Design

Criterion A: Inquiring and analyzing

Achievement levels	Descriptors		
	MYP 1	**MYP 2-3**	**MYP 4-5**
7-8	The student: □ **explains** and **justifies** the need for a solution to a problem □ **states** and **prioritizes** the main points of research needed to **develop** a solution, **with minimal guidance** □ **describes** the main features of an existing product that inspires a solution to the problem □ **presents** the main findings of **relevant** research	The student: □ **explains and justifies** the need for a solution to a problem □ **constructs** a research plan, which **states** and **prioritizes** the primary and secondary research needed to **develop** a solution to the problem **independently** □ **analyzes** a group of similar products that inspire a solution to the problem □ develops a design brief, which **presents** the **analysis** of relevant research	The student: □ **explains** and **justifies** the need for a solution to a problem for a client/target audience □ **constructs** a **detailed** research plan, which **identifies** and **prioritizes** the primary and secondary research needed to **develop** a solution to the problem independently □ **analyzes a range of** existing products that inspire a solution to the problem **in detail** □ **develops** a **detailed** design brief, which **summarizes** the **analysis** of relevant research
5-6	The student: □ **explains** the need for a solution to a problem □ **states** and **prioritizes** the main points of research needed to **develop** a solution, **with some guidance** □ **outlines** the main features of an existing product that inspires a solution to the problem □ **outlines** the main findings of **relevant** research	The student: □ **explains** the need for a solution to a problem □ **constructs** a research plan, which **states** and **prioritizes** the primary and secondary research needed to **develop** a solution to the problem, **with some guidance** □ **describes** a group of similar products that inspire a solution to the problem □ develops a design brief, which **outlines** the **findings** of relevant research	The student: □ **explains** the need for a solution to a problem for a **specified** client/target audience □ **constructs** a research plan, which **identifies** and **prioritizes** the primary and secondary research needed to **develop** a solution to the problem independently, **with some guidance** □ **analyzes a range of** existing products that inspire a solution to the problem □ **develops** a design brief, which **explains** the **analysis** of relevant research
3-4	The student: □ **outlines** the need for a solution to a problem □ **states some** points of research needed to **develop** a solution, **with some guidance**	The student: □ **outlines** the need for a solution to a problem □ **states** the research needed to **develop** a solution to the problem, **with some guidance**	The student: □ **outlines** the need for a solution to a problem for a **specified** client/target audience □ **outlines** a research plan, which **identifies** the primary and secondary research needed to **develop** a solution to the problem independently, **with some guidance**

	☐ **states** the main features of an existing product that inspires a solution to the problem ☐ **outlines some of** the main findings of research	☐ **outlines one existing** product that inspires a solution to the problem ☐ develops a **basic** design brief, which **outlines some** relevant research	☐ **analyzes one** existing product that inspires a solution to the problem ☐ **develops** a design brief, which **outlines** the **analysis** of relevant research
1-2	The student: ☐ **states** the need for a solution to a problem ☐ **states** the findings of research	The student: ☐ **states** the need for a solution to a problem ☐ **states some of** the main findings of relevant research	The student: ☐ **states** the need for a solution to a problem for a **specified** client/target audience ☐ **develops** a **basic** design brief, which **states** the **findings** of relevant research
0	The student's work does not reach a standard described by any of the descriptors above.		

Criterion B: Developing ideas

Achievement levels	Descriptors		
	MYP 1	**MYP 2-3**	**MYP 4-5**
7-8	The student: □ **develops a list of** success criteria for the solution □ **presents** feasible design ideas, using an appropriate medium(s) and outlines the key features, which can be correctly interpreted by others □ **presents** the chosen deign **describing** the key features □ creates a planning drawing/diagram, which **outlines** the main details for making the chosen solution	The student: □ **develops a design specification** which **outlines** the success criteria for the design of a solution **based on the data collected** □ presents **a range** of feasible design ideas, using an appropriate medium(s**) and annotation**, which can be correctly interpreted by others □ **presents** the chosen design and **outlines** the reasons for its selection with reference to the design specification □ **develops** accurate planning drawings/ diagrams and **outlines** requirements for the creation of the chosen solution	The student: □ **develops detailed** design specifications, which **explain** the success criteria for the design of a solution **based on the analysis of the research** □ **develops a range of** feasible design ideas, using an appropriate medium(s) **and detailed** annotation, which can be **correctly** interpreted by others □ **presents** the chosen design and **justifies fully and critically** its selection with **detailed** reference to the design specification □ **develops accurate and detailed** planning drawings/diagrams **and outlines** requirements
5-6	The student: □ **develops a few** success criteria for the solution □ presents **a few** feasible design ideas, using an appropriate medium(s) **and labels** key features, which can be interpreted by others □ **presents** the chosen design **stating** the key features □ creates a planning drawing/diagram **and lists** the **main details** for the creation of the chosen solution	The student: □ **develops design specifications** which **identify** the success criteria for the design of a solution □ presents **a range** of feasible design ideas, using an appropriate medium(s**) and explains** key features, which can be interpreted by others □ **presents** the chosen design and **outlines** the **main** reasons for its selection with reference to the design specification □ **develops** accurate planning drawings/ diagrams **and lists** requirements for the creation of the chosen solution	The student: □ **develops** design specifications, which **outline** the success criteria for the design of a solution □ **develops a range of** feasible design ideas, using an appropriate medium(s) **and** annotation, which can be interpreted by others □ **presents** the chosen design and **justifies** its selection with reference to the design specification □ **develops accurate** planning drawings/diagrams **and lists** requirements
3-4	The student: □ **states a few** success criteria for the solution □ presents **more than one** design idea, using an appropriate medium(s) **or labels** key features, which can be interpreted by others	The student: □ **constructs a list** of the success criteria for the design of a solution □ presents **a few** of feasible design ideas, using an appropriate medium(s**) or explains** key features, which can be interpreted by others	The student: □ **lists some** design specifications, which **relate to** the success criteria for the design of a solution □ **presents a few** feasible design ideas, using an appropriate medium(s) **or** annotation, which can be interpreted by others

	□ **states** the key features of the chosen design □ creates a planning drawing/diagram **or lists requirements** for the creation of the chosen solution	□ **outlines** the **main** reasons for choosing the design with reference to the design specification □ **creates** planning drawings/diagrams **or lists** requirements for the chosen solution	□ **justifies** the selection of the chosen design with reference to the design specification □ **creates** planning drawings/diagrams **or lists** requirements
1-2	The student: □ **states one basic** success criteria for a solution □ presents **one** design idea, which can be interpreted by others □ creates an **incomplete** planning drawing/diagram	The student: □ **lists a few basic** success criteria for the design of a solution □ presents **one** design idea, which can be interpreted by others □ **creates incomplete** planning drawings/ diagrams	The student: □ **lists some basic** design specifications for the design of a solution □ **presents one** design which can be interpreted by others □ **creates incomplete** planning drawings/ diagrams
0	The student's work does not reach a standard described by any of the descriptors above.		

Criterion C: Creating the solution

Achievement levels	Descriptors		
	MYP 1	**MYP 2-3**	**MYP 4-5**
7-8	The student: □ **outlines** a plan, which **considers** the use of **time and resources**, sufficient for peers to be **able to follow** to create the solution □ demonstrates **excellent** technical skills when making the solution □ **follows the plan** to create the solution, which functions **as intended** and is presented **appropriately** □ **lists the changes** made to the chosen design **and** plan when making the solution	The student: □ **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 □ demonstrates **excellent** technical skills when making the solution □ **follows the plan** to create the solution, which functions **as intended** and is presented **appropriately** □ **explains changes** made to the chosen design **and** plan when making the solution	The student: □ **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 □ demonstrates **excellent** technical skills when making the solution □ the solution, which functions **as intended** and is presented **appropriately** □ **fully justifies changes** made to the chosen design and plan when making the solution
5-6	The student: □ **lists the steps** in a plan, which **considers** the **time and resources**, resulting in peers to be **able to follow** to create the solution □ demonstrates **competent** technical skills when making the solution □ creates the solution, which functions **as intended** and is presented **appropriately** □ **states one change** made to the chosen design **and** plan when making the solution	The student: □ **constructs** a plan, which **considers time and resources**, sufficient for peers to be **able to follow** to create the solution □ demonstrates **competent** technical skills when making the solution □ creates the solution, which functions **as intended** and is presented **appropriately** □ **outlines changes** made to the chosen design **and** plan when making the solution	The student: □ **constructs a logical plan**, which **considers time and resources**, sufficient for peers to be **able to follow to create the solution** □ demonstrates **competent** technical skills when making the solution □ creates the solution, which functions **as intended** and is presented **appropriately** □ **describes changes** made to the chosen design and plan when making the solution
3-4	The student: □ **lists the main steps** in a plan, which **contains some details**, resulting in peers **having difficulty following** the plan to create the solution □ demonstrates **satisfactory** technical skills when making the solution □ creates the solution, which **partially** functions and is presented **appropriately** □ **states one change** made to the chosen design **or** plan when making the solution	The student: □ **outlines each step** in a plan that contains **some details**, resulting in peers **having difficulty following** the plan to create the solution □ demonstrates **satisfactory** technical skills when making the solution □ creates the solution, which **partially** functions and is **adequately** presented □ **outlines changes** made to the chosen design **or** plan when making the solution	The student: □ **constructs a plan**, which **contains some production elements**, resulting in peers **having difficulty following plan** □ demonstrates **satisfactory** technical skills when making the solution □ creates the solution, which **partially** functions and is **adequately** presented □ **outlines changes** made to the chosen design and plan when making the solution
1-2	The student: □ demonstrates **minimal** technical skills when making the solution	The student: □ demonstrates **minimal** technical skills when making the solution	The student: □ demonstrates **minimal** technical skills when making the solution

	□ creates the solution, which functions **poorly** and is presented **in an incomplete form**	□ creates the solution, which functions **poorly** and is presented **in an incomplete form**	□ creates the solution, which functions **poorly** and is presented **in an incomplete form**
0	The student's work does not reach a standard described by any of the descriptors above.		

Criterion D: Evaluating

Achievement levels	Descriptors		
	MYP 1	**MYP 2-3**	**MYP 4-5**
7-8	The student: ☐ **outlines simple, relevant** testing **methods, which generate data**, to measure the success of the solution ☐ **outlines** the success of the solution against the design specification based on **authentic** product testing ☐ **outlines** how the solution could be improved ☐ **outlines** the impact of the solution on the client/target audience	The student: ☐ describes **detailed and relevant** testing **methods**, which generate accurate data, to measure the success of the solution ☐ **explains** the success of the solution against the design specification based on **authentic** product testing ☐ **describes** how the solution could be improved ☐ **describes** the impact of the solution on the client/target audience	The student: ☐ designs **detailed and relevant** testing **methods, which generate data**, to measure the success of the solution ☐ **critically evaluates** the success of the solution against the design specification based on **authentic** product testing ☐ **explains** how the solution could be improved ☐ **explains** the impact of the solution on the client/target audience
5-6	The student: ☐ **defines relevant** testing **methods, which generate data**, to measure the success of the solution ☐ **states** the success of the solution against the design specification based on **relevant** product testing ☐ **outlines one way** how the solution could be improved ☐ **outlines** the impact of the solution on the client/target audience, **with guidance**	The student: ☐ describes **relevant** testing **methods**, which generate data, to measure the success of the solution ☐ **describes** the success of the solution against the design specification based on **relevant** product testing ☐ **outlines** how the solution could be improved ☐ **describes** the impact of the solution on the client/target audience, **with guidance**	The student: ☐ designs **relevant** testing **methods, which generate data**, to measure the success of the solution ☐ **explains** the success of the solution against the design specification based on **relevant** product testing ☐ **describes** how the solution could be improved ☐ **explains** the impact of the solution on the client/target audience, **with guidance**
3-4	The student: ☐ **defines a relevant** testing **method, which generate data**, to measure the success of the solution ☐ **states** the success of the solution against the design specification based on the results of **one relevant** test ☐ **states one way** in which the solution could be improved ☐ **states one way** in which the solution can impact the client/target audience	The student: ☐ describes **a relevant** testing **method**, which generates data, to measure the success of the solution ☐ **outlines** the success of the solution against the design specification based on **relevant** product testing ☐ **lists** the ways in which the solution could be improved ☐ **outlines** the impact of the solution on the client/target audience	The student: ☐ designs **a relevant** testing **method, which generates data**, to measure the success of the solution ☐ **outlines** the success of the solution against the design specification based on **relevant** product testing ☐ **outlines** how the solution could be improved ☐ **outlines** the impact of the solution on the client/target audience
1-2	The student: ☐ **defines a** testing **method**, which is used to measure the success of the solution ☐ **states** the success of the solution	The student: ☐ describes **a** testing **method**, which is used to measure the success of the solution ☐ **states** the success of the solution	The student: ☐ designs **a** testing **method**, which is used to measure the success of the solution ☐ **states** the success of the solution

| 0 | The student's work does not reach a standard described by any of the descriptors above. |