

Year 8 Light Task Sheet



Write a step by step instruction list to tell someone how to split white light into its individual colours. Say what you would expect to see.



Make a list of at least 10 things we use mirrors for.



Make a safety poster that could go on the wall of a swimming pool building to explain why the water is not really the depth that it appears to be. Include a diagram.



Make a crossword (with clues) about light, reflection and refraction.



Create a 10 question quiz (with separate answer sheet) about this topic.



Use ICT to make a poster to show how either a telescope or a DSLR camera uses mirrors to allow them to work.



Create a 3D model or produce a piece of artwork about the 'Light' topic.



Produce an information booklet that could be given out by an optician to explain to their patients how lenses can be used to correct long-sightedness or short-sightedness.

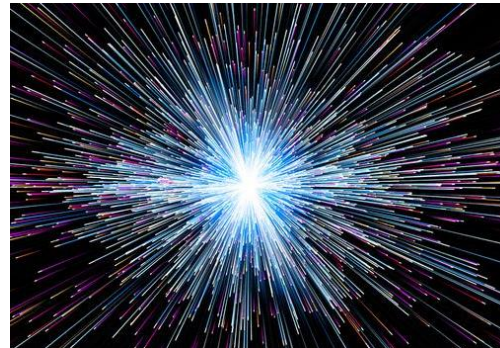


Produce a report, presentation, or documentary style video about the methods scientists have used in the past up to the present day to measure the speed of light. Give names of the key scientists involved. What techniques have they used that have given them more accurate results?

Instructions

Complete the tasks, the more stars the task has, the trickier it is. You should submit written work in the form of a booklet, leaflet or a poster. Models can be made from craft materials or even from cake!

Good luck with the work!



Resources:

Use KS3 Bitesize, KS3 Revision Guides, text books, internet searches and your own imagination.

Progress Targets:

Complete these targets in your exercise book as you make progress through the topic. Highlight these amongst your class work. They will demonstrate the progress you are making in the topic!

- ❖ Know how light travels
- ❖ Can draw a basic ray diagram to show reflection
- ❖ Give a basic description of refraction and state when it might occur
- ❖ Know the 7 colours white light can be split into
- ❖ Explain the terms transparent, opaque, translucent, luminous and reflection
- ❖ Can describe the uses of the law of reflection in some situations
- ❖ Can label a ray diagram showing refraction
- ❖ Can describe refraction observed in concave and convex lenses
- ❖ Can explain the image formed by a pinhole camera
- ❖ Can explain a variety of applications of reflection
- ❖ Can explain how refraction is used in lenses in telescopes, cameras and to correct defects of vision
- ❖ Can describe dispersion and link to rainbows, blue skies and red sunsets