Name_____

The Science of Color

For centuries, color has been used in the science of psychology. Psychology is defined as the scientific study of the human mind and its functions. Scientists have discovered that color can affect mood and perception. As a result, it can affect how people behave.

We often perceive red as a power color. In business negotiations, wearing a bit of red may give one party the edge over the other. On the other hand, blue indicates a willingness to collaborate. If reaching a compromise is important, wear a bit of blue when you meet with the other person.

Studies show that the color of the medicines we take affects what we think about how they will affect us. Studies indicate that blue-colored street lights lead to less crime in that area.

People who are often cold prefer warmer colors, as it makes them feel warmer. Those who are often warm more often select cooler colors to feel cooler.

Sports teams who wear black have a tendency to have more penalties called on them. And people who wear all black are sometimes viewed in a negative way.

Specific colors affect our moods in various ways. Red raises energy and creates excitement. Yellow reminds us of sunshine and creates joy and happiness. However, babies cry more in bright yellow rooms. Blue is calming and makes people relax. Green relieves stress and is the easiest for eyes to look at. Dark purple creates a feeling of luxury. Orange creates excitement and enthusiasm and is used in workout rooms.

As researchers learn more about color and how it affects us, they will also be able to dispel common myths about color. For example, pink may not have a calming effect on aggressive prisoners, and blue food may indeed suppress the appetite.

Color creates moods, emotions, and may even play a role in explaining our personalities.

Text Questions

1. Which paragraph gives information about how specific colors affect our moods?
   a. the first paragraph
   b. the third paragraph
   c. the fifth paragraph
   d. the sixth paragraph

2. Why do scientists study the effect of color on people's moods and behavior?
   a. People need to understand more about how the brain functions.
   b. Color doesn't make any difference in how people behave.
   c. We can use information from color research to orchestrate specific situations to achieve desired results.
   d. We can determine the difference between true and false statements about color.

3. According to the text, which color might make a person feel happy when studying?
   a. yellow
   b. purple
   c. black
   d. orange

4. What does the word *collaborate* mean as it is used in the second paragraph?
   a. to make someone upset
   b. to work together
   c. to cooperate with an enemy invader
   d. to be on the same sports team

5. Based on what you read, what do your favorite colors say about your personality? What evidence have you seen of this in your life? Give an example to support your answers.

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Audiology

Just as technology for audio devices (such as headphones) has advanced, medical tests and treatments for hearing impairments have also improved. Recent developments now make it easier to test a person's ability to hear. Audiology is the study of hearing.

When someone has his or her hearing evaluated, one or more tests may be done. Some tests check the physical health of the auditory system. The ability of the eardrum to withstand pressure is also measured. Other exams assess a person's ability to hear sounds at different frequencies. Finally, there are tests that measure the ability to hear and understand normal speech.

Sounds are measured in decibels, or loudness. They are also measured in frequency, which is the number of vibrations per second. The sounds of everyday life can be mapped on a grid based on these two levels. For example, a dog barking might register at 70 decibels but at a low frequency. Birds chirping are a higher-pitched tone, or higher frequency, but often low on the decibel scale.

People with normal hearing can hear whispers and other sounds at low decibel levels across all frequencies. Those with mild to moderate hearing loss may have trouble hearing high or low pitched sounds, or sounds quieter than 60 or 70 decibels. Hearing loss may be conductive, which relates to how the ear functions. Sensory loss has to do with the ear's ability to transmit sound waves through the inner ear. Neural loss happens when there is damage to the nerve that transmits sound messages from the ear to the brain.

The sounds of human speech are dispersed across the decibel and frequency grid in a shape referred to as the "speech banana." People may be able to hear sounds in this range but may have trouble understanding speech when there is a lot of background noise.

Medical advances in testing and treatment options make it possible for people to be less hindered in everyday life due to hearing loss.

Text Questions

1. What does the word *impairments* mean as it is used in the text?
   a. damages
   b. solutions
   c. spoils
   d. frequencies

2. What is the main idea of the fourth paragraph?
   a. It explains how hearing loss is measured.
   b. It describes different types of hearing tests.
   c. It describes the types of hearing loss.
   d. It summarizes how people hear speech.

3. What is one factor that can make it difficult for people to hear the sounds of speech?
   a. People normally speak too quietly for the human ear to hear.
   b. Some people wear earphones to listen to music.
   c. There is no medical treatment for hearing loss.
   d. Background noise can interfere with hearing.

4. Which of the following describes how sounds are measured?
   a. loudness, or decibels
   b. frequency, or pitch
   c. transmission of sound waves
   d. both a and b

5. How will advances in audiology benefit people?

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Name_____

How Are Mountains Formed?

Many people enjoy the mountains for the recreational opportunities they offer, but have you ever wondered how all those mountains were formed? Not all mountains were made by the same process; each way produces different types of rock and other characteristics.

Some mountains are considered volcanic. This type of mountain occurs mostly around the Pacific Ocean. A tectonic plate along the rim of the ocean is forced under another plate. As it sinks down, it melts and is then pushed up through the crust and erupts as a volcano. A good example of this is the Cascade Range along the western coast of the United States. Another type of volcanic mountain is called a hotspot. As a plate of Earth's crust moves over molten material, the magma pushes to the surface through weak spots in the crust and forms into a mountain. One good example of this is the Hawaiian Islands.

Another type of mountain is a folded mountain. This occurs when two plates collide, and one rides on top of the other. The plate that goes over the other will fold and buckle and create mountains. The Rocky Mountains in the western United States are one example of this type of mountain range.

Mountains can also be formed when a plate of Earth's crust breaks. One side rises to create mountains, and the other drops and creates a valley. This process is called fault block and can be seen in the Sierra Nevada Range in the western United States.

Mountains are also formed by erosion. When a volcano erupts, large areas of volcanic magma can be created. Water and winds wear down the material to form mountains. Sometimes, these mountains are called plateau mountains. The Catskills in New York fall into this category.

Left in their natural state, mountains provide us with valuable natural resources as well as recreation.

Text Questions

1. Which of the following is <u>not</u> a term to describe a process by which mountains are formed?
   a. volcanic
   b. folded
   c. fault block
   d. glaciation

2. What do all types of mountains have in common?
   a. They are the result of shifting tectonic plates.
   b. They are formed by changes in Earth's crust.
   c. They are covered by forests.
   d. They are formed from magma beneath the surface of Earth.

3. What does the word *collide* mean as it is used in the third paragraph?
   a. attack one another
   b. come into contact with each other
   c. come into conflict
   d. have opposing views

4. Which of the following is an example of mountains formed by erosion?
   a. the Rocky Mountains
   b. the Hawaiian Islands
   c. the Catskills
   d. the Sierra Nevada Range

5. Why do people study the formation of mountains?

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