

Lesson Plan Template (Grades 1 to 10)

This annotated lesson plan template provides you with guiding questions for each area you need to consider as you learn how to plan effective lessons. You are encouraged to also refer to your *Planning for Student Learning (ETFO)* Resource. There are detailed instructions and guidance to assist you with lesson planning that can be found in Chapter 6 (pgs. 57-76).

Effective lesson planning is an essential skill all teachers must learn. Remember that your lesson plans should always be written in such a way that another teacher can easily follow your plan, step-by-logical step. You are expected to share your lesson plans with your Faculty Advisor and your Associate Teacher for feedback prior to teaching the lesson.

You will find detailed Success Criteria for your lesson planning [here](#) after the annotated template. You will also find an appendix that contains Elements of Differentiated and Inclusive Instruction [here](#).

Teacher Candidate: <i>Evangelin Milonas</i>	Date: <i>December 7th, 2023</i>
Grade Level(s): <i>4/5</i>	Subject/Strand: <i>Science: Exploring and understanding concepts Strand C</i>
Lesson Title: <i>Grade 4: Is light considered natural or artificial?</i> <i>Grade 5: What is a chemical change?</i>	Unit of Study: <i>Grade 4 - light and sound</i> <i>Grade 5- matter and energy</i>
Lesson Overview: <i>Students will learn how to identify natural and artificial sources of light, as well as a chemical change.</i>	

PART 1: PREPARING THE LESSON

Ontario Curriculum Overall Expectations: <i>Grade 4</i> <i>C2 demonstrate an understanding of light and sound as forms of energy that have specific characteristics and properties</i> <i>Grade 5</i> <i>C2 demonstrate an understanding of the properties of matter, changes of state, and physical and chemical change</i>	Ontario Curriculum Specific Expectations: <i>Grade 4</i> <i>C2.1 identify a variety of natural and artificial light sources</i> <i>Grade 5</i> <i>C2.5 describe chemical changes in matter as changes that result in the formation of different substances, and identify signs that a chemical change has occurred</i>
Big Idea/Enduring Understanding: <i>Students will leave the lesson with the knowledge of natural and artificial light sources, as well as identifying the signs of a chemical change.</i>	
Essential/Key Question(s) <i>What are artificial and natural light sources?</i> <i>What is a chemical change?</i> <i>How can you identify a chemical change?</i>	

What are the signs of a chemical change?

Student Learning Goal(s):

- ✓ We are learning to identify natural and artificial sources of light
- ✓ We are learning to identify and describe changes of a chemical reaction

Student Success Criteria:

- ✓ We can identify natural and artificial sources of light
- ✓ We can identify and describe changes of a chemical reaction

Learning Skills and Work Habits: Check any that apply to this specific lesson. Learning skills and work habits is one area that is assessed and evaluated for reporting purposes and is included in both Progress Reports and Report Cards. You will find more information and a description of each on pages 9-12 in the Ontario [Growing Success Policy Document](#).

- Responsibility
- Organization
- Independent Work

- Collaboration
- Initiative
- Self-Regulation

Necessary Prior Knowledge, Skills, and/or Previous Lesson: What must students first now and/or be able to do to be successful with this new learning? How does this lesson fit in with previous lessons on this topic?

Grade 4 - Students must know that light can travel in different paths. In the previous lesson the students learned about refraction of light.

Grade 5 - Students must know the three different states of matter, solids, liquids, gases. In this lesson they will explore matter further, and see how it relates with energy during a chemical change.

New Vocabulary: What new/essential vocabulary will be introduced or emphasized during this lesson? How will you do this?

- **Illuminates** - make something visible
- **Tarnish** - loses its luster due to the air
- **Bioluminescence** - animals that create their own light

Inclusive Design Considerations: **are related to Equity/Diversity/Indigenous Perspectives/Culturally Relevant Resources and Pedagogy.** Ask yourself the following questions as you plan your lesson and after you are finished to ensure you have considered questions such as:

This lesson is intended for both the grade 4 and grade 5 class. The lesson contains differentiated instruction and many forms of Universal Design of learning. The students have a slide deck to follow along with as well as a couple activities, and a demonstration at the end where they will be able to learn from and consolidate their learning on an exit ticket. I have also included videos to demonstrate the information. The videos I have chosen were developed recently.

The lesson is quite diverse. I will have Hands-On activities as well as videos, and an exit ticket for the students. I decided against posting an exit ticket online for the students to complete, due to the fact that they have to observe a

demonstration, and I do not want them to risk damaging their Chromebooks up at the table as I do the demonstration. I have spread out my time evenly and believe that my time frames will be appropriate for the lesson on the day of.

One thing that I know about my students is that they are emerging with technology. The lesson that I have created is done on Google slides and I have included my bitmoji as well as GIFs in the slides to keep my students engaged. I have also introduced color and color coded each topic for my visual learners.

There are not current events or issues that I can relate this topic to, however I am able to relate lights, stage lighting, laser tag, and concerts in order to obtain great use of crpp.

Please refer to related coursework and the Elements of Differentiated and Inclusive Instruction list found [here](#)

Learning Environment Considerations & Safety:

The minds on portion of this lesson will be conducted at the table groups where the students are sitting. The action portion will be conducted by the smart board, the students must bring their chairs up to the front and you the slide deck. Later on in the action portion I will have the students play a matching game with one another before rejoining at the center table to consolidate their learning while I demonstrate an experiment of a chemical change.

I will have the slide deck up and ready from the start. I will put water in the kettle and let it heat up when we begin the chemical change portion of the lesson. I will ask one member from each group to come to the front and grab an envelope. I will also have my exit ticket ready, matching game ready, as well as the materials that I need for the demonstration. The materials needed for the demonstration include aluminum foil, a bowl, boiling water, silver jewelry, and baking soda.

Resources:

<https://study.com/academy/lesson/light-energy-sources-lesson-for-kids.html#:~:text=Natural%20sources%20of%20light%20include,light%20is%20created%20by%20humans.>

I used some of my old resources from high school to refresh my memory of the five signs of a chemical change.

I created all other resources and linked the YouTube videos that I have included in the slide deck.

ASSESSMENT: Assessment FOR Learning

I have created an exit ticket that my students will be able to fill out as they watch my demonstration. They will observe the demonstration and compare what they see before, during, and after the experiment. I would like my students to reflect on their learning and explain what types of chemical changes they witnessed.

Specific Assessment Tool(s):

Consider how you will document (record) evidence of learning. Over time you will want evidence of student learning in different ways (Observations, Conversations, and Products).

The students will be assessed based on products. although I will not be evaluating their conversation during the minds on activity as well as the latter portion of the action. I will be observing to get a good idea of who seems to be grasping the material and who is not.

The categories of the achievement chart that I will be assessing includes knowledge and application. Responsibility, independent work, initiative, and collaboration will be assessed during this lesson. I will be observing how the students are able to collaborate during the minds on portion of the lesson. From the exit ticket I will be able to tell if they have taken initiative towards understanding and trying to grasp the material that was presented in the lesson today. I will also get a good idea of how they are when they have to work independently. All the students will be assessed. This assessment will

occur after the lesson.
 I will collect the exit tickets and scan them. I will also create a Google Sheets where I will be able to reflect on each of their exit tickets, and assess their success for this lesson.

DIFFERENTIATED INSTRUCTION: What instructional, environmental and/or assessment accommodations will help students to be successful? Refer to related coursework and pages 69-70 in your *Planning for Student Learning (ETFO)* resource for a detailed list of accommodations.

I will have the students sit in their table groups, as well as finding their designated partner for the latter activity. The students will be able to learn and grow from one another's learning. These are the ways in which the accommodations for students will be most successful. Each group will have a mix of grade 4 and 5 students.

LESSON Accommodations and/or Modifications

- Content
- Process
- Product

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For students who prefer to orally communicate their answers from the exit ticket, I will give them the opportunity to come to my desk at the end of class and I will ask them the same questions that are on the exit ticket. I will record their response on my computer. For the content of the lesson, I have color coded many of the components as well as including different forms of universal design. I have included visuals, written text, as well as videos.

Student IEP Related Differentiation:

For reading, all students are at their grade level. The following students have an IEP for writing:

ESL student:

These students will be accommodated by working in groups with others

PART 2: TEACHING THE LESSON (Lesson Design: 3-Part Lesson)

<p>Total Length of Period: 60 min</p> <p>Estimated Time:</p> <p>Minds on - 10 minutes Action - 35 minutes Consolidation - 15 minutes</p>	<p>Instructional Strategy</p> <p>Minds on I will be giving the students at each table an envelope with images that are labeled by their name. It is the student's job to collaborate and find a way to categorize these images in any way they would like. The students are placed at their tables strategically in order to enhance learning and growth.</p> <p>Action I will hand out an image or word to each student and these will be based off a visual or written sign of a chemical change. The students' job is to Walk around the class and find the person that has the corresponding word or image based on what they have. I will then ask the students why they chose the person that they did and have them explain what they see in the image and how it relates to a sign of a chemical change.</p> <p>Consolidation The students will be given an exit ticket in order to consolidate their learning. I will be conducting a demonstration where they will observe three forms of chemical change. I would like the students to list their observations before, during, and after the experiment.</p>	<p>Differentiation</p> <p>I have offered many methods of differentiation for all of my students to grasp the material. I have included written text, images, color coding, videos, auditory examples as well. The students will be working at their table groups which are purposely set the way they are so that the students may learn from one another as they each have their own strengths. This will be great for the minds on activity as they have the option of how they would like to categorize each image. As for the assessment, I have created an exit ticket that I would like the students to complete. I have printed it</p>	<p>Assessment</p> <p>Minds on The assessment that I have created will be happening after the lesson as consolidation for their understanding. This will be an assessment for learning and it is an exit ticket. I will be evaluating the product however, I will observe their conversations during the minds on and latter portion of action.</p> <p>Action Although I will not be evaluating the action portion of this lesson, I will be observing the conversations that students are having with their partner as well as one another as a group. This would be considered an assessment for learning for myself.</p> <p>Consolidation The assessment</p>
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		<p>out so that they can write on it, however if the students prefer to orally explain the answers to the questions on the exit ticket they are more than welcome to. I will work one-on-one with our ESL student to see where his learning is at.</p>	<p>will be considered an assessment for learning. I will be collecting an exit ticket from each of my students based on their observations of my demonstration. I will be considering their knowledge and application skills.</p>
<p>MINDS ON (Before): <u>10 minutes</u></p> <p>The hook that I am using to get my students curious is that I will be handing each table group an envelope with images of different types of light. I will also include the name of the image in order to practice differentiation. I will ask each table group to categorize these images in any way that they would like. I will then want them to share how they decided to categorize the images.</p> <p>This will be connected to the students' prior learning because in the last week they had learned about refraction of light, as well as the three different states of matter. This lesson acts as an extension of that. I am hoping to activate their personal experiences. At the end of the lesson I will show them how to safely clean tarnished silver at home. I believe that this is something they can relate to.</p> <p>These students will also take a look at the vocabulary list on the slides in order to fully understand the challenging words in the lesson.</p> <ul style="list-style-type: none"> ✓ We are learning to identify natural and artificial sources of light ✓ We are learning to identify and describe changes of a chemical reaction 	<p>I will be giving the students at each table an envelope with images that are labeled by their name. It is the student's job to collaborate and find a way to categorize these images in any way they would like. The students are placed at their tables strategically in order to enhance learning and growth.</p>	<p>I have offered many methods of differentiation for all of my students to grasp the material. I have included written text, images, color coding, videos, auditory examples as well. I have included a vocabulary list to ensure that they understand the words. The students will be working at their table groups which are purposely set the way they are so that the students may</p>	<p>The assessment that I have created will be happening after the lesson as consolidation for their understanding. This will be an assessment for learning and it is an exit ticket. I will be evaluating the product however, I will observe their conversations during the minds on and latter portion of action.</p>

<p>The students will begin at their table groups for the minds on portion and work together in order to categorize the images.</p>		<p>learn from one another as they each have their own strengths. This will be great for the minds on activity as they have the option of how they would like to categorize each image.</p>	
<p>ACTION (During): <u>35 minutes</u></p> <p>I plan on introducing this new learning by explaining the definitions of natural and artificial light. I will provide the students with examples as well as images below to show differentiation. I will then transition into heat which will bring me to light coming from a burning candle. This will be my segue into chemical changes. I will continue on the lesson about the five signs of a chemical change and have the students perform a small activity.</p> <p>The instructional strategies I plan on using are highly interactive and will allow the students to apply their knowledge of what they learned in the lesson so that they can match up with another person who has the corresponding image or word that they need for the activity. I will provide opportunities for guided practice and descriptive feedback by observing the students as they conduct their activities. I will join in or observe as they are conducting conversation. This will also tell me if they understand the material or not. I will get a better understanding of where I should continue on from after that.</p>	<p>I will hand out an image or word to each student and these will be based off a visual or written sign of a chemical change. The students' job is to Walk around the class and find the person that has the corresponding word or image based on what they have. I will then ask the students why they chose the person that they did and have them explain what they see in the image and how it relates to a sign of a chemical change.</p>	<p>Consider:</p> <p><input type="checkbox"/> Environmental</p> <p><input type="checkbox"/> Instructional</p> <p><input type="checkbox"/> Assessment</p> <p>Consider:</p> <p><input type="checkbox"/> Content</p> <p><input type="checkbox"/> Process</p> <p><input type="checkbox"/> Product</p> <p>I have given the students the opportunity to walk around in the room as well as provide both images and written words that represent the chemical change that is happening (activity). Throughout the slide deck I have incorporated color coding, visuals, videos, and auditory examples so that I am able to reach as many of my students as</p>	<p>Consider:</p> <p><input type="checkbox"/> FOR learning?</p> <p><input type="checkbox"/> AS learning?</p> <p><input type="checkbox"/> OF learning?</p> <p>Consider:</p> <p><input type="checkbox"/> Conversation</p> <p><input type="checkbox"/> Observation</p> <p><input type="checkbox"/> Product</p> <p>Although I will not be evaluating the action portion of this lesson, I will be observing the conversations that students are having with their partner as well as one another as a group. This would be considered an assessment for learning for myself.</p>

		possible.	
<p>CONSOLIDATION (After): <u>often 10-15 minutes</u></p> <p>I will be conducting a demonstration of a chemical reaction. There are three signs of chemical change that I would like the students to recognize and list on their exit ticket that I have given them to complete.</p> <p>During the action portion, I went over the five signs of chemical change with the students. In this portion I will be showing the students how the chemical changes are applied to real life situations. the students will learn how to clean their tarnished silverware at home safely. These link back to the learning goal and success criteria of recognizing the five examples of a chemical change.</p> <p>As I conduct the demonstration, the students are told to record their observations before, during, and after the demonstration. They are asked to list the types of chemical change signs that they have observed. I have communicated on the exit ticket exactly what I would like there.</p>	<p>The students will be given an exit ticket in order to consolidate their learning. I will be conducting a demonstration where they will observe three forms of chemical change. I would like the students to list their observations before, during, and after the experiment.</p>	<p>I will be explaining what I am doing as I demonstrate the experiment. To offer differentiation, I will allow the students to write out their answers for the exit ticket or speak to me after class (in private) and share their answers orally.</p>	<p>The assessment will be considered an assessment for learning. I will be collecting an exit ticket from each of my students based on their observations of my demonstration. I will be considering their knowledge and application skills.</p>
<p>Lesson Extension:</p> <p>I have included two additional videos at the end of the slide deck for my students if they would like to learn more information on natural and artificial light, as well as signs of chemical change. This will be an optional task and I ensured to provide choice by listing two links. I encourage the students to conduct a conversation with one another following the videos.</p>	<p>I encourage the students to continue brainstorming different types of natural and artificial light.</p>	<p>They can share this with one another in conversation, write it out, or type it out.</p>	<p>I will not be assessing this task however it is important for the students to ensure that they have grasped the material and understand the learning. by watching these videos they will be able to consolidate that.</p>