

THE SCIENCE OF LIGHT

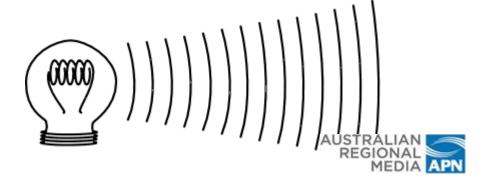


ACTIVITY 1

UNDERSTANDING WHAT YOU READ

Read the content for this topic then answer the following questions to see how much you understand about what you read.

- 1. What type of energy is light?
- 2. What sustains life on Earth?
- 3. Give an example of combustible material?
- 4. What is the visible spectrum?
- 5. True or False: We can see ultraviolet light.
- 6. Finish this sentence: Light reflected from objects.....
- 7. Which word means bending of light wave, when it passes from one medium into another of different density.
- 8. What is the scientific study of the properties of light called?
- 9. What is a straight path of light called?
- 10. What percentage of sunlight is not visible light?





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ACTIVITY 2

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Try this experiment

Some of the words in the disappearing act experiment have vanished. Can you replace them so the information makes sense?

rou will fieed.	
clear drinking, sau	ucer, water, ten coin.
Method:	
Place the on a	.
Place the base of the glass _	
Cover the of the	
	the glass, can you still the coin?
Fill the glass with a	and replace the saucer.
Can you still see the coin thro	ugh the of the glass?
Take the saucer and	peer straight to the bottom of the glass
through the water.	
What do you see?	
How does it work?	
Normally, travels	in a straight path called a,
however, when passing throu	gh transparent materials, like water or
glass, light or turns.	
When the light rays are travel	ling from the through the water
they are and	cannot make it to your eyes.







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ACTIVITY 3

WHITE LIGHT

Light is all of the colours in one: white. Try this experiment.

Materials: glue; ruler; pencil; scissors; string; felt pens(red, orange, yellow, green, blue, and purple); small paper plate

Method:

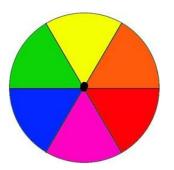
Cut the edge off the paper plate.

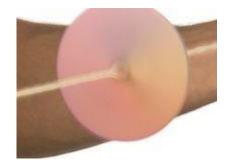
Use a ruler and pencil to divide the circle into six even sections. Colour each of the six sections a different colour using the pens. Poke a small hole through the wheel, near the centre of the circle. Cut a 90cm piece of string and feed the string through the hole. Wind the string by moving the wheel in a motion similar to a jump rope.

Pull the string tight to get the wheel spinning.

As the wheel spins, what do you notice about the colours? How does it work?

Where do those colours go?





FROM THISTO THIS



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ACTIVITY 4

WORDS AT WORK

In Wordy News this week we defined the word PROBE which was used in the following way: **Students**

probe the mysteries of science

A synonym is a word that has the same meaning. Identify these synonyms for the word PROBE.

Choose five synonyms from above and replace into the headline. Which is the best replacement?







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ACTIVITY 5

CHECK IT OUT

- 1. What area of research is this year's National Science Week celebrating?
- 2. 2015 is the International Year of
- 3. List an area of science that light plays an important part.
- 4. What is one of the purposes of National Science Week?
- 5. How many years has the National Science Week been held?
- 6. What is this year's National Science Week theme?
- 7. How many days does the week run?



Write a brief story on what you are doing for Science week.

Centenary Heights has had a long involvement in Science Week starting in 2006 and has continued every year since.

This science filled week focuses on Years 6 to 11 but is also open to the community.

Centenary has an exceptional science fair where all students and staff members have the privilege of seeing science in action.

Countless students get involved creating science experiments in a fun and educational way.

If you want to discover the mysteries of science first hand, join us on Thursday August 20 at Centenary Heights State High School at the hall on 60 Ramsay Street.





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ACTIVITY 6

NEWS IN THE SPOTLIGHT

WHAT A GREAT IDEA

Over a thousand entries from across Australia were submitted into the 2014 littleBIGidea competition, demonstrating a range of exciting and innovative ideas from students from Year 3 to Year 8.

The three winning entries; a nail polish that tells the wearer when to wash their hands; a solar-powered lawn mower with auto-assist technology; and an interim charging option for flat mobile phone batteries, were chosen for their exceptional demonstration of originality, creativity, practicality and imagination.

Choose one of the winning ideas. Give the product a name and design an advertisement for it.

Remember to include:

- * A good headline or caption
- * Copy text that explains the product or service
- * An interesting graphic or photograph
- * Balanced layout
- * Clear identification of who/what the business/product is and how to find them or contact them.

