Hawkley Hall High School



Grade Descriptors for GCSEs Graded 9-1: Engineering

9 To achieve a Grade 9 candidates will be able to:

- work independently, with competence in all aspects of engineering demonstrating relevant and comprehensive knowledge of engineering principles and processes.
- consistently apply knowledge and understanding of materials, tools, equipment and manufacturing processes in order to produce innovative design ideas and exceptional practical outcomes linked to an engineering problem.
- work with flair and originality and are able to instinctively modify their work through exploration and extended research.
- respond constructively to feedback from others.
- show initiative and are proficient across all disciplines including mathematical skills and engineering processes.
- analyse and critically evaluate engineering contexts using specific terminology.
- generate ideas that have the potential to be commercially viable and can test and analyse these ideas in detail.

8 To achieve a Grade 8 candidates will be able to:

- work independently in most aspects of their engineering work. They are able
 to apply the majority of their engineering technical knowledge on materials,
 tools, equipment and manufacturing processes in order to produce a creative
 design that turns in to a high quality practical outcome.
- demonstrate ability to work with materials, tools and equipment with precision to produce outcomes of a very high quality linked to an engineering problem.
- understand most mathematical principles and can apply them in contexts.
- work well with feedback and is able to act on and give feedback to others.
- analyse and evaluate most aspects of engineering and can use subject terminology

7 To achieve a Grade 7 candidates will be able to:

- prove they are able to work independently. They are able to apply knowledge and understanding of materials, tools, equipment and processes in order to produce creative and original design ideas and practical outcomes. Design ideas show clear development taking account of further research.
- demonstrate ability to work with materials, tools and equipment with accuracy to produce outcomes of a high quality.
- and work within a variety of disciplines.
- respond appropriately to feedback from others.
- analyse and evaluate some aspects of engineering using technical terminology.

6 To achieve a Grade 6 candidates will be able to:

- work without guidance to use most of the use tools and equipment safely and accurately and can demonstrate the ability to work with different materials, tools and equipment and processes in most aspects of engineering.
- produce an original idea and a practical design linked to a design engineering problem.
- act on some feedback to create a high quality outcome that meets most requirements of a problem.
- apply mathematical skills to different contexts and can analyse some engineering contexts using some terminology.
- 5 To achieve a Grade 5 candidates will be able to:

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- use tools and equipment safely and accurately with minimal guidance. They
 demonstrate good understanding of materials, construction methods and
 processes, selecting those appropriate to the tasks in hand.
- Be creative in their approach to design tasks, carrying out further research when required to inform, and advance, the development of ideas.
- produce outcomes of a good quality that meet most requirements of an engineering problem.
- apply engineering principles and mathematical skills to some contexts and can analyse some parts of an engineering context using some subject terminology.
- 4 To achieve a Grade 4 candidates will be able to:
 - achieve outcomes of a good standard in engineering contexts with limited guidance.
 - able to work safely with tools and equipment and in some engineering processes with a level of independence and with minimal prompts
 - draw upon their research to inform the development of ideas, applying some creativity to their design work.
 - complete a working solution using some straightforward engineering principles.
- 3 To achieve a Grade 3 candidates will be able to:
 - work with materials, tools and equipment with guidance to solve some engineering contexts.
 - Use constructive feedback to develop their work further.
 - work safely to complete a finished product.
 - create a partially working solution that meets some requirements of an engineering problem.
- 2 To achieve a Grade 2 candidates will be able to:
 - demonstrate a basic understanding of the engineering process with limited knowledge and understanding of the materials, tools, equipment and processes used to manufacture outcomes.
 - have an awareness of the need to apply safe working practices and with technical support are able to produce an outcome.
 - Use basic reasoning to describe and comment on some engineering contexts.