

Discovery College [Technology Web Site:](https://sites.google.com/a/dc.edu.hk/technology/)

https://sites.google.com/a/dc.edu.hk/technology/

**Areas of Interaction:** Human Ingenuity.

*People are always striving to improve our quality of life*

***ATL****: Thinking*: What tools can I use to solve complex problems?

Information Literacy: Web based ePortfolios

*.*

***ATL****: Thinking*: What tools can I use to solve complex problems?

**Attitude: Level: 6**

**Plan: Level: 6**

**Design: Level: 6**

### **Assessment**

**Create: Level: 6**

**Evaluate: Level: 6**

**Investigate: Level: 6**

**Context.**

The Skill Game Project will introduce Technology students to the design process and the Design Cycle. The properties of material such as softwoods and plastics will be explored, as will workshop procedures. The use of computer aided design (CAD) and computer aided manufacture (CAM) will also be introduced during this unit.

**Task:**

There is a need for a new hand held skill/maze game that could be used to keep young children entertained during long journeys. The game must appeal to children from the age of 5 to 12 years old and be of durable construction.

**Unit Question:**

*How do designers create something new?*

**Significant Concept:**

*Problem solving follows a process*

Year 7: Skill Game Project [Information] [Materials]

MYP Technology

Year 7: Skill Game Project [Information] [Materials]

You will follow the Design Cycle to complete this task. I have created a checklist for you to follow for each stage of the Design Cycle complete with due dates. I will assess each section independently and then the whole Design Folio will be submitted for final assessment.

Remember to use your Google Site during this unit!

|  |  |  |
| --- | --- | --- |
|  | **Assessment Criteria: A - Investigate** | |
| **5-6** | You have created a design brief. You have described the problem. You have investigated the problem, **logically organizing** information from appropriate and **acknowledged sources**. You have listed a **range** of specifications that must be met by the product/solution. |  |
| **3-4** | You have **stated** the problem in the form of a **design brief**. You have investigated the problem, **selecting** information from some **acknowledged** **sources**. You have listed **some specifications** that must be met by the product/solution. |  |
| **1-2** | You have **investigated** the problem, sometimes inappropriately. You **collected** information. |  |

**Investigate**

|  |  |
| --- | --- |
| **Investigate: [Due: ]**  **Identify the Problem. (Research)**   * Rewrite the task in your own words. * Write some **guiding questions.** * Explain the **AOI.**   **Develop the Design Brief**   * Complete a **product analysis** into similar products. * Complete research into tools and materials   **Formulate a Design Specification**   * Write a **detailed** Design Specification * Describe how you will **test** you final product | **Investigate- Tips for Success**  [www.myp-tech.wikispaces.com](http://www.myp-tech.wikispaces.com) |

|  |  |  |
| --- | --- | --- |
|  | **Assessment Criteria: B- Design** | |
| **5-6** | You have generated a **range** of designs, **each compared** against the design specification and **explained** the reasons for your choice of design. |  |
| **3-4** | You have generated a **few** designs, selecting one and **comparing** it against the design specification. |  |
| **1-2** | You have generated **one** design, and made some attempt to **describe** it. |  |

**Design**

|  |  |
| --- | --- |
| **Design**: **[Due:** ]  **Design a product or Solution**   * Sketch **several, feasible** designs for your game and annotate thoroughly. * Evaluate **each** design against the Design Specification. * Justify your chosen design. | **Design- Tips for Success** |

|  |  |  |
| --- | --- | --- |
|  | **Assessment Criteria: C - Plan** | |
| **5-6** | You have produced a plan that contains a **number** of **detailed**, **logical** steps that describe the use of resources and time. You have described possible problems with the plan. |  |
| **3-4** | You have produced a plan that contains a number of **logical** **steps** that include **time**. |  |
| **1-2** | You have produced a plan that contains **some details** of the steps required to complete the design. |  |

**Plan**

|  |  |
| --- | --- |
| **Plan: [Due: ]**  **Plan a Product or Solution**   * Develop your final design using **CAD**. (Sketch-up) * Write a **materials** list * Write a **detailed** Production Plan for how you will make your game * Evaluate your plan and explain any changes. | **Plan- Tips for Success** |

|  |  |  |
| --- | --- | --- |
|  | **Assessment Criteria: D - Create** | |
| **5-6** | You have **competently** used **appropriate** techniques and equipment. You have followed the plan, resulting in a product/solution of **appropriate** quality. |  |
| **3-4** | You have used **appropriate** techniques and equipment. You have considered the plan resulting in a product/solution of **good** quality. |  |
| **1-2** | You have created at least **part** of a product/solution |  |

**Create**

|  |  |
| --- | --- |
| **Create: [Due: ]**  **Create the Product or Solution**   * Build your game to the best of your ability.   **Use Appropriate Techniques and Equipment**   * Keep a **detailed** Process Journal each lesson. * Test and your game and explain improvements.   **Follow the Plan**   * Follow your production plan a explain **any** changes | **Create- Tips for Success** |

|  |  |  |
| --- | --- | --- |
|  | **Assessment Criteria: E - Evaluate** | |
| **5-6** | You have **considered** the success of the product/solution based on the results of **testing** and your **own views**. You have provided an evaluation of your own performance at **different stages** of the design cycle and suggested improvements. |  |
| **3-4** | You have **considered** the success of the product/solution **and** your own performance and suggested ways in which these could be improved. You have **compared** the final product/solution against **some** of the design specification requirements. |  |
| **1-2** | You have **considered** the success of the product/solution **or** your own performance |  |

**Evaluate**

|  |  |
| --- | --- |
| **Evaluate: [Due: ]**  **Evaluate your Product or Solution**   * Test your game with the intended user. * Evaluate your completed project against the Design Specification. * Suggest improvements to your final product   **Evaluate your Use of the Design Cycle.**   * Evaluate your use of the Design Cycle. * Evaluate your personal engagement in the project. (effort and attitude.) | **Evaluate- Tips for Success** |

|  |  |  |
| --- | --- | --- |
|  | **Assessment Criteria: F - Attitude** | |
| **5-6** | You have **consistently** displayed a satisfactory standard in personal engagement (motivation, independence, general positive attitude) **and** attitudes towards safety, cooperation and respect for others. |  |
| **3-4** | You have **occasionally** displayed a satisfactory standard in personal engagement (motivation, independence, general positive attitude) **and** attitudes towards safety, cooperation and respect for others. |  |
| **1-2** | You have **rarely** displayed a satisfactory standard in personal engagement (motivation, independence, general positive attitude) **or** attitudes towards safety, cooperation and respect for others. |  |

**Attitude**