

LESSON PLAN (REVISED 2020)
Secondary Years

Candidate's name: Megan Bassett

Grade/Subject:	Chemistry 11	School	CHSS
Date	May 17 th 2021 (date taught)	Allotted Time	161min
Topic: Ionic Bonding and Nomenclature Part 1			
Cross-Curricular Connections:			

PART 1: PLANNING

Rationale/Pre-Assessment:

Why these students at this time in this way? What is the background knowledge of students to support this learning?

Rationale for the lesson.

- I used this lesson plan during my formative practicum in May. However, I have made modifications to reflect the adaptations that I would make to ensure the success of a student with dyslexia in Chemistry 11.
- Students have just finished their unit on models of the atoms and periodic trends.
- Now, the students have the background information that they need to understand the how and why ions form. Which in turn, can be scaffolded to explain how ionic compounds can be created.
- However, once we learn what ionic compounds are, we also need to show students what the properties of those compounds are and how to talk about them correctly.

Rationale for the teaching strategies.

- In this lesson, we are going to be doing an extra review of science 9 and science 10 due to the COVID-19 pandemic. There were several students who had missed learning the Chemistry unit in school during the transition to online learning. So, we had to take a little extra time to ensure that there were not gaps in learning.
- *Within this class there is a student with dyslexia in the class, so I have made accommodations to ensure that the classroom is inclusive and that the learning is accessible to everyone. This student often struggles with following along and filling in lecture notes accurately, reading comprehension, and spelling which is often exhibited as reversal of letters (Hutchinson & Specht, 2020).*
- *Adaptations that will be available for a student with dyslexia include:*
 - o *Graphic organizers to fill in.*
 - o *A copy of filled in note packages.*
 - o *Audio record lectures.*
 - o *Extra time on assignments and tests.*
 - o *Speech to text / Scribe*
 - o *Textbook available on Kurzweil.*
 - o *Access to spell check.*

Pre-assessment.

- Since this topic is a continuation from the previous topic, the pre-assessment is going to be in part their test grades from the previous unit on the atom and periodic trends.

- We will do a small warm up activity having students create a mind map relating atoms, ions, and periodic trends. Students will work on this in small groups, then contribute to the larger class mind map. Depending where information is coming from in the class, will give information on where the students are at before the lesson. For example, if there is only one group contributing, it is likely that there are gaps in learning that need to be covered. So, at this point I can fill these gaps by continuing to draw the mind map.
- *Story or mind maps are a useful way for students with dyslexia to organize information and create connections between ideas* (Frendo, 2015; Shaw & Anderson, 2017).
- *The outline of a mind map organizer will be available for students at the front of the class. Allowing the student with dyslexia and any other student to use this as a starting point for their pre-assessment* (Hutchinson & Specht, 2020).

Big Ideas: <https://curriculum.gov.bc.ca/> (Curriculum)




What are students expected to understand? How is this lesson connected to the Big Ideas?

The big idea that relates to the present lesson is “Atoms and molecules are the building blocks of matter” (Province of British Columbia, 2021)

- Students are going to learn how to combine ions to create ionic compounds. The creation of ionic compounds is one of the first building blocks in the creating matter.
- Students are going to learn the properties of ionic compounds.
- Students will learn the scientific nomenclature of ionic compounds. This will allow students to have the proper vocabulary to talk about ionic compounds in an appropriate for a scientific audience.

Core Competencies: <https://curriculum.gov.bc.ca/competencies> (refer to “profiles” for some ideas)

Which sub-core competencies will be the focus of this lesson? Briefly describe how and why:

 Communication <ul style="list-style-type: none"> • Communicating • Collaborating 	 Thinking <ul style="list-style-type: none"> • Creative Thinking • Critical & Reflective Thinking 	 Personal and Social <ul style="list-style-type: none"> • Personal Awareness & Responsibility • Positive Personal & Cultural Identity • Social Awareness & Responsibility
<p>Collaborating</p> <ul style="list-style-type: none"> - I am an active listener and speaker. - I can ask clarifying questions and check for understanding when appropriate. (Province of British Columbia, 2021) <p>I want to focus on using the collaborating core competencies to help support students learn ionic bonding and principles. Due to COVID-19, there are many</p>		

<p>students who missed out on the chemistry unit of Science 10, so I am creating a learning opportunity when students can work with their peers and collaborate to support their learning.</p> <p>I want students to also ensure that they are being supportive of the fact that their group members may take more or less time than themselves to solve problems, read, or verbalize their ideas and we need to give them the space to do that.</p> <p><i>This is how I am setting up my classroom to be a safe space for all learners to work at their own pace.</i></p>		
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First Peoples Principles of Learning (FPPL):

How will Indigenous perspectives, knowledge & ways of knowing be acknowledged, honoured or integrated into this learning experience? (Jo Chrona’s Blog: <https://firstpeoplesprinciplesoflearning.wordpress.com/>)

FPPL to be included in this lesson:	How will the FPPL be embedded in lesson:
<p>Learning is holistic, reflexive, reflective, experiential, and relational (Chrona, 2016).</p> <p>Learning takes patience and time (Chrona, 2016).</p>	<p>My goal in this lesson is to focus on the portion of this FPPL that learning is reflexive. Knowing that the background that students have in chemistry at this point is going to be varied. Therefore, we are going to add in review of science 9 and 10 concepts so that all students are brought up to the level of Chemistry 11.</p> <p>In additions we are going to emphasize the idea that learning may take more or less time, for everyone. So, the time it might take someone to grasp a concept may be longer than others, which in turn may be frustrating. But we need to acknowledge that everyone has their own strengths and challenges, and not be judgmental of self. This way we have the space we need to learn in our own way.</p> <p><i>Again, by addressing the FPPL in this way, I am hoping to create a classroom based on the idea that everyone may take more or less time and need different supports.</i></p>

Learning Standards: <https://curriculum.gov.bc.ca/> (Curriculum) – *What will be assessed and evaluated?*

Curricular Competencies: <i>What are students expected to do?</i>	Content: <i>What are students expected to learn?</i>
Use knowledge of scientific concepts to draw conclusions that are consistent with evidence. Communicate scientific ideas and information, and perhaps a suggested course of action, for a specific purpose and audience (Province of British Columbia, 2021).	Sc. 9 review The arrangement of electrons determines the compounds. Ions formed from elements. Names and formulas of ionic compounds (Province of British Columbia, 2021). Sc 11. Chemical bonding based on electronegativity. The impact of bonds and forces on their physical properties (Province of British Columbia, 2021). Students will need to connect their understanding of atom structure to electronegativity and ionization energy to understand ion formation, ionic bond formation, the properties of ionic compounds and the nomenclature of binary ionic compounds.

Assessment Plan:

Opportunities for feedback, self-assessment, peer assessment and teacher assessment. What structures or rubrics will you use to evaluate student learning? Include the assessment tool used (e.g., Performance Standard Quick Scale).

FORMATIVE ASSESSMENT:

- Observation: I am going to go around the classroom and talk to all the groups, with a class list so I can make notes of where students are at.
 - o I will be observing students and asking questions to check their grasp on the properties of ionic compounds.
 - Can you explain to me why a solid ionic compound forms a crystal lattice?
 - The electrostatic attraction of the positive and negative ions pulls the ions together to create a bond. However, the positive ion end of an ionic compound will also be attracting the negative ion end of other formula units leading to the creation of the crystal lattice.
 - If you were to compare the melting point of a ionic compound to a pure metal which one would be higher? Why?
 - It is going to take more energy to separate ionic compounds from each other (which occurs in the process of melting) because of their strong intermolecular forces.
 - o I will be observing students and see if they are following the nomenclature protocol for ionic compounds.
 - I want to see students using the cation name, followed by the anion with the suffix -ide.
 - I want to see students writing the ionic formulas balancing the charges then writing the resulting subscripts under the element symbol.
 - Ie: NaCl, Sodium chloride.

- *Through these observations and conversations students with dyslexia can express their learning orally to me, which is often more accessible to them than through written word. I can then check their understanding of the content and fill in any gaps as required.*
- Journal
 - The formative journal is a journal created through the medium of their choice, that they can use to reflect on their learning, show growth in their understanding, and hand in so that I can give them formative feedback.
 - Today they are going to add in connections to their previous mind map in what connections they learned today. *Using this preexisting mind map will be useful to draw new connections for students who struggle with comprehension of reading* (Shaw & Anderson, 2017; Frendo, 2015).
 - Summarize the main points from today:
 - *I will be giving student with dyslexia a guided approach, where the idea of what they should have been gained from the lesson* (Hutchinson & Specht, 2020).
 - What are the physical properties of ionic compounds?
 - Soluble in water
 - High melting point and boiling point
 - Form crystals
 - Hard and brittle
 - Good conductors
 - Does the metal act as the electron donor or acceptor and why?
 - I want students to tell me that because those nonmetals are more electronegative than metals. This means that they are going to attract neighboring electrons towards them. This makes them the electron acceptors in an ionic compound.
 - Nonmetals have very high ionization energy. So, it would take a lot of energy to take away their electron making it unlikely that they would be the electron donor.
 - Conversely, metals have low electronegativity, so they are not attracting the electrons from neighboring atoms. Metals have low ionization energy, taking an electron away from them is relatively easy. Therefore, they are the electron donor.
 - Nomenclature of ionic compounds.
 - Naming the cation first.
 - Naming the anion second using the suffix “-ide”.
 - Self-assessment about the content:
 - What did you do to support your group today?
 - What was your greatest stretch and strength?

SUMMATIVE ASSESSMENT:

- Quiz: Later in the week.
- Summative test later in the week.
 - The type of questions that are going to be used in the quiz and in the summative unit test will include short and long answer questions. Using multiple choice and fill in the blank are not often accessible to students with learning disorders including dyslexia (Hutchinson & Specht, 2020).
- Student with dyslexia may use the following accommodations:
 - *A scanned version of the test through Kurzweil to be able to listen to the questions* (Hutchinson & Specht, 2020)

- *Voice to text to record answers or use of a scribe* (Hutchinson & Specht, 2020; Yale Center for Dyslexia and Creativity, 2017)
- *Spell check on their test* (Yale Center for Dyslexia and Creativity, 2017; Hutchinson & Specht, 2020).
- *Extra-time* (Hutchinson & Specht, 2020; Yale Center for Dyslexia and Creativity, 2017).
- In terms of marking:
 - *No marks will be taken off for spelling except for following the rules for nomenclature.*
 - *Ionic compounds must begin with the cation and have the anion that ends with the suffix -ide.*
 - *However, mixing up letters in the middle due to a learning disability is not going to be punished, as the learning intention has been communicated* (Hutchinson & Specht, 2020).

<p>The Learning Intention: <i>What will students learn in this lesson? (i.e. Learning Standards)</i></p>	<p>Ionic bond in terms of electronegativity and ionization energy. Ionic nomenclature.</p>
<p>Evidence of Learning: <i>How will students demonstrate their learning? What does it look like?</i></p>	<p>In my observations, the evidence I will see of learning is students identifying the role of high electronegativity in nonmetals being electron acceptors, and low electronegativity in metals causing them to be electron donors. I will also observe student being able to apply the steps to nomenclature on their worksheet. The evidence that I will be collecting of their learning will be in their journal of their review of class and addition to their pre-assessment mind map.</p>
<p>Criteria: <i>What do students need to do to meet or achieve the learning intention?</i></p>	<p>Students need to be able to describe how electronegativity and ionization energy of metals and nonmetals impact their reactivity in the formation of ionic bonds when they are talking to myself, their partners, and on their journal.</p> <p>Students need to be able to name binary ionic compounds from their formula units by following the rules of nomenclature when filling out their worksheet and their journal.</p> <p>Students need to be able to convert the written name of an ionic compound into a balanced formula unit on their worksheet and on their journal.</p>

Planning for Diversity:

What is the Learning Target? <i>In what ways does the lesson meet the needs of diverse learners? How will you plan for students who have learning/behavior difficulties or require enrichment?</i>		
Students need to/must do	Students can do	Students could do/try to
<p>Students need to be able to communicate orally name binary ionic compounds with few mistakes.</p> <p>Students need to convert named ionic compounds to formula units with few mistakes.</p> <p>Students need to be able to describe how ionic compounds form with few errors.</p> <p>Students can name the properties of ionic compounds.</p> <p>May use speech to text and technology and spell check to demonstrate ability (Yale Center for Dyslexia and Creativity, 2017).</p> <p>Access/All</p>	<p>Students need to consistently name binary ionic compounds from given formula units.</p> <p>Students need to consistently convert named ionic compounds to formula units.</p> <p>Students can accurately describe ionic properties.</p> <p>Students can describe why the properties of ionic compounds due to their bonds.</p> <p>Most</p>	<p>Students can create their own ionic compound combinations and name them.</p> <p>Students can create their own ionic compound formulas.</p> <p>Students can predict the relative properties of different ionic compounds based on their position on the periodic table based on their understanding of ionic bonds.</p> <p>Few/Challenge</p>

Resources, Materials, and Technology Preparation: *What resources, materials and preparation are required?*

Lesson:

- Photocopy note packages with blanks (for all students) and a filled in copy (for student with dyslexia) (Hutchinson & Specht, 2020).
- Photocopy worksheet sheets.
- Photocopy of the graphic organizers for pre-assessment and for rules in following nomenclature (Hutchinson & Specht, 2020)
- Set up and load YouTube video as visual representation of ionic compounds - <https://www.youtube.com/watch?v=TxHi5FtMYKk>
- Microphone for recording lecture audio. (Hutchinson & Specht, 2020)

Technology available for student support:

- Kurzweil copy of the textbook (Hutchinson & Specht, 2020).
- Laptop/Tablet for student to use voice to text (Hutchinson & Specht, 2020).

PART 2: TEACHING

Teacher Activities:	Student Activities:	Pacing
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<p>Before Lesson: <i>Post and/or explain agenda of class; post the Core Competencies or FPPL; post the learning intentions; etc.</i></p> <p>Post the daily schedule and explain the core competency and FPPL that we will be using today: Core competency: Collaborating</p> <ul style="list-style-type: none"> - I am an active listener and speaker. - I can ask clarifying questions and check for understanding when appropriate. <p>FPPL to consider today:</p> <ul style="list-style-type: none"> - Learning is holistic, reflexive, reflective, experiential, and relational. - - Learning takes patience and time. - <i>Here I am going to really emphasize the class rules of being respectful, patient, and quiet when anyone else is talking. This means not interrupting. It also means being supportive of others for trying their bests. I have created this classroom as a safe space for students with any learning disabilities to participate and not be afraid of being judged or made fun of.</i> 	<p>Students can listen and start thinking about the core competency and FPPL that we will be using today.</p>	<p>5min</p>
<p>Motivator/Start of Lesson: . <i>How will you introduce this lesson in a manner that engages students and activates their thinking/connections to prior knowledge?</i></p> <p>I am going to motivate the lesson by having students take five minute and draw a mind map of their understanding of and connections between the following terms: atoms, ions, periodic trends.</p> <p>I will let students know that there are graphic organizers available at the front to use as a starting point and to help them organize their thoughts. <i>This is a support to help the student with dyslexia begin their review and help them make connections between concepts</i> (Frendo, 2015;</p>	<p>Take a minute and draw a web diagram of what we understand already about the following terms: Atoms, ions, periodic trends.</p>	<p>5 min</p>

<p>Shaw & Anderson, 2017). <i>This is a set up to incorporate the new ideas into their ideas about</i></p> <p>During this time, I can take a walk around the room and observe how students are filling out their mind maps. I can give suggestions if students are stuck.</p>		5 min
<p>Now I will ask students to share concepts and connections that they drew on their mind maps. I am looking for the connections between atoms, ions, and periodic trends.</p> <p>I will draw class summarized mind map from their ideas.</p> <p>Depending on the depth of information given or if it is only from one group I will provide a more in depth review of the content and their connections. knowledge will help all students remember but also help to fill in the gaps in background knowledge. (<i>Which is often associated in students with dyslexia and their ability to use short term and working memory in terms of text</i> (Shaw & Anderson, 2017).</p>	<p>Students are listening and participating and filling me in on where they are in the learning.</p> <p>Students can contribute their ideas to the class conversation.</p>	5 min
<p>To follow I will use this concept map to Motivate how the underlying principles of atoms, ions, and periodic trends lead to the creation of ionic compounds.</p> <p><i>This preview of information / the learning targets is essential for students with dyslexia because it allows them to understand what key points to pull from the oncoming information</i> (Hutchinson & Specht, 2020).</p>	Students can listen	
<p>During Lesson:</p> <ul style="list-style-type: none"> • <i>Brief points about the content</i> • <i>Sample questions</i> <p>We are going to do a lesson on:</p> <ul style="list-style-type: none"> - Chemical bonds: What is a chemical bond. What are the two kinds of attractive forces that draw atoms together? - Role of valence electrons: What is a valence electron? How do valence 	Students are filling in the blank lines in their notes, trying examples, and asking questions.	45min

electrons impact the reactivity of elements?

- Ions: What is an ion? How is an ion formed? What is a cation? What is an anion? Draw a diagram for both.
- Formation of Ionic bond: How do valence electrons interact in an ionic bond? What role does an elements electronegativity and ionization energy play in their ability to create ionic bonds?
- Ionic compounds: What is an ionic bond? What is the 3D structure of an ionic compound? → Sketch a diagram and watch a piece of the YouTube video.
- Physical properties of ionic bonds: Using our understanding of what an ionic bond is, can we guess if the physical properties of a compound like NaCl?
- Guide through the first one, then let them determine the others. Follow up and check student hypothesis by finishing the video and explaining each.
- Nomenclature of binary ionic compounds- using a step-by-step method of naming the first kind of ionic compounds. Naming the cation first, followed by the anion. Then changing the suffix of the anion to “-ide”.
- Then we are going to change the name to a formula unit, by looking at the ionic charge for each ion, then balance charges to a net charge of zero.

During this teaching, I am going to be playing a muted version of the YouTube video “Ionic Compounds and their properties – Fuse School”. To create a visual and dynamic picture of each of the preceding properties.

→ *During this lesson I will be using a microphone to allow me to audio record the lecture for my student with dyslexia (Hutchinson & Specht, 2020). This way, it will allow the student the*

<p><i>chance to go back and follow the lecture along with their notes while studying if required.</i></p> <p><i>→I will be providing pre-filled in copies of the notes to the student with dyslexia so that they can focus on the information rather than trying to copy (Hutchinson & Specht, 2020).</i></p> <p><i>→I will be including visual representation of the concepts in pictures/ diagrams in the notes along with short videos to help students with dyslexia understand the concepts (Hutchinson & Specht, 2020; Yale Center for Dyslexia and Creativity, 2017)</i></p> <p><i>→I have also prepared a flow chart (graphic organizer) for students with dyslexia for the naming protocol so that if the step-by-step method is not accessible (Hutchinson & Specht, 2020).</i></p>		
<p><i>Break – take class outside for a walk around the field</i></p>	<p>Break – as group go for a walk around the field</p>	<p>15min</p>
<p>Activities to apply learning: I am going to write a short list of the expected work to do in the second half of the period on the board.</p> <ol style="list-style-type: none"> 1- Rally coach procedure for nomenclature 2- Textbook questions on the properties of ionic compounds 3- If you are done early move on to the journal. <p><i>By presenting the work in this way, then no matter how quick students are in their work, they will know what to do next.</i></p> <p><i>I will give the adapted version to the student with dyslexia where there are a set of must do questions, and extension questions.</i></p> <p>1) Students can choose a partner to work on a the nomenclature worksheet. I will explain verbally, through modeling, and on written instruction of how to do the rally coach procedure for group work.</p> <ul style="list-style-type: none"> → Students will work in pairs → Student a will do one questions and verbally outline their thinking, then write down their answer. Then Student B can 	<p>1) Rally Coach Procedure – Ionic compounds properties and naming.</p> <ul style="list-style-type: none"> → Students will work in pairs → Student a will do one questions and verbally outline their thinking. Then Student B can listen, coach, and help their partner where necessary. Then Switch. 	<p>25 min</p>

<p>listen, coach, and help their partner where necessary. Then Switch.</p> <p>➔ Uses their collaborative listening and problem-solving competencies.</p> <p><i>This way all the instructions have been given in a way that supports all learners.</i></p> <p><i>In addition, this practice of verbalizing the ideas and practicing reading aloud while immediately, reflecting on them with support, and then write down the answers and check to make sure that spelling is correct. Is a great method of both students with learning exceptionalities and students without to slow down their writing and thoughtfully explore the learning (Yale Center for Dyslexia and Creativity, 2017).</i></p> <p>2) The second task that I want students to do is complete textbook questions about ionic compounds and properties.</p> <p><i>There will be a reduction in assigned practice questions for the student with dyslexia because it takes them more time for them to do these written tasks (Hutchinson & Specht, 2020).</i></p> <p><i>In addition, the student can use their audio textbook and speech to text to record their answers (Hutchinson & Specht, 2020; Yale Center for Dyslexia and Creativity, 2017).</i></p> <p>During the work period I will be:</p> <ul style="list-style-type: none"> - Make observations <ul style="list-style-type: none"> ○ I will be observing students and asking questions to check their grasp on the properties of ionic compounds. <ul style="list-style-type: none"> ▪ Can you explain to me why a solid ionic compound forms a crystal lattice? ▪ If you were to compare the melting point of an ionic compound to a pure metal which one would be higher? Why? ○ I will be observing students and see if they are following the nomenclature protocol for ionic compounds. <ul style="list-style-type: none"> ▪ I want to see students using the cation name, followed by the anion with the suffix -ide. 	<p>➔ <i>During this process, the student with dyslexia may choose to use voice to text or have the other student scribe for them because of the importance of spelling during chemical nomenclature. However, they can explain their understanding of the concepts through other output means</i></p> <p>2) Students can work independently or in groups to answer the textbook questions.</p>	<p>25 min</p>
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<ul style="list-style-type: none"> ▪ I want to see students writing the ionic formulas balancing the charges then writing the resulting subscripts under the element symbol. - Help with any parts students are not understanding or need extra support in. - <i>This is also the time I can help students with dyslexia practice their reading and pronunciation of chemical compounds (Hutchinson & Specht, 2020)</i> 		
<p>Review/Summary: We are going to go over the answers to the nomenclature work sheet. I will explain that students are going to take turns going around the room and reading out the answers. I will also give them the option to say pass, understanding that I will come back and give them another opportunity to be successful.</p> <p><i>This give the student with dyslexia practice in pronouncing difficult words, public speaking, and reading aloud, however also gives them safety of being able to say pass depending on how they are feeling. In addition, it allows a chance to help and make corrections (Hutchinson & Specht, 2020).</i></p> <p><i>The textbook questions have answers, and there may be some students that still have to finish this for homework and will be talked about on the following day.</i></p>	<p>Review:</p> <ul style="list-style-type: none"> - Students will be reading out the answers. - Students will be marking their own. - Students will be asking questions. 	15min
<p>Closure: Afterwards, students are going to move on to filling in their journals by answering the questions on the board. This will allow students to summarize the main ideas of the lesson.</p> <ul style="list-style-type: none"> - Add in connections to their previous mind map in what connections they learned today. - What are the physical properties of ionic compounds? - Does the metal act as the electron donor or acceptor and why? 	<p>Students can take their choice of medium and write their journal entry.</p> <p>Students will hand in their journals for formative feedback.</p>	15min

- What are the rules for naming binary ionic compounds?

Self-assessment about the content:

What did you do to support your group today?

What was your greatest stretch and strength?

This journal can be done in any medium. This way the student with dyslexia can use speech to text and spell check to help them express their ideas (Hutchinson & Specht, 2020; Yale Center for Dyslexia and Creativity, 2017). In addition, using this reviewing method by creating a concise list, and additions to their previous mind map will allow students to access the main ideas easily in the future (Shaw & Anderson, 2017; Hutchinson & Specht, 2020).

***Finishing early: Gives students a chance to organize their binder, the classroom, or start pre-reading the following chapter of the textbook on covalent compounds. ***

After class I will be reading the journals to give formative feedback to students, and also be able to assess if we need to review more or move on.

PART 3: REFLECTION

I would love to try this lesson with the modifications that I added in for the student with dyslexia. I think that the change in structure and activities of the class would have a positive impact on all students.

References

- Chrona, J. (2016, April). *First Peoples Principles of Learning*. Retrieved from First Peoples Principles of Learning: <https://firstpeoplesprinciplesoflearning.wordpress.com/>
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Lesson Planning Guide (adapted from Thompson Rivers University)

The lesson plan template is designed as a guide for students to use when planning lessons. The plan may be adapted to specific subject areas and modified as students gain experience or to suit their presentation style. The template is a basic outline that can be used directly as printed or expanded from the electronic version. It is important that the lesson plan be sufficiently clear and detailed so that another teacher could use the plan to teach the lesson.

Rationale: *Why are you teaching this particular lesson at this time? One consideration is the context for the lesson (e.g. this introductory lesson determines what students know and want to know about the topic, this lesson relates to previous and future learning by). Another consideration is student motivation (e.g. what are some reasons the learner might care about the content/concepts/ skills for future learning, careers, or interests?).*

Curricular Connections:

The curriculum asks you to plan what the students will DO, what they will KNOW, and then what they will UNDERSTAND. Big ideas capture the “big picture” or general area of learning (e.g. inter-dependence of living things with the environment, stories are a source of creativity and joy) and will be what students come to UNDERSTAND. Curricular competencies are what students will DO in their learning activities (e.g. using comprehension strategies, sorting and classifying data, making ethical judgments) that are related to each discipline. The learning standards for content or concepts are a more specific consideration of what students will come to KNOW. Many of the standards are written in broad, general terms to allow flexibility. You can, using the intention of the standard, make it clearer and more specific (e.g. learners will be able to describe the main idea in a paragraph or story, learners will be able to classify leaves based on properties they identify). The lesson should make a connection to both types of learning standards – curricular competencies as well as content. A reminder that the direction of new curriculum has identified core competencies of thinking, communication, and personal / social development as a foundation for all curricula.

Learning Intentions: *How can you make clear and share with your learners what they are going to learn or have learned or accomplished? Statements like: “I can add two fractions” help frame their learning in positive student language.*

Prerequisite Concepts and Skills: *What concepts and skills are needed for students to be successful? This communication helps connect lessons together in a logical sequence by building/scaffolding new knowledge onto previous learning. For example, if students are going to be engaged in debate did you build or scaffold group work strategies, communication skills, expected etiquette, criteria beforehand?*

Materials and Resources /References *List all materials and resources that you and the students will need. What things do you need to do before the lesson begins? (e.g. prepare a word chart.) What things do the students need to do? (e.g. read a chapter in the novel.) Have you honoured the sources of ideas or resources? Disorganized materials can ruin a great lesson.*

Differentiated Instruction (DI): (accommodations): *How will you accommodate for diverse learners in your class? How will you allow for some variety in expression of learning? How can you modify the learning activities for success? How can you provide engaging extra challenges for those that are ready? How might you alter the learning environment if needed? Have you considered Aboriginal and cultural influences? IEP's?*

Assessment and Evaluation: *Did the students learn what you taught them? What tools might you use for assessment (e.g. check list, rubric, anecdotal record). How will you provide formative feedback to students about their learning? The results of the assessment should be directly connected to what your students were able to write say or do related to the learning intentions and or curriculum. Strive for accuracy and build assessment into teaching and learning and not as an “add on” at the end.*

Organizational/Management Strategies: *Have you thought-out organizational management strategies to facilitate a proactive positive classroom environment? Some examples are: organizing for movement, distributing and collecting materials, grouping strategies, blended grade classroom logistics.*

Aboriginal Connections / First Peoples Principles of Learning: *Are there any connections to Aboriginal or other cultural knowledge, worldviews, or principles of learning?*

Lesson Activities/Structure:

Connect: *How will you get students interested/motivated/ hooked into learning? How will you connect this lesson to past and future lessons? How can you share the learning intentions in student friendly language? How will you provide a lesson overview?*

Process: *What sequence of activities will the student's experience? What will you do? What will they do? Estimate how much time will each activity take (pacing)? What are grouping/materials strategies? There are many ways to describe the body (step by step, two columns dividing student and teacher activities, visual flow chart of activities and connections, others?)*

Transform: *How will students apply and personalize the learning? What will they do or create to show you that they have learned?*

Closure: *How will the lesson end? (e.g. connecting back to learning intentions, summarizing learning, sharing of accomplishments, connecting to next lessons). Google "40 ways to close a lesson."*

Reflections: *Complete the reflections section as soon as possible after teaching the lesson. What went well? What revisions would you make to the lesson? Anything else?*