

Subject	Year 10 Physics Content Spring Term	How to support students' learning
Forces In Balance	Summary of Concepts Covered: ➤ Vectors and Scalars ➤ Forces between Objects ➤ Resultant Forces ➤ The Parallelogram of Forces ➤ Resolution of Forces ➤ Centre of Mass	Vectors and scalars is a fundamental topic that is revisited again and again. Review them by reading through this website: Scalars and Vectors (physicsclassroom.com) You need to know about different types of forces, watch this video here: GCSE Physics - Contact and Non-Contact Forces #40 - YouTube Resultant forces link in with motion, to understand the basics reading through the BBC Bitesize website here where you will find loads of examples: Contact forces - Forces - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize Don't forget to do the test at the end! : Forces test questions - Edexcel - GCSE Combined Science Revision - BBC Bitesize
Motion	Summary of Concepts Covered: ➤ Speed ➤ Distance-time graphs. ➤ Acceleration ➤ Velocity-time graphs.	Speed is a basic and fundamental equation, watch the video here to review the content: Speed - GCSE Physics - YouTube Motion graphs are important as you need to know how to draw them and analyse them. Read the BBC Bitesize website to review the content: GCSE Physics - Forces 1 - Motion - YouTube Acceleration is mentioned in the video above, but practice using the equations using this website: Calculating Uniform Acceleration (5.6.13) AQA GCSE Physics Revision Notes 2018 Save My Exams

Forces and Motion	Summary of Concepts Covered: ➤ Newton's Second Law. ➤ Newton's Second Law – Required Practical ➤ Inertial mass. ➤ Falling under gravity. ➤ Thinking distance, braking distance, and stopping distance. ➤ Reaction times and thinking distance. ➤ Braking distance. ➤ Energy changes when stopping.	Newton's second law links to motion and resultant forces. The required practical is reviewed in this video here: Newton's 2nd Law - GCSE Science Required Practical - YouTube Falling under gravity is all about terminal velocity and calculating weight, watch these videos: 1. Weight - Weight = Mass x Gravitational Field Strength $W = m \times g$ GCSE Physics (9-1) kayscience.com - YouTube 2. Terminal Velocity - GCSE Physics - Terminal Velocity #55 - YouTube Stopping distances incorporates thinking and braking distances. Read through the website here to review the content: Stopping distance - Falling and stopping - GCSE Physics (Single Science) Revision - Other - BBC Bitesize Don't forget to complete the test: Falling and stopping test questions - Other - GCSE Physics (Single Science) Revision - BBC Bitesize You may have determined your reaction time In lesson, read through the procedure here: Reaction Time Ruler - Science World
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