

Subject:	<b>Physics</b>
Subject Context:	<p>Physics opens doors to some of the most exciting, cutting-edge, rewarding jobs in the world.</p> <p>From cancer treatment to tackling climate change, gaming to robotics and artificial intelligence, physics and physicists are on the front line, helping to shape the future. At a time when jobs are changing, physics offers a vast and expanding range of career paths.</p>
Reading List:	<ol style="list-style-type: none"> <li>1. 6 easy pieces - Richard Feynman</li> <li>2. How to teach Quantum Physics to your dog - Chad Orzel</li> <li>3. <a href="https://www.iop.org/careers-physics/your-future-with-physics">https://www.iop.org/careers-physics/your-future-with-physics</a></li> </ol>
Essential resources or equipment required for the course:	Scientific calculator, e.g. Casio FX range
Taster Activity:	<p>In Physics we analyse the universe from the very small to the very large.</p> <p><b>1. The very small</b>          The smallest things in the universe are sub-atomic particles. These are particles that are smaller than an atom.</p> <ol style="list-style-type: none"> <li>a) Research and find the names of 5 sub-atomic particles.</li> <li>b) Find out which of these are fundamental particles.</li> <li>c) Choose one of your particles and find out when and how it was discovered.</li> </ol> <p><b>2. The very large</b></p> <ol style="list-style-type: none"> <li>a) Galaxies are some of the largest structures in the universe. Find out the three types of galaxies.</li> <li>b) Find the names of one example of each type of galaxy.</li> <li>c) Choose one of these galaxies and research about it. You should consider how large it is, how far away and any other information you can about your chosen galaxy.</li> </ol>

Resources needed to complete the activity:	Access to the internet
Estimated time required to complete the activity:	1 hour
How you could extend your learning:	Research your possible future careers after studying physics using the Institute of Physics website: <a href="https://www.iop.org/careers-physics/your-future-with-physics/career-paths">https://www.iop.org/careers-physics/your-future-with-physics/career-paths</a>