Preparing for your September Physics Test:

Rational

The purpose of the first assessment is to ensure that Physics is the right subject choice for you, so that you can be confident you have made the right choices to ultimately obtain the best A Level grades you can. A Level Physics is a very challenging course and there is no longer an option to finish this course of at the end of Year 12. This assessment serves to check your suitability for studying Physics at this level for a further 2 years.

To ensure you are successful in this endeavour you **MUST** prepare for the test effectively. This includes attending the Physics Induction session and the Bridging the Gap Maths for Physics session, as well as completing the homework assigned on Forces and Circuits. A list of topics that will be assessed are listed below to aid you in your preparations. Note that some of the topics draw on GCSE content which has already been taught.

List of topics that could appear on the September test:

Forces

- That some quantities we measure are scalars, but others (that include a direction) are called vectors - e.g. Force, velocity (GCSE P2)
- Calculations using the equations of motion (basic ones from GCSE P2 and new ones from A-Level) and know how they link to graphs of motion - e.g. distance-time and velocity-time graphs
- Measurements from d-t and v-t graphs and what they give us e.g. gradient and area (GCSE P2) along with non-uniform motion and acceleration-time graphs (A-Level)
- The link between gravitational fields and gravitational forces, and how gravity affects falling objects (GCSE P2)

Electricity & Series/Parallel Circuits

- Definitions, units and calculations of current and potential difference, and how ammeters and voltmeters are connected in circuits (GCSE P2)
- Calculations using V=IxR and how this links to Ohm's Law (GCSE P2 and A-Level)
- Identifying and calculating current and p.d. in series and parallel circuits (GCSE P2 and A-Level)
- Link p.d. in Series circuits to energy conservation and current in parallel circuits to charge conservation (A-Level)

Summer Task

Write a complete set of revision resources (notes/mindmaps/revision cards/etc) for the above topics.