

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**MYP Technology Assessment Task: *Programming with Scratch***

Teacher: Mr. Thompson

**Final submission:** Monday, June 23, 2014

**AREA OF INTERACTION**
**Human Ingenuity** deals with the way in which human minds have influenced the world, for example, the way we are, think, interact with each other, create, find solutions to and cause problems, transform ideas and rationalize thought. It also considers the consequences of human thought and action.

**SIGNIFICANT CONCEPTS**

Computers and software only do what humans have told them to do.

**MYP UNIT QUESTION**
Why do we call computer codes language?

With Scratch, you can program your own interactive stories, games, and animations — and share your creations with others in the online community.

Scratch helps young people learn to think creatively, reason systematically, and work collaboratively — essential skills for life in the 21st century.

Scratch is a project of the Lifelong Kindergarten Group at the MIT Media Lab. It is provided free of charge.

Students will research Scratch Projects and then use the MYP Design Cycle to design, develop, create and produce Scratch projects (of their own choice) to share for peer review.

**Evidence required:**

* Completed online design cycle booklet (Investigate, Design, Plan, Create & Evaluate)
* Completed Scratch project

Please refer to the attached rubric created as your unit assessment. Good luck!

**DISK Technology 　　　　　　　 　　　　　　　　　　　　　　 　Name:**

**Criteria A: Investigate**

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| **Level** | **Descriptor** | Task specific clarifications |  | **Criteria A** |
| 0 | The student does not reach a standard described by any of the descriptors given below. |  |  | **Self Assessment** |
| 1 – 2 | The student **states** the problem. The student investigates the problem, **collecting** information from sources. The student lists some specifications. | * I did not list any research sources so that they could be checked
* Complete notes of my research findings were not evident in my design cycle booklet
* I did not create a design specification that stated what I had to do
* I made no test questions for my product/solution
* My self-assessment and/or reflection were either incomplete or demonstrated a serious need for more thought and effort
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| 3 – 4 | The student **describes** the problem, **mentioning** its relevance. The student investigates the problem, **selecting and analysing** information from **some acknowledged** sources. The student **describes** a test to **evaluate** theproduct/solution against the design specification. | * I listed some research sources so that they could be checked
* Notes of my research findings were evident in my design cycle booklet but may not have been clear or detailed enough to be useful
* I created a design specification that stated what I had to do but it was not entirely worded in useful sentences and/or related to my research
* I made incomplete or unclear test questions
* My test questions were not completely in line with my design specification
* My self-assessment and/or reflection demonstrated a need for more thought and effort
 |  | **Achievement Level** |
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| 5 – 6 | The student **explains** the problem, **discussing** its relevance. The student critically investigates the problem, **evaluating** information from a **broad range** of **appropriate, acknowledged** sources. The student describes **detailed** methods for appropriate testing to **evaluate** the product/solution against the design specification. | * I clearly listed at least eight research sources so that they could be checked
* Notes of my research findings were clearly evident in my design cycle booklet
* My research was clearly related to solving the problem(s) identified
* I created an effective design specification (avoiding words like `good` or `interesting`) that clearly stated what I had to do
* I wrote easy to understand, specific test questions
* My test questions were based on my design specification
* Both my self-assessment and reflection demonstrated considerable thought and effort
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**Criteria B: Design**

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| **Level** | **Descriptor** | Task specific clarifications |  | **Criteria B** |
| 0 | The student does not reach a standard described by any of the descriptors given below. |  |  | **Self Assessment** |
| 1 – 2 | The student generates **one** design, and makes **some attempt to justify** this against the design specification. | * My designs had little detail
* Few or no aspects of the design specification in the design I chose were planned for to a high level of achievement based on my evaluation
* There was little evidence that my initial design was improved through reference to my design cycle
* My self-assessment and/or reflection were either not done or demonstrated a serious need for more thought and effort
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| 3 – 4 | The student generates **a few** designs, **justifying** the choice of **one** design and fully **evaluating** this against the design specification. | * My designs had some detail
* Some reference to my design specification was evident
* I made some visible attempt to ensure my design specification was used to improve upon my initial design
* My self-assessment and/or reflection demonstrated a need for more thought and effort
 |  | **Achievement Level** |
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| 5 – 6 | The student generates a **range** of **feasible** designs, **each evaluated** against the design specification. The student justifies the chosen designand **evaluates** it fully and critically against the design specification. | * My designs clearly referenced the *Scratch Project Checklist* on the website and my individual design specification points were clearly noted
* I improved my initial design so that all aspects of my design specification were planned for to a high level of achievement based on my evaluation
* I either followed the design template offered or created an effective innovation of it
* Both my self-assessment and reflection demonstrated considerable thought and effort
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**Criteria C: Plan**

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| **Level** | **Descriptor** | Task specific clarifications |  | **Criteria C** |
| 0 | The student does not reach a standard described by any of the descriptors given below. |  |  | **Self Assessment** |
| 1 – 2 | The student produces a plan that contains **some details** of the steps and/or the resources required. | * My plan was recorded with some thought about time and resource needs.
* I did not make useful notes of how I would use classes
* I did not make useful notes of how I would do homework between classes
* Someone else could not easily understand how my product was made by following my plan
* My self-assessment and/or reflection were either not done or demonstrated a need for more thought and effort
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| 3 – 4 | The student produces a plan that contains a number of **logical** steps that include resources and time. The student makes some attempt to evaluate the plan. | * My plan was recorded with time and resource needs noted
* I noted how I would use many classes
* I noted how I would do homework between some classes
* Someone else could basically understand how my product was made by following my plan.
* I evaluated the plan as outlined in the design cycle
* My self-assessment and/or reflection demonstrated a need for more thought and effort
 |  | **Achievement Level** |
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| 5 – 6 | The student produces a plan that contains a **number** of **detailed, logical** steps that describe the use of resources and time. The student critically evaluates the plan and justifies any modifications to the design. | * My plan was neatly recorded with time and resource needs clearly noted
* I carefully noted how I would use every class
* I carefully noted how I would do homework between classes
* Someone else could easily understand how my product was made by following my plan.
* Both my self-assessment and reflection demonstrated considerable thought and effort
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**Criteria D: Create**

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| **Level** | **Descriptor** | Task specific clarifications |  | **Criteria D** |
| 0 | The student does not reach a standard described by any of the descriptors given below. |  |  | **Self Assessment** |
| 1 – 2 | The student considers the plan and creates at least **part** of a product/ solution. | * I followed my plan but did not complete it
* I do not feel that my product meets the standard of good quality based on comparison with other work
* My self-assessment and/or reflection were either not done or demonstrated a need for more thought and effort
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| 3 – 4 | The student **uses** appropriate techniques and equipment. The student follows the plan and **mentions** any modifications made, resulting in a product/solution of **good** quality. | * I used the resources and procedures available to create my product with little difficulty.
* I feel that my product meets the standard of good quality based on comparison with other work
* I didn`t regularly note when the plan was changed or include many reasons why this was needed
* My self-assessment and/or reflection demonstrated a need for more thought and effort
 |  | **Achievement Level** |
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| 5 – 6 | The student **competently uses** appropriate techniques and equipment.The student follows the plan and **justifies** any modifications made, resulting in a product/solution of **appropriate** quality using the resources available. | * I used the resources and procedures available to create my product with no difficulties I could not overcome
* I created a product closely related to the intention of my plan
* I feel strongly that my product meets the standard of good quality based on comparison with other work
* I clearly noted when the plan was changed including reasons why this was needed
* Both my self-assessment and reflection demonstrated considerable thought and effort
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**Criteria E: Evaluate**

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| **Level** | **Descriptor** | Task specific clarifications |  | **Criteria E** |
| 0 | The student does not reach a standard described by any of the descriptors given below. |  |  | **Self Assessment** |
| 1 – 2 | The student evaluates the product/solution **or** his or her own performance.The student makes some **attempt to test** the product/solution. | * I tested my product/solution on an audience but did not completely refer to the design specification
* I collected test results from one source or less
* My final reflection on my performance using the design cycle demonstrated little thought
* My self-evaluation on the impact of my product lacked detail and/or thought
* My self-assessment and/or reflection were either not done or demonstrated a need for more thought and effort
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| 3 – 4 | The student evaluates the product/solution **and** his or her own performance and suggests ways in which these could be improved.The student **tests** the product/solution to evaluate it against the design specification. | * I tested my product/solution on an audience but did not carefully refer to the design specification
* I collected test results from at least two sources
* My final reflection on my performance using the design cycle demonstrated some effort
* My self-assessment and/or reflection demonstrated a need for more thought and effort
 |  | **Achievement Level** |
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| 5 – 6 | The student evaluates the success of the product/solution in an objective manner based on the **results of testing**, and the **views of the intended users**. The student provides an evaluation of his or her own performance **at each stage of the design cycle** and suggests improvements. The student provides an appropriate evaluation of the **impact** of the product/solution on life, society and/or the environment. | * I tested to see whether my design specification helped me create an effective product/solution incorporating my research
* I collected test results from at least three sources
* The results of my test were readily available to be checked
* My final reflection on my performance using the design cycle demonstrated serious thought
* Both my self-assessment and reflection demonstrated considerable thought and effort
* My answer to the unit question demonstrated serious thought
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**Criteria F: Attitudes in Technology**

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.

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| **Level** | **Descriptor** | Task specific clarifications |  | **Criteria F** |
| 0 | The student does not reach a standard described by any of the descriptors given below. |  |  | **Self Assessment** |
| 1 – 2 | The student **occasionally** displays a satisfactory standard in **one** of the aspects listed above. | * I did not usually work in a manner conducive to focused results in no way detracting from the ability of my peers to do likewise
* I did not usually work effectively throughout the unit, using my time consistently well to stay on time and with the schedule
* I failed to answer the unit question
* None of my self-assessments or reflections demonstrated any thought or insight
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| 3 – 4 | The student **frequently** displays a satisfactory standard in **both** of the aspects listed above. | * I regularly worked in a manner conducive to focused results in no way detracting from the ability of my peers to do likewise
* I regularly worked effectively throughout the unit, using my time consistently well to stay on time and with the schedule
* I failed to answer the unit question in reasonable detail
* Some of my self-assessments and reflections demonstrated thought and insight
 |  | **Achievement Level** |
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| 5 – 6 | The student **consistently** displays a satisfactory standard in **both** of the aspects listed above. | * I worked in a manner conducive to focused results in no way detracting from the ability of my peers to do likewise
* I worked effectively throughout the unit, using my time consistently well to stay on time and with the schedule
* I answered the unit question demonstrating thought, offering detail and insight
* All of my self-assessments and reflections demonstrated thought and insight
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