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Dr. Shelley Moore

What stands out from our last time together?

Shelley MOORE PH.D.
2023

Identifying Learning Standards & Unit Planning that leverages UDL

Backwards Design & UDL

Shelley MOORE PH.D.

2023

Class:	Subject Area(s):	Planning Team:
Big Idea(s):		Unit Guiding Question(s):
Vocabulary to know and use (content):		Vocabulary to know and use (skills & competencies):

Unit Goals	Curricular Language	Student friendly language
Content Goal		*I know…*
Content Goal		*I know…*
Curricular Competency Goal		*I can…*
Curricular Competency Goal		*I can…*
Curricular Competency Goal		*I can…*
Curricular Competency Goal		*I can…*
Core Competency Goal		*We are…*

Inclusive Unit Planning: With a little help from AI

Backwards Design Planning

Before you start: Describing your context

Prompt:

"I am planning a unit using the British Columbia curriculum.
Here is my teaching context:

- Grade(s) and subject(s):
- Length of unit (weeks / lessons):
- Learner context (e.g., class size, strengths, interests, priority needs, diversity, IEPs, language learners):
- Learning environment (e.g., classroom, outdoor, lab, community-based):
- Any specific lenses or priorities (e.g., inclusion, Indigenous perspectives, place-based learning, assessment for learning):
  Please keep all responses aligned to the BC curriculum and inclusive, strengths-based practices."

Backwards Design Planning

Step 1: Identify the big ideas

Prompt:

"This is the Big Idea that I am using for this unit (enter big idea(s)"

Please:

- Explain each Big Idea in plain language
- Describe why this Big Idea is meaningful for learners in my context
- Highlight connections to real-world understanding"

Inclusive Unit Planning: With a little help from AI

Backwards Design Planning

Step 2: Describing Content Standards & Identifying curricular competencies

Prompt:

"These are the **content learning standards** that I am focusing on in this unit:

- "Identify 3-4 **BC curricular competencies** that would best be targeted in this unit

Please:
- Use the exact BC curricular competency language"

Backwards Design Planning

Step 4: Guiding Questions

Prompt:

"based on these content and curricular competency learning standards, create 1-2 **open-ended guiding questions** for this unit that:

- Connect the Big Ideas to the content and curricular competencies
- Encourage inquiry, reflection, and real-world connections
- Are accessible to diverse learners
- Invite multiple perspectives and possible answers"

Inclusive Unit Planning: With a little help from AI

Backwards Design Planning

Step 5: Create Student Friendly Goals

Prompt:
"Translate the content learning standards into **student-friendly "I know…" statements**. Please:

- Focus on understanding, not memorization
- Use clear, age-appropriate language
- Keep goals flexible and inclusive
- Limit to the most essential learning"

Curricular Competency Goals
Prompt: "I Can" Competency Goals
"Translate the curricular competencies into **student-friendly "I can…" statements**. Please:

- Emphasize growth and process
- Avoid task-specific language
- Reflect transferable skills
- Support multiple ways of showing learning"

Backwards Design Planning

Step 6: Identify Core Competencies

Prompt:

"The priority learning needs for this class are:
-
-
-

Can you identify which specific **BC Core Competencies** (Communication, Collaboration, Critical & Reflective Thinking, Creative Thinking, Personal awareness and responsibility, social awareness and responsibility, and positive personal and cultural identity) could be intentionally developed in this unit.

Please:

- Explain why these competencies fit this unit
- Keep the focus on growth, not evaluation"

Inclusive Unit Planning: With a little help from AI

Backwards Design Planning

Step 8: Identifying Vocabulary

Prompt

"Identify the **essential vocabulary** students will need to **understand, use, and apply** throughout this unit.

Please:

- Organize vocabulary into clear categories, such as:
  - **Disciplinary vocabulary** (subject-specific terms)
  - **Process / competency vocabulary** (e.g., analyze, represent, justify, reflect)
- Keep language inclusive and age appropriate"

Backwards Design Planning

Step 8: Alignment check

Prompt

"Review this unit plan for alignment.
Please check that:

- Big Ideas, standards, competencies, and questions are coherent
- Goals are student-centred and inclusive
- There is a balance of content, skills, and competencies
- The plan reflects the BC curriculum and strengths-based practices"

Class: Grade 8	Subject Area(s): Science	Planning Team: STMC
Big Idea(s): Energy can be transferred as both a particle and a wave.		**Unit Guiding Question(s):** How does light behave? How do we know, if we can only see a small part of it?

Vocabulary to know and use (content): light, electromagnetic radiation, properties of light, behaviors of light, sensing light
Vocabulary to know and use (skills & competencies): observe, measure, record data, equipment, accuracy, precision, test, fairly, controlling variables, patterns, connections, data, investigations, collect, secondary sources, scientific understandings, relationships, draw conclusions, communicate, ideas, findings, solutions, problems, scientific language, scientific representations, communicators, purpose, information, clarifying, extending, questions, specific, task, clearly, synthesize, sources, analysis

Unit Goals	Curricular Language	Student friendly language
Content Goal	types and effects of electromagnetic radiation	I know different kinds of light I know what electromagnetic radiation is
Content Goal	Light: properties, behaviours, ways of sensing	I know the properties of light I know the behaviors of light I know the different ways of sensing light
Curricular Competency Goal: P & C	Observe, measure, and record data (qualitative and quantitative), using equipment, including digital technologies, with accuracy and precision	I can observe, measure and record data I can observe and measure data using different kinds of equipment I can observe and measure data with accuracy and precision
Curricular Competency Goal: P & C	Measure and control variables (dependent and independent) through fair tests	I can test fairly by measuring and controlling variables
Curricular Competency Goal: P & AD & I	Seek patterns and connections in data from their own investigations and secondary sources	I can find patterns and make connections in data that I collect in my own investigations I can find patterns and make connections in data from secondary sources
Curricular Competency Goal: P & AD & I	Use scientific understandings to identify relationships and draw conclusions	I can use scientific understandings to find relationships and draw conclusions
Curricular Competency Goal: C	Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate	I can communicate ideas, findings and solutions to problems I can use scientific language and representations
Core Competency Goal: Communication	• I can consider my purpose when I am choosing a form and content (COM 3c) • I can gather the information I need and present it (COM 3e) • I can ask clarifying and extending questions when appropriate (COM 4c) • I can acquire the information that I need for specific tasks and for my own interests and present information clearly (COM 4f) • I can synthesis information from a variety of sources and present it with a thoughtful analysis (COM 5H)	We are strong communicators because: • I can think about my purpose when I choose what and how I am communicating • I can gather the information that I need and share it • I can ask clarifying and extending questions to further my understanding • I can gather the information I need for a specific task and share it clearly • I can synthesize information from many sources and present it with a thoughtful analysis

Inclusive Unit Planning: With a little help from AI

Backwards Design Planning

Complete Backwards Design Plan

Prompt

Please create a downloadable plan that pulls together this planning in this sequence:

- Grade & subject & topic
- Big idea
- Guiding question(s)
- Vocabulary

Create 3 tables

- column 1: content learning standard/ column 2: student friendly language
- column 1: curricular competency goal/ column 2: student friendly language
- column 1: core competency/ column 2: student friendly language

Bridge Unit Design and Assessment Design

Learning Continuums & UDL

Shelley MOORE PH.D.

2023

Learning Continuums

Constructing a grade-level scaffold to show a range of proficiency

1. Choose a grade level learning standard and translate it into student friendly language

Learning Outcome:			
Student friendly:			
Approaching/ Access Point	**Essential**	**Confident**	**Extending**

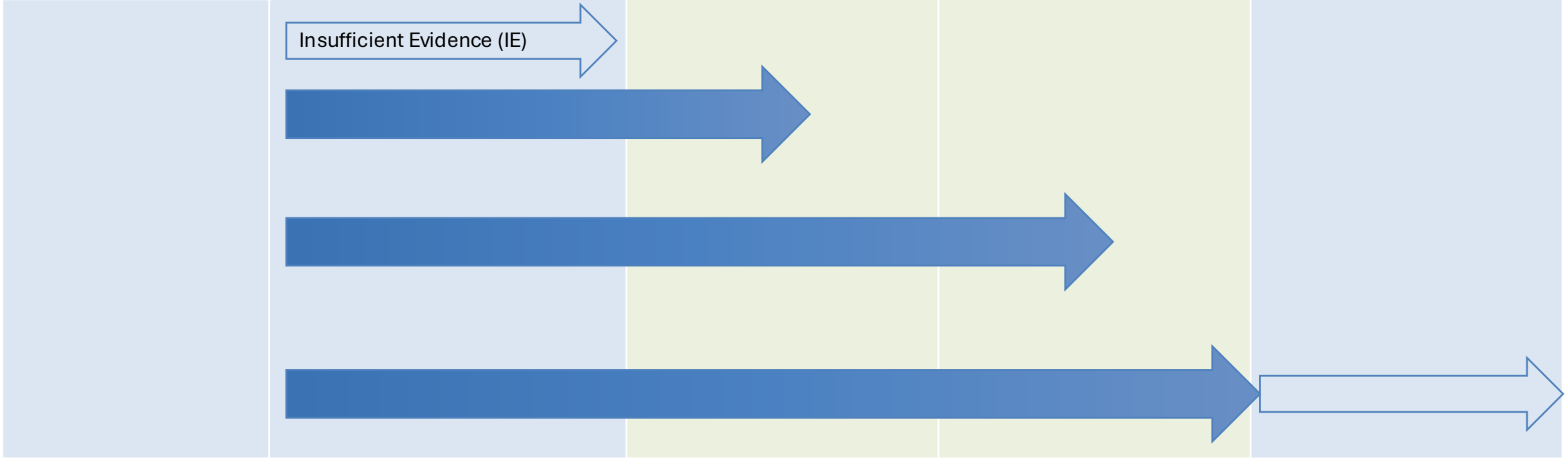
2. Start with determining the most essential concept of the standard and then add on complexity within the grade level learning standard

3. Extend the grade level standard to include an access point

S, Moore, 2024

An Additive Continuum of Proficiency

Grade Level Learning Standard	Emerging	Developing (2)	Proficient (3)	Extending (4)
	Access Point	Essential Understanding	Confident Understanding	Extending Understanding



Unit Big Idea:					
Guiding Question:					
	Learning Continuum	**ACCESS/ Emerging (A)**	**ESSENTIAL/Developing (E)**	**CONFIDENT/Proficient (C)**	**EXTEND (Ex)**
Content Goal					
Curricular Competencies					

Dr. Shelley Moore, 2026: Unit earning Continuums (Maps)
Template: BC Curriculum

Inclusive Unit Planning: With a little help from AI

Designing Learning Continuums

Step 1: Content Learning Standards

Prompt:

"Using the backwards design plan we have created, help me design a **4-point, asset-based learning continuum** for the following **BC content learning standard**:
[Paste the exact content learning standard here]

Please create continuum descriptors for: **Access, Essential, Confident, and Extending**

Guidelines for the continuum:

- All descriptors must be **strengths-based and asset-oriented**
- Focus on **what students know and understand**, not tasks or behaviours
- **Avoid deficit language**, comparisons to peers, or references to support, prompting, or independence
- Keep the continuum coherent and **progressive** (each level builds conceptually)
- Ensure each level reflects **qualitative differences in understanding**, not just "more" or "less"
- Keep descriptors usable for observation, conversation, and student reflection"

Cont.

"Please determine progressive descriptions using these Continuum Definitions

Access

- Describes important **foundational or precursor understandings** related to the standard
- Helps fill gaps, calibrate understanding, and build confidence
- Allows students to experience success and belonging in the learning
- Can use a specific student as a reference

Essential

- Describes the **most important knowledge** in the standard
- If students show evidence at this level, it is sufficient to meet course expectations
- Focuses on core concepts rather than surface features

Confident

- Describes **deeper, more connected, or more complex understanding**
- Remains fully within the grade-level expectations of the standard

Extending

- Describes understanding that **stretches or deepens thinking**
- May apply knowledge in novel, integrated, or interdisciplinary ways
- Can move within or beyond grade level while staying connected to the Big Ideas"

Inclusive Unit Planning: With a little help from AI

Designing Learning Continuums

Step 2: Curricular Competency Learning Standards

Prompt:
"Using the backwards design plan we have created, help me design a **4-point, asset-based learning continuum** for the following **BC Curricular Competency Learning Standard**
[Paste the exact content learning standard here]

Please create continuum descriptors for: **Access, Essential, Confident, and Extending**

Guidelines for the continuum:

- All descriptors must be **strengths-based and asset-oriented**
- Focus on **skill development, thinking processes, and learner agency**, not task completion
- **Avoid compliance language**, behaviours, or references to effort, independence, or support
- Describe **how students demonstrate the competency**, not the activity they complete
- Keep the continuum coherent and **progressive** (each level builds conceptually)
- Allow for **multiple ways** of showing learning
- Ensure each level reflects **progression in complexity**, not frequency
- Maintain coherence so each level represents a qualitative shift in competency development
- Do not integrate content learning standard, have curricular competency continuum stand alone"

Cont.

"Please determine progressive descriptions using these Continuum Definitions

Access

- Describes early or emerging ways students engage with the competency
- Focuses on noticing and participating
- Builds confidence and invites students into the learning without deficit framing

Essential

- Describes the **core expression** of the curricular competency
- Focuses on intentional, recognizable use of the skill or process

Confident

- shows **deeper, more connected, or more complex competency growth**
- Shows awareness of purpose, context, or strategy choice
- Describes **flexible, or effective use** of the competency

Extending

- Describes **strategic, reflective, or adaptive use** of the competency
- May include **transferring the competency** across contexts or combining it with others
- **Extends thinking and agency** while staying connected to the original competency
- May **apply competency** in novel, integrated, or interdisciplinary ways"

Inclusive Unit Planning: With a little help from AI

Backwards Design Planning

Complete Backwards Design Plan

Prompt

Please create a downloadable plan that pulls together this planning in this sequence:

- Grade & subject & topic
- Big idea
- Guiding question(s)
- Vocabulary

Create 3 tables

- column 1: content learning standard/ column 2: student friendly language
- column 1: curricular competency goal/ column 2: student friendly language
- column 1: core competency/ column 2: student friendly language

Inclusive Unit Planning: With a little help from AI

Backwards Design Planning

Step 3: Create Student Friendly Goals

Prompt:
"Translate the content continuum descriptors into **student-friendly "I know…" statements**.
Please:

- Focus on understanding, not memorization
- Use clear, age-appropriate language
- Keep goals flexible and inclusive
- Limit to the most essential learning
- Make descriptions student owned and non-answer giving

Curricular Competency Goals
Prompt: "I Can" Competency Goals
"Translate the curricular competency continuum descriptors into into **student-friendly "I can…" statements**.
Please:

- Emphasize growth and process
- Avoid task-specific language
- Reflect transferable skills
- Support multiple ways of showing learning"
- Make descriptions student owned and non-answer giving

Backwards Design Planning

Step 4: Complete Learning Continuum Plan

Prompt

Please create a downloadable plan that pulls together this planning in a table, for each learning standard:

- **Row 1:** Learning standard (as the table title)
- **Row 2:**
- **Column 1:** Access
- **Column 2:** Essential
- **Column 3:** Confident
- **Column 4:** Extending

Unit Big Idea: Energy can be transferred as both a particle and a wave Unit

Guiding Question: How does light behave, and why is understanding the electromagnetic spectrum important in everyday life?

	Learning Continuum	ACCESS/ Emerging (A)	ESSENTIAL/Developing (E)	CONFIDENT/Proficient (C)	EXTEND (Ex)
Content Goal	**Types and effects of electromagnetic radiation**	• I know what electromagnetic radiation is • I know electromagnetic waves are invisible • I know waves have high points and low points • I know electromagnetic waves move through space at the speed of light	• I know that there is a range of electromagnetic radiation • I know the 7 main types of electromagnetic radiation • I know examples of how electromagnetic radiation are useful • I know what amplitude is • I know what a wavelength is • I know what frequency is • I know that electromagnetic waves are ordered by their wavelength from shortest to longest	• I know that different electromagnetic types have different wave lengths • I know the relationship between wave lengths and energy • I know the effects of different wave lengths on humans • I know how frequency relates to energy in the electromagnetic spectrum	• I know how to predict the properties of a new electromagnetic wavelength • I know how humans can use light effectively and what precautions need to be made to keep humans safe
	Light: properties, behaviours, ways of sensing	• I know that light moves • I know that light carries energy from place to place	• I know that light moves like a wave rt a particle • I know what reflection is • I know what refraction is • I know how objects can help us see light move	• I know that light is arranged by wavelength and frequency • I know how and light help us see	• I know examples of how light behaves in real world optics
Curricular Competencies	**Planning and conducting:** Observe, measure, and record data (qualitative and quantitative), using equipment, including digital technologies, with accuracy and precision	• I can make observations using my senses • I can use scientific equipment safely	• I can record what I observe • I can identify what I observe with labels • I can participate in using scientific equipment	• I can measure what I observe • I can measure both qualitative and quantitative data • I can I can use scientific equipment with accuracy and precision	• I can explain how accuracy and precision strengthen the quality of evidence
	Planning and conducting: Measure and control variables (dependent and independent) through fair tests	• I can explain why scientific tests/ experiments need to be fair	• I can identify the independent and dependant variables in a scientific test or experiment	• I can explain how controlled variables supports fairness	• I can explain how each variable affects the validity of a test/experiment
	Processing and analysing data and information: seek patterns and connections in data from their own investigations and secondary sources	• I can find/notice patterns or interesting data	• I can describe relationships in the patterns and trends I see in data	• I can compare findings from my investigation to secondary sources to find similarities, differences or contradictions	• I can recognize when data is inconsistent or when more data is needed
	Processing and analysing data and information: Use scientific understandings to identify relationships and draw conclusions	• I can share what I notice in my scientific observations • I can share what I think is happening in my scientific observations	• I can explain reasons for observed trends using scientific ideas and concepts that I have learned about • I can describe how my data supports (or doesn't support) a conclusion	• I can make comparisons to scientific examples • I can draw a scientific conclusion that is well supported by multiple pieces of evidence	• I can recognize when conclusions are logical, complete or require more evidence • I can propose next steps or new questions to investigate
	Communicating: Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate	• I can participate in scientific discussions and presentations • I can use scientific terms that I know	• I can use scientific vocabulary to describe my scientific ideas and thinking • A can use graphs, diagrams, models, images and table to help make my ideas clear	• I can use digital tools to record and present information clearly	• I can explain how/why particular formats help communicate scientific ideas

Four Point Learning Continuums:

Subject & Grade:

Learning Standard: Communication			
Student friendly: We are strong communicators because:			
			
Approaching (Emerging)	**Essential (Developing)**	**Confident (Proficient)**	**Extending (Extending)**
I can think about my purpose when I choose what and how I am communicating I can gather the information that I need and share it	I can ask clarifying and extending questions to further my understanding	I can gather the information I need for a specific task and share it clearly	I can synthesize information from many sources and present it with a thoughtful analysis

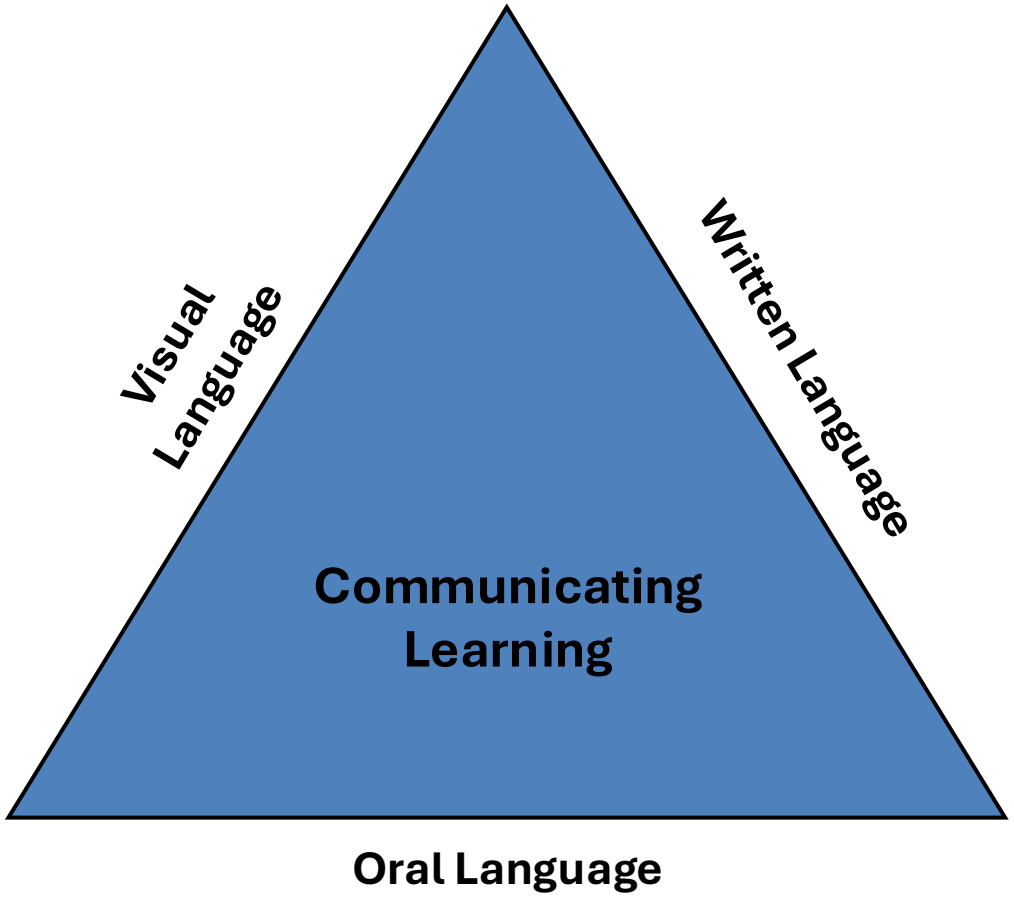
Triangulating Evidence of Learning

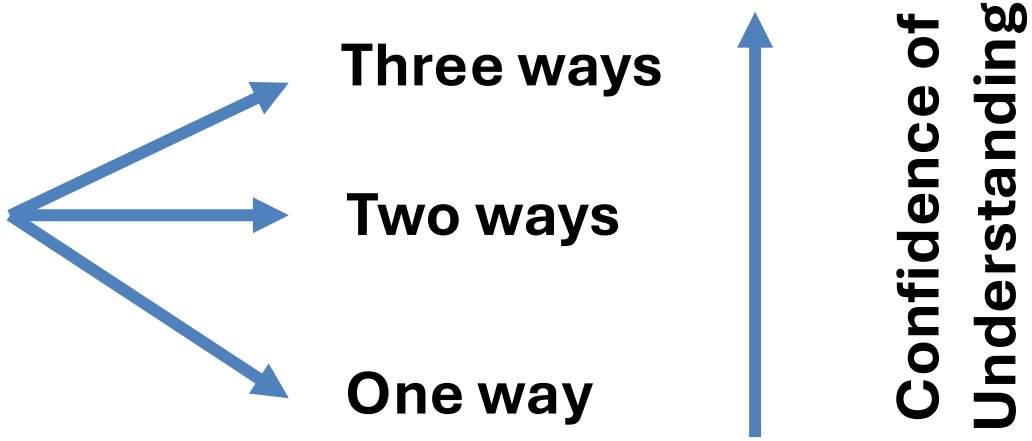
Literacy, Numeracy & UDL

Shelley MOORE PH.D.

2023

How do student show what they know?





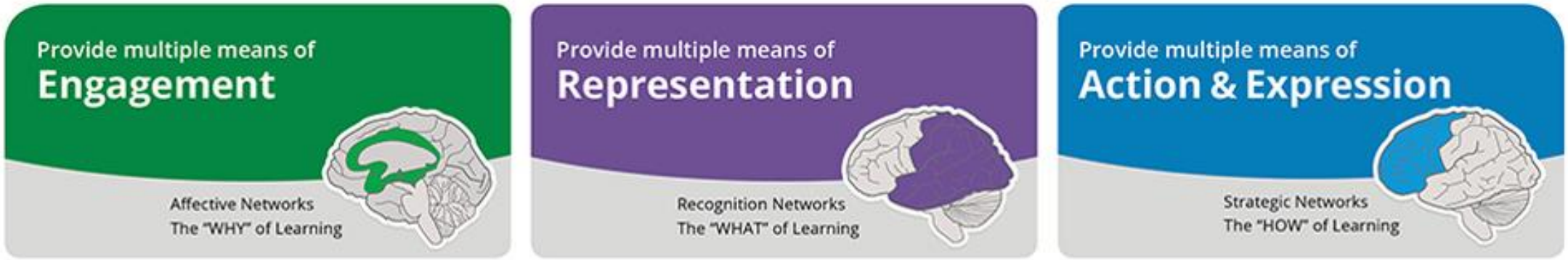
Unit Big Idea: Energy can be transferred as both a particle and a wave Unit

Guiding Question: How does light behave, and why is understanding the electromagnetic spectrum important in everyday life?

	Learning Continuum	ACCESS/ Emerging (A)	ESSENTIAL/Developing (E)	CONFIDENT/Proficient (C)	EXTEND (Ex)
Content Goal	**Types and effects of electromagnetic radiation**	• I know what electromagnetic radiation is • I know electromagnetic waves are invisible • I know waves have high points and low points • I know electromagnetic waves move through space at the speed of light	• I know that there is a range of electromagnetic radiation • I know the 7 main types of electromagnetic radiation • I know examples of how electromagnetic radiation are useful • I know what amplitude is • I know what a wavelength is • I know what frequency is • I know that electromagnetic waves are ordered by their wavelength from shortest to longest	• I know that different electromagnetic types have different wave lengths • I know the relationship between wave lengths and energy • I know the effects of different wave lengths on humans • I know how frequency relates to energy in the electromagnetic spectrum	• I know how to predict the properties of a new electromagnetic wavelength • I know how humans can use light effectively and what precautions need to be made to keep humans safe
	Light: properties, behaviours, ways of sensing	• I know that light moves • I know that light carries energy from place to place	• I know that light moves like a wave rt a particle • I know what reflection is • I know what refraction is • I know how objects can help us see light move	• I know that light is arranged by wavelength and frequency • I know how and light help us see	• I know examples of how light behaves in real world optics
Curricular Competencies	**Planning and conducting:** Observe, measure, and record data (qualitative and quantitative), using equipment, including digital technologies, with accuracy and precision	• I can make observations using my senses • I can use scientific equipment safely	• I can record what I observe • I can identify what I observe with labels • I can participate in using scientific equipment	• I can measure what I observe • I can measure both qualitative and quantitative data • I can I can use scientific equipment with accuracy and precision	• I can explain how accuracy and precision strengthen the quality of evidence
	Planning and conducting: Measure and control variables (dependent and independent) through fair tests	• I can explain why scientific tests/ experiments need to be fair	• I can identify the independent and dependant variables in a scientific test or experiment	• I can explain how controlled variables supports fairness	• I can explain how each variable affects the validity of a test/experiment
	Processing and analysing data and information: seek patterns and connections in data from their own investigations and secondary sources	• I can find/notice patterns or interesting data	• I can describe relationships in the patterns and trends I see in data	• I can compare findings from my investigation to secondary sources to find similarities, differences or contradictions	• I can recognize when data is inconsistent or when more data is needed
	Processing and analysing data and information: Use scientific understandings to identify relationships and draw conclusions	• I can share what I notice in my scientific observations • I can share what I think is happening in my scientific observations	• I can explain reasons for observed trends using scientific ideas and concepts that I have learned about • I can describe how my data supports (or doesn't support) a conclusion	• I can make comparisons to scientific examples • I can draw a scientific conclusion that is well supported by multiple pieces of evidence	• I can recognize when conclusions are logical, complete or require more evidence • I can propose next steps or new questions to investigate
	Communicating: Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate	• I can participate in scientific discussions and presentations • I can use scientific terms that I know	• I can use scientific vocabulary to describe my scientific ideas and thinking • A can use graphs, diagrams, models, images and table to help make my ideas clear	• I can use digital tools to record and present information clearly	• I can explain how/why particular formats help communicate scientific ideas

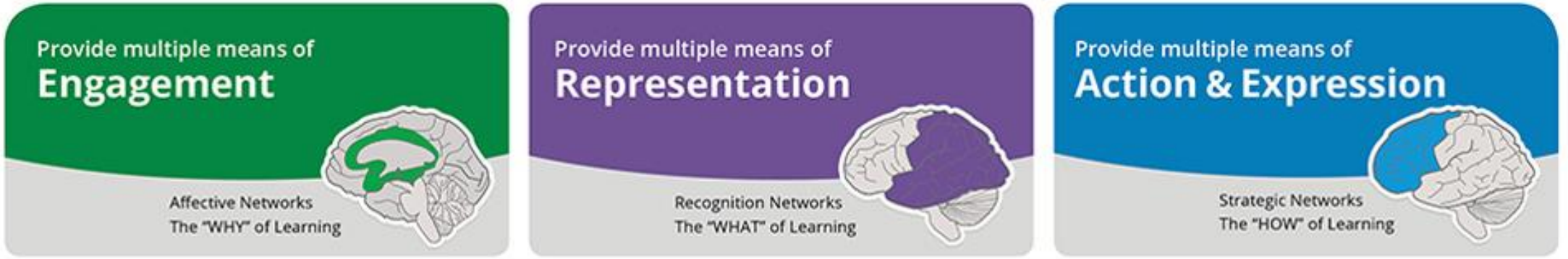
Learning Standards/ Outcomes	Assessment Tasks to Capture Learning	Differentiation of Evidence			
		Written	Oral	Kinesthetic	Visual
Types and effects of electromagnetic radiation (C1) Light: properties, behaviours, ways of sensing (C2) Observe, measure, and record data (qualitative and quantitative), using equipment, including digital technologies, with accuracy and precision (CC1) Measure and control variables (dependent and independent) through fair tests (CC2) Measure and control variables (dependent and independent) through fair tests (CC3) Seek patterns and connections in data from their own investigations and secondary sources (CC4) Use scientific understandings to identify relationships and draw conclusions (CC5) Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate (CC6)	• **Note Making Graphic Organizer (C1,** • **Head Banz (C1)**	X	X	X	X

Universal Design for Learning: The Ramp for Learning



Aligning Lesson Phases with UDL

Mini Lesson



Connecting Phase **Processing Phase** →

← **Transforming & Personalizing Phase**

Guiding Unit Question:

Lesson Goal(s):

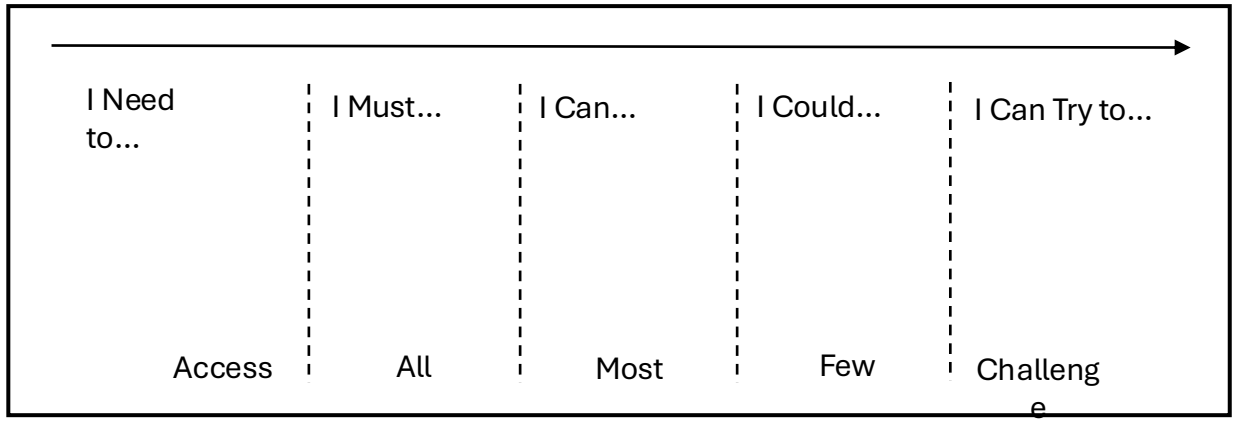
Date

Connecting Activity:

Supports

Mini Lesson:

Processing Tasks:



Transforming & Personalizing Activity:

Lesson Planning Template – Shelley Moore, 2025

Adapted from Brownlie & Schnellert

Micro Goal(s):

Date:

Connecting Activity:

Micro Lesson:

Processing Tasks:

Need	Must	Can	Could	Try

Transforming & Personalizing Activity:

Triangulated Evidence of Learning

Observations (visuals/movements)
Evidence:

Look for:

Conversations
(explaining/speaking between peers, conferencing)
Evidence:

Listen for:

Products
(writing/creating)
Evidence:

Look for:

Micro Goal(s): *I know what equivalent means*

Date:

Connecting Activity: *Same Amount? (with pictures)*

Micro Lesson: What does equivalent mean?

Processing Tasks: Expression sort

Need	Must	Can	Could	Try
• Get your group together (4) • Get a card set • Get a chart • Figure out your group roles	• Sort the cards into categories • For each card, explain why it is equivalent or not	• Pick a not sure card and try recreating the card using visuals or objects • Re-sort card	• Join another group and support them to recreate the card using visuals or objects	• Sort the challenge cards

Transforming & Personalizing Activity:

Reflection Choice 1: *My Understanding*

- Which pair helped you understand "equivalent" the most, and why?

Reflection Choice 2: *My Strategy*

- What is one way you decide if expressions are equivalent without using numbers?

Reflection Choice 3: *My Transfer*

- Where might 'different look, same meaning' show up outside of math?

Triangulated Evidence of Learning

Observations (visuals/movements)
Evidence: checklist, post it, photos
Look for: Correct sorting, moving a card from not sure, recreating an expression using visuals, correcting themselves or helping a peer to

Conversations
(explaining/speaking between peers, conferencing)
Evidence: recording, conference notes, post it, check list
Listen for: Meaning: They both show groups of …", "They look different, but they mean the same thing." Structure: "This one is adding extra, this one isn't.", "This is repeated addition.", "This one has the same structure.", Strategy: "I looked for…, I check if…)

Products
(writing/creating)
Evidence: student sorting mats, annotated cards, exit reflection
Look for: correct sorting, strategy

Guiding Unit Question: How does light behave? How do we know, if we can only see a small part of it?

Date:

Lesson Outcome(s): I know what electromagnetic radiation is (C1-A/E)

Connecting Activity: Use an infrared camera pointed at different objects and people – ask students: what are you noticing? What are you wondering?

Mini Lesson 1& 2: What is electromagnetic radiation? What are examples of?

Processing Task 1: Guided Note-Making (2 or 3 rotations, up to 30 min)

I need to...	I must...	I can...	I could...	I can try to...
• Record what kind of information I am trying to understand • Listen carefully to first "chunk" of information (you can write or draw or doodle to if you need)	Stop & Think: • What is the topic of the information? • What is the most important idea in this chunk of information? • What are some supporting details or examples I want to remember in this chunk of information?	Think deeper: • Create a visual to help me understand this information better	Collect my thoughts: • Write a summary paragraph about this chunk of information	Prove my learning • Connect my understanding to the unit learning standards

Processing Task 2: Head Banz

I need to...	I must...	I can...	I could...	I can try to...
• Get into groups of 2 or 4 and make 2 teams • Get Head Banz Game package • Take cards out and organize the cards into a yellow pile and an orange pile	• Pick a card from the yellow pile and put it on your forehead (don't look at at!) • You need to guess the word on your head • You are allowed to ask yes/no questions to your group about your card until you guess right • Once you guess, another group member gets to guess • Repeat until everyone gets a turn	• Choose from the orange pile of cards • Limit guessing to 20 questions • Use a 2 min timer	• Put the cards in order from highest to lowest radiation	• Find examples of what is on the cards in the world

Transforming & Personalizing Activity: Learning wall

What evidence of learning do we have today? How have we answered our guiding questions?

Triangulated Evidence of Learning

Observations (visuals/movements)
Evidence:
Look for:

Conversations
(explaining/speaking between peers, conferencing)
Evidence:
Listen for:

Products
(writing/creating)
Evidence:
Look for:

Note-Making Graphic Organizer

Name: _____

Date: _____

Type of Information I am trying to understand

- ❑ Presentation/Lecture
- ❑ Podcast
- ❑ Video
- ❑ Interview
- ❑ Article/ Text
- ❑ Diagram/Chart

Chunk # _____  **Topic of Text: _____**

What is the MOST important idea, word, or information in this chunk of information?

What supporting details or examples do I want to remember about this?

Create a visual diagram, chart or drawing that will help you understanding this information?

Create a summary paragraph for this chunk of text

_____

_____

_____

What course learning standards does this understanding reflect?

Science 8: Electromagnetic Radiation and Light

Spectrum Sleuths: Head Banz Edition!

This activity is evidence for Sci 8 Learning Standards– **Types of electromagnetic radiation**

Approaching/ Emerging	Essential/ Developing	Confident/ Proficient	Extending

How to play:

Go as far as you can

Need

What you <u>need</u> to do to get ready:

- Get into groups of 2 or 4 and make 2 teams
- Get Head Banz Game package
- Take cards out and organize the cards into a yellow pile and an orange pile

Must

What <u>must</u> you do to play the game:

- Pick a card from the yellow pile and put it on your forehead (don't look at at!)
- You need to guess the word on your head
- You are allowed to ask yes/no questions to your group about your card until you guess right
- Once you guess, another group member gets to guess
- Repeat until everyone gets a turn

Can

How you <u>can</u> add challenge

- Choose from the orange pile of cards
- Limit guessing to 20 questions
- Use a 2 min timer

Could

What you <u>could</u> do if you finish early

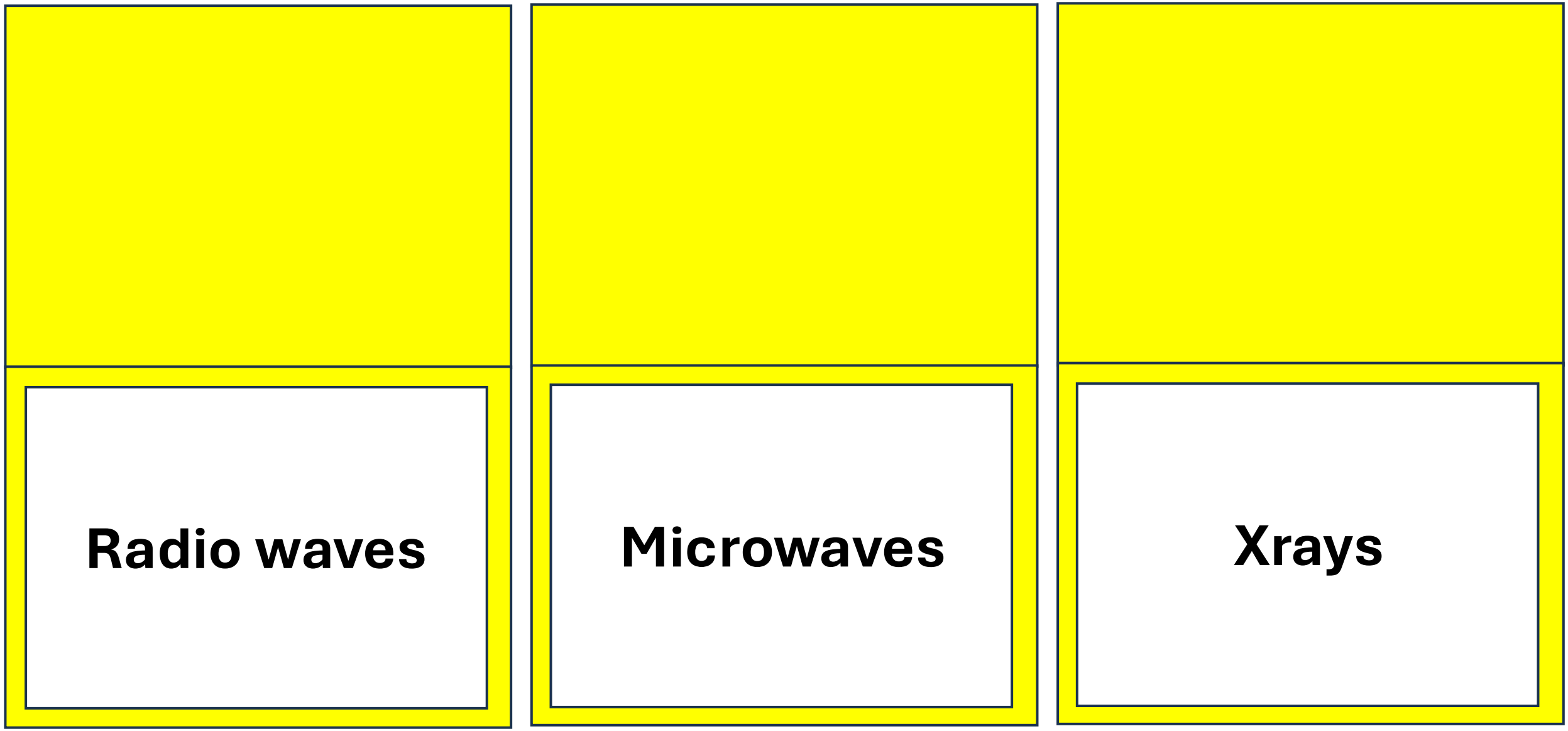
- Put the cards in order from highest to lowest radiation

Try

What you can <u>try</u> if you want to challenge yourself

- Find examples of what is on the cards in the world

Print (in colour), fold and laminate

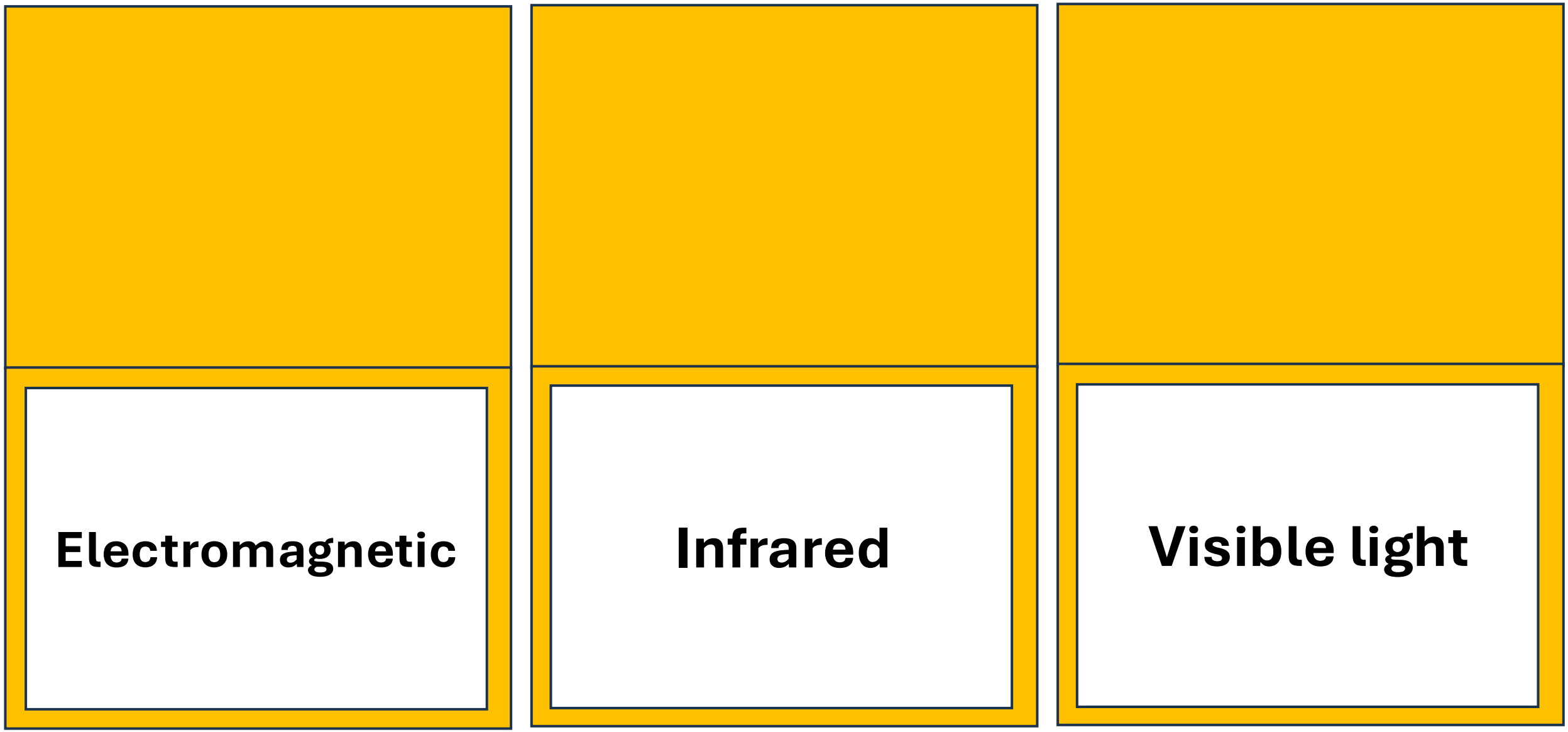


Print (in colour), fold and laminate

Ultraviolet (UV) waves

Speed of light

Print (in colour), fold and laminate



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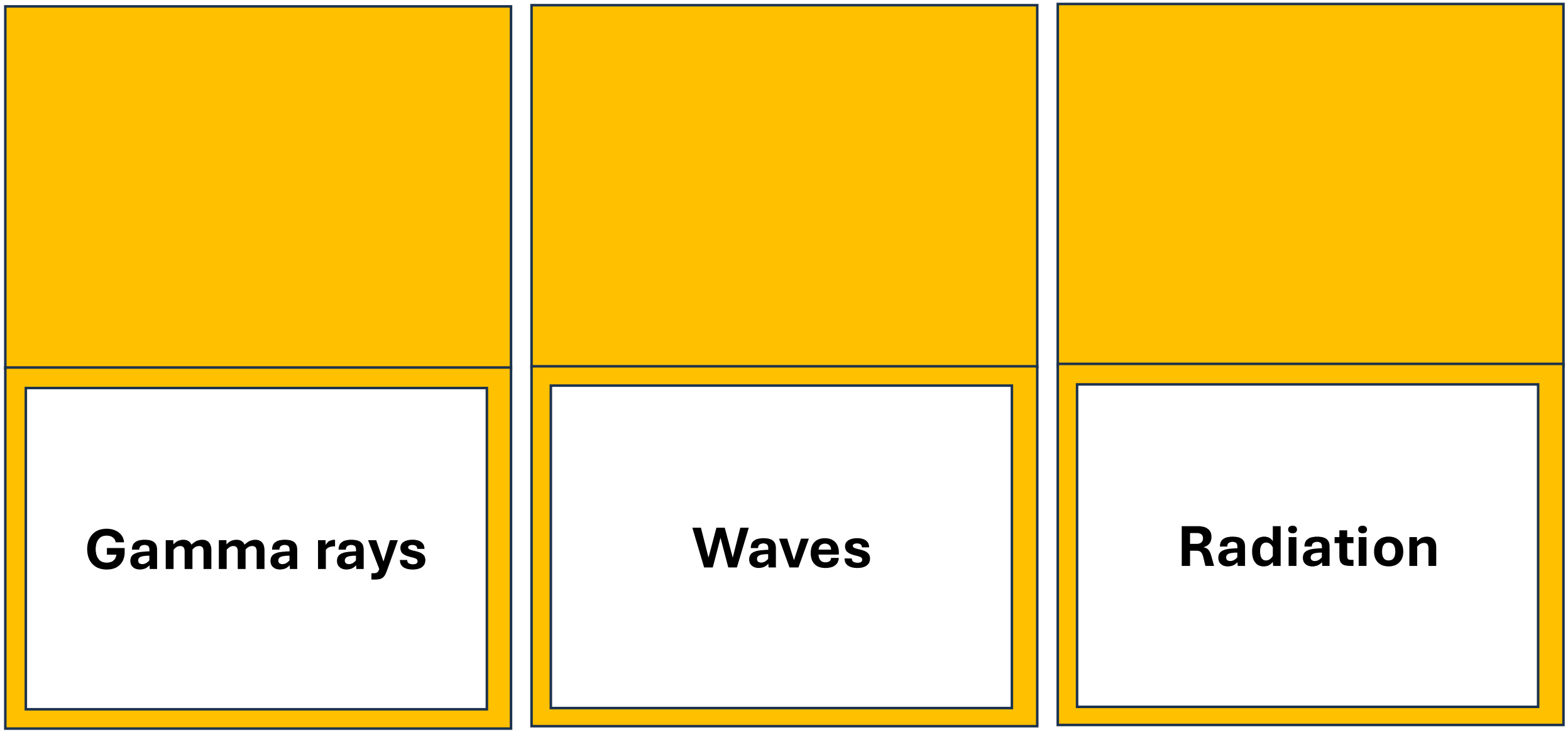

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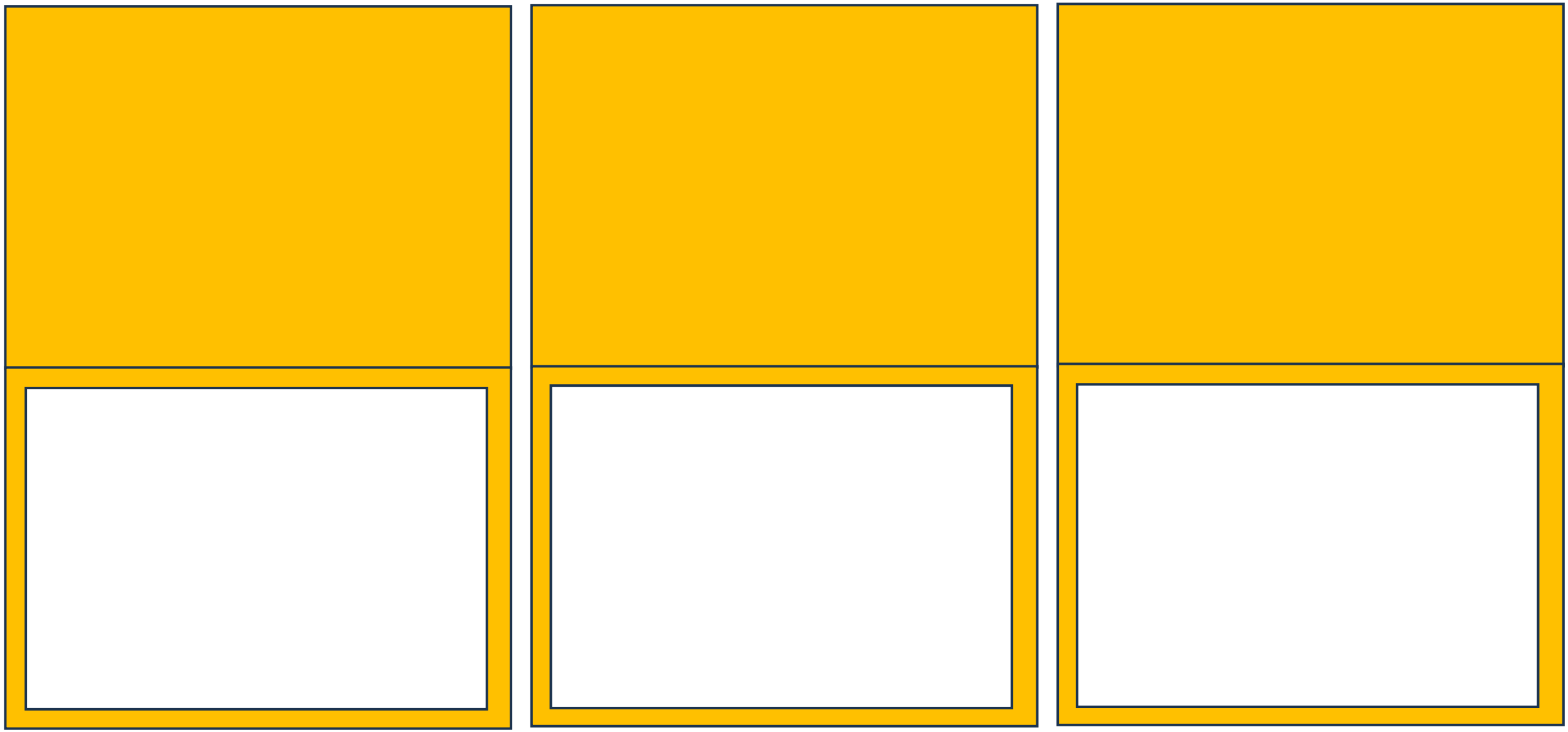


Combining Standards Based Grading and Curriculum Mapping

Standards Based Grade Book (Content)								
Learning Standards								
Possible Evidence of Learning								
Reporting Language	**Approaching / Access Point**	**Emerging/ Essential**	**Confident**	**Extending**	**Approaching / Access Point**	**Emerging/ Essential**	**Confident**	**Extending**
Evaluation	**I/IEP**	**2**	**3/3+**	**4**	**I/IEP**	**2**	**3/3+**	**4**
Student 1								
Student 2								
Student 3								
Student 4								
Student 5								

	Learning Standards															
Learning Outcome	**C2.3 Monitoring of Understanding: Making and Confirming Predictions**				**C2.4 Monitoring of Understanding: Comprehension Check**				**C2.5 Monitoring of Understanding: Making Connections**				**C2.6Summarizing: Identifying Relevant information and Drawing Conclusions**			
Evidence of Learning	Digging Deeper with Vocabulary, Staying on Track!				Staying on Track!, Expressive Dialogue Recording				Stayign on Track!				Digging Deeper with Vocabulary, Staying on Track!, Expressive Dialogue Recording, Comprehension Questions			
Students	Access/ IEP (1)	Essential (2)	Confident (3)	Extention (4)	Access/ IEP (1)	Essential (2)	Confident (3)	Extention (4)	Access/ IEP (1)	Essential (2)	Confident (3)	Extention (4)	Access/ IEP (1)	Essential (2)	Confident (3)	Extention (4)

Grade: 11	Subject Area: Life Sciences	Planning Team: Timberline Secondary
Big Ideas: • All living things have common characteristics. • Living things evolve over time.		Why is our forest in Campbell River unique? How and why have ecosystems in Campbell River evolved over time?
Unit Goals	**Learning Standard**	**Student Friendly Language**
Content Goal	Speciation	**I know speciation that occurs within our local ecosystems**
Curricular Competency: Process and analyze data and information	Experience and interpret the local environment	**I can understand data and information by** experiencing and interpreting the local environment
	Seek and analyze patterns, trends, and connections in data, including describing relationships between variables, performing calculations, and identifying inconsistencies	**I can understand data and information by** seeking evidence and analyze data
	Construct, analyze, and interpret graphs, models, and/or diagrams	**I can understand data and information by** constructing, analyzing and interpreting visual representations of information
Core Competency Goal	I can become socially responsible by…	

Life Science 11 Standards Based Gradebook

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1		Content Goals					Curriicular Competency Goals															Evaluation				
2	Learning Standards	speciation					experience and interpret the local environment					seek and analyze patterns, trends, and connections in data, including describing relationships between					construct, analyze, and interpret graphs, models, and/or diagrams									
3	Possible Evidence of Learning																									
4	Reporting Language	Approaching/ Access Point	Emerging/ Essential	Developing	Confident	Extending	Approaching/ Access Point	Emerging/ Essential	Developing	Confident	Extending	Approaching/ Access Point	Emerging/ Essential	Developing	Confident	Extending	Approaching/ Access Point	Emerging/ Essential	Developing	Confident	Extending	Total	Out of	%	Letteer Grade	4 - Point
5	4- Point	IE/IEP	2	3	3.5	4	IE/IEP	2	3	3.5	4	IE/IEP	2	3	3.5	4	IE/IEP	2	3	3.5	4	16	16			
6	Student 1 (IEP - Replacement Goals)	x					x					x					x					4	4		A (IEP)	4 (IEP)
7	Student 2	x	x				x	x				x	x				x	x				8	16	50	C-	2
8	Student 3	x	x	x			x	x	x			x	x				x	x	x			12	16	75	B	3
9	Student 4	x	x	x	x		x	x	x	x	x	x	x	x	x		x	x	x			14	16	88	A	3+
10	Student 5		x	x	x	x	x	x	x			x	x	x					x	x		IE	16	IE	IE	IE

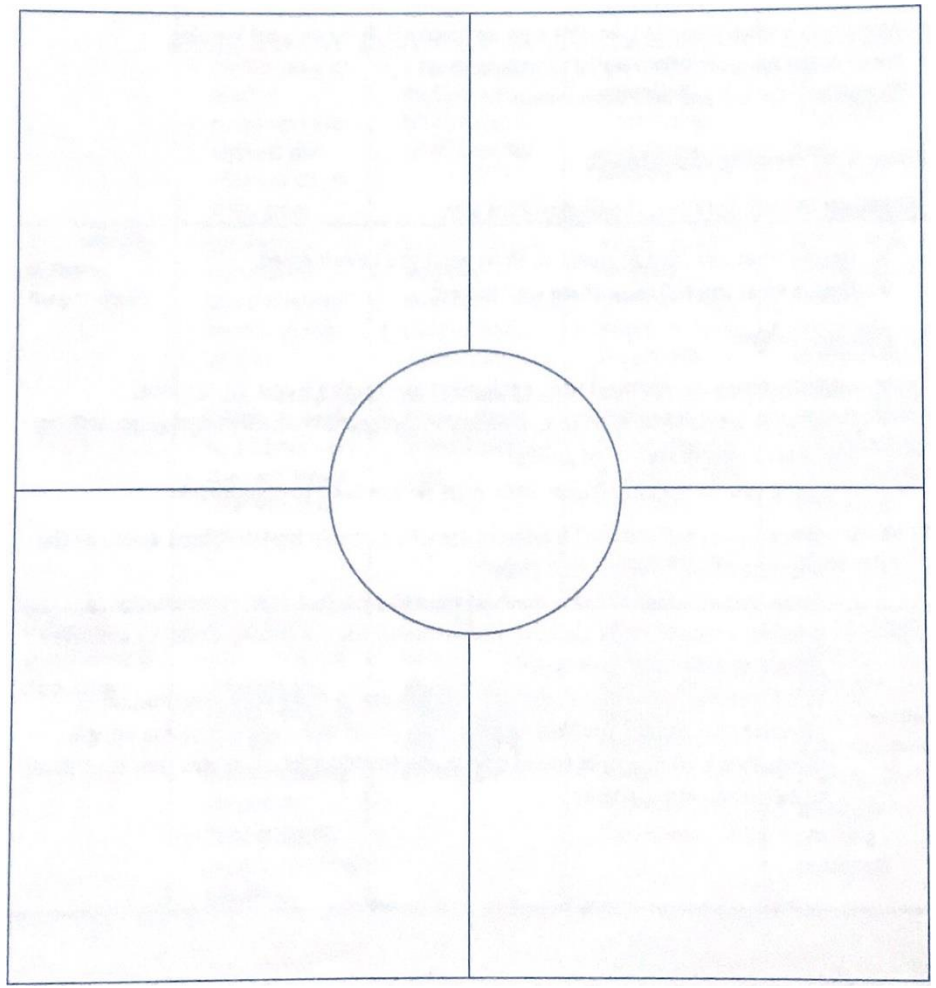
Course/Subject/Grade(s): Life Sciences 11			**Planning Team:** Timberline Secondary			
Unit Guiding Question: Why is our forest in Campbell River unique? How and why have ecosystems in Campbell River evolved over time?						
Learning Standards		**Approaching – IE/ IEP**	**Emerging - 2**	**Developing – 3**	**Confident – 3.5**	**Extending - 4**
Content: **I know speciation that occurs within our local ecosystems**		I know examples of species in Campbell River Forest ecosystem	I know an example of divergent, convergent, and coevolution in one local ecosystem	I know an example of divergent, convergent, and coevolution in more than one local ecosystems	I know how our 3 local ecosystems interact with each other	I know how local human activity affects speciation in an ecosystem
Curricular Competencies	**I can understand data and information by** experiencing and interpreting the local environment	I can experience my local forests, streams and the ocean respectfully	I can experience the local forests, streams and the ocean using my senses and collecting evidence (pictures, objects, drawings, writing)	I can interpret the local forests, streams and the ocean by keeping track of my thinking about my evidence over time	I can interpret the local forests, streams and the ocean by making connections and reflections of my evidence collected	I can interpret the local forests, streams and the ocean through ethical observation and stewardship
	I can understand data and information by seeking evidence and analyze data	I can organize and collate evidence	I can identify trends in data I can find connections in data	I can identify relationships between variables	I can identify and perform simple calculations	I can identify inconsistencies in data
	I can understand data and information by constructing, analyzing and interpreting visual representations of information	I can build a visual representation of data by following a model I can understand a visual representation of information that is familiar to me	I can construct a visual representation of data in one way I can understand what a visual is communicating (what is happening?)	I can construct a visual representation of data in more than one way I can analyze a visual representation of data (How do I know?)	I can construct a visual representation of data in any way I can interpret a visual representation of data (why does this matter?)	I can construct a visual representation of data based on the purpose I can interpret a visual representation of data (what data is missing to get a better understanding of the data?)

EFP 11 Content Goal: new media functions, including community building and advocacy			
Student friendly: I know new media functions, including community building and advocacy			
Access	**Essential**	**Confident**	**Extending**
I know what new media is and examples I know the importance of consent when using new media	I know the role of new media in modern communication I know how new media is used to build community	I know how new media is used for advocacy and social change efforts I know the importance of responsible digital citizenship in new media	I know how bias in new media can impact community, advocacy, and social justice efforts

EFP 11 Curricular Competency Goal: apply appropriate strategies in a variety of contexts to guide inquiry, extend thinking, and comprehend texts			
Student friendly: I can apply appropriate strategies in a variety of contexts to guide inquiry, extend thinking, and comprehend texts			
Access	**Essential**	**Confident**	**Extending**
I can engage with text that is familiar or interesting to me and use my prior knowledge to try to understand	I can use different strategies to help me understand text by following a model	I can use different strategies to help me extend my thinking and guide inquiry	I can choose effective strategies to use based on context

EFP 11 Curricular Competency Goal: respond to text in personal, creative, and critical ways			
Student friendly: I can respond to text in personal, creative, and critical ways			
Access	**Essential**	**Confident**	**Extending**
I can understand a text and respond	I can connect to and respond to texts personally I can respond to texts creatively	I can respond to texts critically	I can respond to diverse texts in ways that integrate personal connections, critical thought and creative performance

Performance Task 1: Listen to the Voices



- Choose 4 new media texts from the options provided
- Considering the various artists, you watched and listened to, what are the different messages being shared?
- What connections can you make between them?
- How do the messages connect with First Peoples languages, cultures and traditions?
- How are these artists using their voices to share stories of who they are?
- Why might hip hop or spoken word be an effective way to talk about issues affecting First Peoples?
- Record your notes on the placemat

New media text options

- JB The First Lady performs at the Pipeline Resistance Café for Unist'ot'en Camp https://www.youtube.com/watch?v=UEAyDes1Llw
- JB The First Lady Still Here https://www.youtube.com/watch?v=wGTqXZrH374

- Andrew Dexel https://www.beatnation.org/andrew-dexel.html
- Sonny Assu http://nationtalk.ca/story/a-radical-mixing-by-sonny-assu-at-canada-gallery
- Supaman Why https://www.youtube.com/watch?v=OiVU-W9VT7Q

- Winona Linn Knock Off Native https://www.youtube.com/watch?v=i_zFOsd_pqA
- Zaccheus Jackson: Invicta https://www.youtube.com/watch?v=KW2EJHZo1a8
- Zaccheus Jackson: Of Wings https://www.youtube.com/watch?v=jKVkOmxdwxQ

- N'we Jinan Artist "Home to Me" https://www.youtube.com/watch?v=EgaYz8YWsO8
- N'we Jinan Artist "The Highway" https://www.youtube.com/watch?v=hG_9d260YeI
- N'we Jinan Artist "Hide and Seek" https://www.youtube.com/watch?v=ZV9AUQoqfAc

Performance Task 2: Social Commentary

- Create a digital multimedia commentary which reflects your understanding of Indigenous issues in the past, present and future
- You can directly respond to the artists or to the issues they are highlighting.
- Consider the perspective from which you are viewing the texts and respond to the text personally, creatively, and/or critically

EFP 11 Content Goal: new media functions, including community building and advocacy			
Student friendly: I know new media functions, including community building and advocacy			
Access	**Essential**	**Confident**	**Extending**
I know what new media is and examples I know the importance of consent when using new media	I know the role of new media in modern communication I know how new media is used to build community	I know how new media is used for advocacy and social change efforts I know the importance of responsible digital citizenship in new media	I know how bias in new media can impact community, advocacy, and social justice efforts

EFP 11 Curricular Competency Goal: apply appropriate strategies in a variety of contexts to guide inquiry, extend thinking, and comprehend texts			
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Bio 20-1: Muscles Unit Test

Targeted Outcomes for this Task:

20-D4.2k - Students will know how muscles contract and that heat is generated in the muscles through contraction.

Approaching	Emerging	Developing	Confident	Extending
I know moving my muscles can make me warm.	I know that muscles can only contract and this produces heat. I know that muscles use actin and myosin to contract and this type of work requires ATP which releases heat.	I can explain a muscle cramp referring to how actin and myosin bind and identify the cause of the cramp.	I know the relationship between actin, the myosin and the tropomyosin	I understand the impact of various substances (i.e. poisons) and how they impact muscle contraction and function.

20- 4.3s I can **analyze** and **interpret** by:

- looking for patterns in my data to help me understand what is happening
- connecting my data to other scenarios and contexts
- coming up with some possible solutions or explanations for what is happening
- organizing and displaying my data in ways that make sense to me

Approaching	Emerging	Developing	Confident	Extending
I can make a logical decision when given choices, by using my background knowledge and observations.	I can identify patterns and trends in data and explain relationships among the variables.	I can interpret and connect my data to determine possible solutions or explanations for my investigation.	I can identify and evaluate potential applications of findings to different scenarios.	evaluate designs and prototypes in terms of function, reliability, safety, efficiency, use of materials and impact on the environment

20–4.4s I can **communicate** my findings by:

- using SI units and Sig Digs
    - presenting my findings so it makes sense to others (modes representation)

Approaching	Emerging	Developing	Confident	Extending
I/we don't give up when things get hard I/we can participate in a task without or without a group I/we share my thinking and ideas	I/we can understand what needs to be done, I know what the task is asking me/us to do I/we can communicate findings/results clearly I/we can use unit vocabulary when responding to tasks	I/we can choose my role based on the needs of the assignment and group I/we can follow the steps of a task I/we can use of multiple sources of information.	I can work to combine input and ideas from everyone in my group and create a clear presentation I/we can use multiple forms to present our findings (visual, oral, written)	I/we can connect our findings to multiple perspectives I/can ask follow up questions to understand the information

Task Question	Outcomes Targeted
Use these words to fill in the blanks in questions 1a-c below: contraction heat actin myosin warm/hot **1 a. I know that when I move my body I feels _____.**	**20-D4.2k** (approaching) **20- 4.3s** (approaching) **20–4.4s** (approaching)
1b. Muscles are made up of _____ and _____. **1c. The movement between actin and myosin is done through _____ movement only, and a by-product of this movement produces ATP and _____.**	**20-D4.2k** (emerging) **20- 4.3s** (approaching) **20–4.4s** (approaching)
2. After exercising heavily, athletes sometimes experience muscle cramps. Explain what is happening in the muscle when it is cramping ensuring you reference actin, myosin, and the specific cause of a cramp in your description.	**20-D4.2k** (developing) **20–4.4s** (approaching/ emerging)

Grade 11 Biology Quiz

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I can make a logical decision when given choices, by using my background knowledge and observations.	I can identify patterns and trends in data and explain relationships among the variables.	I can interpret and connect my data to determine possible solutions or explanations for my investigation.	I can identify and evaluate potential applications of findings to different scenarios.	evaluate designs and prototypes in terms of function, reliability, safety, efficiency, use of materials and impact on the environment

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Approaching	Emerging	Developing	Confident	Extending
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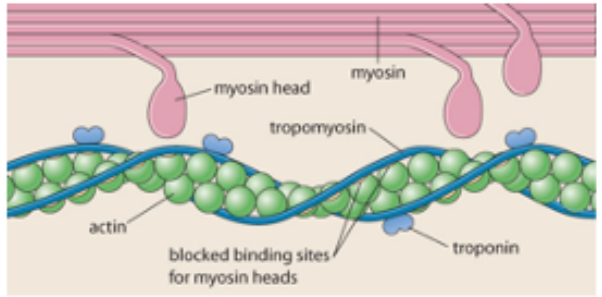
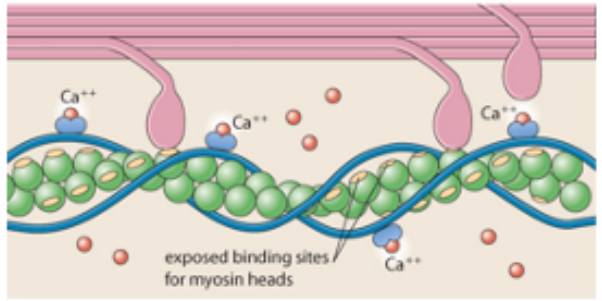
5. Use the following additional information to answer the next two questions.

Additional experiments using injections of radioactive Ca^{2+} show that the ions are stored within the sacs of the sarcoplasmic reticulum in resting muscle tissue. When the tissue is stimulated to contract with electrodes, the radioactive Ca^{2+} ions are found among the actin and myosin filaments as shown below.



The muscle is at rest.



The muscle is contracting.

5a. Refer to diagram of the muscle at rest above, and explain what effect a lack of tropomyosin would have in muscle tissue

5b. The diagram of the muscle contracting shows the role of calcium ions in repositioning tropomyosin. Where are these ions stored when the muscle is at rest? What causes them to move among the actin and myosin filaments?

20-D4.2K (confident)

20–4.4s (approaching/ emerging)

Grade 11 Biology Quiz

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20–4.4s I can **communicate** my findings by:

- using SI units and Sig Digs
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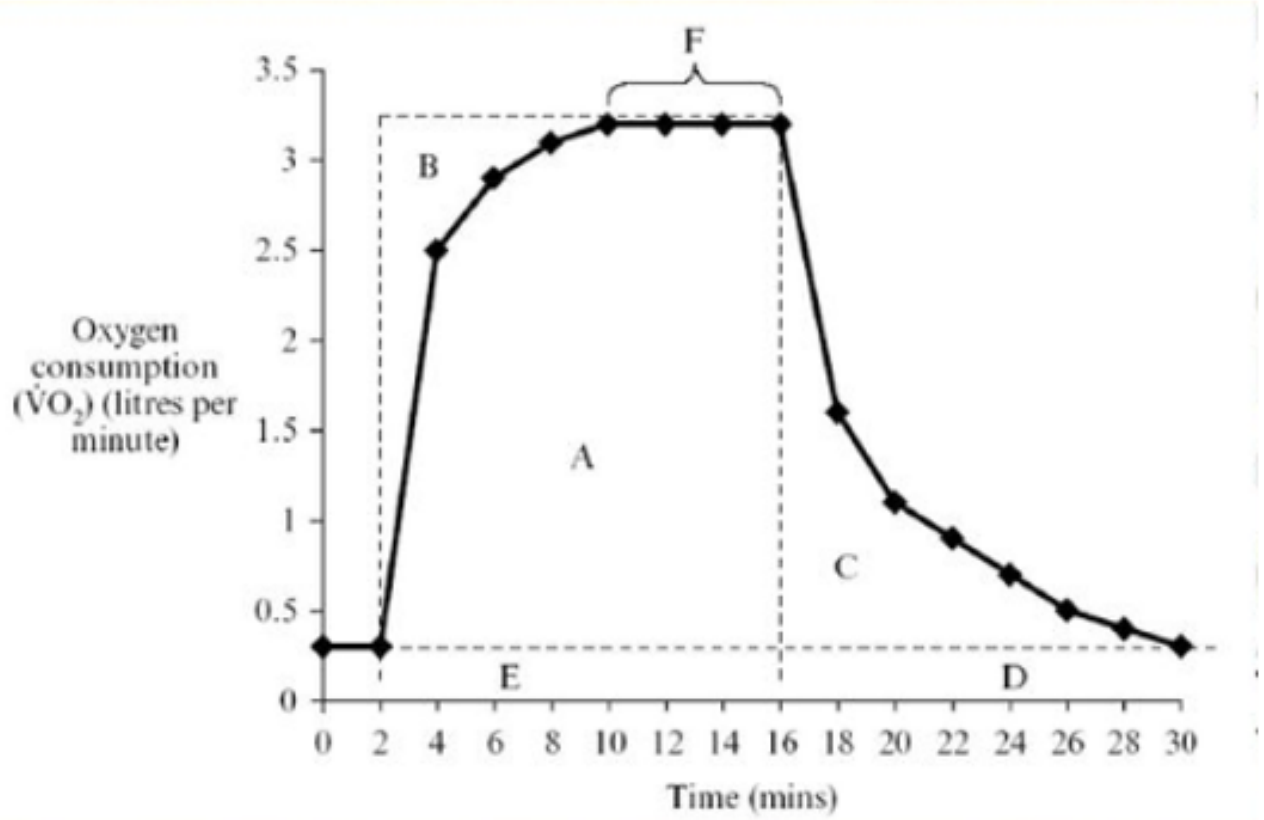
6. *Use the following information to answer the next two questions.*

The graph shows the oxygen consumption of a subject during a period of rest, exercise, and recovery.



5a.	Which letter (A-F) represents the oxygen deficit?	**20-D4.2k** (emerging)
b.	How long did the exercise last?	**20-D4.2k** (emerging)
c.	What is occurring during C?	**20- 4.3s** (emerging)

Grade 11 Biology Quiz

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