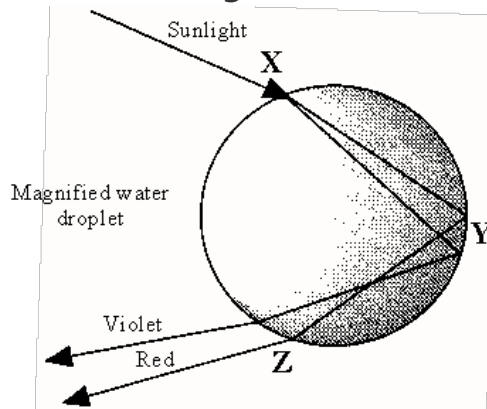


# Light and water

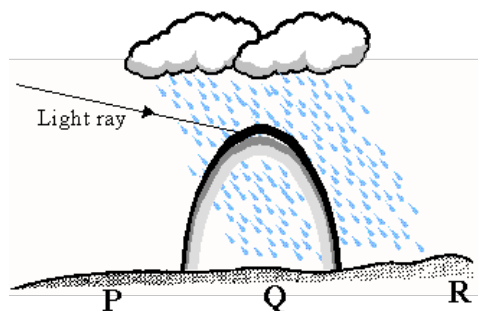
**Diagram 1**



a) This diagram shows what happens when light rays enter a droplet of water. Circle either A, B, C or D in the table to show what is happening at positions X, Y, and Z.

	<b>Position X</b>	<b>Position Y</b>	<b>Position Z</b>
(A)	Dispersion	Refraction	Reflection
(B)	Dispersion and refraction	Reflection	Refraction
(C)	Dispersion	Reflection	Reflection
(D)	Dispersion and reflection	Reflection	Refraction

**Diagram 2**



b) Diagram 2 shows a situation where a rainbow might be formed.

i) Drawing on this diagram, complete the line labelled light ray to show how the direction of the light ray is altered by the band of rain.

ii) Which letter shows the position a person would need to be to see this rainbow?

- (A) Position P
- (B) Position Q
- (C) Position R
- (D) The rainbow could be seen from P, Q and R

c) Light rays are refracted when they

- (A) cross with other light rays.
- (B) bounce off solid, dark coloured objects.
- (C) travel from one transparent material to another.
- (D) travel through sound waves.