## Lesson 4 - Reflected images

Science - Biology - Key Stage 3
Light and Space

Miss Wickham

## Recap questions

1. What is the line that is $90^{\circ}$ to a mirror called? $\mathbf{N}$
2. What causes a 'transverse' wave? Vibrations that are $\qquad$ to the direction of travel
3. What happens to light waves when they meet a mirror? They will $\qquad$
4. If the angle of incidence is $20^{\circ}$, what will the angle of reflection be? The angle of reflection will be $\qquad$
5. What is the "law of reflection"? The angle of $\qquad$ = the angle of $\qquad$

## Drawing reflection diagrams <br> Task - put these steps in order for drawing a reflection diagram

A Label the diagram
B Draw a straight line with dashes to show it is your mirror
C Measure this angle from the normal line to draw your reflected ray
D Draw an incident ray towards the mirror
E Using your protractor, draw a line at 90 degrees to the mirror line
F Measure the angle from the normal line round to your incident ray

## Task - spot the mistakes on the following reflection diagram



Draw reflection diagrams where the angle of incidence is:
A. 45 degrees
B. 75 degrees
C. 10 degrees


Make sure to follow the steps but this time measure the angle from the normal line rather than a random angle.

Make sure to label the diagram

## Properties of a mirror image

1. Write your name in capital letters down the page.
2. Place a mirror down the page
3. Draw how and where the writing appears on the other side of the mirror.

| $Y$ | $Y$ |
| :---: | :---: |
| $O$ | $Y$ |
| $U$ | $O$ |
| $R$ | $U$ |
| $N$ | Я |
| $N$ | И |
| $A$ | $A$ |
| $M$ | $M$ |
| $E$ | $\exists$ |

Write a paragraph to describe the properties of the reflected image shown in the picture.

Include:

- Properties discussed in the previous slides
- What type of reflection is occurring and explain how you can tell.

