**Y13 Recommended Further Reading – 2024-25**

Remember this is a general guide only. Feel free to explore further. Links valid as of 17/07/24

**Autumn 1 – Topics**

**Circular Motion**

1. Easy to Understand:

 [Circular Motion - Definition, Formula, Examples, Solved Problems (byjus.com)](https://byjus.com/jee/circular-motion/)

[Centripetal force and gravitation | Physics archive | Khan Academy](https://www.khanacademy.org/science/physics/centripetal-force-and-gravitation)

2. In the News:

 [Artificial gravity: Future tech explained | Space](https://www.space.com/artificial-gravity)

3. Going further:

 [Week 3: Circular Motion | Classical Mechanics | Physics | MIT OpenCourseWare](https://ocw.mit.edu/courses/8-01sc-classical-mechanics-fall-2016/pages/week-3-circular-motion/)

**Oscillations**

1. Recap:

[Oscillations and waves (Essentials) - Class 11th | Science | Khan Academy](https://www.khanacademy.org/science/oscillations-and-waves-essentials)

[Introduction to simple harmonic motion review (article) | Khan Academy](https://www.khanacademy.org/science/oscillations-and-waves-essentials/x9db3ed27fc69f96d%3Ahow-are-tall-buildings-protected-from-earthquakes/x9db3ed27fc69f96d%3Amathematics-of-simple-harmonic-motion/a/introduction-to-simple-harmonic-motion-review#:~:text=Simple%20harmonic%20motion%20is%20governed,oscillation%20(see%20Figure%201).&text=Figure%201%3A%20This%20image%20shows,about%20a%20central%20equilibrium%20position.)

2. In the News:

[Explaining Why The Millennium Bridge Wobbled | ScienceDaily](https://www.sciencedaily.com/releases/2005/11/051103080801.htm)

1. Going further:

[15.S: Oscillations (Summary) - Physics LibreTexts](https://phys.libretexts.org/Bookshelves/University_Physics/University_Physics_%28OpenStax%29/Book%3A_University_Physics_I_-_Mechanics_Sound_Oscillations_and_Waves_%28OpenStax%29/15%3A_Oscillations/15.S%3A_Oscillations_%28Summary%29)

[15: Oscillations - Physics LibreTexts](https://phys.libretexts.org/Bookshelves/University_Physics/University_Physics_%28OpenStax%29/Book%3A_University_Physics_I_-_Mechanics_Sound_Oscillations_and_Waves_%28OpenStax%29/15%3A_Oscillations)

**Nuclear Physics**

1. Recap:

 [Detailed Notes - Section 08 Nuclear Physics - AQA Physics A-level (physicsandmathstutor.com)](https://pmt.physicsandmathstutor.com/download/Physics/A-level/Notes/AQA/08-Nuclear/Detailed%20Notes%20-%20Section%2008%20Nuclear%20Physics%20-%20AQA%20Physics%20A-level.pdf)

1. In the news:

UK backs new small nuclear technology with £210 million - GOV.UK (www.gov.uk)

[What Is the Future of Fusion Energy? | Scientific American](https://www.scientificamerican.com/article/what-is-the-future-of-fusion-energy/)

1. Going further:

[10: Nuclear Physics - Physics LibreTexts](https://phys.libretexts.org/Bookshelves/University_Physics/University_Physics_%28OpenStax%29/University_Physics_III_-_Optics_and_Modern_Physics_%28OpenStax%29/10%3A__Nuclear_Physics)

**Autumn 2 – Topics**

**Gravitational Fields**

1. Recap:

[Gravitation - Newton’s Law of Gravitation, Gravitational Force, Solved Examples (byjus.com)](https://byjus.com/jee/gravitation/)

1. In the news:

[A teeny device can measure subtle shifts in Earth’s gravitational field (sciencenews.org)](https://www.sciencenews.org/article/gravimeter-measures-shifts-earth-gravitational-fields)

3. Going further:

[Gravitational Field — Isaac Physics](https://isaacphysics.org/concepts/cp_gravitational_field?stage=all)

**Fission and Fusion**

1. Recap:

[6.10.1 Energy & Mass Equation | OCR A Level Physics Revision Notes 2017 | Save My Exams](https://www.savemyexams.com/a-level/physics/ocr/17/revision-notes/6-particles--medical-physics/6-10-nuclear-fission--fusion/6-10-1-energy--mass-equation/)

2. In the news:

[What Is the Future of Fusion Energy? | Scientific American](https://www.scientificamerican.com/article/what-is-the-future-of-fusion-energy/)

3. Going further:

[Nuclear Fusion Power - World Nuclear Association (world-nuclear.org)](https://world-nuclear.org/information-library/current-and-future-generation/nuclear-fusion-power)

**Spring 1 – Topics**

**Medical Imaging**

1. Recap:

[Notes - Topic 6.5 Medical Imaging - OCR (A) Physics A-level (physicsandmathstutor.com)](https://pmt.physicsandmathstutor.com/download/Physics/A-level/Notes/OCR-A/6-Particles-and-Medical-Physics/Detailed/6.5.%20Medical%20Imaging.pdf)

1. In the news:

[AI 'outperforms' doctors diagnosing breast cancer - BBC News](https://www.bbc.co.uk/news/health-50857759)

3. Going further:

[Imaging in medicine: 1 Current imaging techniques | OpenLearn - Open University](https://www.open.edu/openlearn/health-sports-psychology/health/imaging-medicine/content-section-1)

**Astrophysics and Cosmology**

1. Recap:

[5.5. Astrophysics and Cosmology (physicsandmathstutor.com)](https://pmt.physicsandmathstutor.com/download/Physics/A-level/Notes/OCR-A/5-Newtonian-World-and-Astrophysics/Detailed/5.5.%20Astrophysics%20and%20Cosmology.pdf)

2. In the news:

[Astrophysics news, articles and features | New Scientist](https://www.newscientist.com/article-topic/astrophysics/)

(hint – you can use a paywallreader to get around the article limit)

1. Going further:

[BAAO (bpho.org.uk)](https://www.bpho.org.uk/baao/)

**Spring 2 – revision and retrieval practice**

**Revision and practice paper ideas: Please do ask teacher to add any more you find useful.**

Seneca

Specification

Textbook

Save my exams

You tube – Physics Online

Exam papers

**OCR past papers – include examiners report when analysing your answers.**

Old specification papers from pre2017 on Physics and maths tutor

Try other exam boards

ChatGPT and other AI tools (eg perplexity is a good one)

Isaac Physics

IB papers

BhPO