Spinner Worksheet – Module 4

Names: _____

RENEWABLE ENERGY	
What happens when light falls on a solar PV panel?	
What does PV stand for?	
There is also another kind of solar panel – what does this do?	
EARTH AND SPACE	
Explain the 'geocentric' model of the solar system.	
Explain the 'heliocentric' model of the solar system presented by Nicolaus Copernicus in the 16th century.	

LIGHT	
How are rainbows formed?	
Explain how a Newton disc should work	
Explain how a Maxwell disc should work.	
MATHS	
What is the relationship between radius and diameter?	
EXTENSION QUESTION	
Which energy conversions take place in the solar powered spinner?	

Suggested Answers

RENEWABLE ENERGY	
What happens when light falls on a solar PV panel?	*It produces electricity.*
What does PV stand for?	*PV stands for Photovoltac.*
There is also another kind of solar panel – what does this do?	*Heats up water.*
EARTH AND SPACE	
Explain the 'geocentric' model of the solar system	*People used to think that the solar system had the Earth at its centre – this is called the 'geocentric' model of the solar system.*
Explain the 'heliocentric' model of the solar system presented by Nicolaus Copernicus in the 16th century.	*In the 'heliocentric' model the sun is at the centre of the solar system and the planets orbit around it. This is thought to be the correct model.*
LIGHT	
How are rainbows formed?	*A rainbow is formed when sunlight is split into its component colours by raindrops.*
Explain how a Newton disc should work	*If you colour in the disc with all the colours of the rainbow and then spin it, the colours should appear to mix to give white (or nearly white).*
Explain how a Maxwell disc should work	*If you colour the outer ring in red, blue and green then spin it, the colours should appear to mix to give grey. You should then increase the amount of black on the inner ring until the same shade of grey is obtained.*
MATHS	
What is the relationship between radius and diameter?	*The radius is half the diameter.*
EXTENSION QUESTION	
Which energy conversions take place in the solar powered spinner?	*Light energy from the sun is converted by the solar panel to electricity; this is then converted to kinetic (movement) energy as the motor rotates.*