

SCIENCE 8 – REFLECTION & REFRACTION WORKSHEET

NAME: _____

Vocabulary			
Incidence	Opaque	Reflected ray	Refraction
Material	Plane mirror	Reflection	Transparent
Normal	Ray model of light	Refracted ray	Translucent

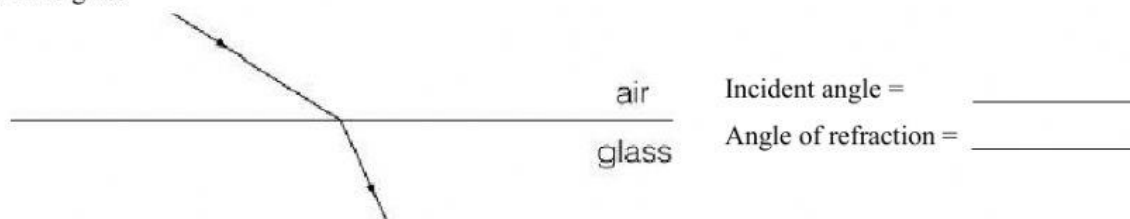
Use the terms in the vocabulary box to fill in the blanks for the following eight questions. You will not need to use every term.

- 1) In the _____, light is described as a ray that travels in a straight path.
- 2) When light strikes _____ materials, it passes through them.
- 3) When light strikes _____ materials, it passes through them but is scattered from its straight path.
- 4) _____ materials do not allow light to pass through them.
- 5) The angle of reflection is equal to the angle of _____.
- 6) Light rays bounce off a _____ with a regular reflecting pattern.
- 7) The angle of _____ is the angle of a light ray that comes out of the boundary between two materials.
- 8) The angle of refraction is measured between the _____ and the normal.
- 9) Match each **Term** on the left with the best **Descriptor** on the right. Each **Descriptor** may be used only once

Term		Descriptor	
	Normal	A.	Equal to the angle of reflection
	Angle of refraction	B.	Measured between the refracted ray and the normal
	Angle of reflection	C.	Angle of reflected ray
	Angle of incidence	D.	Imaginary line that passes through materials at right angle

10) For each diagram, draw the normal at the point of contact. Measure the incident angle and the angle of refraction. Then complete the sentences using *greater*, *less*, *toward*, or *away from*.

(a) Air to glass



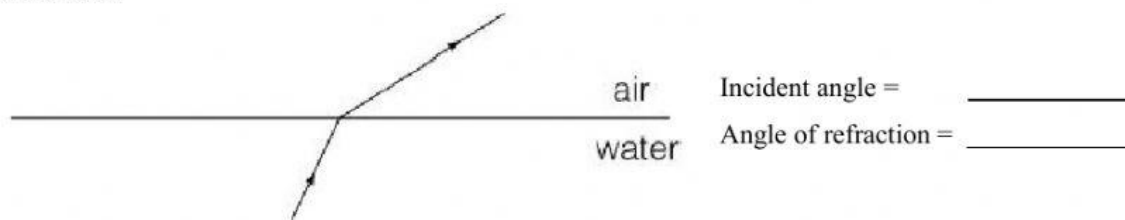
Incident angle = _____

Angle of refraction = _____

The angle in air is _____ than the angle in the glass.

The light entering the glass bends _____ the normal.

(b) Water to air



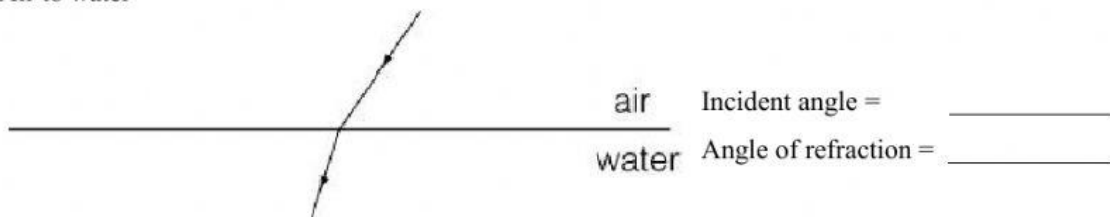
Incident angle = _____

Angle of refraction = _____

The angle in air is _____ than the angle in the water.

The light entering the air bends _____ the normal.

(c) Air to water



Incident angle = _____

Angle of refraction = _____

The angle in air is _____ than the angle in the water.

The light entering the water bends _____ the normal.

(d) Transparent plastic to air



Incident angle = _____

Angle of refraction = _____

The angle in air is _____ than the angle in the plastic.

The light entering the air bends _____ the normal.