

YEAR 10 A-F - Physics

WEEK 9 (25th October to 28th October)

Topic: Radioactivity

Lesson Objective: SP 6g Half life
SP 6h Using Radioactivity

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	
<p>25th Oct Sunday (Boys)</p> <p>25th Oct Sunday (girls)</p>	<p>1</p> <p>2</p>	<p>L.O: Describe uses of radioactivity, including:</p> <p>a) household fire (smoke) alarms</p> <p>b) irradiating food</p> <p>c) sterilisation of equipment</p> <p>d) tracing and gauging thicknesses</p> <p>Learning outcome: Students will be able to</p> <ul style="list-style-type: none"> • Recall that different types of ionising radiations have different properties. • Describe how alpha radiation is used to detect smoke particles • Explain how gamma rays are used to kill bacteria in food to extend its shelf life and for the sterilization of equipment. • Describe how radioactivity helps to control the thickness of paper. • Explores the choice of radioactive isotope for each use depending on half life of the source, penetration and ionisation. 	<p>Zoom</p>	<p>Teacher introduces the objectives of the lesson and enables breakout rooms. Students join the group assigned to them and each group will research on the use of radioactivity assigned to them. Students presents their findings of the choice of radioactive isotope for each use they researched depending on half life of the source, penetration and ionisation.</p>
<p>27th Oct Tuesday</p>	<p>5</p>	<p>L O: Use of radioactivity in determining</p>	<p>Zoom</p>	<p>Teacher uses a ppt</p>

<p>(Boys)</p> <p>28th Oct Wednesday (girls)</p>	<p>5</p>	<p>the age of fossils</p> <p>Learning outcome: Students will be able</p> <ul style="list-style-type: none"> • activity of a radioactive isotope decreases with time • understand what is meant by radiocarbon dating • describes how radioactive dating can be used to determining the age of fossils by knowing the percentage of carbon14 in the sample 		<p>presentation and explain that by comparing how much carbon-14 there is in the dead organism with the amount in a living one, the age of the dead organism can be estimated.</p>
<p>27th Oct Tuesday (Boys)</p> <p>28th Oct Wednesday (girls)</p>	<p>6</p> <p>6</p>	<p>L.O: Revision</p> <p>Learning outcome: Students will be able to clarify the doubts and reinforce the topics of radioactivity- types of radiation, background radiation and half life</p>	<p>Zoom</p>	<p>Students recap and revise the topics.</p> <p>Teacher ensures that the all the students are capable of answering the questions related to the topics mentioned.</p>