

Today's plan

1. **Who** am I planning for & **What** are their needs?
 - Class Profile
 - RTI
2. **What** are the goals & **How** to I stretch them to represent the range?
 - Planning Pyramid
3. **How** do I extend goals to create more **access** and challenge
 - Learning Map

How to Build an adjustable “Plane”

Backwards Design

1. Choose a grade and topic
2. Choose big idea
3. Choose goals for unit
 - 1/3 content
 - 2/3 competencies
4. Build a Learning Map

Backwards Design: Choose the goals

Content

- What do we need to know?

Process

- What do we need to do?

Backwards Design: Choose the goals

Backwards Design

- **Big Idea**
 - What do we need to understand?
- **Content**
 - What do we need to know?
- **Curricular Competencies**
 - What do we need to do?

Flipbook Planning

Miserable

Two-toed

Lizard



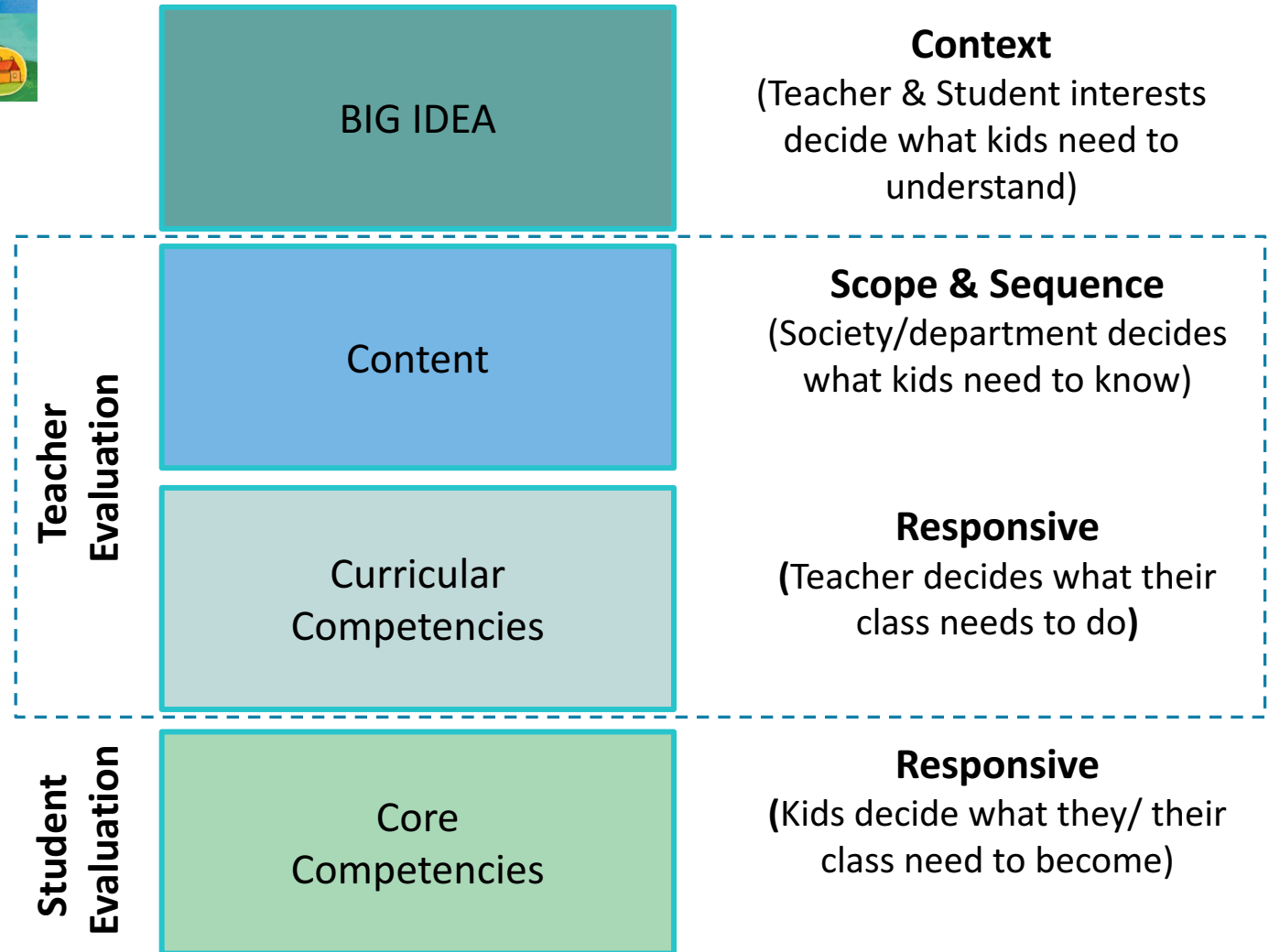
Miserable

Two-toed

Lizard



Flip Book Planning



What is different? The ratios!

PRESCRIBED LEARNING OUTCOMES BY GRADE

GRADE 4

Processes and Skills of Science

It is expected that students will:

- make predictions, supported by reasons and relevant to the content
- use data from investigations to recognize patterns and relationships and reach conclusions

Life Science: Habitats and Communities

It is expected that students will:

- compare the structures and behaviours of local animals and plants in different habitats and communities
- analyse simple food chains
- demonstrate awareness of the Aboriginal concept of respect for the environment
- determine how personal choices and actions have environmental consequences

Physical Science: Sound and Light

It is expected that students will:

- identify sources of light and sound
- explain properties of light (e.g., travels in a straight path, can be reflected)
- explain properties of sound (e.g., travels in waves, travels in all directions)

Earth and Space Science: Weather

It is expected that students will:

- measure weather in terms of temperature, precipitation, cloud cover, wind speed and direction
- analyse impacts of weather on living and non-living things

The goal ratios have shifted



BIG IDEAS

The increasing interconnectedness of global society carries both positive and negative consequences.

Discoveries and innovations can result in progress or decline.

The pace, pattern, and direction of historical change is the product of a highly variable and unpredictable set of processes.

Intercultural contact and conflict lead to multiple complex experiences and perspectives.

Learning Standards

Curricular Competencies

Students will develop competencies needed to be active, informed citizens:

- Use Social Studies inquiry processes (ask questions, gather, interpret and analyze ideas, and communicate findings and decisions)
- Compare different interpretations and assessments of the significance of people, places, events, and/or developments over time and place (significance)
- Ask questions and corroborate inferences about the content, origins, and purposes of multiple sources (evidence)
- Determine key historical turning points that led to progress and decline for different groups (continuity and change)
- Test and/or develop different geographic models and theories (continuity and change)
- Determine and assess the long- and short-term causes and the intended and unintended consequences of an event, decision, or development (cause and consequence)
- Explain different perspectives on past or present people, places, issues, and events, and distinguish between worldviews of today and the past (perspective)
- Recognize implicit and explicit ethical judgments in a variety of sources (ethical judgment)
- Make reasoned ethical judgments about controversial actions in the past and present after considering the context and standards of right and wrong (ethical judgment)

Concepts and Content

Students will know and understand the following concepts and content related to **Canada and the Early Modern World (15th to 18th Century)**:

- relationships between expansion, exploration, and colonization
- interactions and exchanges between explorers and indigenous people, including Europeans and Aboriginal people in North America
- social, political, and economic systems and structures, including those of at least one indigenous society in the world
- religious systems and spiritual practices, including those of at least one indigenous society in the world
- scientific, philosophical, and technological innovations in this period, including cartography and navigation
- the relationship between humans and the physical environment

How to Build an adjustable “Plane”

Backwards Design

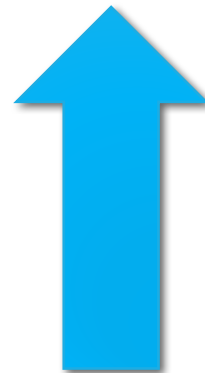
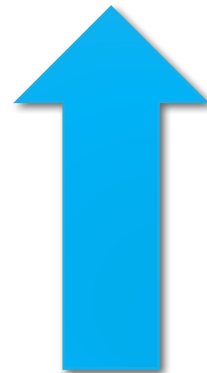
1. Choose a grade and topic
2. Choose big idea
3. Choose goals for unit
 - 1/3 content
 - 2/3 competencies
4. Build a Learning Map

Learning Maps

- Adjustable curriculum
- More than one “standard” designed for the average
- Multiple exit points
- Multiple achievement measures
- Start from access, add on challenge
- Different from a rubric

Rubrics vs. Learning Maps

	deficit	deficit	Standard
goal			



THE SCRUMPTIOUS RUBRIC REFERENCE

BARELY HANGING ON



The customer wants a refund. Bread alone is not a sandwich. It's like you gave the bread and pop out just to show you were listening.

Translation: You only did the small stuff to suffice turning it in. The artwork is missing all important details and signs of understanding or perseverance.

NEEDS SOME UMPH



Your sandwich disappoints the customer. There's no flavor and not enough meat, if any at all. About the only thing great is the Citrus Drop.

Translation: You are missing important details within your artwork. Expectations are not met. Improvement is needed and lack of understanding is present.

GETS THE POINT



Your sandwich met expectations. It has flavor but nothing too exciting. You included the meat but gee, a side of chips would be nice.

Translation: Your artwork meets expectations, you went as far as the requirements expected and you used what knowledge you had to do so.

RIGHT ON!



Your sandwich went beyond expectations. You threw in some extra flavor and tomatoes and surprised the customer with a side of chips.

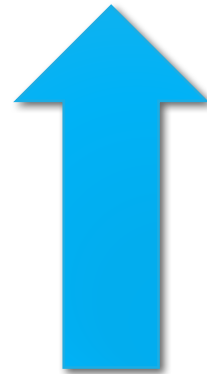
Translation: Your artwork exceeds all expectations; you used creativity, went beyond the basic requirements and showed obvious understanding.

Rubric



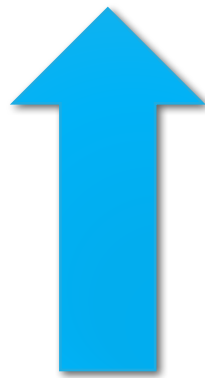
Rubrics vs. Learning Maps

	deficit	deficit	Standard
goal			



One point rubric

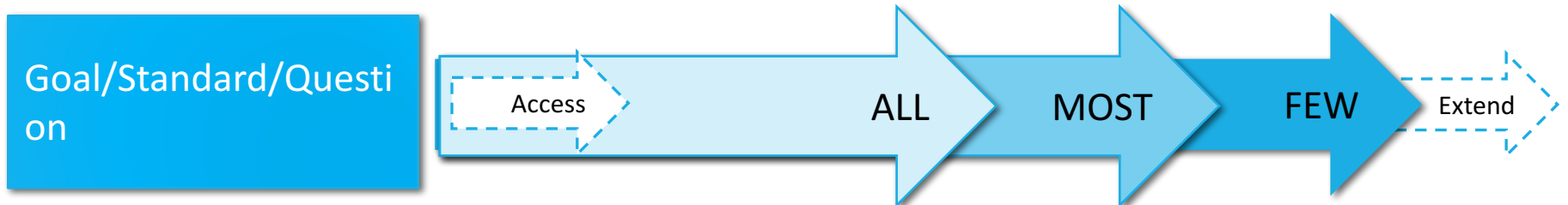
	Standard
goal	



Learning Maps

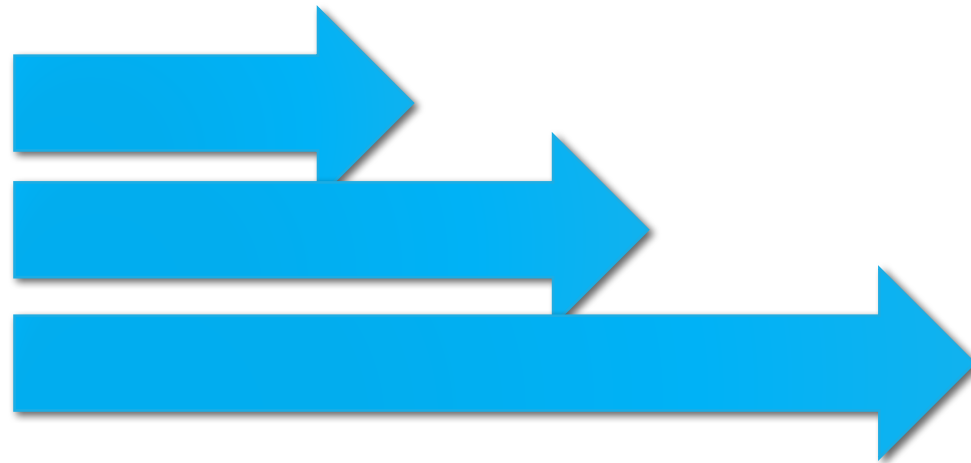
For every goal there is a negotiation of its range

- How can we make this goal more accessible?
- How can we make this goal more challenging?



Learning Map

	Standard (Essential/ Core)	More complex	More complex
goal			



Learning Map






Rubrics vs. Learning Maps

	Standard	More complex	More complex
goal			
goal			
goal			

It's the journey, not the destination



Building a Learning Map!

Course/Subject/Grade(s):		Planning Team:			
Unit Big Idea:		Unit Guiding Question:			
Goals	Access	All	Most	Few	Extension
Content:					
Curricular Competencies					
 Prior knowledge		 Grade Level Curriculum			 Challenge

How to Build an adjustable “Plane?”

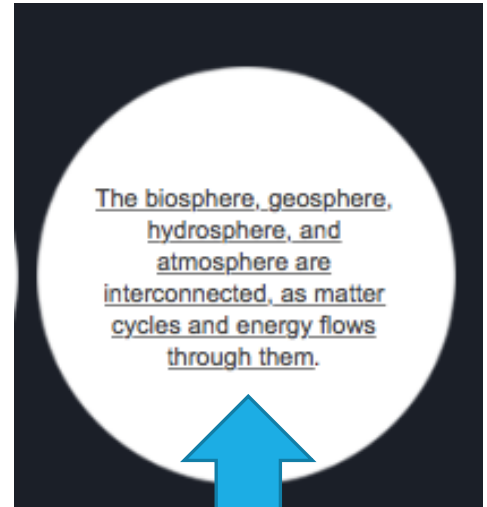
Backwards Design

1. Choose a grade and topic
2. Choose big idea
3. Choose goals for unit
 - 1/3 content
 - 2/3 competencies
4. Stretch the goals!

Science 9

Need to know

- ◆ asexual reproduction:
 - mitosis
 - different forms
- ◆ sexual reproduction:
 - meiosis
 - human sexual reproduction
- ◆ element properties as organized in the periodic table
- ◆ The arrangement of electrons determines the compounds formed by elements
- ◆ circuits — must be complete for electrons to flow
- ◆ voltage, current, and resistance
- ◆ effects of solar radiation on the cycling of matter and energy
- ◆ matter cycles within biotic and abiotic components of ecosystems
- ◆ sustainability of systems
- ◆ First Peoples knowledge of interconnectedness and sustainability



Need to understand

Need do

Questioning and predicting

- ▶ Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest
- ▶ Make observations aimed at identifying their own questions, including increasingly complex ones, about the natural world
- ▶ Formulate multiple hypotheses and predict multiple outcomes

Building a Learning Map!

Course/Subject/Grade(s):		Planning Team:	
Unit Big Idea:		Unit Guiding Question:	
Goals			
Content:			
Curricular Competencies			

Course/Subject/Grade(s): Science 9		Planning Team:
Unit Big Idea: The biosphere, geosphere and atmosphere are interconnected as matter cycles and energy flow through them		Unit Guiding Question: Why do we need the sun?
Goals		
Content: Effects of Solar Radiation		
Curricular Competencies: Questioning	Sustained intellectual curiosity	
	Make observations	
	Hypothesize	

Course/Subject/Grade(s): Science 9		Planning Team:				
Unit Big Idea: The biosphere, geosphere and atmosphere are interconnected as matter cycles and energy flow through them		Unit Guiding Question: Why do we need the sun?				
Goals		Access	All	Most	Few	Extension
Content: Effects of Solar Radiation		I know that the sun gives light I know why the Earth needs light from the sun	I know solar radiation I know the different types of light radiation	I know the effects of solar energy on the cycling of matter and energy on the Earth I know the connection of solar radiation to the water cycle	I know the connection of solar radiation to wind and ocean currents	I know how solar radiation is connected to the distribution of energy and nutrients around the planet
Curricular Competencies: Questioning	Sustained intellectual curiosity	I can wonder about about a scientific topic	I can ask questions about a scientific topic	I can ask questions to further my inquiry about a scientific topic	I can sustain my inquiry about a scientific topic over time	I can sustain an inquiry about a scientific topic of my own interest over time
	Make observations	I can use my senses to observe and describe	I can make observations to identify questions about a topic	I can observe to find patterns to help explain or support a hypothesis	I can observe & make connections to phenomena in the natural world connected to my inquiry	I can observe ethically in the natural world
	Hypothesize	I can come up with possible explanations to my wonderings	I can make an informed hypothesis about a scientific question	I can come up with multiple informed hypothesis about a scientific topic	I can formulate new hypothesis based on new information in an scientific inquiry	I can predict multiple outcomes to my own inquiry

How to Build an adjustable “Plane”

Backwards Design

1. Choose a grade and topic
2. Choose big idea
3. Choose goals for unit
 - 1/3 content
 - 2/3 competencies
4. Build a Learning Map

Math 8: Pythagorean Theory

Course/Subject/Grade(s):	Planning Team:
Unit Big Idea (the circles)	Unit Guiding Question (turning BIG IDEA into a question)



Big Ideas

Number represents, describes, and compares the quantities of ratios, rates, and percents.

Computational fluency and flexibility extend to operations with fractions.

Discrete linear relationships can be represented in many connected ways and used to identify and make generalizations.

The relationship between surface area and volume of 3D objects can be used to describe, measure, and compare spatial relationships.


Analyzing data by determining averages is one way to make sense of large data sets and enables us to compare and interpret.

Course/Subject/Grade(s):		Planning Team:		
Unit Big Idea:		Unit Guiding Question:		
Goals	Access (Tier 3)	All	Most	Few (Tier 1)

Example

Course/Subject/Grade(s): Math 8		Planning Team: Graeme & Shelley		
Unit Big Idea: The relationship between surface area and volume of 3D objects can be used to describe, measure, and compare spatial relationships.		Unit Guiding Question: What is Pythagorean Theory and how does Pythagorean Theory connect, relate, describe and measure, lines and shapes in our world?		
Goals	Access	All	Most	Few

Course/Subject/Grade(s):		Planning Team:		
Unit Big Idea:		Unit Guiding Question:		
Goals	Access	All	Most	Few
Content				

 Content

Students are expected to know the following:

- ◆ [perfect squares and cubes](#)
- ◆ [square and cube roots](#)
- ◆ [percents](#) less than 1 and greater than 100 (decimal and fractional percents)
- ◆ numerical [proportional reasoning](#) (rates, ratio, proportions, and percent)
- ◆ operations with [fractions](#) (addition, subtraction, multiplication, division, and order of operations)
- ◆ [discrete linear relations](#) (extended to larger numbers, limited to integers)

at community, and other cultures

nd representing

- modelling the Pythagorean theorem
- finding a missing side of a right triangle
- deriving the Pythagorean theorem
- constructing canoe paths and landings given current on a river
- First Peoples constellations

◆ [surface area and volume](#) of regular solids, including triangular and other right prisms and cylinders

◆ [Pythagorean theorem](#)

◆ construction, views, and nets of [3D objects](#)

◆ [central tendency](#)

◆ [theoretical probability](#) with two independent events

Course/Subject/Grade(s):		Planning Team:		
Unit Big Idea:		Unit Guiding Question:		
Goals	Access	All	Most	Few
Content:				

Course/Subject/Grade(s): Math 8		Planning Team: Graeme & Shelley		
Unit Big Idea: The relationship between surface area and volume of 3D objects can be used to describe, measure, and compare spatial relationships.		Unit Guiding Question: What is Pythagorean Theory and how does Pythagorean Theory connect, relate, describe and measure, lines and shapes in our world?		
	Access	All	Most	Few
Content: Pythagorean Theorem	I know square root, square, area, right triangle, rectangle, Squares vs rectangle, square compared to other shapes, area of square, all sides are equal, square root, right triangle	I know Pythagorean theorem	I know how to derive the formula for Pythagorean theorem	I know how to find a missing side of a right triangle

Curricular Competencies

Students are expected to be able to do the following:

Reasoning and analyzing

- ▶ Use [logic and patterns](#) to solve puzzles and play games
- ▶ Use [reasoning and logic](#) to explore, analyze, and apply mathematical ideas
- ▶ [Estimate reasonably](#)
- ▶ Demonstrate and [apply](#) mental math strategies
- ▶ Use tools or technology to explore and create patterns and relationships, and test conjectures
- ▶ [Model](#) mathematics in contextualized experiences

Understanding and solving

- ▶ Apply [multiple strategies](#) to solve problems in both abstract and contextualized situations
- ▶ Develop, demonstrate, and apply play, inquiry, and problem solving

Reasoning & Analysis

Understanding & Solving

Communicating & Representing

Connecting & Reflecting

Communicating and representing

- ▶ Use mathematical vocabulary and language to contribute to mathematical discussions
- ▶ [Explain and justify](#) mathematically
- ▶ [Communicate](#) mathematically
- ▶ Represent mathematical ideas

- concretely, pictorially, symbolically, and by using spoken or written language to express, describe, explain, justify, and apply mathematical ideas; may use technology such as screencasting apps, digital photos

Course/Subject/Grade(s): Math 8		Planning Team: Graeme & Shelley			
Unit Big Idea: The relationship between surface area and volume of 3D objects can be used to describe, measure, and compare spatial relationships.		Unit Guiding Question: What is Pythagorean Theory and how does Pythagorean Theory connect, relate, describe and measure, lines and shapes in our world?			
Goals	Access	All	Most	Few	
Content: Pythagorean Theorem	I know square root, square, area, right triangle, rectangle, Squares vs rectangle, square compared to other shapes, area of square, all sides are equal, square root, right triangle	I know Pythagorean theorem	I know how to derive the formula for Pythagorean theorem	I know how to find a missing side of a right triangle	
Curricular Competencies	Reasoning and Analysis	Estimating by comparing to something familiar Using concrete materials to understand above concepts	Using perfect square numbers, I can build a model using concrete materials	Non perfect squares numbers Drawing pictures/ diagrams	Using non whole numbers Using/ applying an abstract formula
	Understanding and Solving	Explore environment to find a right triangle OR find a rectangle and make it into a right triangle	Use an example connected to personal/ familiar experience	Use an example from a context unfamiliar (e.g. word problem)	Use an example connected to first the first nations constellations
	Communicating and representing	Using math vocabulary (square, square root, rectangle, triangle, equal) Explain and justify your thinking in one way (abstract/concrete/pictorial)	Using math vocabulary (right triangle) Explain and justify your thinking in one way (abstract/concrete/pictorial)	Using math vocabulary (Pythagorean theory, formula, non-perfect square) Explain and justify your thinking in two ways (abstract/concrete/pictorial)	Using math vocabulary Explain and justify your thinking in all ways (abstract/concrete/pictorial)
	Connecting and reflecting	What does this problem this remind you of in the world?	Find another solution to a problem	Pose a new problem or question	Continuing my learning outside the classroom

Course/Subject/Grade(s): French 8		Planning Team: Preddy, Fischer & Moore				
Unit Big Idea(s): We can express ourselves and talk about the world around us in French		Unit Guiding Question: How is Canadian culture similar/ different to Francophone cultures around the world?				
Goals	Access	All	Most	Few	Challenge	
Content: French culture		I know which countries speak French around the world	I know specific facts about a Francophone country	I know similarities & differences between a Francophone country and ours	I know how Francophone countries have influences ours	I know how Francophone Canadians have contributed to society
Curricular Competencies	Identify & Share info	I can identify a place that is Francophone	I can choose a Francophone community and describe it	I can identify practices of a Francophone community and share it	I can identify traditions of a Francophone community and share it	I can identify what makes a Francophone community unique from others
	Describe similarities & differences	I can compare a Francophone community to my own (model)	I can compare Francophone holidays & celebrations to my own	I can compare Francophone practices to my own	I can compare Francophone customs & traditions to my own	I can compare relevance of Francophone Holidays to my own
	Exchange ideas & information orally & in writing	I can orally respond to questions about a Francophone community	I can ask and answer questions orally about a Francophone community	I can describe a person and their interests in a Francophone community	I can describe a person and their beliefs in a Francophone community	I can compare a person from a Francophone community Characteristics to myself

Course/Subject/Grade(s): English 10		Planning Team:				
Unit Big Idea: Language shapes ideas and influences others		Unit Guiding Question(s): How can I gather and use information to influence and educate others?				
Goals		Access – This is what I NEED to know and do	All – This is what I MUST know and do	Most – This is what I CAN know and do	Few – This is what I COULD know and do	Extension – This is what I can TRY to know and do
Curricular Competencies: Comprehend & Connect	I can access information from a variety of sources	I can use a print resource	I can activate my prior knowledge I can find a print source	I can find an appropriate digital and visual source	I can find sources from multiple perspectives	I can use an academic database to find a source
	I can synthesize ideas from a variety of text	I can find an idea from a source	I can combine ideas from 2 sources	I can combine ideas from a variety of sources	I can include a source from a different perspective	I can compare perspectives from a variety of sources
Curricular Competencies: Create & Communicate	I can write, design, develop and create engaging informational text	I can write a plan for a persuasive essay	I can write a 5 paragraph essay	I can captivate and engage my reader with a hook statement and stay on topic	I can use persuasive action words in my writing	I can emphasize my thesis throughout my writing
	I can express and support an opinion with credible evidence	I can choose a thesis statement that supports an opinion	I can communicate my opinion I can give evidence to support my opinion	I can use evidence convincingly	I can consider the opposite perspective of an argument	I can describe examples of many perspectives
	I can acknowledge and cite for intellectual property	I can keep track of my sources	I can cite my sources accurately	I can source quotes and cite in text	I can source a variety of text in text	I can source ideas in text