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.

Notes for criterion A

- When developing the design brief, students should concisely summarize only the useful and relevant information they have found through their research. They will present this information in their own words. Students should not copy and paste information from sources without analysis or indicating relevance.

Notes for criterion B

- In MYP design, a feasible idea is one that the student can create within the allocated time with the tools and facilities available to them.
- Examples of "planning drawings/diagrams" for digital design solutions include website navigation maps, interface layout—aesthetic considerations (websites), detailed sketches (graphic design), detailed storyboards (video editing and animations), and so on.
- Examples of "planning drawings/diagrams" for product design solutions include scale drawing with measurements (orthographic), part and assembly drawings, exploded drawings, recipes, cutting plans, and so on.

Notes for criterion C

- When changes have been made to the solution, students must describe and justify each change. If there are no changes to the plan, students are not required to describe or justify any changes.
- **Technical skills:** A student's level of technical skill can be determined using the following two factors:
  - the complexity of skill demonstrated
  - the level of guidance needed from the teacher to complete the task.

The teacher should determine an age-appropriate level of technical skill demonstrated by the student using a "best-fit" approach. A clarification is detailed below.

Minimal technical skills: Simple skills are demonstrated and the student requires a great deal of assistance after they have received initial instruction on how to use tools.

Satisfactory technical skills: Simple and complex skills are demonstrated and the student requires some assistance after they have received initial instruction on how to use complex tools.

Competent technical skills: Complex skills are demonstrated and the student generally works independently, requiring some guidance after initial instruction.

Excellent technical skills: A wide range of complex skills are demonstrated and the student works independently, requiring minimal guidance after initial instruction.

Notes for criterion D

- **Product testing:** This is a stage in the design process where versions of products (for example, prototypes) are tested against the design need (specification), applied to the context and presented to the end-user or target audience. These tests may include the collection and analysis of data. Types of testing include **user trial and observation:** (usability and intuitiveness), **field/performance test:** (functionality and performance), **expert appraisal:** (beta testing, consumer testing)
- **Authentic tests:** The tests are relevant to the project and are completed by appropriate testers to gain high-quality quantitative and qualitative feedback.