



Give the marks for the points in the marking scheme; an answer in other words that says the same is right.

1 Key words

1. luminous
2. opaque
3. dispersion
4. vibrates
5. medium
6. circuit

K • 3

Each carries 0.5 mark.

2 Label the diagram

1. spring
2. metal strip
3. two dry cells, end to end

4. switch
5. bulb
6. reflector

K • 3

Each carries 0.5 mark.

3 Multiple choice

- i. **b. the Sun**

K • 1

The **Sun** is a star. It makes its own light. Planets, satellites and the Moon only send back sunlight.

- ii. **b. dark glasses, whose lenses let only part of the light through**

A • 1

Dark glasses (sunglasses) cut down the light, so the glare doesn't hurt. But she can still see the road through them. Clear lenses let all the glare in. Opaque lenses would let her see nothing at all!

- iii. **c. Clouds are translucent.**

U • 1

Clouds are **translucent**. They let some sunlight through, but not clearly. So the day is bright, but we can't see the Sun's round shape. (A thick, dark storm cloud lets very little through.)

- iv. **d. a vacuum**

K • 1

A vacuum has nothing in it to carry the vibration.

- v. **a. The switch is off.**

U • 1

If the **switch** is off, the circuit is open, and no electricity flows to the bulb.

4 Correct or wrong?

MARKING SCHEME

U • 4

- ✓ i. Wrong, X (light passes through air easily; air is transparent).
- ✓ ii. Correct, ✓ (thin strings vibrate fast).
- ✓ iii. Wrong, X (an open circuit has a gap, so electricity can't flow).
- ✓ iv. Correct, ✓ (it has no light of its own; it sends back sunlight).

5 Match the parts of a circuit

1. dry cell → **b.** gives the electricity
2. conducting wire → **c.** carries the electricity
3. switch → **e.** turns the flow on and off
4. bulb → **a.** gives light when electricity flows through it

K • 2

Each carries 0.5 mark.



6 Very short answers

MARKING SCHEME

K · 1

- ✓ All seven colors, in order (red, orange, yellow, green, blue, indigo, violet).

7 Short answers

a. MARKING SCHEME

U · 2

- ✓ A gentle hit makes the skin vibrate only a little, so the sound is soft.
- ✓ A hard hit makes the skin vibrate much more, so the sound is loud.

b. MARKING SCHEME

K · 2

- ✓ Any one, e.g. never put fingers into a plug or socket.
- ✓ Any second, e.g. never touch electrical things with wet hands; cover bare wires with insulating tape; call an electrician for repairs; turn off the main switch in a fire.

8 Think

MARKING SCHEME

HA · 2

- ✓ Stand with the Sun behind you and spray a fine mist of water in front (or shine sunlight on a mirror under water in a dish).
- ✓ The drops of water split the white sunlight into its seven colors (dispersion).

9 Activity: Does it give light? (Activity 7.2)

(not marked)

WHAT STUDENTS SHOULD FIND

Give light: a burning candle, a torch that is on, the Sun, a star. Don't give light: a mirror, a stone, the Moon, a book. A mirror and the Moon only send back light that falls on them.

Marks by level	Knowledge	Understanding	Application	Higher ability	Total
Marks	13	8	1	2	24

