

Valley City State University
Teaching for Learning (TLC) Template

EVALUATE – Assessing Student Learning	(connects primarily with Rubric 8 in Assessment)
Purpose: To assess student achievement, diagnose student learning strengths and needs, and inform instruction. Provide evidence of your ability to 1) develop evaluation criteria aligned with your main idea, standards, and learning objectives; 2) analyze student performance on an assessment in relation to student needs and the learning objectives; 3) provide feedback to students; and 4) use the analysis to identify next steps in instruction for the whole class and individual students.	
A. Evaluation Criteria	(connects primarily with Rubric 8 in Assessment)
1. Communicate your criteria for student performance. How did you determine proficiency levels in student learning?	
<p>I created the same assessment for both the pre-assessment and the post-assessment. By using the same assessment, I will be able to evaluate the student's academic growth from the pre to the post-assessment. I will use various forms of formative assessments throughout the lessons to monitor student learning and provide feedback to the students. I evaluated the student's post-assessments to determine the proficiency levels in student learning. The post-assessment was created to match the standards being targeted. The post-assessment consists of 20 questions that include matching, multiple-choice, drawing diagrams, and fill in the blank. Student learning would be identified as advanced if the student had 0-1 incorrect answers, scoring them at 95% or higher. Student learning would be identified as proficient if the student had 2-3 incorrect answers, scoring them at 90% or 85%. Student learning would be identified as partially proficient if the student had 4-5 incorrect answers, scoring them at 75% or 80%. Student learning would be identified as intermediate if the student had 6 or more incorrect answers, scoring them at 70% or below.</p>	
2. Analyze student performance across the class from one assessment completed during the learning segment. (Provide a copy of the assessment.) Explain how you measured students' progress toward learning the main idea, the targeted standards, and the learning objectives. Describe class trends.	
<p>As stated in the plan section of the TLC unit, I created the assessments after constructing my lessons to ensure that the students would be tested on material that was explicitly taught throughout the unit. I created the assessments to match the lessons and I created the lessons to match the standards and objectives. The standards and objectives were measured daily through formative assessments such as hand signals, observations, questioning, discussions, and exit slips.</p> <p>I noticed tremendous gains while comparing the student's pre-assessment to their post-assessments. The pre and post-assessment consisted of the same questions so I could evaluate the student's academic growth throughout the unit. Every student increased their score from the pre-assessment to the post-assessment. For the pre-assessment, 3 students scored an 85% or greater, which would be 17 or higher out of 20 questions correct. For the post-assessment, 19 students scored an 85% or greater, meaning only 4 students scored lower than 80%.</p>	

Name: _____

FORCES AND INTERACTIONS

Directions: Match the word to its definition. Write the letter of the definition on the blank by the word.

- | | |
|-----------------|---|
| 1. ____ Push | A. A force that pulls objects toward the center of the earth. |
| 2. ____ Pull | B. Moving an object toward you. |
| 3. ____ Force | C. A push or a pull on an object. |
| 4. ____ Gravity | D. Moving an object away from you. |

Directions: Read each question. Then **circle** the best answer.

5. Every force has a _____ and a _____ .
- | | |
|-----------------------------|---------------------------|
| A. Location and a height | C. Magnitude and a length |
| B. Strength and a direction | D. Purpose and a route |
6. What is the term for the overall forces acting on an object?
- | | |
|-------------------|----------------|
| A. Absolute Force | C. Net Force |
| B. Full Force | D. Rapid Force |
7. Forces that do not cause an object to move because they are equal in strength and opposite in direction.
- | | |
|--------------------|----------------------|
| A. Balanced Forces | C. Unbalanced Forces |
| B. Natural Forces | D. Static Forces |
8. Forces that cause a change of motion because there are unequal forces acting on the object.
- | | |
|--------------------|----------------------|
| A. Balanced Forces | C. Unbalanced Forces |
| B. Natural Forces | D. Static Forces |

9. In what ways can forces change an objects motion?

- | | |
|--------------------------|-----------------------|
| A. Distance or Magnitude | C. Height |
| B. Length | D. Speed or Direction |

Directions: Look at each picture. Determine if the picture is showing a push or a pull. Then **circle** the best answer.



10. Tug-of-War

- A. Push
B. Pull



11. Rollerblading

- A. Push
B. Pull



12. Baseball

- A. Push
B. Pull



13. Nail and Hammer

- A. Push
B. Pull

Read the directions.

- 1 point for drawing the **line** and placing a **dot** in the center.
1 point for using correct **arrows** to represent the forces.

14. Draw a diagram of **balanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.

15. Draw a diagram of **unbalanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.

Directions: Read the sentence. Determine if it is an example of a balanced or unbalanced force. **Write balanced or unbalanced on the line.**

16. Arm wrestling someone the same strength as you. _____
17. A soccer player kicking a ball. _____
18. A book sitting on your dining room table. _____

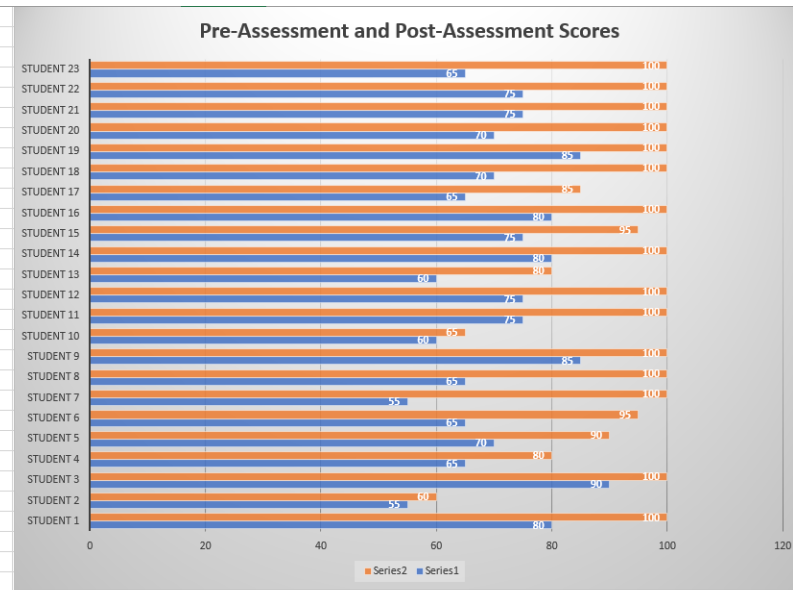
3. Communicate the extent to which the whole class met the standards/objectives. Summarize student performance in narrative and/or graphic form. Discuss what most students appear to understand well, and any misunderstandings, confusions, or needs.

To meet the standards and objectives for the unit, the students must score 85% or higher on the post-assessment to be considered proficient with the content. 19 out of 23 students scored 85% or higher on the post-assessment, meaning that 82.6% of the class is proficient with the content. To break down the proficiency levels, 17 students were advanced, scoring 100% or 95%. Two students were proficient, scoring 85% or 90%. Two students were partially proficient, scoring 80%. Two students were intermediate, scoring lower than 70%. The two students who scored lower than 70% are the two students that are on IEP's and received a modification on their assessment with one of the multiple-choice answers crossed out. Every student answered the push and pull scenario questions correctly. Most students answered the balanced or unbalanced written scenarios correctly. A few students mixed up the push and pull definitions in the matching section. The questions most commonly answered incorrectly were the multiple-choice questions and drawing the balanced and unbalanced forces diagrams.

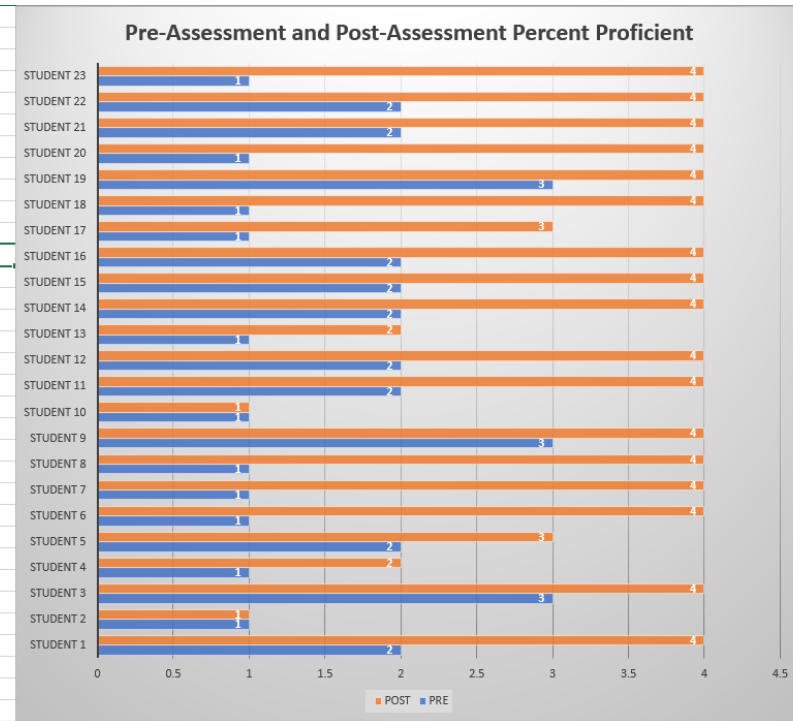
When teaching this unit again, I will spend more time reviewing specific concepts before administering the post-assessment. I will draw a basketball net on the whiteboard and explain how a basketball net is like the net force of an object. I will also spend more time explaining the importance of drawing the arrows different lengths to show that the strength of one force is stronger than the other force. Based on the post-assessments, I am confident that most students met the NGSS Grade 3, Physical Science Standard, PS2.B: Types of interactions, objects in contact exert forces on each other (3-PS2-1) and the NGSS Grade 3, Physical Science Standard, 3-PS2-1: Motion and Stability: Forces and Interactions, plan and conduct an investigation to provide evidence on the effects of balanced and unbalanced forces on the motion of an object. A standard that most students met was the NGSS Grade 3, Physical Science Standard, PS2.A: Forces and Motion, each force action on one particular object and has both strength and direction. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object (3-PS2-1). During discussions and

demonstrations, the students provided insight that led me to believe that they understood the concepts of this standard. I believe that when the question was asked in written form on the post-assessment confusion occurred because there was not a visual to represent the question.

1	TLC Unit Class Assessment Chart		
2			
3	Student:	PRE	POST
4	Student 1	80	100
5	Student 2	55	60
6	Student 3	90	100
7	Student 4	65	80
8	Student 5	70	90
9	Student 6	65	95
10	Student 7	55	100
11	Student 8	65	100
12	Student 9	85	100
13	Student 10	60	65
14	Student 11	75	100
15	Student 12	75	100
16	Student 13	60	80
17	Student 14	80	100
18	Student 15	75	95
19	Student 16	80	100
20	Student 17	65	85
21	Student 18	70	100
22	Student 19	85	100
23	Student 20	70	100
24	Student 21	75	100
25	Student 22	75	100
26	Student 23	65	100
27	Total	23	23
28	Number at 85% or greater	3	19
29	Percent Proficient	13.0%	82.6%
30			



2			
3	Advanced = 4 (95% or 100%)		
4	Proficient = 3 (85% or 90%)		
5	Partially Proficient = 2 (75% or 80%)		
6	Intermediate = 1 (70% and below)		
7			
8	Students	PRE	POST
9	Student 1	2	4
10	Student 2	1	1
11	Student 3	3	4
12	Student 4	1	2
13	Student 5	2	3
14	Student 6	1	4
15	Student 7	1	4
16	Student 8	1	4
17	Student 9	3	4
18	Student 10	1	1
19	Student 11	2	4
20	Student 12	2	4
21	Student 13	1	2
22	Student 14	2	4
23	Student 15	2	4
24	Student 16	2	4
25	Student 17	1	3
26	Student 18	1	4
27	Student 19	3	4
28	Student 20	1	4
29	Student 21	2	4
30	Student 22	2	4
31	Student 23	1	4
32	Total	23	23
33	Number 3 or greater	3	19
34	Percent Proficient	13.0%	82.6%

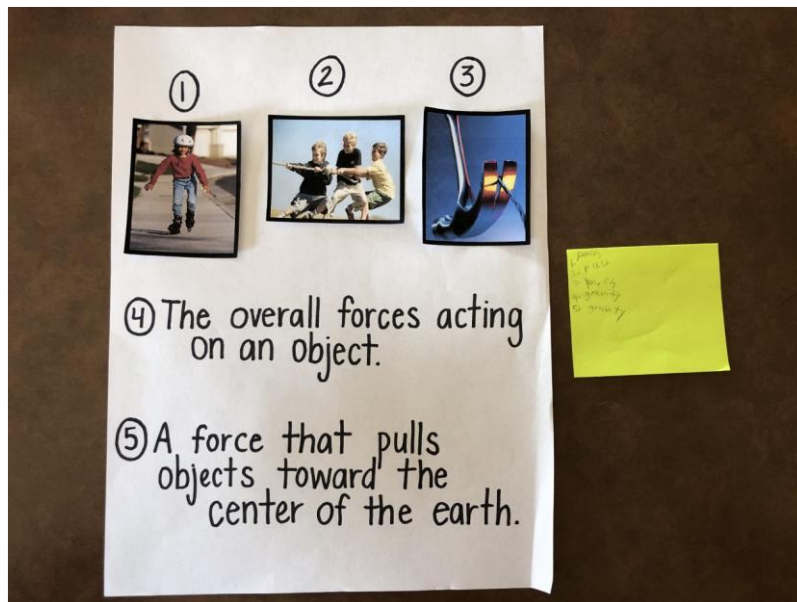


4. Select three focus students, one of whom has identified learning needs, e.g., an English Language Learner, a student with an IEP, or a student identified as gifted and talented. Describe each student's individual learning strengths and challenges relative to what was measured by the assessment. Provide work samples from each student. **Remove names of students, yourself, and the school with correcting fluid, tape, or marker prior to copying/scanning the work samples.**

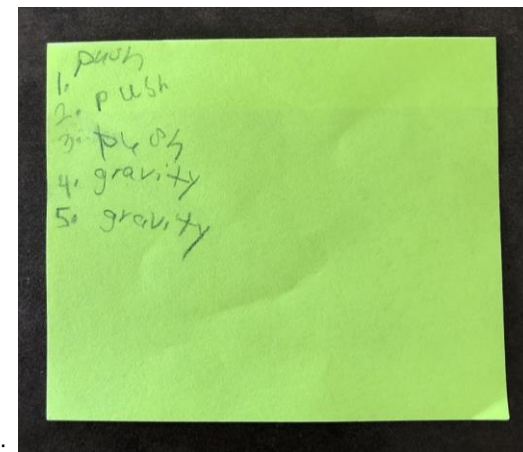
Student A: This student has a language-based learning disability and is on an IEP. This student works with two paraprofessionals during the day. One paraprofessional is in the classroom from 8:20 a.m. to 10:50 a.m. and works with the student one-on-one. Another paraprofessional is in the classroom from 12:45 p.m. to 2:30 p.m. This student works extremely well when working with a paraprofessional. The student is great at collaborating during whole group discussions and follows rules and procedures extremely well. The paraprofessionals often scribe for this student when writing in a whole group setting. The student can read and write, but at a slower pace. Scribing is beneficial for the student during whole group learning because the student gets to express their thoughts and/or answer, then the paraprofessional writes it down. The student is reading at a first-grade level and is assigned five spelling words per week. As for social and emotional development, the student has a cheerful personality and has friends in the class. For both the pre and post-assessments, I crossed off one answer for the multiple-choice questions. The student will receive assistance from the afternoon paraprofessional during the assessment to guide their thoughts and discuss the questions. The student's language delay encouraged me to plan enough time for the test to be given so that each question allows for thoughts to be processed and an answer to be selected.

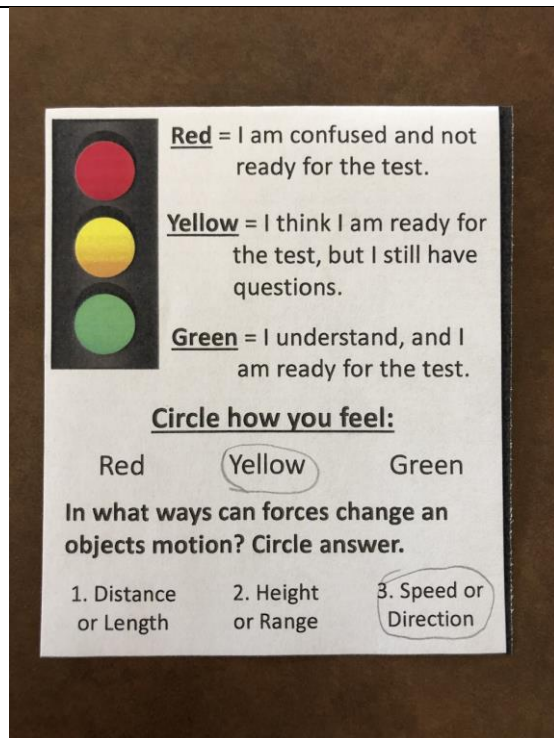
The student increased their score from the pre-assessment to the post-assessment by one point. On the pre-assessment, the student did not correctly match the words to their definitions. On the post-assessment, the student matched all four words to their definitions correctly. I was very impressed with this increase. The student got three out of the five multiple-choice questions wrong on the pre-assessment, and four out of the five multiple-choice questions wrong on the post-assessment. This student typically struggles with multiple-choice questions, so the scores to this section were not too alarming. The student did an excellent job on both the pre and post-assessment identifying whether the image shows either a push or a pull. This student does very well with visuals and demonstrations so I am pleased with the student's knowledge about this section. The student showed improvements from the pre-assessment to the post-assessment in the drawing diagrams section.. The student learned how to place the arrows above the line, but incorrectly identified which arrow was longer, which is what shows the differences in strength.

Included are examples of the student's work:



Closer view of the exit slip:



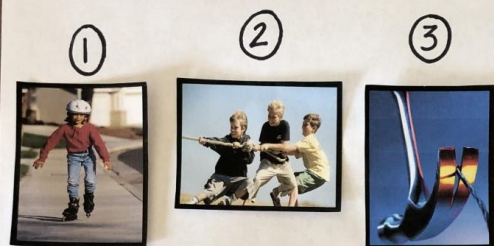


I did not get a picture of the student's modified T-chart due to the schools closing after the last day of this unit (3/13/2020). The student successfully filled out the blanks without paraprofessional support.

Student B: This student is one of the lower students in this class. This student works well during one-on-one instruction and in small groups. During whole group instruction, this student often gets distracted by peers around him. This student works hard during reading and writing. During math, this student often needs additional instruction after whole group instruction. Giving this student prompts often helps the student gather their thoughts and apply their knowledge. This student is extremely kind and says "thank you" to the teachers after they help him. Disorganization often is a challenge for this student. This student has lost two planners and often does not return supplies to school. Helping the student organize their desk and locker is an effective way to help the student manage their materials and time.

This student increased their score from the pre-assessment to the post-assessment. The student scored a 12/20 on their pre-assessment and a 16/20 on their post-assessment. I was very impressed with the increase in this student's score. On the pre-assessment, the student got three out of the four matching questions incorrect and on the post-assessment the student got the four questions correct. The student correctly identified the push and pull scenario pictures on both the pre and post-assessment. The student correctly made balanced and unbalanced diagrams and used arrows to represent the strength and direction of the forces on the post-assessment. On the pre-assessment, the student got three out of the five multiple-choice questions incorrect. On the post-assessment, the student got four out of the five multiple-choice questions incorrect. This increase of incorrect answers from the pre-assessment to the post-assessment in this section surprised me. Along with student A, student b struggles with multiple-choice questions. These questions may be too complex to understand in written form without a visual aid.

Included are examples of the student's work:



④ The overall forces acting on an object.

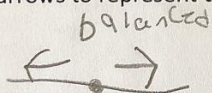
⑤ A force that pulls objects toward the center of the earth.

1 # PUCH
2 # PULL
3 # PULL
4 # /
5 #

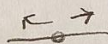
Closer view of the exit slip:

1 # PUCH
2 # PULL
3 # PULL
4 # /
5 #

1.) Draw a diagram of **balanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.



2.) Draw a diagram of **unbalanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.



Red = I am confused and not ready for the test.

Yellow = I think I am ready for the test, but I still have questions.

Green = I understand, and I am ready for the test.

Circle how you feel:

Red

Yellow

Green

In what ways can forces change an objects motion? Circle answer.

1. Distance or Length

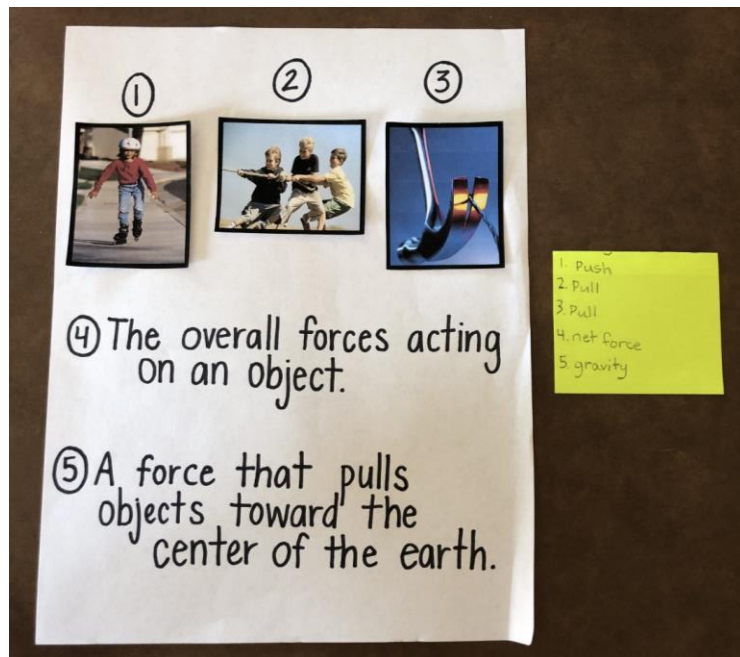
2. Height or Range

3. Speed or Direction

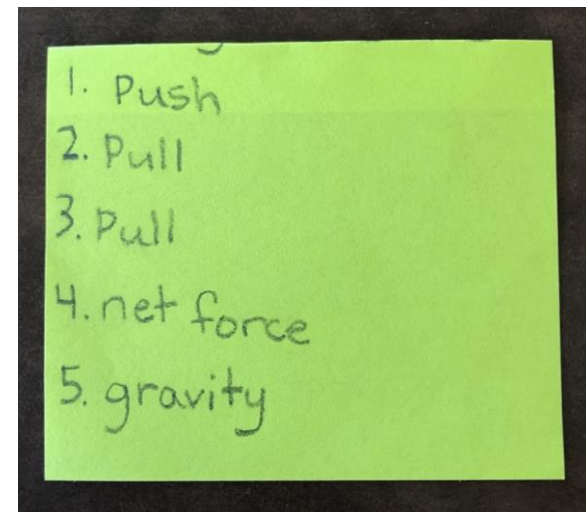
Student C: This student is identified as gifted and talented. This student is very knowledgeable in every content area and is the highest reader in the class. This student needs to be challenged during whole group lessons so that their learning needs are met. This student raises their hand to answer every question and provides great insight. During math, this student often solves questions using a more complex method that requires a deeper thinking process. This student is a great helper in the classroom, gets along with classmates, and is excellent at following directions and expectations. This student is also very neat with detailed handwriting.

This student had the highest score on the pre-assessment with an 18/20. The student got two multiple-choice questions wrong. I was very surprised that the student made the balanced and unbalanced diagrams correctly, as the students have not yet been taught how to create these. Based on this student's pre-assessment, I knew I would need to challenge this student throughout the unit. The student scored 20/20 on the post-assessment, which was not surprising due to their pre-assessment score, exit slips, and their rating of their confidence with the material.

Included are examples of the student's work:



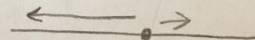
Closer view of the exit slip:



1.) Draw a diagram of **balanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.



2.) Draw a diagram of **unbalanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.



Red = I am confused and not ready for the test.

Yellow = I think I am ready for the test, but I still have questions.

Green = I understand, and I am ready for the test.

Circle how you feel:

Red

Yellow

Green

In what ways can forces change an objects motion? Circle answer.

1. Distance or Length

2. Height or Range

3. Speed or Direction

5. Document evidence of feedback on the work of **two** of the three focus students.

Student A:

I love to see that you provided an answer for all 5 questions!
Keep working hard 😊

#1 Good job! The girl is moving her body away by pushing on the ground.

*Next Step: Remember that if you bring something toward you, it is a pull.

#2 Tug-of-war → The kids are pulling the rope towards them.

#3 Hammer and Nail → The hammer is pulling the nail up.


#4 Net force is the overall forces acting on an object.
*Remember: The basketball net pulls. We will talk more about this throughout the unit.

#5 Awesome! Gravity is the force that pulls objects toward the center of the earth.

push
pull
push
pull
gravity
gravity

Sample #1:

Name: _____



Red = I am confused and not ready for the test.

Yellow = I think I am ready for the test, but I still have questions.

Green = I understand, and I am ready for the test.

Circle how you feel:

Red Yellow Green

In what ways can forces change an objects motion? Circle answer.

1. Distance or Length

2. Height or Range

3. Speed or Direction

_____, I can tell how hard you have worked during this unit! Thank you for being a great listener and participating in the activities.

→ I see you marked yellow. We will review before the test tomorrow, please share any questions you have!

→ You are right! Forces can change an objects Speed or direction.

Sample #2:

Student B:

1 # Push

2 # Pull

3 # Pull

4 #

5 #


_____, awesome job identifying the push and pull images. I can tell that you understand the difference between a push and a pull!

#4: The question was: The overall forces acting on an object. The answer is: Net Force. We learned about this today. Refer to the basketball net I drew today to remember this term. 🏀

#5: Gravity is the force that pulls objects toward the center of the earth. Without gravity, everything would be floating around!

Sample #1:

Name: _____



Red = I am confused and not ready for the test.

Yellow = I think I am ready for the test, but I still have questions.

Green = I understand, and I am ready for the test.

Circle how you feel:

Red Yellow Green

In what ways can forces change an objects motion? Circle answer.

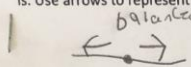
1. Distance or Length	2. Height or Range	3. <u>Speed or Direction</u>
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_____, I feel like you are ready for the test tomorrow and I am glad that you feel ready too! Thank you for working so hard throughout this unit 😊


* Correct! Forces can change an objects speed or direction.

Sample #2:

1.) Draw a diagram of **balanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.



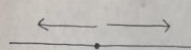
2.) Draw a diagram of **unbalanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.



you did an excellent job drawing a line and a dot to represent a rope and the center of it. I love how your arrows are in opposite directions to show the two forces pulling on the rope!

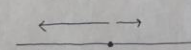
Now I would like you to focus on the lengths of the arrows. In your diagrams, the lengths of the arrows look equal. To show unbalanced forces, one arrow needs to be longer.

Balanced Forces



arrows are equal lengths (meaning they have the same strength)

Unbalanced Forces



one arrow is a lot longer than the other. (meaning that one strength is stronger than the other)

* We will continue to practice this! Keep working hard!

Sample #3:

6. Explain how your feedback addressed individual student needs and learning objectives. Provide specific evidence of effective, formative feedback descriptively shared with students - specifically success feedback (something the student did correctly) and/or intervention feedback (describing correction or a feature of quality needing work) given to students and describe opportunities for the students to apply the feedback to improve the work or their understanding. (Rubric 9 in Assessment)

Along with providing written feedback to the students, I also gave verbal feedback to the students throughout each lesson. I would provide success feedback to the students when they answered a question correctly, understood a concept, and actively participated in the activities. I wanted the students to be aware that their accomplishments do not go unnoticed. I also used next-step feedback if the students incorrectly answered a question, mixed up definitions, or showed confusion with the content. I would acknowledge their response, clarify confusion, and guide their thinking in the correct direction.

Student A:

Sample #1: First, I wanted to acknowledge that I was happy to see that the student attempted to answer every question. I included both success and next-step feedback to the student. Using success feedback, I pointed out the two questions that the student answered correctly. Then I used next-step feedback to explain the difference between a push or a pull. Then I explained why the two images showed the force of a pull. I also included the diagram of a basketball net to represent the term net force. I added how we will continue to talk about this concept in the following lessons.

Sample #2: This exit slip instructed the students to indicate their confidence level going into the test and answer one question. I used success feedback to recognize the student's work ethic throughout the unit. I wrote that I noticed how hard they have been working and that I appreciate their listening and participation. I also pointed out that they answered the question correctly. This student responds well to positive feedback so I made sure to acknowledge that I have noticed positive things. For next-

<p>step feedback, I said that I noticed how they marked their confidence level as yellow. I added how we will review before the test and that they will have an opportunity to share any questions that they have.</p> <p>Student B:</p> <p>Sample #1: For success feedback, I pointed out how the student successfully identified whether the image showed a push or a pull. I added that I can tell that the student understands the difference between pushes and pulls. The student did not write down an answer for questions 4 and 5. These were challenging questions because I projected a definition and the students had to write the term without options given. In my feedback, I provided the question and the answer. Then, I gave next-step feedback by having the student connect the term net force to the diagram of a basketball net. For number 5, I provided the term and the definition that was projected. Then I added that without gravity, everything would be floating around. Before giving this student the feedback, I asked the student what the force is that pulls objects toward the center of the earth. Right away the student said gravity. The student said that they blanked and could not remember the term when they were completing the exit slip.</p> <p>Sample #2: This exit slip instructed the students to indicate their confidence level going into the test and answer one question. This student also responds well to positive feedback, so I made sure to include success-feedback to boost their confidence before they take the test. I wrote that I think they are ready for the test and that I was glad to see that they think they are ready for the test. I also added a thank you comment to say that their work ethic does not go unnoticed. I also added that the student got the question correct. For this formative assessment, next-step feedback was not necessary.</p> <p>Sample #3: For this exit slip, I used both success and next-step feedback to address positive things and things that can be worked on. I pointed out how the student followed the directions and drew a line with a dot in the middle of it to indicate a rope. Then, I stated that the student placed the arrows in the correct directions. I added next-step feedback to encourage attention to the length of the arrows. I noted that one arrow needs to be longer than the other in unbalanced forces. This student learns best when information is presented visually. Knowing this, I drew the correct diagrams on the feedback for the student to see. Under the diagrams, I explained how the length of the arrows represents the strength of the forces. I added how we will continue to practice drawing these diagrams. When I returned this feedback sheet to the student, I compared the student's diagrams to the diagrams that I drew. I noted that when we draw unbalanced forces, one arrow needs to be longer to show that the strength in one direction is stronger than the strength in the other direction. I told the student that we will draw these diagrams during the review tomorrow.</p>	
7. Identify next steps in instruction for the two focus students you identified (in step 5, above).	(Rubric 9 in Assessment)
<p>Student A:</p> <p>Sample #1: I used next-step feedback to explain the difference between a push or a pull. Then I explained why the two images showed the force of a pull. I also included a diagram of a basketball net that I explained during the lesson.</p> <p>Sample #2: For next-step feedback, I said that I noticed how they marked their confidence level as yellow. I added how we will review before the test and that they will have an opportunity to share any questions that they have.</p> <p>Student B:</p> <p>Sample #1: For number 4, I gave next-step feedback by having the student connect the term net force to the diagram of a basketball net. For number 5, I provided the term and the definition that was projected. Then I added that without gravity, everything would be floating around. Before giving this student the feedback, I asked the student what the force is that pulls objects toward the center of the earth. Right away the student said gravity. The student said that they blanked and could not remember the term when they were filling out the exit slip.</p> <p>Sample #3: I added next-step feedback to focus attention on the length of the arrows. I noted that one arrow needs to be longer than the other in unbalanced forces. This student learns best when information is presented visually. Knowing this, I drew the correct diagrams on the feedback for the student to see. Under the diagrams, I explained how the length of the arrows represents the strength of the forces. I added how we will continue to practice drawing these diagrams. When I returned this feedback sheet to the student, I showed the student their diagrams in comparison to mine. I noted that when we draw unbalanced forces, one arrow needs to be longer to show that the strength in one direction is stronger than the strength in the other direction.</p>	
B. Overall Reflective Commentary on Evaluation	(Rubric 9 in Assessment)
1. Communicate how assessment guided your decision-making as you adjusted your daily lesson plans.	
<p>Assessments were a considerable component that guided the daily lesson plans. I created the assessments after constructing my lessons to ensure that the students would be tested on material that was explicitly taught throughout the unit. I created the assessments to match the lessons and I created the lessons to match the</p>	

standards and objectives. The standards and objectives were measured daily through formative assessments such as hand signals, observations, questioning, discussions, and exit slips. At the end of the unit, the post-assessment evaluated what the students learned from the daily lessons. I needed to ensure that the material being taught in the lessons matched what would be assessed on the post-assessment. When lesson #1 did not as planned, I needed to adjust lesson #2 to spend more time reviewing the material and discussing expectations for the following lessons. I wanted to make sure that the students were confident with the concepts taught in lesson #1 because they would be assessed on those concepts in the post-assessment.

2. Communicate what you have learned about assessing student learning and the role of feedback in teacher effectiveness.

I learned that assessing student learning through formative assessments is an essential factor for teacher effectiveness and student learning. Formative assessments give the teacher information about what the students do and do not know. This allows the teacher to adjust their daily lesson plans to maximize the student's learning. Formative assessments also increase student awareness of their knowledge. I learned that assessing student learning through summative assessments gives valuable data about prior knowledge and academic growth throughout a unit. I am glad that I chose to administer the same assessment for the pre-assessment and the post-assessment. Evaluating the student's scores from the pre to the post-assessment gave me data about their academic growth throughout the unit. I was delighted to see that all students increased their score from the pre to the post-assessment. Using Excel to graph and analyze the scores, I learned that 13% of the class was proficient on the pre-assessment and 82.6% of the class was proficient on the post-assessment. It was neat to analyze the student's scores in both charts and graphs. While teaching the unit and reflecting on assessing student learning, I found that I enjoy statistics and analyzing student growth from a pre-assessment to a post-assessment.

I have also learned that feedback is essential for both the students and the teacher. Throughout the lessons, I provided feedback by answering questions and clarifying confusion. I also used fist of five for the students to evaluate their learning. If a student held up a low number (0-3), I asked what they are confused about or what questions they have. I know that if one student has a question, chances are high that another student has the same question. I would provide feedback to the student while generalizing the concept to the whole class. I used exit slips to evaluate student learning after a lesson. I used success feedback and next-step feedback to acknowledge what stood out to me and what areas need to be revisited. I would either verbally state the feedback to the students as I returned their exit slips, or I would write a note next to their exit slip. I learned that providing feedback to the students allows them to recognize their growth and areas they can focus on. Providing feedback also allowed me to provide encouragement and celebrate successes.