

**TE PRE-INTERMEDIATE 2 – LESSON 4****Task 1****Read the passage.****The Air around Us**

One factor that affects our weather is the atmosphere. The transfer of heat or light waves of energy is called radiation. As the light energy travels through the atmosphere, some of waves are deflected by water droplets or dust particles. This is why we often see a rainbow when the Sun shines after a rain.

Much of the solar energy (30%) coming from the Sun is reflected by the air, the clouds and objects on Earth's surface. An additional 20 percent of the incoming solar radiation is absorbed by clouds, dust particles, water vapour, and other gases in the atmosphere. Thus only 50 percent of the solar radiation coming from the Sun is absorbed by Earth and objects on it.

When solar energy strikes an object, the energy that is absorbed is changed from a short wavelength form (light energy) to a long wavelength form of energy. We cannot see the long wavelengths of energy given off by the object, but we feel the energy as heat. It is the heat energy radiating from Earth's surface that warms up the atmosphere.

In a desert, where the air is clear and dry, 90 percent of the solar radiation reaches Earth and is changed to heat energy. While the daytime temperatures may be extremely high, the nights get cold because as much as 90 percent of the heat passes back into space. The desert is covered by only a very thin blanket of the major heat-trapping gas - water vapour.

Where the air is humid, the daytime temperatures may be warm, but they do not reach the extreme highs recorded in the desert. The water vapour in the atmosphere acts as a curtain that reflects light energy. The land may receive only 40 percent of the incoming solar radiation. At night, the water vapour acts as a thick blanket that prevents the heat from escaping, so the nighttime temperatures remain warm.

Earth's atmosphere is like the glass in a greenhouse or car window. While the short wavelengths of light energy pass through the glass, most of the longer wavelengths of heat energy are trapped. Although the atmosphere does not trap heat in the same way a green-house does, the warming of the atmosphere is called the greenhouse effect. Planet Earth is a rather pleasant place to live because of the greenhouse effect that is created by its atmosphere.

Another important feature of the atmosphere is the cloud cover. Today, meteorologists are spending more time and energy on the study of clouds than on any other area of research. Clouds are airborne masses of water droplets or ice crystals. Smoke, whether from forest fires, chimneys, or automobiles, adds particles to the air. Winds pick up small particles of salt from the ocean or dust from exposed soil. All of these particles provide surfaces for the condensation of water vapour.

When moist air is pushed upward and is cooled, the water vapour begins to condense around these small particles. Water droplets or ice crystals will be formed, depending upon the temperature. The result of this process is the formation of clouds.

The features of Earth's surface and the movement of its winds determine where the moisture will fall. The amount of moisture that is returned to Earth each year can vary from less than one inch, that falls in the interior of the Sahara Desert, to as much as 50 feet, that falls on Mount Waialeale in Hawaii - the wettest spot on Earth.

Destruction of the tropical rainforest could affect weather over the entire planet. Transpiration from plants in the Amazon rainforest is an important source of water vapour for the formation of clouds. Clouds are an important factor in adjusting Earth's temperature. They

may be an effective sunscreen that reflects significant amounts of light energy. They also are an effective blanket that traps heat energy.

If you change the chemistry of atmosphere; the climate may change. The amount of water vapour and other heat-trapping gases in the atmosphere helps to regulate the temperature of the planet.

**Questions 1-8: Read the passage and complete the sentences below with words taken from the passage. Write NO MORE THAN THREE WORDS for each answer.**

1. The writer of the passage is trying to tell us how our weather is affected by the .....
2. The percentage of the solar radiation finally taken by Earth is .....
3. The name we give to the energy that warms up the atmosphere is .....
4. In a desert, the daytime temperatures are high because most of the solar radiation is changed to .....
5. In humid places, the water vapour during the daytime is compared to a .....
6. According to the passage, it is the ..... that prevents the night temperatures from dropping.
7. Clouds are mainly composed of water droplets or .....
8. The climate may change with the change in the .....

**Questions 9-11: Read the passage and answer the multiple-choice questions by circling the letter of the correct answer.**

9. According to the passage, the places where rain and snow fall are determined by the Earth's surface and
- A. temperature
  - B. winds
  - C. moisture
  - D. oceans
10. Which of the following is NOT true based on the passage?
- A. Less than half the solar radiation is reflected by the air.
  - B. Smoke and winds affect the condensation of water vapour.
  - C. The tropical rainforest is important in the formation of clouds.
  - D. Clouds are important in reflecting a large amount of heat energy.
11. The purpose of the passage can be best described as
- A. persuasive
  - B. encouraging
  - C. informative
  - D. argumentative

(Zhang Juan. (nd). *Basic IELTS Reading*. Tong Hop Publisher, Vietnam.)

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**Task 2: Put the words in the correct order.**

1. mind/ here/ not/ would/ smoking/ you/ in/?

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2. doctors/ foods/ are/ by/ eat/ we/ advised/to/natural/ more./

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3. money/ of/ job/ has/ in/ she/ a/ new/ earned/ lot/ her./

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4. London/ a/ it/ flight/ Tokyo/ from/ is/ long/ to./.

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5. control/ big/ animals/ cities/ be/should/ under/ in/ kept./

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6. often/ class/ she/ absent/ is/ from./

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7. night/ storm/ washed/ during/ the/ was/ road/ the/ away/last/

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8. bed/ in/ habit/ in/ I/ the/ of/ am/ reading/

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9. presented/ a/ winners/ actor/ the/ to/ the/ well-known/ competition/ prizes/ of/ the./

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10. hand/ leaflets/ be/ these/ by/ must/ delivered/ all

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