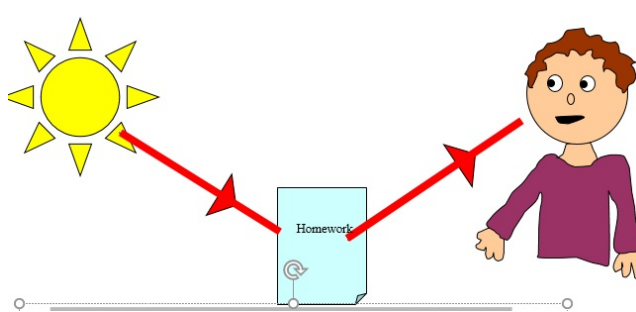


Science 8
Unit 3: OPTICS
Topic 4: Reflection Of White Light

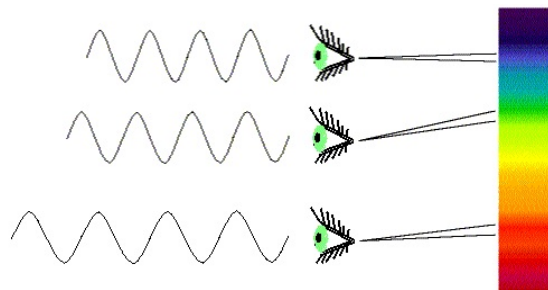


Student Name: _____

Reflection: light bounces off a surface. We see things because they reflect light into our eyes:



We see certain colours because they consist of a certain frequency and wavelength.

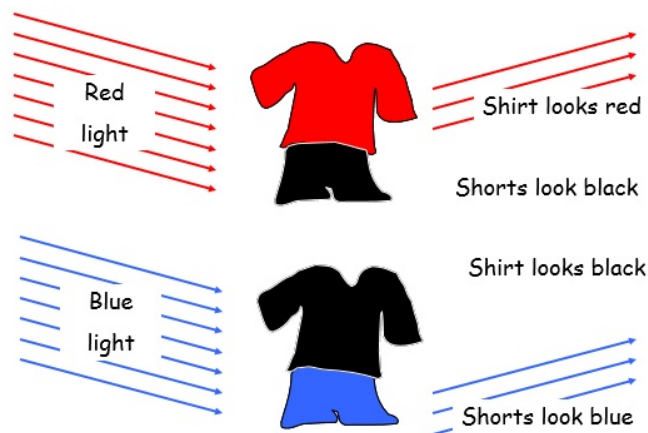


Reflection occurs when a light wave strikes an object and bounces off. When sunlight strikes coloured clothing, some colours are reflected while other colours are absorbed

For example, a red book only reflects red light



In different colours of light a shirt would look different:



Why does a bright red shirt look black when it is placed in a dark room?

Since a shirt does not produce its own light, but merely reflects the light in the room, the shirt appears to be black when there is no source of light.

PART A: MULTIPLE CHOICE.

Instruction: Circle the correct answer below each question. Also, transfer your answers to the bubble sheet provided.

1. Colour depends on what characteristic of light?
 - (A) Its frequency
 - (B) Its wavelength
 - (C) Both of these
 - (D) Neither of these

2. Which of the following would explain why we see objects?
 - (A) Absorption
 - (B) Dispersion
 - (C) Reflection
 - (D) Refraction

3. How many mediums do you need for reflection to occur?
 - (A) 1
 - (B) 2
 - (C) 3
 - (D) 4

4. The colour of an object is the same as the light that is
 - (A) Transmitted.
 - (B) Absorbed.
 - (C) Reflected.
 - (D) Refracted

5. What happens to the colours of light that are not reflected by a surface?
 - (A) Absorbed
 - (B) Dispersed
 - (C) Reflected
 - (D) Refracted

6. The colour that an object appears to be depends upon the
 - (A) Use of additive colours.
 - (B) Angle at which visible light is reflected from the object.
 - (C) Speed with which visible light reaches it.
 - (D) Wavelengths of visible light that reach your eyes

7. A red baseball cap is red because
 - (A) Red is absorbed by the baseball cap.
 - (B) Red, orange, and yellow are reflected by the cap.
 - (C) Red, orange, and yellow are absorbed by the cap.
 - (D) All the colours of the spectrum are absorbed, except for red.

8. Snow appears white because
 - (A) The larger particles in snow scatter all light in the visible light spectrum.
 - (B) All the colours in the visible light spectrum are absorbed by the snow.
 - (C) Only red, green, and blue light are scattered.
 - (D) Only red, green, and blue light are absorbed.

PART B: WRITTEN RESPONSE

1. Why does a green shirt look green?

2. Why does a blue hat look black when it is in a dark room?
