INFORMS WITHIN A LEVEL
PROGRESSION TO FOLLOWING LEVEL/S

Technological Products

LEVEL

1

- Identify performance properties of common materials.
- Identify materials that technological products are made from.
- Identify how the materials have been manipulated to make the product.

2

- Describe the performance properties of a range of materials and use these to suggest things the materials could be used for.
- Suggest why the materials used in particular technological products were selected.
- Describe feasible ways of manipulating a range of materials.

3

- Describe the properties of materials used in particular products that can be measured objectively.
- Describe the properties of materials used in particular products that can be measured subjectively.
- Describe how the properties combine to ensure the materials allow the product to be technically feasible and socially acceptable.

4

- Describe examples to illustrate how the manipulation of materials contributed to a product's fitness for purpose.
- Describe examples to illustrate how the transformation of materials contributed to a product's fitness for purpose.
- Describe examples to illustrate how the formulation of new materials contributed to a product's fitness for purpose.
- Communicate, using specialised language and drawings, material related details that would allow others to create a product that meets both technical and acceptability specifications.

5

- Discuss examples to illustrate how the composition of materials determines performance properties.
- Discuss examples to illustrate how decisions about material selection take into account the composition of the material and the specifications of the product.
- Explain the link between specifications of a product and the selection of suitable materials for its construction.

6

- Explain how the composition and structure of different materials enables them to be manipulated in specific ways.
- Explain how the composition and structure of materials determines the ways they can be transformed.
- Explain how the composition and structure of materials impacts on how they can be combined to formulate a new material.
- Describe the role of material evaluation in determining material suitability for use in a technological product.
- Discuss examples to illustrate how material evaluation informed the selection of materials in particular product development.

7

- Discuss a range of subjective and objective evaluative procedures used to determine the suitability of materials and describe the underpinning concepts and processes involved in particular procedures.
- Discuss examples to explain how material evaluation impacted on design and development decisions.
- Discuss examples to explain how material evaluation impacted on maintenance and disposal decisions.
- Discuss examples of material evaluation procedures undertaken to support material selection decisions and justify the appropriateness of these procedures.

8

- Discuss examples of evaluation procedures undertaken to determine the suitability of new materials and explain the underpinning concepts and processes involved in particular evaluations.
- Discuss examples of the formulation of new materials and explain the underpinning concepts and processes involved in their development.
- Discuss examples of past material developments and explain how these impacted on product design, development, manufacturing, maintenance and disposal.
- Discuss examples of contemporary material developments and suggest probable implications for future technological product design, development, manufacturing, maintenance and disposal.

This diagram is one of eight showing how learning in the components of the technology curriculum, assessed in relation to the indicators, progresses within and across curriculum levels. Copyright © Ministry of Education 2010.