragraph 2, which of the following is NOT true about atomic energy?
 - A. It is the newest source of power.
 - B. It was discovered too late.
 - C. It was discovered by physicists.
 - D. It can be used for various purposes.
5. Which of the following is closest in meaning to *blasting out* in paragraph 2?
 - A. removing rock violently out of
 - B. blowing everything away from
 - C. creating out of rock by explosion
 - D. filling up with air and water

6. The phrase *storehouses of energy* in paragraph 3 could best be replaced by _____.

A. fossils

B. stores

C. rocks

D. atoms

7. Why does man keep searching for new sources of energy?

8. According to paragraph 3, scientists are also worried about atomic energy. What is the source of this worry?



WRITING

The following sentences make up a paragraph describing a city. First, write the sentences in full. Then, put the sentences together to form a paragraph. Number 1 is an example.

This is London



London Tower Bridge

1. Every year, more than nine million people / over the world / visit London

→ *Every year, more than nine million people from all over the world visit London.*

2. They go / the theaters and museums; they look / interesting old buildings, many / them hundreds / years old; they sit

or walk / the beautiful parks, or have a drink / a pub

3. They go / Oxford Street to look / the big shops, or to Harrods, the most famous shop / London, Knightsbridge

4. Two million people go to / Tower of London. A million more go / see St. Paul's Cathedral

5. You can see much more / London from one / its famous red buses

6. Some special visitors' buses take you / many of / interesting places / the city on one journey

7. It takes about one and / half hours, but you can break your journey / get off (and on again) / the different places you want / visit

8. When you are tired / looking at buildings, you can sit / walk in one / London's beautiful parks

9. They are good places / get away / the crowds / the noise of the city

10. Yes, London is / big and beautiful city / lots to see / do



USE OF LANGUAGE

1. Relative Clauses with Prepositions

a) Join each pair of sentences in three different ways. Two pairs can be joined in only two ways. Number 1 is an example.

1. He's the man. I sent the money to him.
 - a. He's the man *to whom I sent the money*.
 - b. He's the man *who(m) I sent the money to*.
 - c. He's the man *I sent the money to*.
2. She's the nurse. We gave the flowers to her.

- a. _____
- b. _____
- c. _____



3. I'll introduce you to the students. I'm working on a project with them.

- a. _____
- b. _____
- c. _____

4. This is the pan. I boiled the eggs in it.
 - a. _____
 - b. _____
 - c. _____
5. We were speaking to the man. The man was our new biology teacher.
 - a. _____
 - b. _____
 - c. _____
6. The police are talking with the neighbor. The pictures were stolen from his house.
 - a. _____
 - b. _____
 - c. _____

7. The manager of the restaurant has refunded part of our bill. We complained about the poor service there.

- a. _____
 b. _____
 c. _____

8. There are a number of factors. We have no control over them.

- a. _____
 b. _____
 c. _____

b) Read the passage. Then check (✓) the answer or answers that can best fit in the numbered blank in each sentence.

A Chance in a Million



... just happened to be passing

Judy, the woman (1)_____ works in our office, wanted to phone Mr. Robinson, but she dialed the wrong number. The number (2)_____ she dialed turned out to be the number of a public pay phone in the street. A man, (3)_____ was passing at the time, heard the phone ringing and answered it. "Is that Mr. Robinson?" Judy asked. "Speaking," the man answered. It turned out that

the man (4)_____ she was speaking to was actually called Robinson and had just happened to be passing the phone booth when she rang!

1.	<input type="checkbox"/> who	<input type="checkbox"/> whom	<input type="checkbox"/> which	<input type="checkbox"/> Ø (zero word)	(1 answer)
2.	<input type="checkbox"/> who	<input type="checkbox"/> which	<input type="checkbox"/> that	<input type="checkbox"/> Ø (zero word)	(3 answers)
3.	<input type="checkbox"/> who	<input type="checkbox"/> whom	<input type="checkbox"/> which	<input type="checkbox"/> Ø (zero word)	(1 answer)
4.	<input type="checkbox"/> who	<input type="checkbox"/> whom	<input type="checkbox"/> which	<input type="checkbox"/> Ø (zero word)	(3 answers)

2. Common Scientific Terms

Complete the following sentences, using scientific terms formed with *bio-*, *geo-*, and *eco-*. The italicized words are clues provided to help you. Number 1 is an example.

1. “What do you call a war in which bacteria are used as weapons of war?”
“You call it a (*bio-*) *biological* war.”
2. I’m doing physics, biology, and chemistry – of which (*bio-*) _____ is my favorite subject.
3. *Biotechnology* is the use of living cells and bacteria in industrial and scientific processes. If you choose this subject, you’ll have to do a lot of (*bio-*) _____ research.
4. Geology is the scientific study of the origin, history, and structure of the earth. It’s different from (*geo-*) _____, which is the scientific study of the earth’s surface, including its physical features, climate and soil, and the distribution of life on the earth.
5. “What’s a (*geo-*) _____ storm?”
“It’s a disturbance in the earth’s *magnetic* field caused by a sudden but unsteady emission of intense light from the sun.”
6. The importance of a town or city is generally due to its (*geo-*) _____ location. Most large cities of the world are near the sea, for example.
7. (*Eco-*) _____ is designed so that *tourists* damage the environment as little as possible.
8. Farming practices which are not harming the ecology are (*eco-*) _____ or *environment-friendly* agricultural methods.
9. Successful business firms are those which are highly adaptable to (*eco-*) _____ changes both in the country and in the outside world.
10. Older people are important contributors to the (*eco-*) _____ of European countries today because of the very low birthrate in Europe. Many retiring people are asked to stay with the company for two or more years.