Read the following text:

Why Is the Sky Blue?

It's easy to see that the sky is blue. But have you ever wondered why? The light from the Sun looks white even though the light is actually a combination of all the colors of the rainbow. When white light shines through a specially shaped crystal called a prism, and the light you see is just one tiny bit of all the kinds of light energy beaming around the universe and around you!

The sky is blue because of a phenomenon called Raleigh scattering which is the distribution of electromagnetic radiation (of which light is a form) by particles of much smaller wavelengths. The particles of the atmosphere scatter sunlight, and what filters down to earth is called diffuse sky radiation.

Although only about 1/3rd of light is scattered. The smallest wavelengths of light, which correspond to blue hues, tend to scatter easier and that is we see a blue sky. As the Sun gets lower in the sky, its light passes through more atmosphere to reach us and even more of the blue light is scattered. This allows the reds and yellows to pass straight through to your eyes.

Interestingly, the ocean is not blue because it reflects the sky. Water actually appears blue because of its absorption of red light. When light hits water, the water's molecules absorb some photons from the light. In shallow bodies of water (like a drinking glass) light penetrates it completely, as there is not enough water to absorb enough photons, so we see the water as colorless. In deeper waters however, not all the wavelengths of light can fully penetrate the liquid, as there are too many water molecules in the way of the photons. The water molecules absorb

all the red wavelengths from the light, making it reflect blue. This is also why shallower waters appear 'less' or lighter blue than deeper ones- less absorption means less reflection.

Reading Comprehension

Answer the following questions about the text:

Mark “True” or “False” next to each sentence:

1. The sun’s light is made of several colors - _____

2. A prism is made of light - _____

3. The color blue is a form of electromagnetic radiation - _____

4. The smallest wavelengths of light scatter more easily - _____

5. All oceans and seas reflect the color of the sky - _____

6. We see red water as colorless - _____

7. Deep water look darker than shallow water - _____

Answers:

1. True
2. False
3. False
4. True
5. False
6. False
7. True

Vocabulary

1. What does “to wonder” mean?

A. To be curious about something

B. To explain a difficult matter

C. To walk from place to place

2. Fill in the missing words:

“The light from the Sun looks white _____ the light is actually a combination of all the colors of the rainbow.”

A. as a result of

B. despite the fact that

C. nevertheless

3. What is the opposite of “separately”?

A. Undoubtedly

B. Together

C. Beaming

4. Which word in paragraph 2 means “something that happens”?

A. atmosphere

B. wavelengths

C. Phenomenon

5. Which verb means the same as “to enter”?

A. To penetrate

B. To absorb

C. To reflect

6. What is the opposite of “deep”?

A. Shallow
B. Lighter
C. Complete

Grammar

1. Rewrite the following sentences in the PASSIVE FORM:
A. We see the sky as blue.

B. We can identify each color separately.

C. The particles of the atmosphere scatter sunlight.

D. The light reaches us.

E. This allows the reds and yellows to pass straight through to your eyes.

F. The ocean doesn’t reflect the sky.

G. The water's molecules absorb some photons.

Answers:
A. The sky is seen as blue.

B. Each color can be identified separately.

C. Sunlight is scattered by the particles of the atmosphere.

D. We are reached by the light.

E. The reds and yellows are allowed to pass straight through to your eyes.

F. The sky is not reflected by the ocean.

G. Some photons are absorbed by the water's molecules.

2. Fill in the missing words with either the GERUND or INFINITIVE form of the verb in brackets:

A. I keep _____ (to wonder) about the color of the sky.

B. The students enjoy _____ (to learn) about this special phenomenon.

C. They learned _____ (to use) a prism.

D. The scientists finished _____ (to measure) wavelengths.

E. The water managed _____ (to absorb) the light.

F. I volunteered _____ (to take part) in the experiment.

G. The teacher felt like _____ (to explain) the subject in a funny way.

Answers:
A. I keep wondering about the color of the sky.

B. The students enjoy learning about this special phenomenon.

C. They learned to use a prism.

D. The scientists finished measuring wavelengths.

E. The water managed to absorb the light.

F. I volunteered to take part in the experiment.

G. The teacher felt like explaining the subject in a funny way.