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| **Lesson Number: 26.3** |
| **Lesson Title: More about α, β and γ radiation** |
| **Specification Reference** | **3.8.1.2** |
| **Learning Objectives** |
| Inverse-square law for γ radiation:  |
| **Opportunities for Assessment** |
| Questions on page 448 |
| **Starter:** | Slide #1 enables a quick recap of the three main ionisation types and their properties |
| **Main:** | Slides #2 - #4 go through and recap GCSE knowledge of what each of the types of radiation are and what they are made fromSlides #5 and #6 explain and derive the inverse square law for gamma – This knowledge is critical as it forms the work for the required practical #12 next lessonSlides #7 - #10 handle the nuclear equations of alpha, beta, positron and electron capture respectively |
| **Plenary:** | Slides #11 and #12 form a summary |
| **Homework:** | Questions on page 448, plan gamma radiation experiment (practical #12) |
| **Differentiation / Extension / S&C** |
| Expand on the inverse square law to astrophysics and distance determination from magnitude and luminosity of stars |
| **Numeracy / Literacy** | **SMSC / Fundamental British Values** |
| Use of nuclear equations | N/A |
| **RESOURCES:** |
| None |
| **Risk Assessment** e.g. CLEAPSS card reference |
| None |
| **Working Scientifically (HSW)** |
| N/A |

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Slides #2, #3, #4, #8 - Wikipedia (Public Domain)

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