

# Technology assessment criteria

Please note that the assessment criteria in this guide are for first use in **final assessment** from 2007.

All final assessment in the final year of the MYP must be based on the following criteria even if schools are not registering students for IB-validated grades and certification.

Criterion A	Investigate	Maximum 6
Criterion B	Design	Maximum 6
Criterion C	Plan	Maximum 6
Criterion D	Create	Maximum 6
Criterion E	Evaluate	Maximum 6
Criterion F	Attitudes in technology	Maximum 6

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 criteria are equally weighted.

The descriptors concentrate on positive achievement, although failure to achieve may be included in the description for the lower levels.

Detailed descriptions of the assessment criteria and band descriptors follow.

# Criterion A: Investigate

## Maximum: 6

Investigation is an essential stage in the design cycle. Students are expected to identify the problem, develop a design brief and formulate a design specification. Students are expected to acknowledge the sources of information and document these appropriately.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors given below.
1–2	The student <b>states</b> the problem. The student investigates the problem, <b>collecting</b> information from sources. The student lists some specifications.
3–4	The student <b>describes</b> the problem, <b>mentioning</b> its relevance. The student investigates the problem, <b>selecting and analysing</b> information from <b>some acknowledged</b> sources. The student <b>describes</b> a test to <b>evaluate</b> the product/solution against the design specification.
5–6	The student <b>explains</b> the problem, <b>discussing</b> its relevance. The student critically investigates the problem, <b>evaluating</b> information from a <b>broad range of appropriate, acknowledged</b> sources. The student describes <b>detailed</b> methods for appropriate testing to <b>evaluate</b> the product/solution against the design specification.

## Notes

- **Design brief:** The student’s response to the challenge, showing how they intend to solve the problem they have been presented with. This will guide their investigation as they work to develop a more detailed design specification.
- **Design specification:** A detailed description of the conditions, requirements and restrictions with which a design must comply. This is a precise and accurate list of facts such as conditions, dimensions, materials, process and methods that are important for the designer and for the user. All appropriate solutions will need to comply with the design specification.

## Criterion B: Design

### Maximum: 6

Students are expected to generate several feasible designs that meet the design specification and to evaluate these against the design specification.

Students are then expected to select one design, justify their choice and evaluate this in detail against the design specification.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors given below.
1–2	The student generates <b>one</b> design, and makes <b>some attempt to justify</b> this against the design specification.
3–4	The student generates <b>a few</b> designs, <b>justifying</b> the choice of <b>one</b> design and fully <b>evaluating</b> this against the design specification.
5–6	The student generates a <b>range of feasible</b> designs, <b>each evaluated</b> against the design specification. The student justifies the chosen design and <b>evaluates</b> it fully and critically against the design specification.

# Criterion C: Plan

**Maximum: 6**

Students are expected to construct a plan to create their chosen product/solution that has a series of logical steps, and that makes effective use of resources and time.

Students are expected to evaluate the plan and justify any modifications to the design.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors given below.
1–2	The student produces a plan that contains <b>some details</b> of the steps and/or the resources required.
3–4	The student produces a plan that contains a number of <b>logical</b> steps that include resources and time. The student makes some attempt to evaluate the plan.
5–6	The student produces a plan that contains a <b>number of detailed, logical</b> steps that describe the use of resources and time. The student critically evaluates the plan and justifies any modifications to the design.

# Criterion D: Create

## Maximum: 6

Students are expected to document, with a series of photographs or a video and a dated record, the process of making their product/solution, including when and how they use tools, materials and techniques. Students are expected to follow their plan, to evaluate the plan and to justify any changes they make to the plan while they are creating the product/solution.

Students will sometimes embark upon a very ambitious project, or they may encounter unforeseen circumstances. In some circumstances a product/solution that is incomplete or does not function fully can still achieve one of the levels awarded for this criterion.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors given below.
1–2	The student considers the plan and creates at least <b>part</b> of a product/solution.
3–4	The student <b>uses</b> appropriate techniques and equipment. The student follows the plan and <b>mentions</b> any modifications made, resulting in a product/solution of <b>good</b> quality.
5–6	The student <b>competently uses</b> appropriate techniques and equipment. The student follows the plan and <b>justifies</b> any modifications made, resulting in a product/solution of <b>appropriate</b> quality using the resources available.

## Notes

- **Appropriate quality:** This is the best product/solution that the student can produce, taking into account the resources available, the skills and techniques they have used, their educational development, how the product/solution addresses the identified need, and aspects of safety and ergonomics.

## Criterion E: Evaluate

### Maximum: 6

Students are expected to evaluate the product/solution against the design specification in an objective manner based on testing, and to evaluate its impact on life, society and/or the environment. They are expected to explain how the product/solution could be improved as a result of these evaluations.

Students are expected to evaluate their own performance at each stage of the design cycle and to suggest ways in which their performance could be improved.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors given below.
1–2	The student evaluates the product/solution <b>or</b> his or her own performance. The student makes some <b>attempt to test</b> the product/solution.
3–4	The student evaluates the product/solution <b>and</b> his or her own performance and suggests ways in which these could be improved. The student <b>tests</b> the product/solution to evaluate it against the design specification.
5–6	The student evaluates the success of the product/solution in an objective manner based on the <b>results of testing</b> , and the <b>views of the intended users</b> . The student provides an evaluation of his or her own performance <b>at each stage of the design cycle</b> and suggests improvements. The student provides an appropriate evaluation of the <b>impact</b> of the product/solution on life, society and/or the environment.

### Notes

- **Product testing:** A stage in the design process where versions of products (for example, prototypes) are tested against the need, applied to the context and presented to the end-user or target audience.

# Criterion F: Attitudes in technology

## Maximum: 6

This criterion refers to students' attitudes when working in technology. It focuses on an overall assessment of two aspects:

- personal engagement (motivation, independence, general positive attitude)
- attitudes towards safety, cooperation and respect for others.

By their very nature these qualities are difficult to quantify and assess, and assessment should therefore take into account the context in which the unit of work was undertaken.

Achievement level	Level descriptor
0	The student does not reach a standard described by any of the descriptors given below.
1–2	The student <b>occasionally</b> displays a satisfactory standard in <b>one</b> of the aspects listed above.
3–4	The student <b>frequently</b> displays a satisfactory standard in <b>both</b> of the aspects listed above.
5–6	The student <b>consistently</b> displays a satisfactory standard in <b>both</b> of the aspects listed above.