

# Term 1 Coding Assignment 2023

Name: \_\_\_\_\_ Class: \_\_\_\_\_

*Coding is new to the Math curriculum as of 2020. Because of that, some students may not have ventured into coding much at all others may have a lot. Below are the two expectations.*

**C3.1** - solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves the analysis of data in order to inform and communicate decisions

**C3.2** - read and alter existing code involving the analysis of data in order to inform and communicate decisions, and describe how changes to the code affect the outcomes and the efficiency of the code

*As you can see, it would be hard to accomplish this task. As a result, we have designed a task that will be rather open ended. You will be assessed not only on your final product but on your growth too. Coding is an essential part of our education as supported now by its inclusion in our math curriculum. Follow this assignment and discover techniques in coding and how it is used in so many aspects of our daily lives and in so many careers.*

*The following website has a large number of programs for learning code.*

<https://www.common sense.org/education/top-picks/best-apps-and-websites-for-learning-programming-and-coding>

*Also check out the following link to other websites that are good for Grade 7's and 8's.*

[tinyurl.com/2ycr6vwf](https://tinyurl.com/2ycr6vwf) *Feel free to try new ones you may have experience with or have heard of from others.*

*Your assignment is to work with 3-5 different links from the above and to follow the instructions on the site and then record not only your successes but also your frustrations and how you solved them. Finally, you will rate the coding tool and website for students and which grade you think it would best be suited for.*

*One word of caution: some sites have a price to them – avoid them at all costs. Most are free or 'free to try'. Free to try may involve limited functionality or a limited time frame or platform. Please just use the free ones – there are plenty of them.*

*If you have done coding before, you can use them again to become more familiar (try new things with the program) but you should also try brand new ones or could include ones recommended by friends.*

*Remember that this is about learning a new skill but also about learning what to do when you are frustrated and do not know what to do. Be aware of your emotions and your learning – this assignment is about that too.*

Website #1: \_\_\_\_\_

Why did you choose this website? Circle all that apply and/or add your own.

Already heard about it.   Already worked with it.   Someone told me about it.   It looked interesting.   I thought that it would teach me something.   It looked easy.   The write-up looked interesting.   \_\_\_\_\_

What was your product (What did you produce)?

How can you display your work? (URL, personal profile, screenshot, video,...)

What did you find difficult? How difficult was it – did it make you stop trying and quit? There may be more than one thing that was difficult.

If you overcame the frustration, how did you solve it? List the things you did (some things could be to look back in the coding, try something new, ask a friend, start again, read the instructions, re-read the instructions, look up another website to help, look at an example, think through the problem, other \_\_\_\_\_)

What did you learn about coding that you did not know before?

## Website #1 Continued

What did you learn about learning that you did not know before?

What did you learn about yourself that you did not know before?

If you were to rate this coding experience, what would you rate it from 0 to 10? Why?

\_\_\_\_\_

Do you think this website or program is good for Grade 8s? What grade level do you think it would be for? What was it rated at?

What type of coding language was used for the website? (i.e., Python, Scratch, JavaScript, Java, Ruby, Ruby on Rails, C++, HTML, blocky, etc.) If there was more than one, which one(s) did you use?

Would you or did you recommend this to a friend? What would (did) you say to encourage them to use it or not to use it?

Website #2: \_\_\_\_\_

Why did you choose this website? Circle all that apply and/or add your own.

Already heard about it.   Already worked with it.   Someone told me about it.   It looked interesting.   I thought that it would teach me something.   It looked easy.   The write-up looked interesting.   \_\_\_\_\_

What was your product (What did you produce)?

How can you display your work? (URL, personal profile, screenshot, video,...)

What did you find difficult? How difficult was it – did it make you stop trying and quit? There may be more than one thing that was difficult.

If you overcame the frustration, how did you solve it? List the things you did (some things could be to look back in the coding, try something new, ask a friend, start again, read the instructions, re-read the instructions, look up another website to help, look at an example, think through the problem, other \_\_\_\_\_)

What did you learn about coding that you did not know before?

## Website #2 Continued

What did you learn about learning that you did not know before?

What did you learn about yourself that you did not know before?

If you were to rate this coding experience, what would you rate it from 0 to 10? Why?

\_\_\_\_\_

Do you think this website or program is good for Grade 8s? What grade level do you think it would be for? What was it rated at?

What type of coding language was used for the website? (i.e., Python, Scratch, JavaScript, Java, Ruby, Ruby on Rails, C++, HTML, blocky, etc.) If there was more than one, which one(s) did you use?

Would you or did you recommend this to a friend? What would (did) you say to encourage them to use it or not to use it?

Website #3: \_\_\_\_\_

Why did you choose this website? Circle all that apply and/or add your own.

Already heard about it.   Already worked with it.   Someone told me about it.   It looked interesting.   I thought that it would teach me something.   It looked easy.   The write-up looked interesting.   \_\_\_\_\_

What was your product (What did you produce)?

How can you display your work? (URL, personal profile, screenshot, video,...)

What did you find difficult? How difficult was it – did it make you stop trying and quit? There may be more than one thing that was difficult.

If you overcame the frustration, how did you solve it? List the things you did (some things could be to look back in the coding, try something new, ask a friend, start again, read the instructions, re-read the instructions, look up another website to help, look at an example, think through the problem, other \_\_\_\_\_)

What did you learn about coding that you did not know before?

### Website #3 Continued

What did you learn about learning that you did not know before?

What did you learn about yourself that you did not know before?

If you were to rate this coding experience, what would you rate it from 0 to 10? Why?

\_\_\_\_\_

Do you think this website or program is good for Grade 8s? What grade level do you think it would be for? What was it rated at?

What type of coding language was used for the website? If there was more than one, which one(s) did you use?

Would you or did you recommend this to a friend? What would (did) you say to encourage them to use it or not to use it?

Website #4: \_\_\_\_\_

Why did you choose this website? Circle all that apply and/or add your own.

Already heard about it.   Already worked with it.   Someone told me about it.   It looked interesting.   I thought that it would teach me something.   It looked easy.   The write-up looked interesting.   \_\_\_\_\_

What was your product (What did you produce)?

How can you display your work? (URL, personal profile, screenshot, video,...)

What did you find difficult? How difficult was it – did it make you stop trying and quit? There may be more than one thing that was difficult.

If you overcame the frustration, how did you solve it? List the things you did (some things could be to look back in the coding, try something new, ask a friend, start again, read the instructions, re-read the instructions, look up another website to help, look at an example, think through the problem, other \_\_\_\_\_)

What did you learn about coding that you did not know before?

#### Website #4 Continued

What did you learn about learning that you did not know before?

What did you learn about yourself that you did not know before?

If you were to rate this coding experience, what would you rate it from 0 to 10? Why?

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Do you think this website or program is good for Grade 8s? What grade level do you think it would be for? What was it rated at?

What type of coding language was used for the website? (i.e., Python, Scratch, JavaScript, Java, Ruby, Ruby on Rails, C++, HTML, blocky, etc.) If there was more than one, which one(s) did you use?

Would you or did you recommend this to a friend? What would (did) you say to encourage them to use it or not to use it?

Website #5: \_\_\_\_\_

Why did you choose this website? Circle all that apply and/or add your own.

Already heard about it.   Already worked with it.   Someone told me about it.   It looked interesting.   I thought that it would teach me something.   It looked easy.   The write-up looked interesting.   \_\_\_\_\_

What was your product (What did you produce)?

How can you display your work? (URL, personal profile, screenshot, video,...)

What did you find difficult? How difficult was it – did it make you stop trying and quit? There may be more than one thing that was difficult.

If you overcame the frustration, how did you solve it? List the things you did (some things could be to look back in the coding, try something new, ask a friend, start again, read the instructions, re-read the instructions, look up another website to help, look at an example, think through the problem, other \_\_\_\_\_)

What did you learn about coding that you did not know before?

## Website #5 Continued

What did you learn about learning that you did not know before?

What did you learn about yourself that you did not know before?

If you were to rate this coding experience, what would you rate it from 0 to 10? Why?

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Do you think this website or program is good for Grade 8s? What grade level do you think it would be for? What was it rated at?

What type of coding language was used for the website? (i.e., Python, Scratch, JavaScript, Java, Ruby, Ruby on Rails, C++, HTML, blocky, etc.) If there was more than one, which one(s) did you use?

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Would you or did you recommend this to a friend? What would (did) you say to encourage them to use it or not to use it?

## Rubric for Grade 7/8 Coding Assignment 2022

Name: \_\_\_\_\_ Class: \_\_\_\_\_

| Criteria                                                | Level 4                                                                                                             | Level 3                                                                                      | Level 2                                                                        | Level 1                                                                              |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| All parts of assignment are completed (A3)              | 5 or more sites used and reviewed in depth                                                                          | 4 or 5 sites used and reviewed well                                                          | 2-3 sites used or started with some reflection on each or 2 well done          | 2 or less sites used with little reflection or completion – no assistance requested. |
| Reflecting on emotions and overcoming frustrations (A1) | Well explained emotions both positive and negative – insightful and creative use of various problem-solving methods | Explanation of more than one instance of strong emotion and strategy to overcome frustration | Some attempt to reflect on and tune into emotion and try to solve frustrations | Little or no genuine emotion and little effort to solve problems                     |
| Growth in understanding of coding (C3)                  | Various new skills/concepts carefully listed and explained                                                          | New skills learned and previous ones listed too                                              | Some skills listed or referred to                                              | Little or no new learning documented even remotely                                   |
| Due dates are adhered to                                | Entire assignment finished and submitted on time or before                                                          | Work finished on time                                                                        | Some reminders needed or a bit late                                            | Assignment was handed in incomplete and/or after the due date                        |

Agreed upon Due Date(s):

Date of requested review by teacher:

Notes of conference by teacher:

Final Notes by teacher:

Overall Mark: \_\_\_\_\_