## YEAR 10 A-F - Physics

## WEEK 11 (8<sup>th</sup> November to 12<sup>th</sup> November)

**Topic:** Radioactivity

Lesson Objective: SP 6k Nuclear energy SP 6l Nuclear fission

## **Resources:** Student text book, worksheet file, interactive power point from Board works and Online animations

Worksheets and Zoom link will be posted in google classroom

Date	Lesson	Lesson objectives & Learning outcome	Mode of Teaching	
8 <sup>th</sup> Nov Sunday (Boys) 8 <sup>th</sup> Nov Sunday (girls)	1	<ul> <li>L.O: To discuss the textbook questions of SP 6d,Sp 6e and worksheet given in GC</li> <li>Learning outcome: The students will be able to reinforce the concepts of uses &amp; dangers of radiation and analyze their answers.</li> </ul>	Zoom	Teacher discuss the answers and clarify the doubts regarding the topic
10 <sup>th</sup> Nov Tuesday (Boys) 11 <sup>th</sup> Nov Wednesday (girls)	5	<ul> <li>L O: Explain how the fission of U-235 produces two daughter nuclei and the emission of two or more neutrons, accompanied by a release of energy.</li> <li>Explain how the chain reaction is controlled in a nuclear reactor including the action of moderators and control rods.</li> <li>Describe how thermal (heat) energy from the chain reaction is converted into electrical energy in a nuclear power station.</li> <li>Learning outcome: Students will be able to</li> <li>Describe the products of the fission of U-235.</li> <li>Describe what a chain reaction is.</li> <li>Explain how a chain reaction is controlled in a nuclear power station.</li> <li>Describe what a chain reaction is.</li> <li>Explain how a chain reaction is.</li> <li>Explain how a the thermal energy</li> </ul>	Zoom	Teacher uses a powerpoint presentation to discuss nuclear fission and its products. Also explain the difference between controlled and uncontrolled chain reaction and the how nuclear energy is utilized in nuclear power stations

		from a chain reaction is converted to electrical energy		
10 <sup>th</sup> Nov Tuesday (Boys) 11 <sup>th</sup> Nov Wednesday (girls)	6	<ul> <li>L.O: To complete the textbook questions for SP 6l Nuclear fission page 112 and the worksheet given</li> <li>Learning outcome: Students will answer the textbook questions and worksheet</li> </ul>	Zoom	Teachers will check the student's work and discusses the answers
12 <sup>th</sup> Nov Thursday (Boys) 12 <sup>th</sup> Nov Thursday (Girls)	4	<ul> <li>L.O: Evaluate the advantages and disadvantages of nuclear power for generating electricity, including the lack of carbon dioxide emissions, risks, public perception, waste disposal and safety issues.</li> <li>Learning outcome: Students will be able to</li> <li>Describe some advantages of using nuclear power to generate electricity.</li> <li>Describe some disadvantages of using nuclear power to generate electricity.</li> <li>Evaluate the use of nuclear power to generate electricity.</li> </ul>	GC	Teacher will post the presentation of the chapter in the google classroom. Students will read the chapter <b>SP 6k</b> Nuclear energy page 110 and complete the answers