

SHELLEY MOORE



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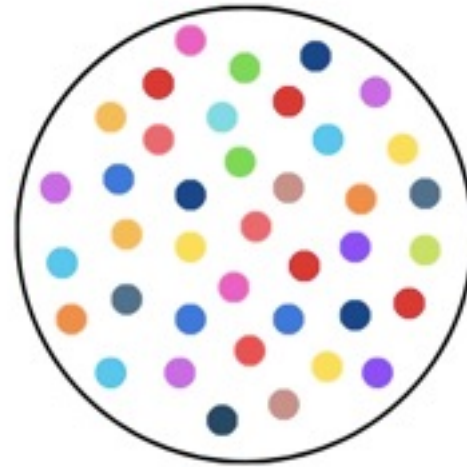
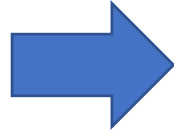
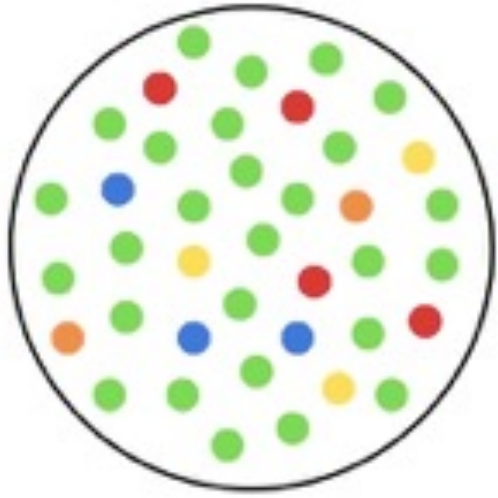


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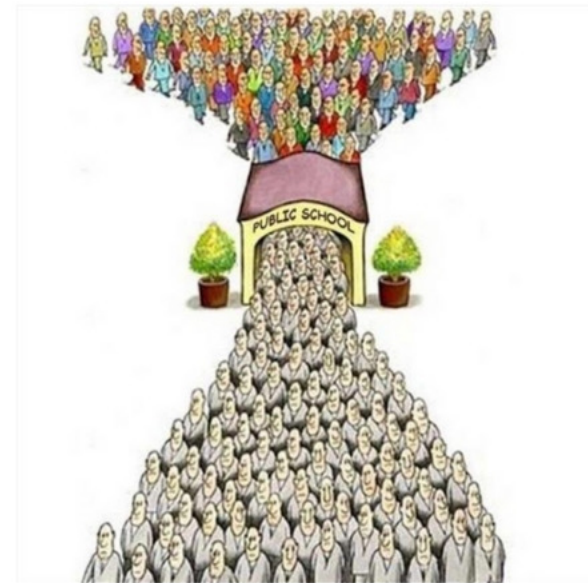
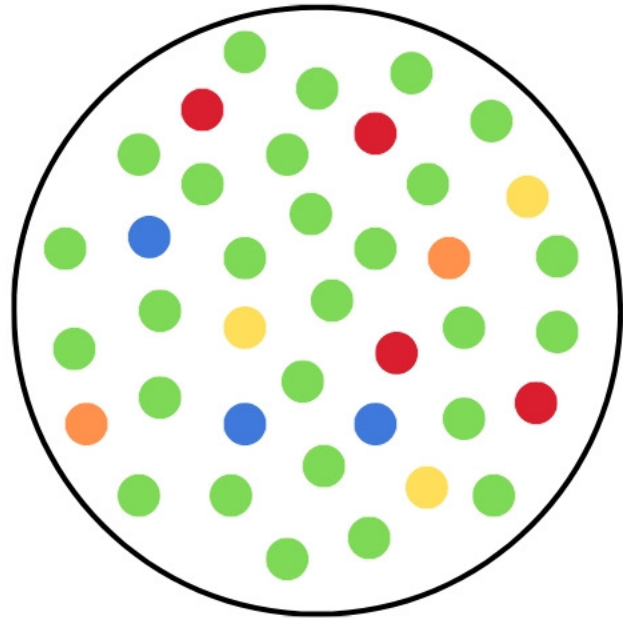
What is inclusion?



How do we include
people who are
different

How do we teach
to diversity?

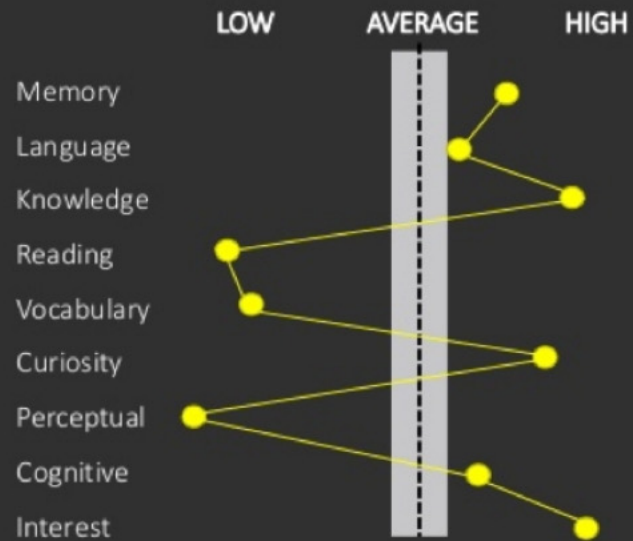
WHERE DID **GREEN** COME FROM?



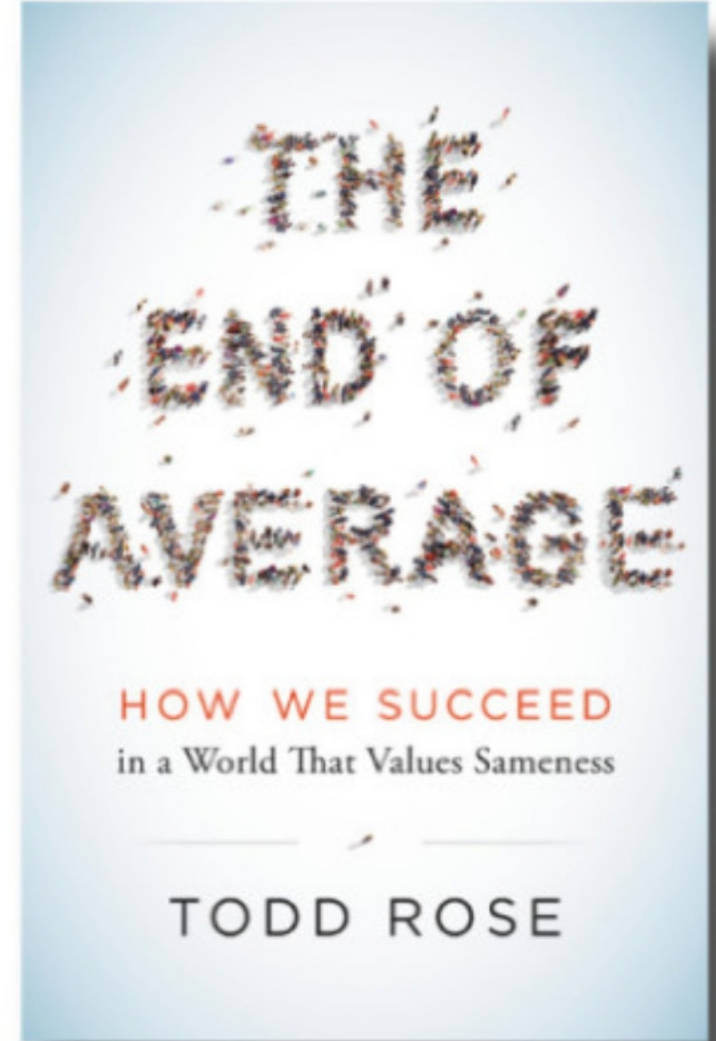
GREEN = AVERAGE

The End of Average!

The average student is a myth



The Myth of Average: Todd Rose at TEDxSonomaCounty: <https://www.youtube.com/watch?v=4eBmyttcfU4>



THE AIRPLANE DILEMMA...

Effectiveness: Building individualized
planes for every pilot

Efficiency: Building one standardized
plane for ALL pilots

THE CURRICULUM DILEMMA...

Effectiveness: Building individualized education plans for every student

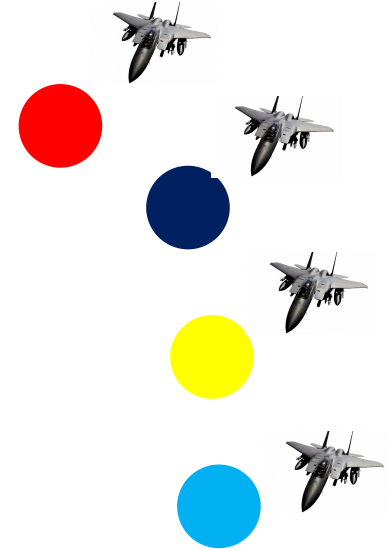
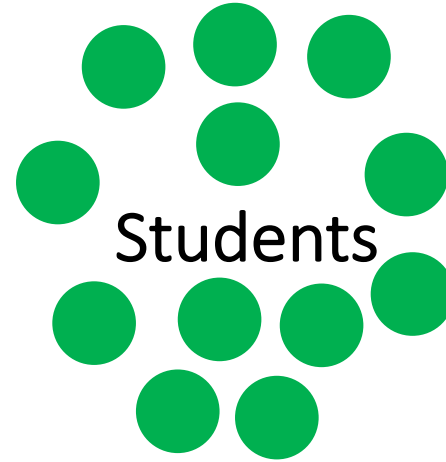
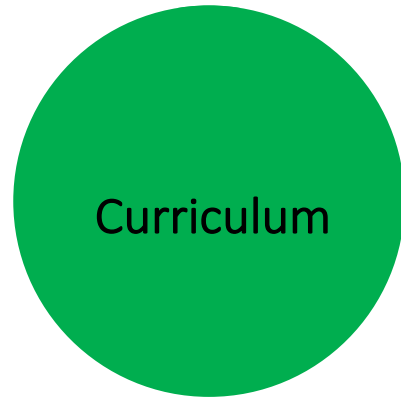
Efficiency: Building one standardized curriculum for ALL students

A SOLUTION?! Effective & Efficient?

An adjustable plane designed for a
range of dimensions

An adjustable curriculum designed for
a range of diversity

WHAT'S THE DIFFERENCE?



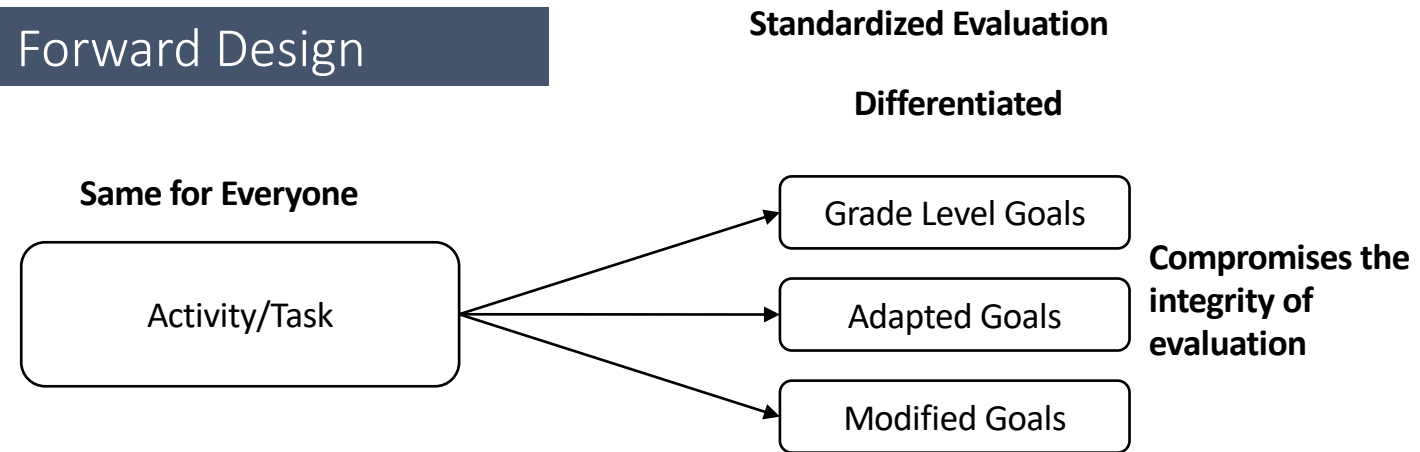
DESIGN: THE MOST UNDERUTILIZED SUPPORT



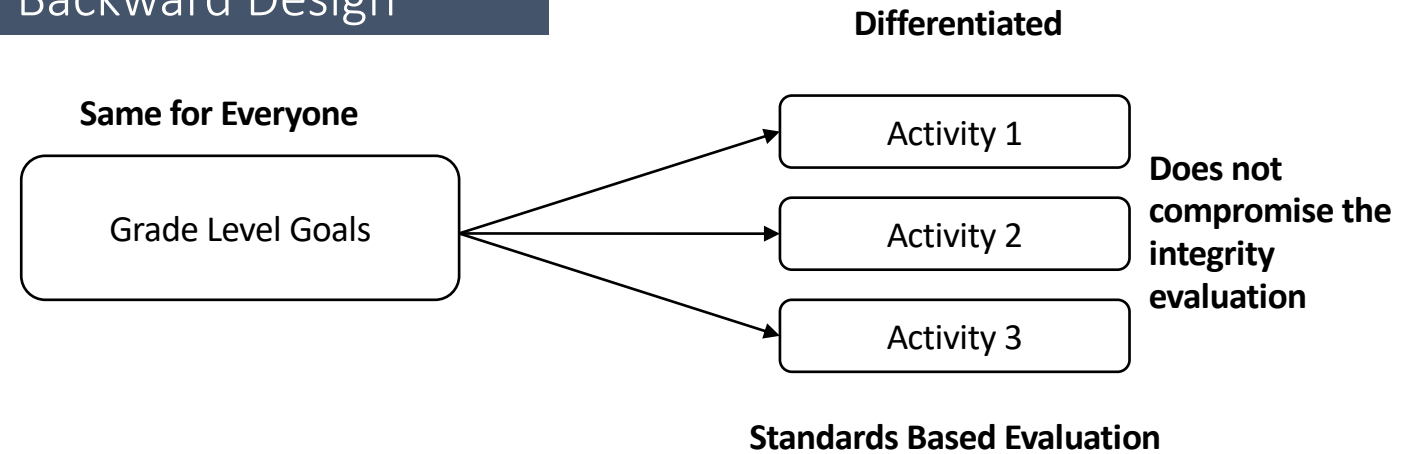
Sexsmith Secondary

- Grade: 11
- Subject Area: Biology 11
- CT: Ali L.
- EA: Tanya C.
- SET: Erin M.
- District Principal: Karen C.
- Target Student:
 - TM: Complex/multiple disabilities

Forward Design



Backward Design

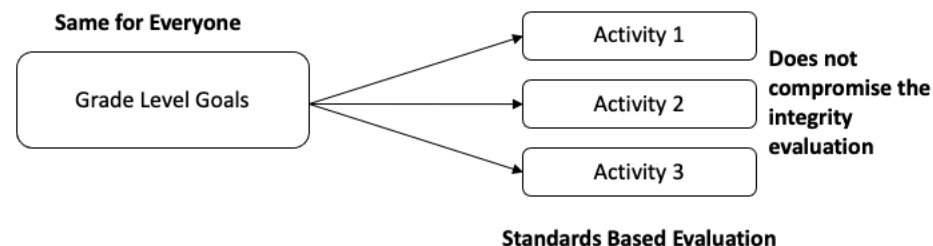


Our Unit Questions

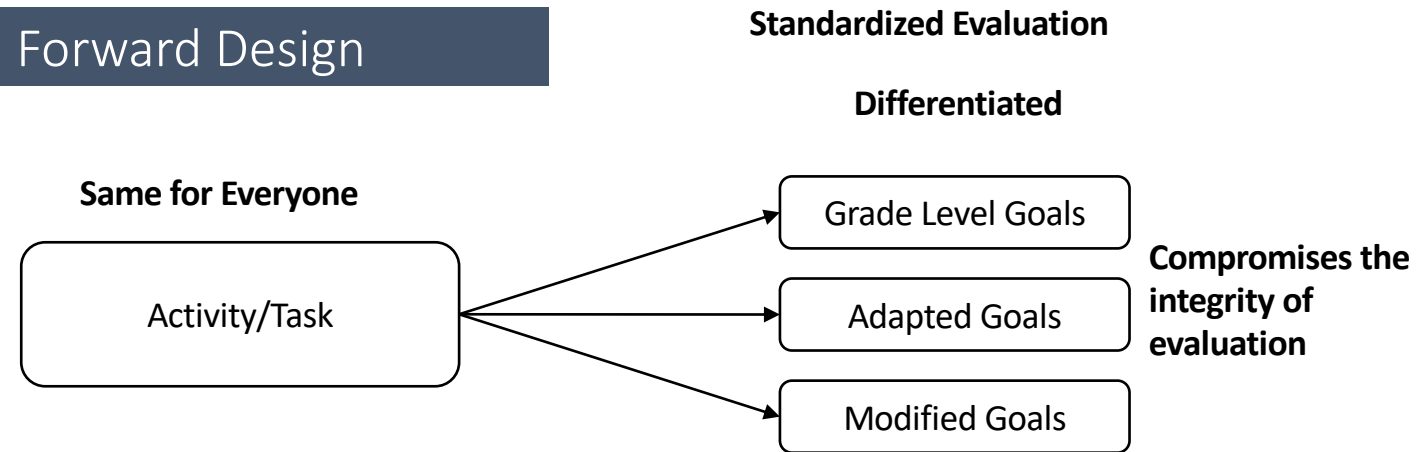
- How are carbon, oxygen, nitrogen and phosphorus cycled in the biosphere?
- How is the flow of energy balanced in the biosphere?
- How have human activities and technological advances affected the balance of energy and matter in the biosphere?

General Learning Outcome: Students will understand the constant flow of energy through the biosphere and ecosystems.			
Unit Goals: Curricular Language		Student Friendly Language	
Knowledge	20–A1.1k Students will: explain, in general terms, the one-way flow of energy through the biosphere and how stored energy in the biosphere , as a system, is eventually “lost” as heat	Knowledge	I know how energy is used in a biosphere (stored, transferred, lost)
	20–A1.2k Students will: explain how energy in the biosphere can be perceived as a balance between both photosynthetic and chemosynthetic activities and cellular respiratory activities		I know that energy in different biospheres is balanced and cycles I know how biospheres are interconnected
	20–A1.3k Students will explain the structure of ecosystem trophic levels, using models such as food chains and food webs		I know what an ecosystem is and how it is organized
	20–A1.4k Students will explain, quantitatively, the flow of energy and the exchange of matter in aquatic and terrestrial ecosystems, using models such as pyramids of numbers, biomass and energy		I know how energy moves in an ecosystem I know how to represent the movement of energy in ecosystems using a model
STS	20–A1.1sts Students will: explain that the process of scientific investigation includes analyzing evidence and providing explanations based upon scientific theories and concepts	STS	I can connect what I am learning about biospheres to real life examples and events
Specific Outcomes for Skills	Initiating and Planning 20–A1.1s Students will: formulate questions about observed relationships and plan investigations of questions, ideas, problems, and issues	Specific Outcomes for Skills	I can initiate and plan by: • by asking questions about what I observe in my environment • by making predicting based on what I observe
	Performing and Recording 20–A1.2s Students will: conduct investigations into relationships among observable variables and use a broad range of tools and techniques to gather and record data and information perform an experiment		I can investigate and record my observations by: • using different tools and techniques to gather data • complete an experiment
	Analyzing and Interpreting 20–A1.3s Students will: analyze data and apply mathematical and conceptual models to develop and assess possible solutions		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
	Communication 20–A1.4s Students will: work collaboratively in addressing problems and apply the skills and conventions of science in communicating information and ideas and in assessing results		I can communicate my findings by: • using SI units and Sig Digs • presenting my findings so it makes sense to others (modes representation)

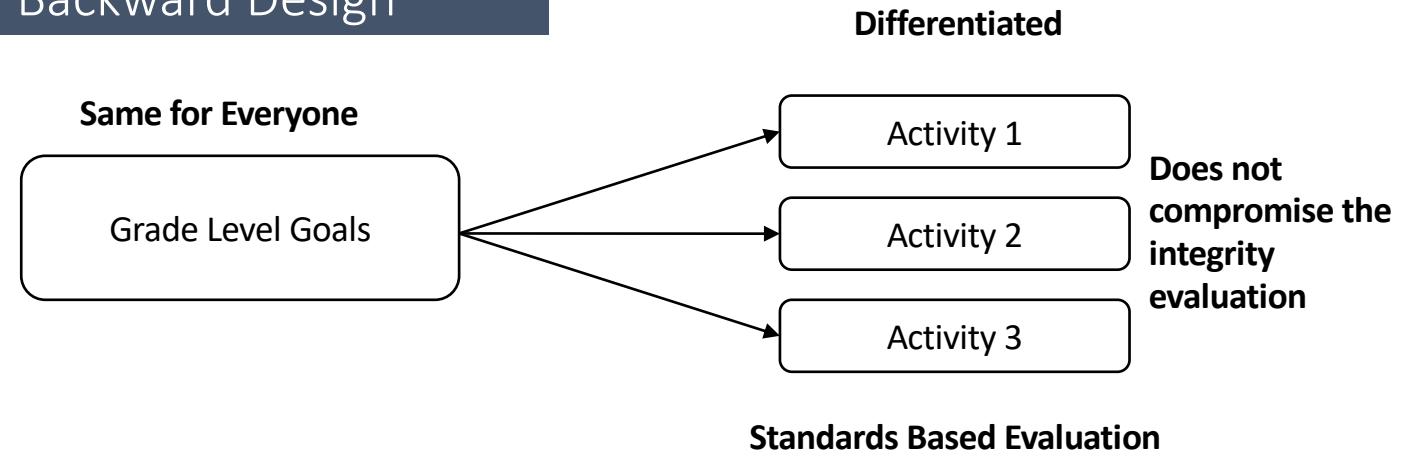
Backward Design



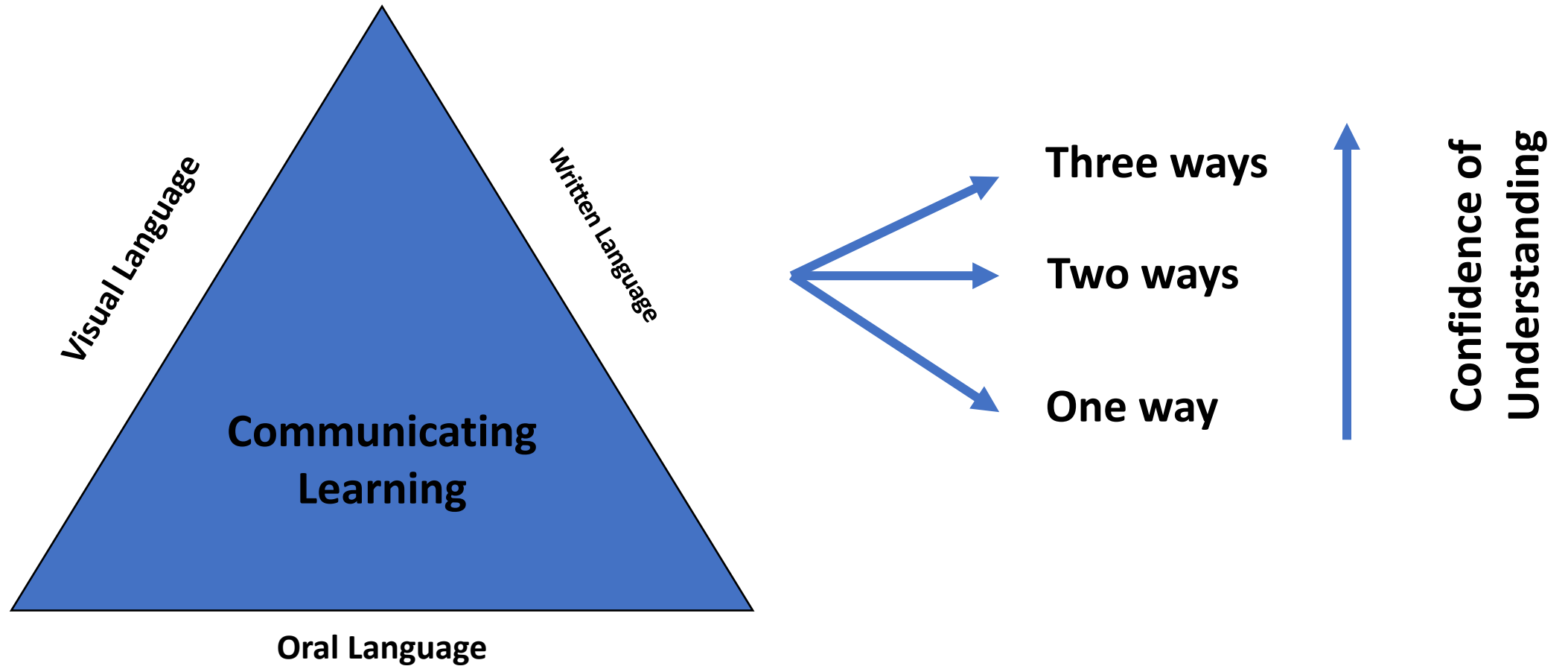
Forward Design



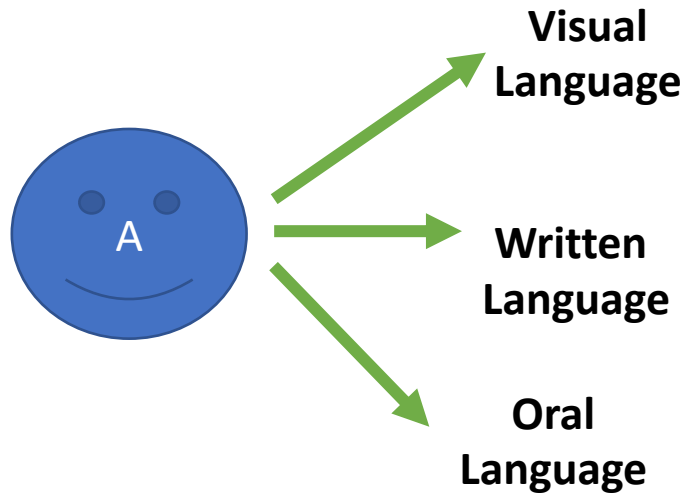
Backward Design



How do student show what they know?



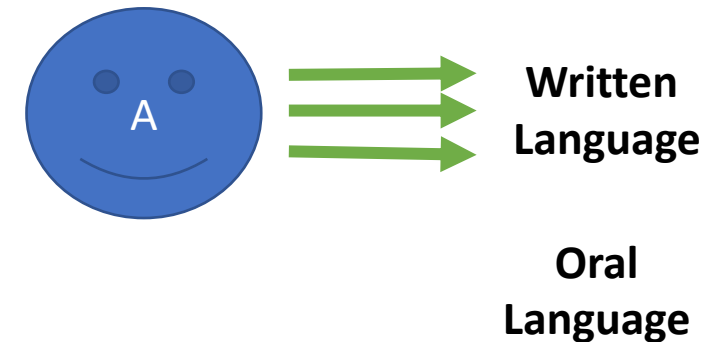
All Languages (in literacy) are Treated Equal!



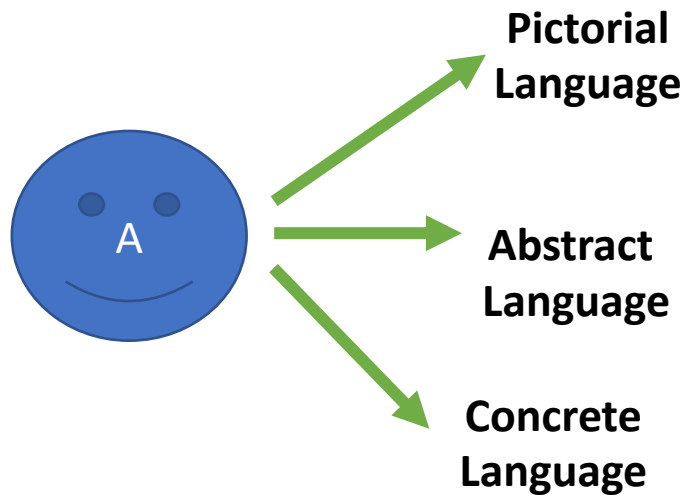
The **MORE WAYS** students can demonstrate learning, the more confident we are of meeting a goal

Instead of

The **NUMBER OF TIMES**, a student can show their learning in one way, the more confident we are of meeting a goal



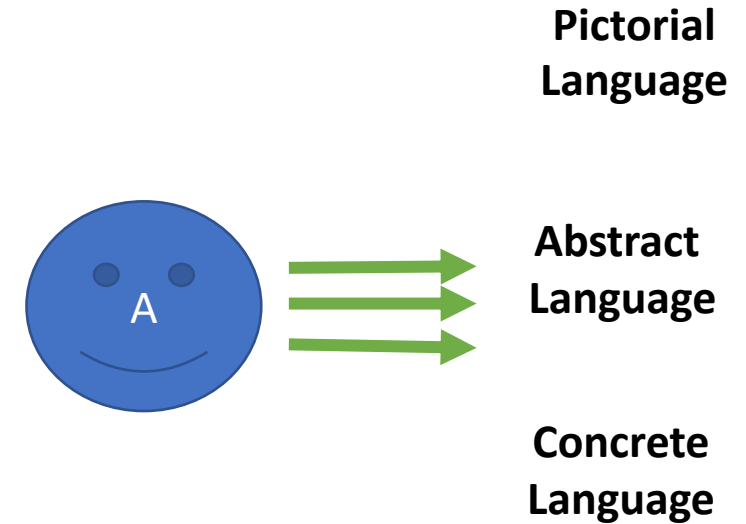
All Languages (in numeracy) are Treated Equal!



The **MORE WAYS** students can demonstrate learning, the more confident we are of meeting a goal

Instead of

The **NUMBER OF TIMES**, a student can show their learning in one way, the more confident we are of meeting a goal



Name:	Date:	Unit Topic:
Unit Guiding Questions		
I still need support	Curricular Standards	I need some challenge

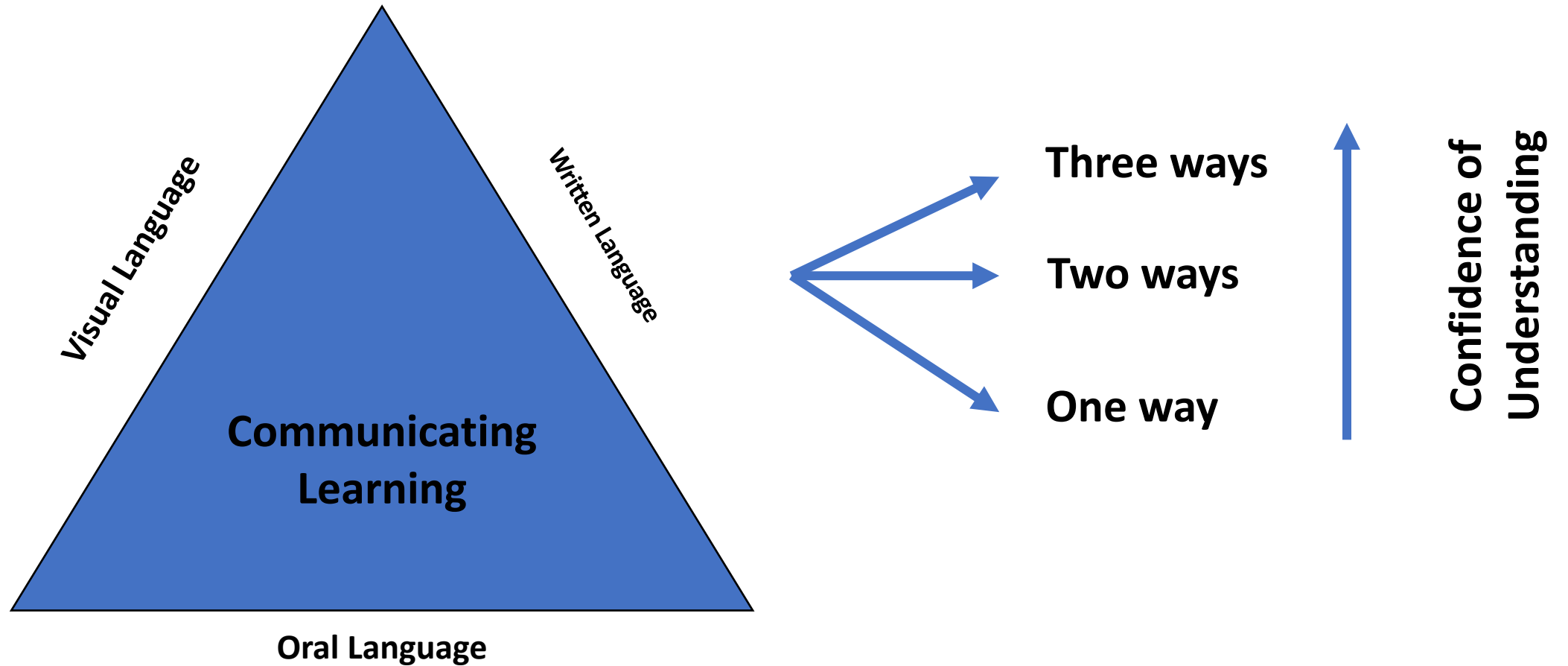
Name:	Date:	Unit Topic:
Unit Guiding Questions		
I still need support	Curricular Standards	I need some challenge
	20-20–A1.1k Students will: explain, in general terms, the one-way flow of energy through the biosphere and how stored energy in the biosphere , as a system, is eventually “lost” as heat	
	20–A1.2k Students will: explain how energy in the biosphere can be perceived as a balance between both photosynthetic and chemosynthetic activities and cellular respiratory activities	
	20–A1.3k Students will explain the structure of ecosystem trophic levels, using models such as food chains and food webs	
	20–A1.4k Students will explain, quantitatively, the flow of energy and the exchange of matter in aquatic and terrestrial ecosystems, using models such as pyramids of numbers, biomass and energy	
	20–A1.1sts Students will: explain that the process of scientific investigation includes analyzing evidence and providing explanations based upon scientific theories and concepts	

Name:		Math 10 C		Date:		Topic: Measurement		
Unit Guiding Question:								
Curricular Standards	My evidence of learning		Showing my Learning			I Need Support	I Need Challenge	
	Actvtivities/ tasks		concrete	pictorial	abstract			

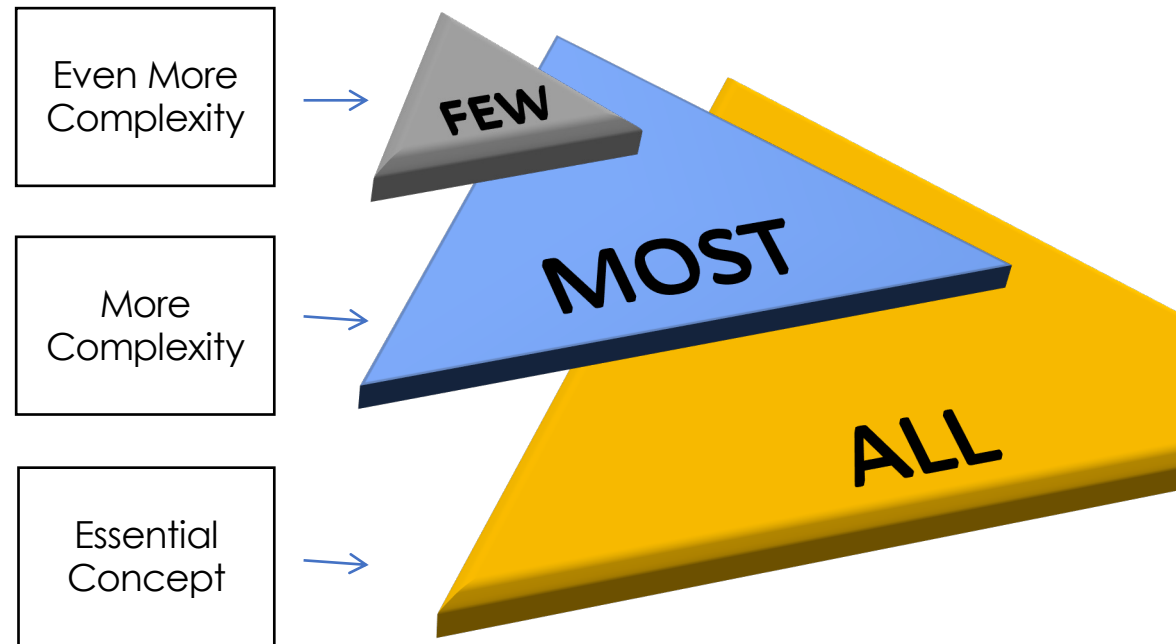
Name:	Math 10 C	Date:	Topic: Measurement			
Unit Guiding Question: What is spatial sense? What is proportional reasoning? How are they connected?						
Curricular Standards	My evidence of learning	Showing my Learning			I Need Support	I Need Challenge
	Actvtivities/ tasks	concrete	pictorial	abstract		
20-20–A1.1k Students will: explain, in general terms, the one-way flow of energy through the biosphere and how stored energy in the biosphere , as a system, is eventually “lost” as heat						
20–A1.2k Students will: explain how energy in the biosphere can be perceived as a balance between both photosynthetic and chemosynthetic activities and cellular respiratory activities						
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20–A1.4k Students will explain, quantitatively, the flow of energy and the exchange of matter in aquatic and terrestrial ecosystems, using models such as pyramids of numbers, biomass and energy						
20–A1.1sts Students will: explain that the process of scientific investigation includes analyzing evidence and providing explanations based upon scientific theories and concepts						

Making Standards adjustable

How do student show what they know?



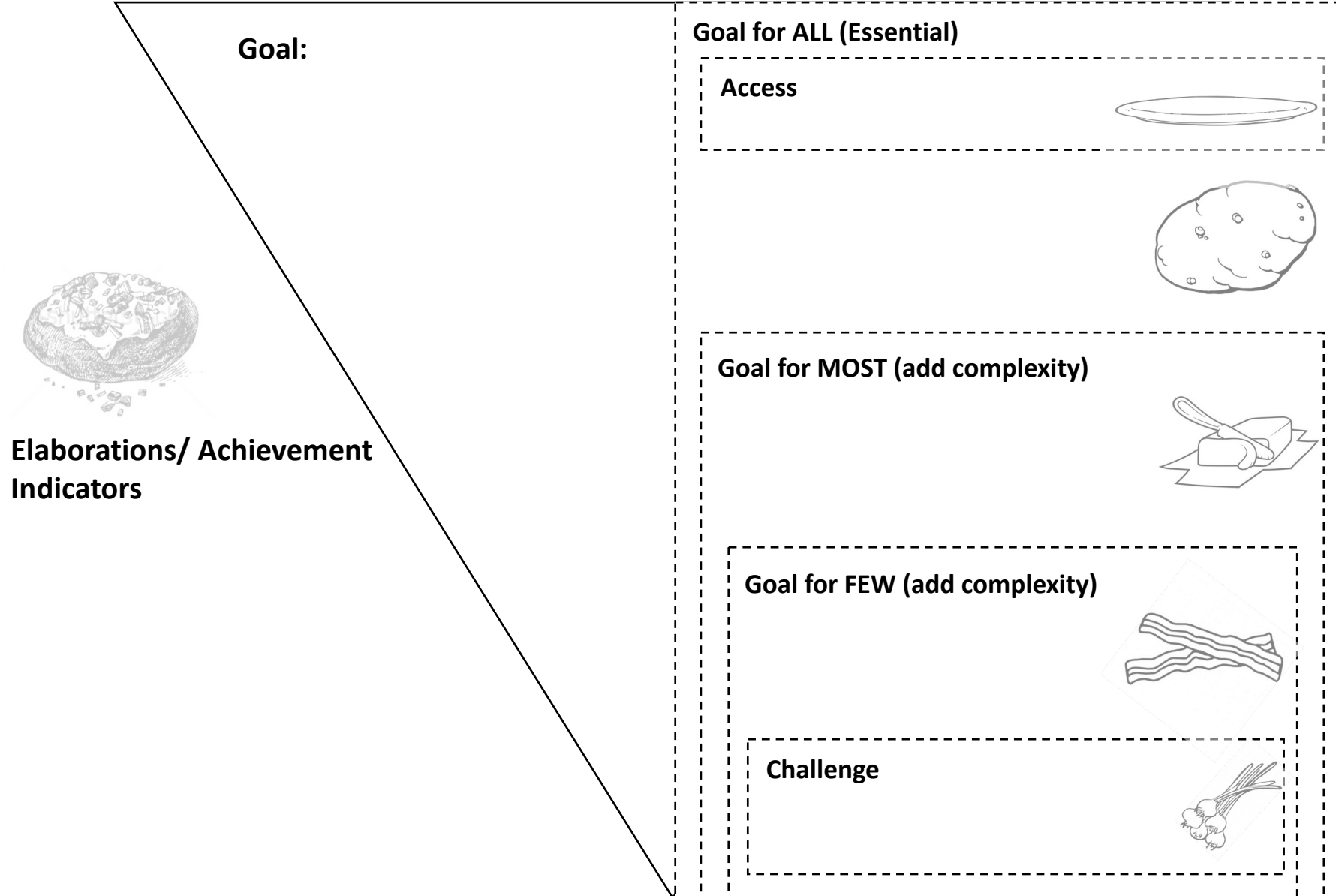
The Planning Pyramid: Differentiated Curriculum



Start from access, build on challenge



The Baked Potato Planning Strategy:



Our Co-Planning Journey: Learning Continuums

1. Using the elaborations for each learning outcome, we constructed a **grade-level scaffold** in *student friendly language*

Learning Outcome:				
Student friendly:				
Grade Level				
Approaching	Emerging	Developing	Confident	Extending

2. We started with the **most essential concept** of the outcome and then we **added on complexity**

3. We extended the grade level scaffold to include an **access point** and **challenge point**

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 <u>myosin</u> and the tropomyosin	I understand the impact of various substances (<u>i.e. poisons</u>) 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 <u>follow</u> up questions to understand the information

Tasks

General Learning Outcome: 20-A1.4s I can work collaboratively and communicate my findings by presenting so that it makes sense to others

Student Evidence

RESPONSE 1 - NAME: H

I agree with the question. I believe that rising Carbon Dioxide will benefit plants. Photosynthesis relies on energy, water and carbon dioxide. Carbon Dioxide being one of the most important. Therefore if there was more Carbon Dioxide in the world, then it could increase the growth of plants. It would also increase the time. The plants could grow faster.

Specific Learning Outcome:

Modeling Responses				
20-A1.4s I can work collaboratively & communicate my findings by:				
• presenting my findings so it makes sense to others (modes representation)				
Approaching	Emerging	Developing	Confident	Extending
I know my assigned role and I complete the tasks assigned to my role within a group.	I can choose my role cooperatively based on a given template, based on the needs of the assignment and group. I am able to communicate overall findings/results clearly.	I can understand what needs to be done and carry out the steps to complete and communicate the tasks, with the support of guiding questions, cues and prompts. I can show synthesis of multiple sources of information.	I can work effectively in my group to synthesize our results into a clear and concise presentation/report.	I can work effectively in my group to synthesize, using classwork and my personal background knowledge, and our results into a clear and concise presentation/report.

General Learning Outcome: 20-A1.4s I can work collaboratively and communicate my findings by presenting so that it makes sense to others

Student Evidence

RESPONSE 1 - NAME: P

I disagree that rising carbon dioxide levels can benefit plants and, in addition, other organisms. I say this because when CO₂ rises it can cause the warmth of the atmosphere, climate change. Climate change affects the conditions for the plants to grow and can cause damage to environments as plants can start dying. This can affect the whole dynamic of ecosystems as certain animals can't rely on the same resources for food. As well as certain plants, such as Poison Ivy, can have an increase in growth, but they can have negative health effects on humans that are allergic to them.

<https://environment.co/how-does-global-warming-affect-plants/#:~:text=Climate%20change%20causes%20warmer%20summer,flower%20earlier%20in%20the%20season.&text=As%20precipitation%20decreases%2C%20flowers%20may%20bloom%20later%20in%20the%20season.>

Specific Learning Outcome:

Modeling Responses				
20-A1.4s I can work collaboratively & communicate my findings by:				
● presenting my findings so it makes sense to others (modes representation)				
Approaching	Emerging	Developing	Confident	Extending
I know my assigned role and I complete the tasks assigned to my role within a group.	I can choose my role cooperatively based on a given template, based on the needs of the assignment and group. I am able to communicate overall findings/results clearly.	I can understand what needs to be done and carry out the steps to complete and communicate the tasks, with the support of guiding questions, cues and prompts. I can show synthesis of multiple sources of information.	I can work effectively in my group to synthesize our results into a clear and concise presentation/report.	I can work effectively in my group to synthesize, using classwork and my personal background knowledge, and our results into a clear and concise presentation/report.

Course: Bio 20

Student: M

General Learning Outcome: 20-A1.4s I can work collaboratively and communicate my findings by presenting so that it makes sense to others

Student Evidence

RESPONSE 1 - NAME: M

I agree with the article, it's points about how is you add more CO2 you'd also need nitrogen to increase, there was a trial that had artificially CO2 added to an ecosystem, that caused an increase of 23% for tree productivity but over time these trials show a diminish of CO2 improvements, CO2 also rises temperature, meaning more droughts and heat stress, which will negatively affect plants by overwhelming them, CO2 does benefit agriculture plants better than wild ones but over time the effects wear off and there's still the issue of heat, CO2 also worsens plants health values, such as iron, zinc, and protein.

Source:

<https://www.scientificamerican.com/article/ask-the-experts-does-rising-co2-benefit-plants1/>

Specific Learning Outcome:

Modeling Responses

20-A1.4s I can work **collaboratively & communicate** my findings by:

- presenting my findings so it makes sense to others (modes representation)

Approaching	Emerging	Developing	Confident	Extending
I know my assigned role and I complete the tasks assigned to my role within a group.	I can choose my role cooperatively based on a given template, based on the needs of the assignment and group. I am able to communicate overall findings/results clearly.	I can understand what needs to be done and carry out the steps to complete and communicate the tasks, with the support of guiding questions, cues and prompts. I can show synthesis of multiple sources of information.	I can work effectively in my group to synthesize our results into a clear and concise presentation/report.	I can work effectively in my group to synthesize, using classwork and my personal background knowledge, and our results into a clear and concise presentation/report.

Tests

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 <u>myosin</u> and the tropomyosin	I understand the impact of various substances (<u>i.e. poisons</u>) 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 <u>follow</u> 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)

Bio 20-1: Muscles Unit Test

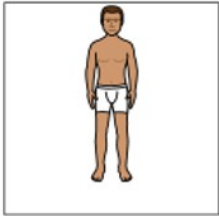
Targeted Outcomes for this Task:

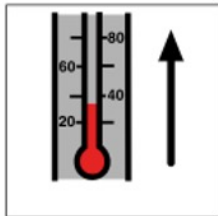
20-D4.2k - Students will know how muscles contract and that heat is generated in the muscles through contraction.				
Approaching	Emerging	Developing	Confident	Extending
I know moving my muscles can make me warm.	I know that muscles can only contract and this produces heat. I know that muscles use actin 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 <u>follow</u> up questions to understand the information
ACCESS Point/Alternate Goal	Grade Level (pass)			

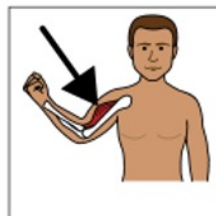
Name: _____ Date: _____

1. Use the words in the box to label the pictures

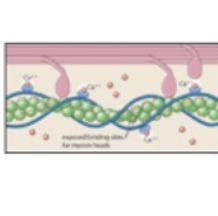
contracting	actin and myosin	warm
heat	muscles	body













This question is evidence of learning goals:

- 20-D4.2K (R)
- 20-4KS (R)
- 20-4.4S (R)

2. Use the words in the box to complete the paragraph:

contracting	actin and myosin	warm
heat	muscles	body

When I move around a lot, my _____ feels _____ .

My body feels warm because my muscles are _____ and

when my muscles contract, the movement between _____

releases ATP and _____ .

This question is evidence of learning goals:

- 20-D4.2K (R, E)
- 20-4KS (R)
- 20-4.4S (R)

Grade 11 Biology Quiz

Bio 20-1: Muscles Unit Test

Targeted Outcomes for this Task:

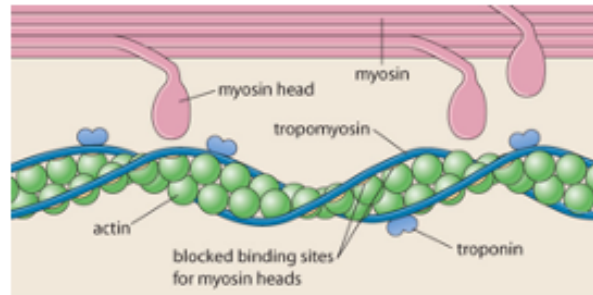
20-D4.2k - Students will know how muscles contract and that heat is generated in the muscles through contraction.				
Approaching	Emerging	Developing	Confident	Extending
I know moving my muscles can make me warm.	I know that muscles can only contract and this produces heat. I know that muscles use actin 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

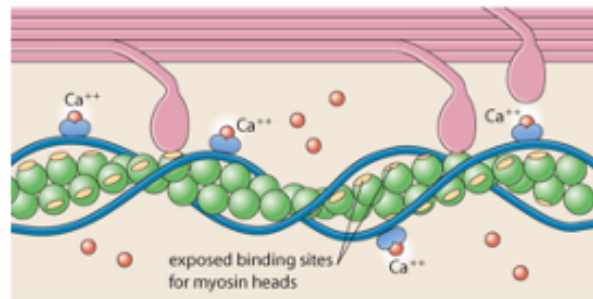
20-4.4s I can communicate my findings by: - using SI units and Sig Digs - presenting my findings so it makes sense to others (modes representation)				
Approaching	Emerging	Developing	Confident	Extending
I/we don't give up when things get hard I/we can participate in a task without or without a group 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

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?

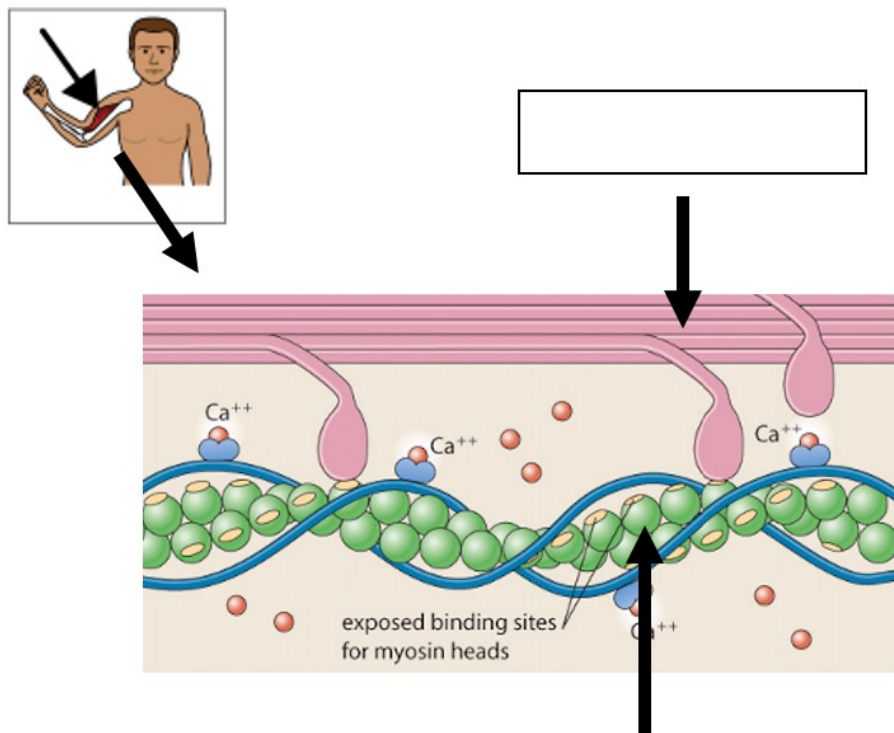
20-D4.2K (confident)

20-4.4s (approaching/
emerging)

3. Label the diagram of the muscle below.

Which part of the muscle is pointing to **MYOSIN**?

Which part of the muscle is pointing to **ACTIN**?



This question is evidence of learning goals:

- 20-D4.2K (R, E)
- 20-4KS (R)
- 20-4.4S (R)

Grade 11 Biology Quiz

Bio 20-1: Muscles Unit Test

Targeted Outcomes for this Task:

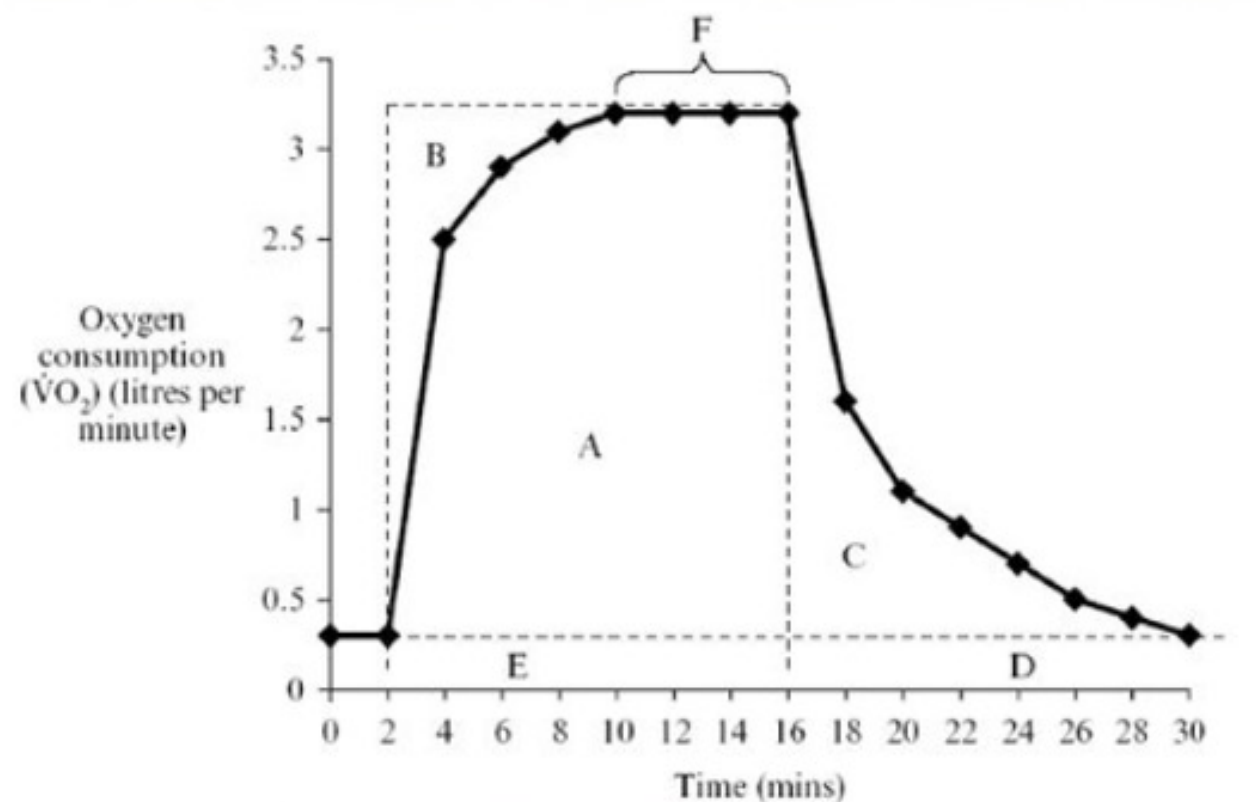
20-D4.2k - Students will know how muscles contract and that heat is generated in the muscles through contraction.				
Approaching	Emerging	Developing	Confident	Extending
I know moving my muscles can make me warm.	I know that muscles can only contract and this produces heat. I know that muscles use actin 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 <u>myosin</u> and the tropomyosin	I understand the impact of various substances (i.e. <u>poisons</u>) 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				
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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 <u>follow up</u> questions to understand the information

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)

Name: _____ Date: _____

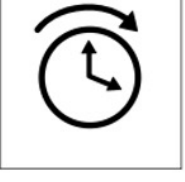
4. Use the words in the box to label the pictures. Use these words to help you in the next question

rest

exercise

recovery

how long

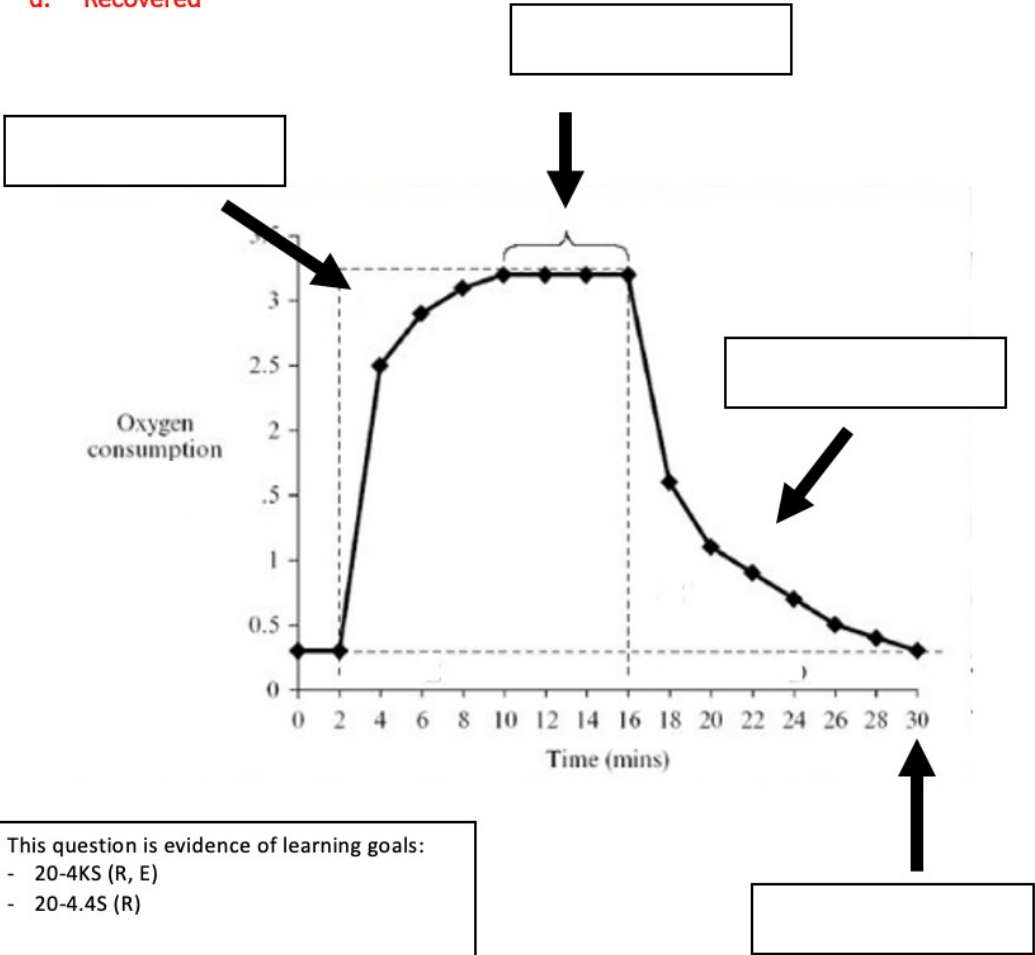


This question is evidence of learning goals:

- 20-D4.2K (R)
- 20-4KS (R)
- 20-4.4S (R)

4. This graph shows how a person’s body moves during exercise. Can you figure out when they:

- a. Took a **rest**
- b. **Exercised really hard**
- c. **How long** they exercised for
- d. **Recovered**



This question is evidence of learning goals:

- 20-4KS (R, E)
- 20-4.4S (R)

Grade 11 Biology Quiz

Bio 20-1: Muscles Unit Test

Targeted Outcomes for this Task:

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Our Co-Planning Journey: Learning Continuums

1. Using the elaborations for each learning outcome, we constructed a **grade-level scaffold** in *student friendly language*

Learning Outcome:				
Student friendly:				
Grade Level				
Approaching	Emerging	Developing	Confident	Extending

2. We started with the **most essential concept** of the outcome and then we **added on complexity**

3. We extended the grade level scaffold to include an **access point** and **challenge point**

1. Standards based vs. standardized curriculum

Kristine Nannini YoungTeacherLove

Standards Based Grading

...helps teachers:

Give quality feedback

In the traditional grade book, Katie and her parents would see her grades and think she is getting by just fine.

But standards based grading reveals that she has not completely mastered the standards.

Traditional Grade Book

Name	Homework	Quiz 1	Quiz 2	Chapter 2 Test
Katie	90%	88%	82%	80%
Joe	60%	75%	88%	70%
Sara	10%	90%	98%	100%
John	100%	50%	60%	54%

Standards Based Grade Book

	Standard 1: Use parenthesis, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	Standard 2: Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.	Standard 3: Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.
Katie	4	2	2
Joe	2	3	1

Our Co-Planning Journey: Learning Continuums

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An Additive Continuum of Proficiency

Assessment Language	Grade Level Emerging	Grade Level Developing	Grade Level Confident
Grade Level Learning Standard	Essential Concept	More complexity	More complexity
			
			
			

An Additive Continuum of Proficiency

Grade Level Learning Standard	Approaching Grade Level	Grade Level Emerging	Grade Level Developing	Grade Level Confident	Extending Grade Level
Assessment Language	Access Point (Curricular IEP Goal)	Essential Concept	More complexity	More complexity	Creating Challenge
	Incomplete IEP evaluation C/C- B/ B+ A A+				

An Additive Continuum of Proficiency (4 Point)

Grade Level Learning Standard	Approaching Grade Level	Grade Level Emerging	Grade Level Developing	Grade Level Confident	Extending Grade Level
Assessment Language	Access Point (Curricular IEP Goal)	Essential Concept	More complexity	More complexity	Creating Challenge

General Learning Outcome		1. Student will explain the constant flow of energy through the biosphere and ecosystems																																								Biosphere Project							
Specific Learning Outcome		20–A1.1k					20–A1.3k					20–A2.1k					20–A2.2k					20–A3.1k					20–A3.2k					20–A3.1sts					20–A1.1s					20–A1.4s					Total	Out of	%
Curricular Outcome - Student Language		I know how energy is used in a biosphere (stored, transferred, lost)					I know what an ecosystem is and how it is organized					I know the biogeochemical cycles (carbon, oxygen, nitrogen & phosphorus) and can explain how they recycle matter					I know the role of water in the hydrologic (water) cycle, label the steps and explain the process of the water cycle					I know how energy and matter cycle through an ecosystem and how this impacts the productivity of the ecosystem.					I know how photosynthesis and cellular respiration work together in the atmosphere					I can connect the value of creating a biosphere to meet the future needs of society.					I can initiate and plan by: -asking questions about what I observe in my environment -making predictions based on what I observe					I can work collaboratively and communicate my findings by: -presenting my findings so that it makes sense to others (modes of resprestation)							
Specific tasks in Biopshere project pertaining to this Outcome		Breakdown of the food necessary to have in the biosphere. Ingredients needed for your favourite food.					Planet choice, inhabitants and carrying capacity.					Oxygen in the biosphere					Water in the biosphere					Biomes chosen and description					Article Review					Model created					All planning pages that led to the development of your model.					(model) is clear and understandable, infomercial communicated key elements of project,							
Learning Outcome Progressions		Approaching	Emerging	Developing	Confident	Extending	Approaching	Emerging	Developing	Confident	Extending	Approaching	Emerging	Developing	Confident	Extending	Approaching	Emerging	Developing	Confident	Extending	Approaching	Emerging	Developing	Confident	Extending	Approaching	Emerging	Developing	Confident	Extending	Approaching	Emerging	Developing	Confident	Extending	Approaching	Emerging	Developing	Confident	Extending	Approaching	Emerging	Developing	Confident	Extending			
Biosphere Project		1E/1EP	2	3	3.5	4	1E/1EP	2	3	3.5	4	1E/1EP	2	3	3.5	4	1E/1EP	2	3	3.5	4	1E/1EP	2	3	3.5	4	1E/1EP	2	3	3.5	4	1E/1EP	2	3	3.5	4	1E/1EP	2	3	3.5	4	1E/1EP	2	3	3.5	4			
Student	11																																												0	36	0		
Student	12				3.5					3.5				3						3.5					3.5				3.5					4						3.5			32	36	88.8888889				
Student	13				3.5					3.5				3					3					3.5				3.5					3				3.5			31	36	84.7222222							
Student	14				3.5					3.5				3					3					3.5				3.5					3				3.5			30	36	83.3333333							
Student	15			3						3.5				3					3					3.5				3						3				3.5			29	36	79.1666667						
Student	16				3.5					3.5				3					3					3.5				3.5					3				4			3.5			32	36	87.5				
Student	17																																												0	36	0		
Student	18		2						3			0					0							0				3					3				3			2			16	36	44.4444444				
Student	19																																												0	36	0		
Student	20		2						3					3					3			0					3			3				3				3			2			22	36	61.1111111			
Student	21					4					4									3					3						4						4				4			34	36	94.4444444			
Student	22																																												0	36	0		
Student	23																																												0	36	0		
Student	24																																												0	36	0		
Student	25				3.5					3.5				3					3						3.5				3.5			2					3				3			28	36	77.7777778			
Student	26					4				3.5				3					3							4					4						4				4			30	36	81.9444444			

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