





















# SUPER-CURRICULAR ACTIVITIES

## SCIENCE: PHYSICS

### Year 9

 Read a book written by a prominent Physicist, try: Stephen Hawking; Richard Feynman; Jim Al-Khalili.	 Read some articles from the Young Scientists Journal. Follow <b>Link 1</b> (below)	 Research the work of women in space – you could start with: Valentina Tereshkova; Sally Ride; Samantha Cristoforetti; Helen Sharma.
 Research the discoveries that have been made following experiments and CERN.	 Watch 'Smarter Every Day' on YouTube (the rocket factory tour is a good start.)	 Watch a selection from the Royal Institution YouTube videos (Quantum Physics, Rollercoaster Science and more.)
 Explore Veritasium (try some of the puzzles.)	 Listen to the Infinite Monkey Cage Podcast on BBC Radio 4. Follow <b>Link 2</b> (below)	 Listen to 13 Minutes to the Moon from the BBC World Service. Follow <b>Link 3</b> (below)
 Explore Physics Made Simple from the BBC World Service. Follow <b>Link 4</b> (below)	 Conduct an experiment to investigate the effect of parachute size on how long an object takes to fall a fixed distance. You can use bin bags to make the parachute.	 Make a model house out of cardboard with working lights. You can use tinfoil for wires and LEDs can be purchased cheaply online.
 Write a piece for the Young Scientists Journal, more information about the type of writing you can do can be found on the website. Follow <b>Link 1</b> (below)	 Write the diary of an astronaut on their way to another planet. They will be in a confined environment with the same people for a long period of time. Any communications with home will take longer and longer to complete (messages take between 4 and 24 minutes between Earth and Mars, depending on orbital locations.)	 Host an online hangout with your friends to revise a specific topic area.
 Visit the Science Museum in London and explore the space gallery. Follow <b>Link 5</b> (below)	 Visit a local steam railway to find out how the locomotives work. Follow <b>Link 6</b> (below)	 Visit a dark sky area at night and use an App like google sky to help you identify celestial objects.

#### Links to websites used in this Super-Curricular Activities sheet:

Link 1: <https://ysjournal.com/>

Link 2: <https://www.bbc.co.uk/programmes/p0863lfn>

Link 3: <https://www.bbc.co.uk/programmes/w3ct0pc6>

Link 4: <https://www.bbc.co.uk/programmes/p033f8k0/episodes/guide>

Link 5: <https://www.sciencemuseum.org.uk/see-and-do/exploring-space>

Link 6: <https://www.railwaymuseum.org.uk/>

	Reading task		Creative task		Watching task		Student-led task
	Research task		Writing task		Listening task		Trip or visit