

LKCSS S3 PHYSICS

Name: _____ () Class: 3 _____ Group: _____

COLOUR

Check your concepts

Study the following statements. Put a 'T' in the box against a correct statement and a 'F' against an incorrect statement.

1. There are only seven different colours in sunlight. F
2. Rainbow is formed by the dispersion of sunlight by water droplets. T
3. White light can be produced by mixing red, green and blue lights in any proportions. F
4. Almost all colours can be produced by mixing red, green and blue lights. T
5. An object appears red because it absorbs red light. F
6. Colour-blindness is caused by defects in rod cells on the retina. F
7. The colour images on a television screen are formed by many small cells of the three primary colours. T

Multiple Choice Questions

Write the correct answer to each question in the box provided.

1. Which of the following statement(s) about rainbow is / are correct?
 - (1) Rainbow can only be seen after a rain.
 - (2) Rainbow is circular in shape.
 - (3) The various colours you see in a rainbow are the colours of light in sunlight.
 - A. (1) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3) C
2. Which of the following statements best explains why leaves are green in colour?
 - A. Leaves contain pigments that can absorb green light.
 - B. Leaves contain pigments that can absorb coloured lights other than green light.
 - C. Leaves contain pigments that can reflect red and blue lights.
 - D. Leaves can emit green light on their own. B

3. Which of the following statements about colour blindness is INCORRECT?

- A. Colour blindness cannot be corrected.
- B. The most common type of colour blindness is red-green colour blindness.
- C. Colour blindness means that all the cone cells are not working properly.
- D. Colour blindness is an inherited defect.

C

Fill in the blanks

Complete the sentences below with suitable words.

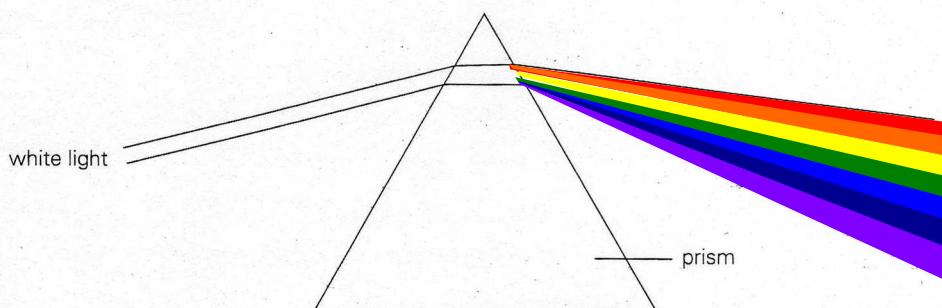
dispersion / refraction

- 1. Sunlight undergoes (a) _____ in water droplets to form a rainbow.
- 2. (b) _____ , (c) _____ and (d) _____ are the primary colours of light. All colours can be produced by mixing light of these three colours.
- 3. The retina contains two types of light-sensitive cells called (e) **cone / rod cells** and (f) **rod / cone cells** . (g) **Cone cells** are responsible for detecting colours.
- 4. (h) **Colour-blind** people have defects in their cone cells and therefore cannot distinguish between certain colours.

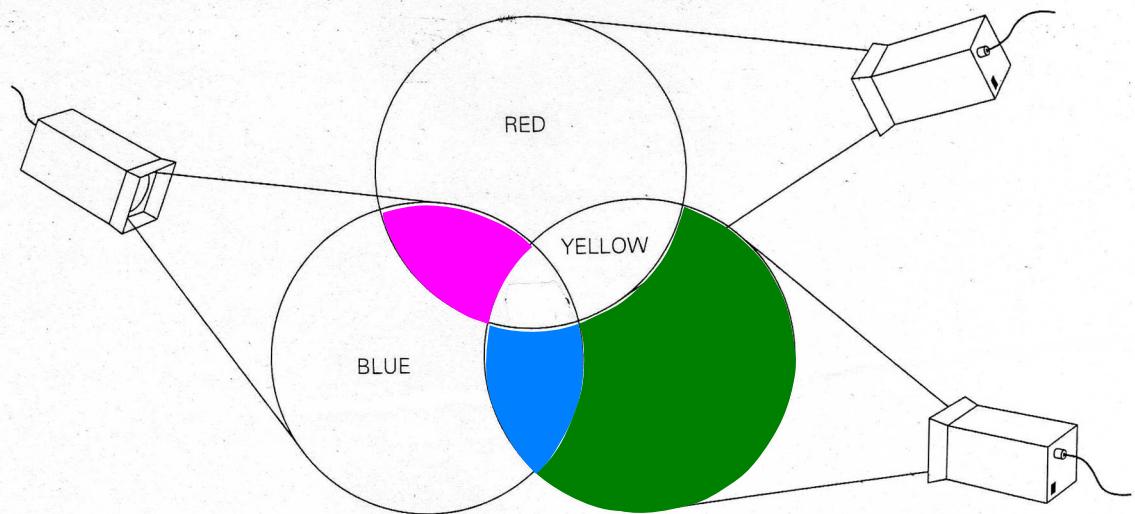
Complete the diagrams

Complete the following diagrams with suitable colours.

1.



2.



3.

