Design Criterion A: Inquiring and analyzing-7/8

The student can

i. explain and justify the need for a solution to a problem
Ii. construct a research plan, which states and prioritizes the primary and secondary research needed to develop a solution to the problem
iii. analyze a group of similar products that inspire a solution to the problem
iv. develop a design brief, which presents the analysis of relevant research.

Achievement level	Level descriptor
7-8 HP	The student: i. **explains** and **justifies** the need for a solution to a problem ii. **constructs** a research plan, which **states** and **prioritizes** the primary and secondary research needed to **develop** a solution to the problem **independently** iii. **analyses** a group of similar products that inspire a solution to the problem iv. **develops** a design brief, which **presents** the **analysis** of relevant research.
5-6 PRO	The student: i. **explains** the need for a solution to a problem ii. **constructs** a research plan, which **states** and **prioritizes** the primary and secondary research needed to **develop** a solution to the problem**, with some guidance** iii. **describes** a group of similar products that inspire a solution to the problem iv. **develops** a design brief, which **outlines** the **findings** of relevant research.
3-4 NP	The student: i. **outlines** the need for a solution to a problem ii. **states** the research needed to **develop** a solution to the problem, **with some guidance** iii. **outlines one existing** product that inspires a solution to the problem iv. **develops** a basic design brief, which **outlines some of** relevant research
1-2 Dev	The student: i. **states** the need for a solution to a problem ii. **states some** of the main findings of relevant research.

Design Criterion B: Developing ideas 7/8

The student can:

i. develop a design specification which outlines the success criteria for the design of a solution based on the data collected
ii. present a range of feasible design ideas, which can be correctly interpreted by others
iii. present the chosen design and outline the reasons for its selection
iv. develop accurate planning drawings/diagrams and outline requirements for the creation of the chosen solution.

Achievement level	Level descriptor
7-8 HP	The student: i. **develops** a design specification which **outlines** the success criteria for the design of a solution based on the data collected ii. **presents a range** of feasible design ideas, using an appropriate medium(s) **and annotation**, which can be correctly interpreted by others iii. **presents** the chosen design and **outlines** the reasons for its selection with reference to the design specification iv. **develop**s accurate planning drawings/diagrams and **outlines** requirements for the creation of the chosen solution.
5–6 PRO	The student: i. **develops** a design specifications, which **identify** the success criteria for the design of a solution ii. **presents a range** of feasible design ideas, using an appropriate medium(s) and **explains** key features, which can be interpreted by others iii. **presents** the chosen design and **outlines the main** reasons for its selection with reference to the design specification iv. **develops** accurate planning drawings/diagrams and **lists** requirements for the creation of the chosen solution.
3–4 NP	The student: i. **constructs** a list of the success criteria for the design of a solution ii. **presents a few** feasible design ideas, using an appropriate medium(s) or **explains** key features, which can be interpreted by others iii. **outlines** the main reasons for choosing the design with reference to the design specification iv. **creates** planning drawings/diagrams or lists requirements for the chosen solution.
1–2 Dev	The student: i. **lists** a few basic success criteria for the design of a solution ii. **presents** one design idea, which can be interpreted by others iii. **creates** incomplete planning drawings/diagrams.

Design Criterion C: Creating the solution

7/8

The student can:
i. construct a logical plan, which outlines 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 explain changes made to the chosen design and the plan when making the solution.
iv. present the solution as a whole.

Achievement level	Level descriptor
7-8 HP	The student: i. **constructs** a **logical** plan, which **outlines** 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. **explains** changes made to the chosen design and plan when making the solution.
5–6 PRO	1. **constructs** a 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. **outlines** changes made to the chosen design **and** plan when making the solution.
3–4 NP	The student: i. **outlines** each step in a plan that contains some details, resulting in peers having difficulty following the plan to create the solution 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 **or** plan when making the solution.
1–2 Dev	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.**

Design Criterion D: Evaluating 7/8

The student can:
i. describe detailed and relevant testing methods, which generate accurate data, to measure the success of the solution
ii. explain the success of the solution against the design specification
iii. describe how the solution could be improved
iv. describe the impact of the solution on the client/target audience.

Achievement level	Level descriptor

7-8 HP	The student: i. **describes detailed** and **relevant** testing **methods**, which generate **accurate** data, to measure the success of the solution ii. **explains** the success of the solution against the design specification based on **authentic** product testing iii. **describes** how the solution could be improved iv. **describes** the impact of the solution on the client/ target audience.
5–6 PRO	The student: i. **describes relevant** testing **methods**, which generate data, to measure the success of the solution ii. **describes** the success of the solution against the design specification based on relevant product testing iii. **outlines** how the solution could be improved iv. **describes** the impact of the solution on the client/ target audience, **with** **guidance.**
3–4 NP	The student: i. **describes** 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. **lists** the ways in which the solution could be improved iv. **outlines** the impact of the solution on the client/ target audience.
1–2 Dev	The student: i. **describes** a testing **method**, which is used to measure the success of the solution ii. **states** the success of the solution.