COMPONENTS OF TECHNOLOGICAL PRACTICE: INDICATORS OF PROGRESSION

Outcome Development and Evaluation

→ INFORMS WITHIN A LEVEL
→ PROGRESSION TO FOLLOWING LEVEL/S
····· SAME IDEA; NO PROGRESSION

LEVEL

1
- Describe potential outcomes, through drawing, models and/or verbally.
- Identify potential outcomes that are in keeping with the attributes, and selects one to produce.
- Produce an outcome in keeping with identified attributes.

2
- Describe potential outcomes, through drawing, models and/or verbally.
- Evaluate potential outcomes in terms of identified attributes to select the outcome to produce.
- Produce an outcome in keeping with the brief.
- Evaluate the final outcome in terms of how successfully it addresses the brief.

3
- Describe design ideas (either through drawing, models and/or verbally) for potential outcomes.
- Evaluate design ideas in terms of key attributes to develop a conceptual design for the outcome.
- Select materials/components, based on their performance properties, for use in the production of the outcome.
- Produce an outcome that addresses the brief.
- Evaluate the final outcome against the key attributes to determine how well it met the need or opportunity.

4
- Describe design ideas (either through drawing, models and/or verbally) or potential outcomes.
- Undertake functional modelling to develop design ideas into a conceptual design that addresses the key attributes.
- Test the key performance properties of materials/components to select those appropriate for use in the production of a feasible outcome.
- Produce and trial a prototype of the outcome.
- Evaluate the fitness for purpose of the final outcome against the key attributes.

5
- Generate design ideas that are informed by research and analysis of existing outcomes.
- Undertake functional modelling to develop design ideas into a conceptual design that addresses the specifications.
- Evaluate suitability of materials/components, based on their performance properties, to select those appropriate for use in the production of a feasible outcome.
- Produce and trial a prototype of the outcome.
- Evaluate the fitness for purpose of the final outcome against the specifications.

6
- Generate design ideas that are informed by research and the critical analysis of existing outcomes.
- Evaluate design ideas in terms of their ability to support the development of a conceptual design for a feasible outcome.
- Undertake functional modelling to refine design ideas and enhance their ability to address the specifications.
- Evaluate the conceptual design against the specifications to determine the proposed outcomes potential fitness for purpose.
- Evaluate suitability of materials/components, based on their performance properties, to select those appropriate for use in the production of a feasible outcome.
- Produce and trial a prototype of the outcome to evaluate its fitness for purpose and identify any changes that would enhance the outcome.
- Use stakeholder feedback to support and justify key design decisions and evaluations of fitness for purpose.

7
- Generate design ideas that are informed by research and critical analysis of existing outcomes.
- Develop design ideas for outcomes that are justified as feasible with evidence gained through functional modelling.
- Undertake functional modelling to evaluate design ideas and develop and test a conceptual design to provide evidence of the proposed outcome's ability to be fit for purpose.
- Critically analyse evaluative practices used when functional modelling to inform own functional modelling.
- Evaluate suitability of materials/components, based on their performance properties, to select those appropriate for use in the production of a feasible outcome.
- Undertake prototyping to gain specific evidence of an outcomes fitness for purpose and use this to justify any decisions to refine, modify and/or accept the outcome as final.
- Use stakeholder feedback and an understanding of the physical and social requirements of where the outcome will be situated to support and justify key design decisions and evaluations of fitness for purpose.

8
- Generate design ideas that are informed by research and critical analysis of existing outcomes and knowledge of material innovations.
- Develop design ideas for feasible outcomes that are justified with evidence gained through functional modelling that serves to gather evidence from multiple stakeholders and test designs ideas from a range of perspectives.
- Undertake evaluation of design ideas informed by critical analysis of evaluative practices to support the development of a conceptual design for an outcome that optimises resources and takes into account maintenance and disposal implications.
- Undertake functional modelling of the conceptual design to provide evidence that the proposed outcome has the potential to be fit for purpose.
- Evaluate suitability of materials/components, based on their performance properties, to select those appropriate for use in the production of a feasible outcome that optimises resources and takes into account maintenance and disposal implications.
- Undertake prototyping to gain specific evidence of an outcomes fitness for purpose and use this to justify any decisions to refine, modify and/or accept the outcome as final.
- Use stakeholder feedback and an understanding of the physical and social requirements of where the outcome will be situated to support and justify an evaluation of the outcome and development practices as fit for purpose.
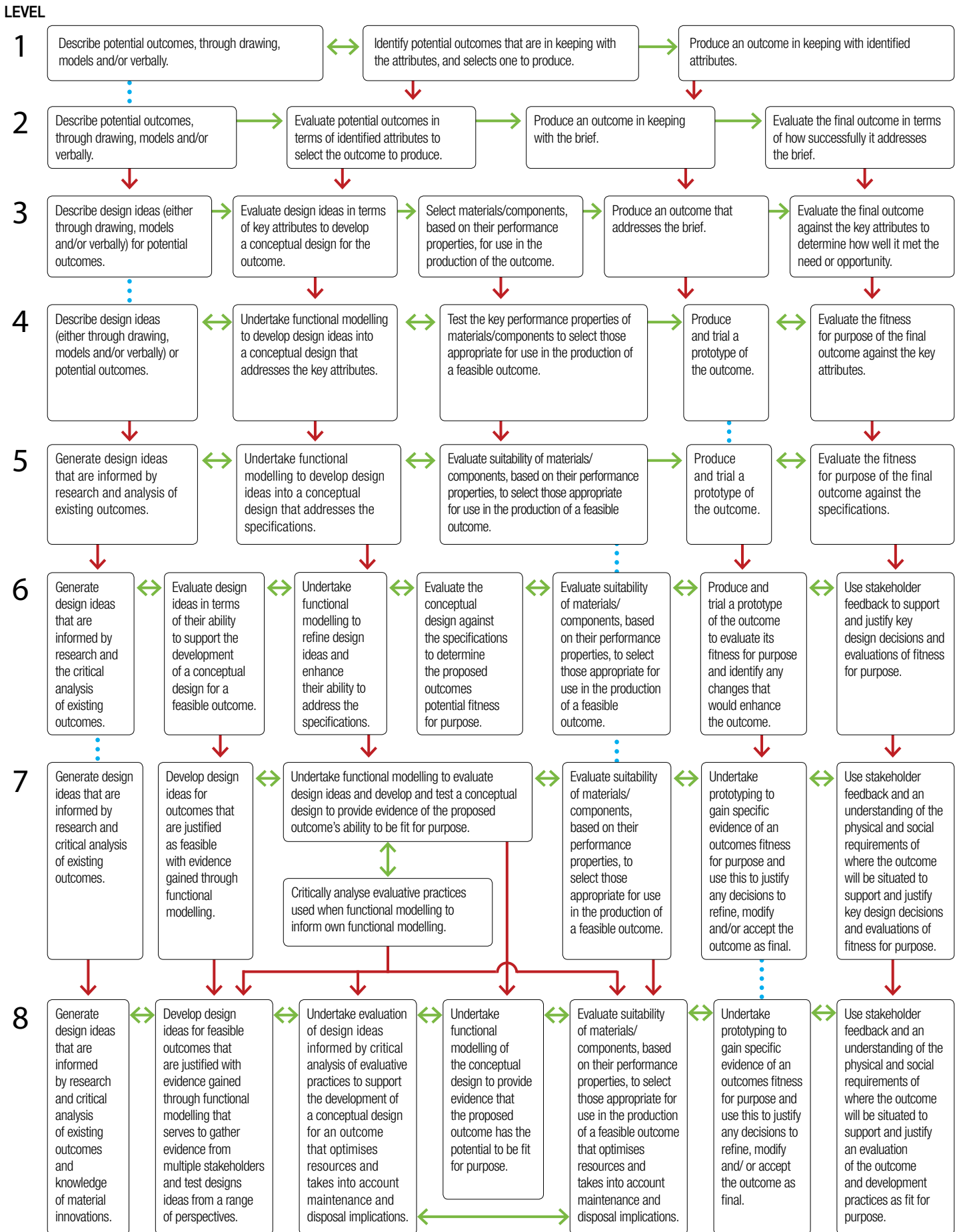
This diagram is one of eight showing how learning in the components of the technology curriculum, assessed in relation to the indicators, progresses within and across curriculum levels. Copyright © Ministry of Education 2010.