Brief Development

A brief is a concise document that explains what is wanted and why (the conceptual statement) and lists the characteristics that an outcome must possess and/or demonstrate to be acceptable (the specifications).

Brief development is a dynamic process – an initial brief is progressively refined to describe and justify the outcome that has been developed.

<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	Level 4
Level 5	Level 6	Level 7	<u>Level 8</u>

Indicators of progression

Level 1

Achievement objective

Students will:

Describe the outcome they are developing and identify the attributes it should have, taking account of the need or opportunity and the resources available.

Teacher guidance

To support students to undertake brief development at level one teachers could:

- provide the need or opportunity and develop the conceptual statement in negotiation with the students
- provide a range of attributes for discussion
- guide students to identify the attributes an appropriate outcome should have.

Indicators

Students can:

- communicate the outcome to be produced
- identify attributes for an outcome.

Learning Activities

- produce a drawing
- research outcome ideas
- write notes or outcome ideas (brainstorm/mindmap)
- annotation on the drawing

- written description
- mindmap (extended)
- verbal description (students record this onto netbooks)

Achievement objective

Students will:

Explain the outcome they are developing and describe the attributes it should have, taking account of the need or opportunity and the resources available.

Teacher guidance

To support students to undertake brief development at level two teachers could:

- provide the need or opportunity and develop the conceptual statement in negotiation with the students
- guide students to discuss the implications of the need or opportunity and the conceptual statements and support them to establish a list of attributes an appropriate outcome could have
- provide students with an overview of the resources available and guide them to take this into account when identifying the attributes for the outcome.

Indicators

Students can:

- explain the outcome to be produced
- describe the attributes for an outcome that take account of the need or opportunity being addressed and the resources available.

Learning Activities

- 1. explain the outcome
 - produce an annotated drawing (what, why, where, who, when, how)
 - research outcome ideas (what, why, where, who, when, how)
 - write notes or outcome ideas eg. brainstorm/mindmap, (what, why, where, who, when, how)
- 1. identify the need or opportunity, and,
- 2. identify the resources available
- in relation to the need or opportunity and resources available, one or more of the following options

- annotation on the drawing,
- o written description
- mindmap (extended)
- verbal description (students record this onto netbooks)

Achievement objective

Students will:

Describe the nature of an intended outcome, explaining how it addresses the need or opportunity. Describe the key attributes that enable development and evaluation of an outcome.

Teacher guidance

To support students to undertake brief development at level three teachers could:

- provide the need or opportunity and develop the conceptual statement in negotiation with the students
- guide students to describe the physical and functional nature of an outcome (e.g. what it looks like and what it can do) taking into account the need or opportunity, conceptual statements and resources available
- guide students to identify the key attributes an appropriate outcome should have.
 Key attributes reflect those that are deemed essential for the successful function of the outcome.

Indicators

Students can:

- describe the physical and functional nature of the outcome they are going to produce and explain how the outcome will have the ability to address the need or opportunity
- describe attributes for the outcome and identify those which are key for the development and evaluation of an outcome.

Learning Activities

- describe the physical and functional nature of the outcome
 - produce an annotated drawing (what, why, where, who, when, how)
 - research outcome ideas (what, why, where, who, when, how)
 - write notes or outcome ideas eg. brainstorm/mindmap, (what, why, where, who, when, how)

- 4. identify the need or opportunity, and,
- 5. identify the resources available
- 6. in relation to the need or opportunity and resources available, describe one or more of the key attributes using following options
 - circle/colour/highlight the attributes which are key
 - o annotation on the drawing,
 - o written description
 - mindmap (extended)
 - verbal description (students record this onto netbooks)

Achievement objective

Students will:

Justify the nature of an intended outcome in relation to the need or opportunity. Describe the key attributes identified in stakeholder feedback, which will inform the development of an outcome and its evaluation.

Teacher guidance

To support students to undertake brief development at level four teachers could:

- provide an appropriate context and issue that allows students to access resources (including key stakeholders)
- guide students to identify a need or opportunity and develop a conceptual statement
- support students to understand the physical and functional nature required of their outcome, and how the key attributes relate to this
- guide students to consider the key stakeholders and the environment where the outcome will be located.

Indicators

Students can:

- identify a need or opportunity from the given context and issue
- establish a conceptual statement that communicates the nature of the outcome and why such an outcome should be developed

Learning Activities

- describe the physical and functional nature of the outcome
 - produce an annotated drawing (what, why, where, who, when, how)

- establish the key attributes for an outcome informed by stakeholder considerations
- communicate key attributes that allow an outcome to be evaluated as fit for purpose.
- research outcome ideas (what, why, where, who, when, how)
- write notes or outcome ideas eg. brainstorm/mindmap, (what, why, where, who, when, how)
- 7. use a writing frame to establish a conceptual statement that includes what, who, where, when, why, and how
- 8. identify the need or opportunity, and,
- 9. identify the resources available, and
- identify the stakeholders and use a questionnaire / Google form to ask stakeholders key questions to guide needs and considerations.
- 11. in relation to the need or opportunity and resources available, describe one or more of the key attributes using following options
 - circle/colour/highlight the attributes which are key
 - o annotation on the drawing,
 - written description
 - mindmap (extended)
 - verbal description (students record this onto netbooks)

Achievement objective

Students will:

Justify the nature of an intended outcome in relation to the need or opportunity. Describe specifications that reflect key stakeholder feedback and that will inform the development of an outcome and its evaluation.

Teacher guidance

To support students to undertake brief development at level five teachers could:

- provide an appropriate context and issue that allows students to access resources (including key stakeholders)
- support students to identify a need or opportunity and develop a conceptual statement
- support students understand the physical and functional nature required of their outcome
- guide students to develop key attributes into specifications.

Indicators

Students can:

- identify a need or opportunity from the given context and issue
- establish a conceptual statement that justifies the nature of the outcome and why such an outcome should be developed
- establish the specifications for an outcome based on the nature of the outcome required to address the need or opportunity, and informed by key stakeholder considerations
- communicate specifications that allow an outcome to be evaluated as fit for purpose.

Learning Activities

Students will:

- use a writing frame to justify a conceptual statement that includes what, who, where, when, why, and how
- identify the need or opportunity based on stakeholder feedback, and.
- identify the resources, based on stakeholder feedback and/or other considerations,
- 4. identify relevant specifications based on attributes, that allows evaluation of the outcome eg. lists, table, notes etc
- 5. in relation to the need or opportunity and resources available, describe one or more of the key attributes using following options
 - circle/colour/highlight the attributes which are key
 - o annotation on the drawing,
 - written description
 - mindmap (extended)
 - verbal description (students record this onto netbooks)

Level 6

Achievement objective

Justify the nature of an intended outcome in relation to the need or opportunity and justify specifications in terms of key stakeholder feedback and wider community considerations.

Teacher guidance

To support students to undertake brief development at level six teachers could:

- provide an appropriate context and issue that allows students to access resources (including key stakeholders) and guide them to take into account wider community considerations
- support students to identify a need or opportunity relevant to the given issue and context
- support students to understand the physical and functional nature required of their outcome
- support students to develop specifications and justify them based on key and wider community stakeholder considerations.

Indicators

Students can:

- identify a need or opportunity from the given context and issue
- establish a conceptual statement that justifies the nature of the outcome and why such an outcome should be developed
- establish the specifications for an outcome as based on the nature of the outcome required to address the need or opportunity, consideration of the environment in which the outcome will be situated and resources available
- communicate specifications that allow an outcome to be evaluated as fit for purpose
- justify the specifications in terms of key and wider community stakeholder considerations.

Learning Activities

Students will:

Level 7

Achievement objective

Students will:

Justify the nature of an intended outcome in relation to the issue to be resolved and justify specifications in terms of key stakeholder feedback and wider community considerations.

Teacher guidance

To support students to undertake brief development at level seven teachers could:

- provide a context that offers a range of issues for students to explore
- guide students to select an authentic issue within the context. An authentic issue is
 one which is connected to the context, and allows students to develop a brief for a
 need or opportunity that can be managed within the boundaries of their available
 resources.
- support students to identify a need or opportunity relevant to the issue
- support students to understand the physical and functional nature required of their outcome
- support students to justify the nature of their outcome in terms of the issue it is addressing
- support students to develop specifications and provide justifications for them
 drawing from stakeholder feedback, and wider community considerations such as
 the resources available to develop the outcome, ongoing maintenance of the
 outcome once implemented, sustainability of resources used to develop the
 outcome and the outcome itself, disposal of the developed outcome when past its
 use by date.

Indicators

Students can:

- explore the context to select an issue
- identify a need or opportunity relevant to their selected issue
- establish a conceptual statement that justifies the nature of the outcome and why such an outcome should be developed with reference to the issue it is addressing
- establish the specifications for an outcome using stakeholder feedback, and based on the nature of the outcome required to address the need or opportunity, consideration of the environment in which the outcome will be situated, and resources available

Learning Activities

- communicate specifications that allow an outcome to be evaluated as fit for purpose
- justify the specifications in terms of stakeholder feedback, and the nature of the outcome required to address the need or opportunity, consideration of the environment in which the outcome will be situated, and resources available.

Achievement objective

Students will:

Justify the nature of an intended outcome in relation to the context and the issue to be resolved Justify specifications in terms of key stakeholder feedback and wider community considerations.

Teacher guidance

To support students to undertake brief development at level eight teachers could:

- support students to identify a context that offers a range of issues for them to explore. Context refers to the wider social and physical environment in which technological development occurs Contexts may include but are not limited to: storage, afterschool snacks, outdoor living, sustainable energy, sport, educational software, streetwear, portability, furniture.
- support students to identify considerations that will need to be taken into account when making judgments of fitness for purpose in its broadest sense. Fitness for purpose in its broadest sense refers to judgments
- of the fitness of the outcome itself as well as the practices used to develop the
 outcome. Such judgments may include but are not limited to considerations of the
 outcome's technical and social acceptability, sustainability of resources used,
 ethical nature of testing practices, cultural appropriateness of trialling procedures,
 determination of life cycle, maintenance, ultimate disposal, health and safety.
- support students to select an authentic issue within their selected context
- support students to identity a need or opportunity relevant to the issue and context
- support students to understand the physical and functional nature required of their outcome
- support students to justify the nature of their outcome in terms of the issue and context

support students to develop and justify specifications that will allow the evaluation
of the outcome and its development to be judged as fit for purpose in the broadest
sense.

Indicators

Students can:

- identify and evaluate a range of contexts to select an authentic issue
- explore context to identify considerations related to fitness for purpose in its broadest sense
- identify a need or opportunity relevant to their selected issue
- establish a conceptual statement that justifies the nature of the outcome and why such an outcome should be developed with reference to the issue being addressed and the wider context
- establish the specifications for an outcome and its development using stakeholder feedback and based on the nature of the outcome required to address the need or opportunity, consideration of the environment in which the outcome will be situated, and resources available
- communicate specifications that allow an outcome to be evaluated as fit for purpose in the broadest sense.
- justify the specifications as based on stakeholder feedback and the nature of the outcome required to address the need or opportunity, consideration of the environment in which the outcome will be situated, and resources available.