

Assignment 2: Unpacking The Science and Technology Curriculum

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Note: [GRASP](#) (Goal, Role, Audience, Scenario, Product/Process) is a model you can try using to write an assignment for your learners. I have modelled it below.

Goal

Demonstrate a critical understanding of the Ontario Curriculum, Grades 1-8, [Science and Technology 2022](#) by studying the *Curriculum context for Science and Technology* section and then analyzing a sample long range plan for a particular grade that was funded by the Ontario Ministry of Education. An understanding of this will also support your third assignment for micro-teaching.

Role

As colleagues in the same grade division, you are conducting a critical inquiry as to whether you should adopt these long range plans for use with the learners in your school.

Audience

Elementary teachers, elementary learners and their families, and community

Scenario

Through the study of the *Curriculum context for Science and Technology*, followed through by learning conversations, you will create a presentation of the *curriculum context for science and technology* and then conduct an analysis of a long range plan using your presentation and an additional tool for equity.

Part 1: Setting the Foundation by Creating a Presentation of the Curriculum Context for Science and Technology

- Go to Ontario Curriculum, Grades 1-8, [Science and Technology 2022](#). Orient your group around the *curriculum context for science and technology* section shown below.
- Divide the 10 areas among your group for a deep study. Each member becomes an "expert" in that area and prepares a summary (ex Cornell note) to share with the rest of the group.
- After the study is complete, together all members create a slide presentation of *curriculum context for science and technology* that showcases important highlights of all the 10 areas.

Curriculum context for Science and Technology	57
Preface	57
Vision and Goals.....	57
The Importance of STEM Education	59
Curiosity and Wonder in Science and Technology.....	60
The Program in Science and Technology	61
Fundamental Concepts and “Big Ideas” in Science and Technology	63
The Strands and Topics in the Science and Technology Curriculum.....	66
Scientific and Engineering Design Processes	69
Program Planning and Cross-Curricular and Integrated Learning in Science and Technology.....	79
Assessment and Evaluation of Student Achievement	86

Part 2: Critical Analysis of the Long Range Plan

- Select one Long Range Plan for a *specific grade and model* from the [Long Range Plans for the Ontario Elementary Science Curriculum](#) to analyze. No two groups can do the same one. The grade you select must fit the PJ or 3I division grade requirements you will be certified to teach.
- Watch this video from timestamp 10:40 to 13:04 to see how the long range plan works: [Primary Ontario Elementary Science and Technology Curriculum Webinar 2022](#).
- Analyze the long range plan selected using this tool: [Assessing Tool for the Science-Technology Curriculum](#). You can make a group copy of this and then complete the analysis. See rubric below for detailed success criteria.

Long Range Plans – Introduction to Resources

These long range plans outline a year-long set of activities for teaching and learning science and technology. Long range plans are living documents that are revised as educators become increasingly aware of the abilities, strengths, needs, and interests of their students. There are two models for these long range plans to provide teachers with a variety of opportunities to create appropriate learning experiences for their students. Curriculum resources for each grade have also been created to support these long range plans.

Primary	Junior	Intermediate
Grade 1 LRP Model 1	Grade 4 LRP Model 1	Grade 7 LRP Model 1
Grade 1 LRP Model 2	Grade 4 LRP Model 2	Grade 7 LRP Model 2
Grade 2 LRP Model 1	Grade 5 LRP Model 1	Grade 8 LRP Model 1
Grade 2 LRP Model 2	Grade 5 LRP Model 2	Grade 8 LRP Model 2
Grade 3 LRP Model 1	Grade 6 LRP Model 1	
Grade 3 LRP Model 2	Grade 6 LRP Model 2	

Performance/Product

- The medium for the assignment is a shareable presentation deck. Slides that must be included are -

Intro Slide	Course, Section, Group Member Names, Instructor, Date
Several slides	Slide presentation highlighting key ideas from the curriculum context for science and technology section of the curriculum This is done through a series of slides that are multimodal in nature. Avoid text heavy slides. Consider adding video/voice to engage the reader. Note: You will not be presenting this slide to the class. The instructor will be the viewer.
One slide	A completed Question Tool for Assessing Long Range Plans. Provide a link to your completed report that is accessible.
Last Slide	This last slide consists of the following three links: 1) Link to a completed Group Project Management Template . This is the best way for your group to stay on task and ensure there is an equal distribution of work. 2) Link to your group's single point rubric where you collectively assess your work. (you can cut and paste from below and create a new document for your group to use) 3) Link to a Google document with all the resources used for this assignment. Include APA citation.

Assessment and Evaluation

Due	Grade Percentage Weight	Submission
Seminar 6	This assignment is 30% of the grade in this course.	Two-step process: 1) Record here first Slide Link List for Assignment 2 2000 List Winter 2024 . 2) Every group member submits the link to the slidedeck on Eclass + PDF version of the slidedeck. 3) Complete this feedback form after completion of the assignment.

Single Point Rubric

You will be assessing your group learning together using the group single point rubric below.

Group Members:

Success Criteria (or Standard)	Evaluate Your Work	Group- Feedback
Review success criteria below which were constructed using the Achievement chart from Growing Success: Assessment, Evaluation and Reporting in Ontario Schools, First Edition, Covering Grades 1 to 12, 2010	Assign a Percentage Grade use the York Grading System below*	Note: This needs to be co-written by all members of the group. Explain where your work is at and why. 1) How have you met the success criteria? What suggestions for improvement or for pushing even further do you have? 2) If you all have self-evaluated as an A+, explain how you have exceeded the success criteria.
Meeting the success criteria as written below is an A grade	Meeting the success criteria is graded as an A.	
Knowledge <ul style="list-style-type: none">Demonstrates a thorough understanding of the <i>curriculum context for science and technology</i> by highlighting key elements from each section using multimodal communication elements in the presentation		
Thinking <ul style="list-style-type: none">Justifies responses thoroughly in the <i>Question Tool for Assessing Long Range Plan</i> using evidence to support all claims thoroughly including findings from the<ul style="list-style-type: none">long range plan document,<i>curriculum context for science and technology</i><i>Seminar learnings</i>science for equity and justice: a practical framework		
Application <ul style="list-style-type: none">Proposes thoughtful suggestions for improvement for the long range plan by transferring knowledge and skills acquired from the from<ul style="list-style-type: none"><i>curriculum context for science and technology</i><i>Seminar learnings</i>science for equity and justice: a practical framework		
Overall Grade (all parts above are weighted equally)		
Group <div><div></div></div> /100 Instructor <div><div></div></div> /100		

York Grade System Undergraduate			Definitions of Grading Descriptions - Undergraduate	
Grade	Grade	Definition	A+ Exceptional. Thorough knowledge of concepts and/or techniques and exceptional skill or great originality in the use of those concepts/techniques in satisfying the requirements of an assignment or course. A Excellent. Thorough knowledge of concepts and/or techniques together with a high degree of skill and/or some elements of originality in satisfying the requirements of an assignment or course. B+ Very Good. Thorough knowledge of concepts and/or techniques together with a fairly high degree of skill in the use of those concepts/techniques in satisfying the requirements of an assignment or course. B Good. Good level of knowledge of concepts and/or techniques together with considerable skill in using them to satisfy the requirements of an assignment or course. C+ Competent. Acceptable level of knowledge of concepts and/or techniques together with considerable skill in using them to satisfy the requirements of an assignment or course. C Fairly Competent. Acceptable level of knowledge of concepts and/or techniques together with some skill in using them to satisfy the requirements of an assignment or course. D+ Passing. Slightly better than minimal knowledge of required concepts and/or techniques together with some ability to use them in satisfying the requirements of an assignment or course. D Barely Passing. Minimum knowledge of concepts and/or techniques needed to satisfy the requirements of an assignment or course. E Marginally Failing. F Failing.	
A+	90-100	Exceptional		
A	80-89	Excellent		
B+	75-79	Very Good		
B	70-74	Good		
C+	65-69	Competent		
C	60-64	Fairly Competent		
D+	55-59	Passing		
D	50-54	Barely Passing		
E	40-49	Marginally Failing		
F	0-39	Failing		

Groups

P	P Group Sign Up and Long Range Plan Selection for Assignment 2 2000 Winter 2024
N	N Group Sign Up and Long Range Plan Selection for Assignment 2 2000 Winter 2024
M	M Group Sign Up and Long Range Plan Selection for Assignment 2 2000 Winter 2024

Video

Part 1: Intro and Part 1 [Recording #65.mp4](#)

Part 2: Part 2 and Evaluation [Recording #66.mp4](#)