

MYP Objectives and Assessment Criteria

Design Objectives

The objectives of any MYP subject state the specific targets that are set for learning in the subject. They define what the student will be able to accomplish as a result of studying the subject.

These objectives relate directly to the assessment criteria found in the “Assessment in design” section. In MYP design, the process of design is split into four objectives. Each objective has particular focus on one aspect of the design cycle. The design cycle is at the core of the MYP design course.

A. Inquiring and analysing

Students identify the need for a solution to a problem.

At the end of the course, they should be able to:

- i. explain and justify the need for a solution to a problem for a specified client/end-user
- ii. identify and prioritize the research needed to develop a solution to the problem
- iii. analyse a range of existing products that inspire a solution to the problem
- iv. summarize the analysis of the findings from a range of sources relevant to the development of a possible solution, cited appropriately.

B. Developing ideas

Students develop the solution.

At the end of the course, they should be able to:

- i. develop a design specification which clearly states the success criteria for the design of a solution
- ii. develop a range of feasible design ideas using appropriate media and detailed annotation
- iii. which can be correctly interpreted by others
- iv. present and justify the final chosen design with detailed reference to the design specification
- v. develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.

C. Creating the solution

Students create a solution.

At the end of the course, they 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 the plan to create the solution
- ii. demonstrate excellent technical skills when making the solution
- iii. follow the plan to make the solution, which functions as intended
- iv. fully justify changes made to the chosen design and plan when making the solution
- v. present the solution as a whole, either:
 - a. in electronic form, or
 - b. through photographs of the solution from different angles, showing details.

D. Evaluating

Students evaluate the solution.

At the end of the course, they 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 requirements based on authentic tests
- iii. explain how the solution could be improved
- iv. explain the impact of the solution on the client/target market.

Design Assessment Criteria

The following assessment criteria have been established by the IB for MYP design. All assessment in each year of the MYP must be based on the age-appropriate version of the assessment criteria as provided in this guide.

Criterion A	Inquiring and Analysing	Maximum 8
Criterion B	Developing ideas	Maximum 8
Criterion C	Creating Solutions	Maximum 8
Criterion D	Evaluating	Maximum 8

For each assessment criterion, a number of band descriptors are defined. These describe a range of achievement levels with the lowest represented as 0. The descriptors concentrate on positive achievement, although failure to achieve may be included in the description for the lower levels.

A. Inquiring and analysing

Students identify the need for a solution to a problem. At the end of the course, they should be able to:

- i. explain and justify the need for a solution to a problem for a specified client/end-user
- ii. identify and prioritize the research needed to develop a solution to the problem
- iii. analyse a range of existing products that inspire a solution to the problem
- iv. summarize the analysis of the findings from a range of sources relevant to the development of possible solution, cited appropriately.

a

Achievement Level	Level Descriptor Year 5
0	The student does not reach a standard described by any of the descriptors below.
1-2	The student: <ul style="list-style-type: none"> • states the need for a solution to a problem for a specified client/enduser • states the findings from a few sources relevant to the development of a possible solution.
3-4	The student: <ul style="list-style-type: none"> • outlines the need for a solution to a problem for a specified client/end-user • outlines a research plan which identifies the research needed to develop a solution to the problem, with some guidance • analyses one existing product that inspires a solution to the problem • outlines the findings from a range of sources relevant to the development of a possible solution, cited incompletely.
5-6	The student: <ul style="list-style-type: none"> • explains the need for a solution to a problem for a specified client/end-user • constructs a research plan which identifies and prioritizes the research needed to develop a solution to the problem with some guidance • analyses a range of existing products that inspire a solution to the problem • outlines the findings from a range of sources relevant to the development of a possible solution, cited appropriately.
7-8	The student: <ul style="list-style-type: none"> • explain and justifies the need for a solution to a problem for a client/end-user/target market • constructs a detailed research plan which identifies and prioritizes the research needed to develop a solution to the problem independently • analyses a range of existing products that inspire a solution to the problem in detail • summarizes the findings from a broad range of sources relevant to the development of a possible solution, cited appropriately.

Criterion B: Developing ideas

Maximum: 8

Students develop the solution. At the end of the course, they should be able to:

- i. develop a design specification which clearly states the success criteria for the design of a solution
- ii. develop a range of feasible design ideas using appropriate media and detailed annotation which can be correctly interpreted by others
- iii. present and justify the final chosen design with detailed reference to the design specification
- iv. develops accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.

**Achievement
Level**

**Level Descriptor
Year 5**

0	The student does not reach a standard described by any of the descriptors below.
1-2	The student: <ul style="list-style-type: none">• lists some basic design specifications for the design of a solution• presents one design which can be interpreted by others• creates incomplete working drawings/diagrams
3-4	The student: <ul style="list-style-type: none">• lists some design specifications which relate to the success criteria for the design of a solution• presents a few feasible designs using an appropriate medium(s) or annotation which can be interpreted by others• makes some attempt to justify the chosen design with reference to the design specification• creates planning drawings/diagrams or lists requirements for the creation of the chosen solution
5-6	The student: <ul style="list-style-type: none">• 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 and justifies the chosen design with reference to the design specification• develops accurate planning drawings/diagrams and lists requirements for the creation of the chosen solution.
7-8	The student: <ul style="list-style-type: none">• 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 and justifies, fully and critically, the final chosen design with detailed reference to the design specification• 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 the course, they 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 the plan to create the solution
- ii. demonstrate excellent technical skills when making the solution
- iii. follow the plan to make the solution which functions as intended
- iv. fully justify changes made to the chosen design and plan when making the solution
- v. present the solution as a whole, either:
 - a. in electronic form, or
 - b. through photographs of the solution from different angles, showing details.

Achievement
Level

Level Descriptor
Year 5

Achievement Level	Level Descriptor
0	The student does not reach a standard described by any of the descriptors below.
1-2	The student: <ul style="list-style-type: none">• demonstrates minimal technical skills when making the solution• makes the solution which functions poorly and is presented in an incomplete form
3-4	The student: <ul style="list-style-type: none">• constructs a plan that contains some production details, resulting in peers having difficulty following the plan• demonstrates satisfactory technical skills when making the solution• makes the solution which partially functions and is adequately presented• outlines changes made to the chosen design and plan when making the solution.
5-6	The student: <ul style="list-style-type: none">• constructs a logical plan, which considers time and resources, sufficient for peers to be able to follow the plan• demonstrates competent technical skills when making the solution• makes the solution which functions as intended and is presented appropriately• describes changes made to the chosen design and plan when making the solution.
7-8	The student: <ul style="list-style-type: none">• constructs a detailed and logical plan, which describes the efficient use of time and resources, sufficient for peers to be able to follow the plan to create the solution• demonstrates excellent technical skills when making the product/solution.• follows the plan to make the solution which functions as intended and is presented appropriately• fully justifies changes made to the chosen design and the plan when making the solution

Criterion D: Evaluating

Maximum: 8

Students evaluate the solution. At the end of the course, they 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 requirements based on authentic tests
- iii. explain how the solution could be improved
- iv. explain the impact of the solution on the client/target market.

Achievement Level	Level Descriptor Year 5
0	The student does not reach a standard described by any of the descriptors below.
1-2	The student: <ul style="list-style-type: none">• designs a testing method which is used to measure the success of the solution• states the success of the solution.
3-4	The student: <ul style="list-style-type: none">• designs a relevant testing method which generates data to measure the success of the solution• outlines the success of the solution against the requirements of 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 market.
5-6	The student: <ul style="list-style-type: none">• designs relevant testing methods which generate data to measure the success of the solution• explains the success of the product/solution against the requirements based on relevant product testing• describes how the solution could be improved• explains the impact of the solution on the client/target market, with guidance.
7-8	The student: <ul style="list-style-type: none">• 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 requirements of the design specification based on authentic product testing• explains how the solution could be improved• explains the impact of the product on the client/target market