



## Rosary School – Marj Elhamam

Name: \_\_\_\_\_

Grade: 7 ( A,B,C,D,E )

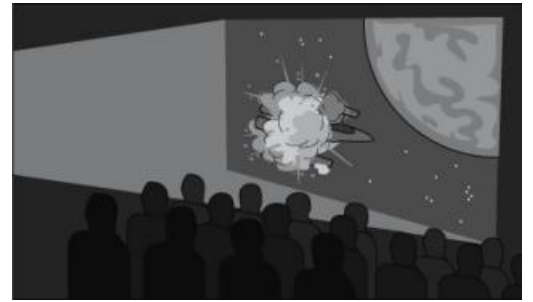
Date: \_\_\_\_ / \_\_\_\_ / 2025

Subject : Physics

### Worksheet 3

#### Question 1:

Allie and Jamil are watching a film in the cinema. A spaceship is being chased, and explodes in a ball of fire. Allie puts her fingers in her ears because the sound is so loud. Jamil drops his sweets. He needs to use the torch on his phone to find them because it is very dark under the seats.



a. Which of these things are light sources. Tick (✓) two boxes.

☒ Torch

☐ Cinema Screen

☒ Projector

b. If you were really in space, you could see an explosion, but you could not hear it. Why is this?

☐ Light travels faster than sound.

☐ Sound travels faster than light.

☒ Sound cannot travel through empty space.

c. Complete these sentences using words from the box. You do not need to use all the words.

absorbs

transmits

reflects

opaque

shadow

transparent

The cinema screen is made from a material that reflects light well.

It is dark under the seats because they are opaque (light cannot go through them) so they form a Shadow.

d. Outside the cinema they see two cars crashing in the distance. They don't hear the sound straight away. Explain why does this happen?

because light travels faster than sound

## Question 2:

- a. Materials can be opaque, translucent or transparent. What does **opaque** mean?

Opaque Materials reflect and absorb light but can't transmit it

- b. Explain how a **translucent** material is different from a **transparent** material.

Translucent materials transmit light and scatter it and reflect it but, transparent materials don't scatter light so you can see through them clearly

## Question 3: Choose the correct answer.

1. Which of these statements is true?

- ☒ A Light travels in straight lines
- ☐ B Light is stopped when it meets a solid object.
- ☐ C Light does not travel in straight lines.
- ☐ D Light will only travel for about 2000 km before it stops.

2. Which of these statements is **not** true?

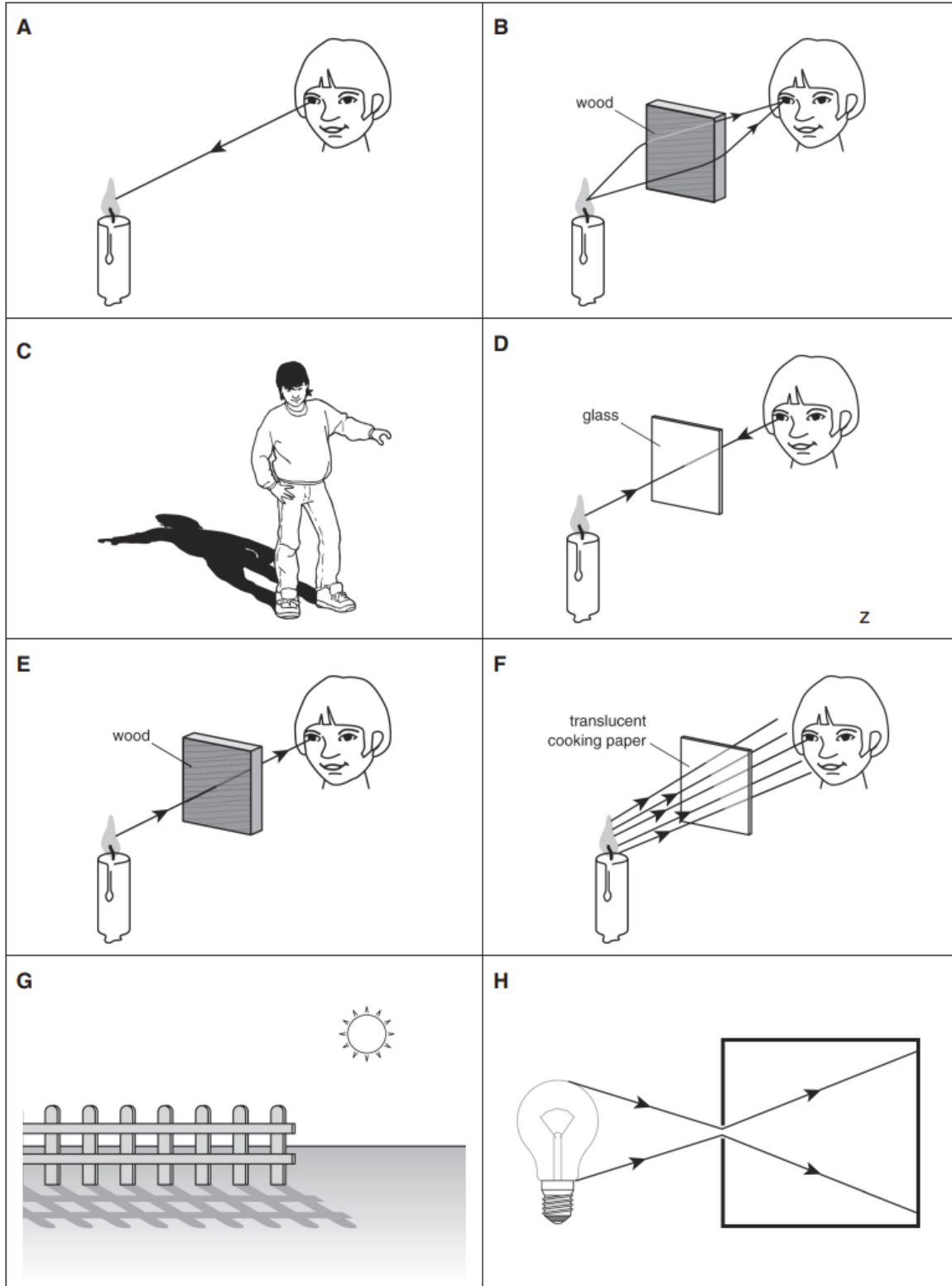
- ☐ A Opaque objects reflect or absorb light.
- ☐ B Transparent objects let light pass through them.
- ☐ C Translucent objects scatter the light that passes through them.
- ☒ D Translucent objects do not reflect light.

**Question 4:** A woman is reading a book. Draw a light ray on the drawing to show how she sees the book. Draw **arrows** on your light ray to show the direction the light is travelling.



#### Question 4:

There is something wrong with each of these diagrams. Find the mistakes and write them down with explanation.



A. The arrow should be in the other direction, from the candle

to the eye, because the eyes are not a source of light

- B. The light ray should be blocked and reflected by the block because light travels in straight lines and can't bend around the block
- C. The Shadow should be flipped because the boy is raising his left hand not right.
- D. the arrow from the boy's eye should be flipped because light transmits through the glass to the eye
- E. the arrow behind the block should be removed, because the block is opaque and can't transmit light
- F. The arrows that pass the paper should scatter because it's translucent.
- G. The shadow should be flipped because the sun position is in front of the fence, so the shadow should be behind it
- H. Light ray should continue traveling in straight lines because light rays can't bend over corners.