Design assessment criteria: Year 5

Criterion A: Inquiring and analysing

Maximum: 8

Students identify the need for a solution to a problem. At the end of year 5, students should be able to:

i.   explain and justify the need for a solution to a problem for a specified client/target audience

ii.   identify and prioritize primary and secondary research needed to develop a solution to the problem

iii.   analyse a range of existing products that inspire a solution to the problem

iv.   develop a detailed design brief, which summarizes the analysis of relevant research.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1–2	The student: i. **states** the need for a solution to a problem for a specified client/target audience ii. **develops** a basic design brief, which **states** the **findings** of relevant research.
3–4	The student: i. **outlines** the need for a solution to a problem for a specified client/target audience ii. **outlines** a research plan, which **identifies** primary and secondary research needed to **develop** a solution to the problem, **with some guidance** iii. **analyses one** existing product that inspires a solution to the problem iv. **develops** a design brief, which **outlines** the analysis of relevant research.
5–6	The student: i. **explains** the need for a solution to a problem for a specified client/target audience ii. **constructs** a research plan, which **identifies** and **prioritizes** primary and secondary research needed to **develop** a solution to the problem, **with some guidance** iii. **analyses a range of** existing products that inspire a solution to the problem iv. **develops** a design brief, which **explains** the analysis of relevant research.

Achievement level	Level descriptor
7–8	The student: i. **explains** and **justifies** the need for a solution to a problem for a client/target audience ii. **constructs** a **detailed** research plan, which **identifies** and **prioritizes** the primary and secondary research needed to **develop** a solution to the problem independently iii. **analyses a range of** existing products that inspire a solution to the problem in detail iv. **develops** a **detailed** design brief, which **summarizes** the analysis of relevant research.

Criterion B: Developing ideas

Maximum: 8

Students develop a solution. At the end of year 5, students should be able to:

i.   develop design specifications, which clearly states the success criteria for the design of a solution

ii.   develop a range of feasible design ideas, which can be correctly interpreted by others

iii.   present the chosen design and justify its selection

iv.   develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1–2	The student: i. **lists some basic** design specifications for the design of a solution ii. **presents one** design, which can be interpreted by others iii. **creates** incomplete planning drawings/diagrams.
3–4	The student: i. **lists some** design specifications, which relate to the success criteria for the design of a solution ii. **presents a few** feasible designs, using an appropriate medium(s) **or** annotation, which can be interpreted by others iii. **justifies** the selection of the chosen design with reference to the design specification iv. **creates** planning drawings/diagrams or **lists** requirements for the creation of the chosen solution.
5–6	The student: i. **develops** design specifications, which **outline** the success criteria for the design of a solution ii. **develops a range of** feasible design ideas, using an appropriate medium(s) **and** annotation, which can be interpreted by others iii. **presents** the chosen design and **justifies** its selection with reference to the design specification iv. **develops accurate** planning drawings/diagrams and **lists** requirements for the creation of the chosen solution.

Achievement level	Level descriptor
7–8	The student: i. **develops detailed** design specifications, which **explain** the success criteria for the design of a solution based on the analysis of the research ii. **develops a range of** feasible design ideas, using an appropriate medium(s) **and detailed** annotation, which can be **correctly** interpreted by others iii. **presents** the chosen design and **justifies fully and critically** its selection with **detailed** reference to the design specification iv. **develops accurate and detailed** planning drawings/diagrams and **outlines** requirements for the creation of the chosen solution.

Criterion C: Creating the solution

Maximum: 8

Students create a solution. At the end of year 5, students should be able to:

i.   construct a logical plan, which describes the efficient use of time and resources, sufficient for peers to be able to follow to create the solution

ii.   demonstrate excellent technical skills when making the solution

iii.   follow the plan to create the solution, which functions as intended

iv.   fully justify changes made to the chosen design and plan when making the solution

     a.   present the solution as a whole

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1–2	The student: i. **demonstrates minimal** technical skills when making the solution ii. **creates** the solution, which functions **poorly** and is presented **in an incomplete form**.
3–4	The student: i. **constructs a plan** that contains some production details, resulting in peers having difficulty following the plan ii. **demonstrates satisfactory** technical skills when making the solution iii. **creates** the solution, which **partially** functions and is **adequately** presented iv. **outlines** changes made to the chosen design and plan when making the solution.
5–6	The student: i. **constructs a logical plan**, which considers time and resources, sufficient for peers to be able to follow to create the solution ii. **demonstrates competent** technical skills when making the solution iii. **creates** the solution, which functions **as intended** and is presented **appropriately** iv. **describes** changes made to the chosen design and plan when making the solution.
7–8	The student: i. **constructs a detailed and logical plan**, which **describes** the efficient use of time and resources, sufficient for peers to be able to follow to create the solution ii. **demonstrates excellent** technical skills when making the solution. iii. follows the plan to **create** the solution, which functions **as intended** and is presented **appropriately** iv. fully **justifies** changes made to the chosen design and plan when making the solution.

Criterion D: Evaluating

Maximum: 8

Students evaluate the solution. At the end of year 5, students should be able to:

i.   design detailed and relevant testing methods, which generate data, to measure the success of the solution

ii.   critically evaluate the success of the solution against the design specification

iii.   explain how the solution could be improved

iv.   explain the impact of the solution on the client/target audience.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors below.
1–2	The student: i. **designs a** testing **method**, which is used to measure the success of the solution ii. **states** the success of the solution.
3–4	The student: i. **designs a relevant** testing **method**, which generates data, to measure the success of the solution ii. **outlines** the success of the solution against the design specification based on **relevant** product testing iii. **outlines** how the solution could be improved iv. **outlines** the impact of the solution on the client/target audience.
5–6	The student: i. **designs relevant** testing **methods**, which generate data, to measure the success of the solution ii. **explains** the success of the solution against the design specification based on **relevant** product testing iii. **describes** how the solution could be improved iv. **explains** the impact of the solution on the client/target audience, **with guidance**.
7–8	The student: i. **designs detailed and relevant** testing **methods**, which generate data, to measure the success of the solution ii. critically **evaluates** the success of the solution against the design specification based on **authentic** product testing iii. **explains** how the solution could be improved iv. **explains** the impact of the product on the client/target audience.