

Design and Technology

Grade Ladder

Grade 9

To achieve grade 9, candidates will be able to:

- Demonstrate, effectively and appropriately apply comprehensive knowledge and understanding of the principles of design and technology in a wide range of familiar and unfamiliar situations.
- Experiment and innovate to develop and refine a wide range fully functioning prototypes safely and effectively.
- Applying relevant technical skills with precision and appropriate pace using appropriate tools, equipment and materials.
- Effectively employ sophisticated technical language and a range of communication methods, such as schematic and exploded diagrams, and mathematical modelling.
- Undertake in depth critical analysis and evaluation of design decisions and outcomes to draw well-evidenced conclusions.
- Use a wide range of accurate mathematical skills and scientific knowledge to make accurate calculations and inform choices.

Grade 8

To achieve grade 8, candidates will be able to:

- Demonstrate and effectively apply comprehensive knowledge and understanding of the principles of design and technology in a range of familiar and unfamiliar situations.
- Experiment and innovate to develop and refine fully functioning prototypes safely and effectively.
- Applying relevant technical skills with precision.
- Effectively employ sophisticated technical language and a range of communication methods, such as schematic and exploded diagrams, and mathematical modelling.
- Critically analyse and evaluate design decisions and outcomes to draw well-evidenced conclusions.
- Use a range of accurate mathematical skills and scientific knowledge to make accurate calculations and inform choices.

Grade 7:

To achieve grade 7, candidates will be able to:

- Demonstrate and apply a wide knowledge and understanding of the principles of design and technology in familiar and unfamiliar situations accurately.
- Develop functioning prototypes safely and effectively applying a wide range of appropriate technical skills with a level of accurate understanding.
- Use appropriate technical language and methods of communication, such as formal drawings and annotated sketches.
- Undertake in depth analysis and evaluation of design decisions and outcomes to draw plausible conclusions supported by a range of evidence.

- Use a number of appropriate mathematical skills and scientific knowledge to make accurate calculations and inform choices.

Grade 6

To achieve grade 6, candidates will be able to:

- Demonstrate and apply mostly accurate and appropriate knowledge and understanding of the principles of design and technology in familiar and some unfamiliar situations.
- Develop functioning prototypes safely and effectively applying appropriate technical skills
- Use appropriate technical language and methods of communication, such as formal drawings and annotated sketches.
- Analyse and evaluate design decisions and outcomes to draw plausible conclusions supported by some evidence.
- Use a few accurate mathematical skills and scientific knowledge to make accurate calculations and inform choices.

Grade 5

To achieve grade 5, candidates will be able to:

- Demonstrate and apply reasonable accurate and appropriate knowledge and understanding of the principles of design and technology in familiar and some unfamiliar situations.
- Develop reasonably functioning prototypes safely and effectively applying appropriate technical skills.
- Use relevant technical language and methods of communication, such as formal drawings and annotated sketches.
- Undertake some analysis and evaluation of design decisions and outcomes to draw plausible conclusions supported by a number of evidence.
- Use at least one relevant mathematical skill and scientific knowledge to make accurate calculations and inform choices.

Grade 4

To achieve grade 4, candidates will be able to:

- Demonstrate and apply appropriate knowledge and understanding of the principles of design and technology in familiar and some unfamiliar situations.
- Develop partly functioning prototypes safely and effectively applying appropriate technical skills.
- Use relevant technical language and methods of communication, such as formal drawings and annotated sketches.
- Undertake a few analysis and evaluation of design decisions and outcomes to draw plausible conclusions supported by a few evidence.
- Use a form of numerical skills and scientific knowledge to make accurate calculations and inform choices.

Grade 3

To achieve grade 3, candidates will be able to:

- Demonstrate and apply relevant knowledge and understanding of the principles of design and technology in familiar and some unfamiliar situations.
- Develop prototypes safely and reasonably applying technical skills.
- Use relevant technical language and methods of communication, such as formal drawings and annotated sketches.
- Undertake limited analysis and evaluation of design decisions and outcomes to draw plausible conclusions supported by a few evidence.
- Use some numerical skills and scientific knowledge to make accurate calculations and inform choices.

Grade 2

To achieve grade 2, candidates will be able to:

- Demonstrate and apply basic knowledge and understanding of the principles of design and technology in familiar situations.
- Work safely applying straightforward technical skills in the production of a prototype.
- Use everyday language, audio and visual recordings, and simple drawings or sketches to explain an idea.
- Make straightforward comments about their own work and the work of others.
- Use some numerical skills and scientific knowledge to make basic calculations.

Grade 1

To achieve grade 1, candidates will be able to:

- Demonstrate and apply limited knowledge and understanding of the principles of design and technology in familiar situations.
- Work safely applying limited technical skills in the production of a prototype.
- Use everyday language, audio and visual recordings, and limited drawings or sketches to explain an idea.
- Make limited comments about their own work and the work of others.
- Use limited or no numerical skills and scientific knowledge to make basic calculations.

Grade W

To achieve grade W, candidates will be able to:

- Demonstrate and apply very limited knowledge and understanding of the principles of design and technology in familiar situations.
- Work safely applying very limited technical skills in the production of a prototype.
- Use everyday language, audio and visual recordings, and very limited or no drawings or sketches to explain an idea.
- Make very limited comments about their own work and the work of others.
- Use very limited or no mathematical skills and scientific knowledge to make basic calculations.