Name: \_Paul Flanigan\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_12/13/13\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grade Level\_\_5\_\_\_\_\_\_

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Teaching Context | | | | | | | | | | | | | | | | | |
| Curriculum or Content Area: Science – Simple Machines | | | | | | | #\_\_\_26\_\_ of students in my class, of which \_\_6\_\_\_\_ are ELLs | | | | | | | | | | |
| My ELLs’ linguistic and cultural background(s): 6 Spanish speakers (1 from Spain and all others from the Dominican Republic) | | | | | | | | | | | | | | | | | |
| My ELLs’ level(s) of English Proficiency: WIDA ACCESS Spring 2013[[1]](#footnote-1)  *See WIDA “Can Do” descriptors[[2]](#footnote-2) to help connect proficiency level with ACCESS scores* | | | | | | | | | | | | | | | | | |
| Student(s): | | | | | | | | | Reading | | Writing | Speaking | Listening | Literacy  [Reading 50%, Writing 50%] | Oral Language [Listening 50%, Speaking 50%] | Comprehension [Listening30%, Reading 70%] | Overall Listening 15%, Speaking 15%, Reading 35%, Writing 35%] |
| Student B | | | | | | | | | 3.9 | | 3.9 | 3.9 | 5.0 | 3.9 | 4.4 | 4.3 | 4.0 |
| Student F | | | | | | | | | 3.8 | | 3.2 | 6.0 | 4.3 | 3.6 | 5.4 | 3.6 | 4.0 |
| Student E | | | | | | | | | 2.7 | | 3.7 | 5.3 | 4.9 | 3.3 | 5.1 | 3.4 | 3.8 |
| Student G | | | | | | | | | 3.6 | | 3.4 | 4.5 | 4.3 | 3.5 | 4.4 | 3.9 | 3.7 |
| Student S | | | | | | | | | NA | | NA | 4.5 | 3.6 | NA | 3.9 | NA | NA |
| Student V | | | | | | | | | 1.8 | | 2.3 | 1.0 | 2.8 | 1.9 | 1.7 | 1.9 | 1.8 |
| Other support services that my ELLs receive: Exceptional pull-out ELL services from Ms. DeNicola | | | | | | | | | | | | | | | | | |
| Lesson Standards and Objectives | | | | | | | | | | | | | | | | | |
| Massachusetts State Standards (discipline, standard number, and description):  **Science and Technology/Engineering Standards: Technology/Engineering, Grades 3-5:**  **1.3 Identify and explain the difference between simple and complex machines, e.g., hand can opener that includes multiple gears, wheel, wedge, gear, and lever.** | | | | | | | | | | | | | | | | | |
| Content Objective(s): Students will know the six simple machines, how they make work easier, and examples of each. | | Language Objective(s): *Language Objectives should be directly linked to the language skills students will need to be successful in achieving the content objective*   1. Students will read about a specific lever and write a paragraph telling what it does, what class lever it is, and explain how it is helpful. 2. Students will read a text on a simple machine and report out orally what the machine does and some examples of it. 3. Students will write about and draw pictures of all six simple machines.   Language Objectives Differentiation for Proficiency Levels:  Students at WIDA Level 6:   * Will orally report out the information in their own words.   Students at WIDA Level 5:   * Will carry out oral instructions containing grade-level, content-based language.   Students at WIDA Level 4:   * Will interpret oral information and apply it. * Will infer from and act on oral information. * Will give content based oral reports.   Students at WIDA Level 3:   * Will follow multi-step oral directions. * Will answer simple content-based questions. * Will present content-based information. * Will identify main idea and some details. * Will produce simple expository text. * Will string related sentences together.   Students at WIDA Level 2:   * Will categorize content-based pictures or objects from oral descriptions. * Arrange pictures or objects per oral information. * Will follow two-step directions. * Will draw in response to oral descriptions. * Will evaluate oral information. * Will find changes to root words in context. * Will follow visually supported written directions. * Will make list from labels. * Will complete/produce sentences from word/phrase banks or walls. * Will fill in graphic organizers.   Students at WIDA Level 1:   * Will name pre-taught objects or pictures. * Will recite words or phrases from pictures of everyday objects and oral modeling. * Will answer yes/no and choice questions. * Will identify cognates from first language. * Will match illustrated words/phrases in differing contexts. | | | | | | | | | | | | | | | |
| Mentor Text or Source:  Levers and Pulleys, Delta Education, 2000.  ScienceSaurus – A Student Handbook, Great Source Education Group, 2005. | | | | | | | | | | | | | | | | | |
| Targeted Tiered Vocabulary*[[3]](#footnote-3)* from Mentor Text or Source  *Tier 2 & Tier 3 words should be integrated into student product/assessment.* | | | | | | | | | | | | | | | | | |
| Tier 1 words  *Basic words most children know in their primary language: may include connectors or compounds*  Effort wrench compound  Force direction chisel | Tier 2 words  *Essential to comprehension: i.e., process & transition, specificity, sophistication polysemy, transitional terms, idioms, clusters, cognates…*  Fixed movable  Cost gain  Spiraled | | | | | | | | | Tier 3 words  *Low frequency, content specific, typically glossed in the back of the text book*  mechanical advantage | | | | | | | |
| Student Prerequisite Skills or Background Knowledge:  *What content or language knowledge or skills do my ELLs need to successfully complete the content and language objectives? What background knowledge or skills might my ELLs already have in their primary language but may need help in transferring to English?* | | | | | | | | | | | | | | | | | |
| The students have already been introduced to one simple machine, the lever, through experiments performed in class. Otherwise, their knowledge of the six simple machines is limited and informal. Though many items commonly used are examples of these simple machines, students do not recognize this. As the unit unfolds, they begin to gain recognition of these simple machines.  To complete the unit, students need to be able to categorize and arrange content-based pictures, restate content based information, identify main ideas and some details from content readings, and produce sentences when provided with proper assistance. | | | | | | | | | | | | | | | | | |
| Assessment of content learning and language development:  *Have I included Tier 2 & Tier 3 words in my assessment of my student’s discourse: written or oral?* | | | | | | | | | | | | | | | | | |
| The formative assessment for this unit will actually be the final product they will develop. This will be a foldable book graphic organizer in which each student will include information on each of the six simple machines. On the cover, there will be six tabs. Each tab includes the name of a simple machine. On the underneath side of the tab, students will describe that simple machine in their own words using vocabulary from the unit. Finally, on the area that is revealed when the tab is listed students will draw pictures of real life examples of that simple machine. | | | | | | | | | | | | | | | | | |
| Content and Concept Language Integration  *How have I integrated all possible domains into my teaching and learning strategies and activities?* | | | | | | | | | | | | | | | | | |
| Discourse Integration:  *Which domain(s) does my strategy/activity target?* | | | | | | | | Sheltered Instruction Strategies  *How does this strategy connect my content and language objectives?*  *How does this strategy facilitate my students’ ability to access the content?*  *How does this strategy facilitate my students’ ability to comprehend the mentor text, build essential knowledge, or produce oral or written discourse connected to the content objective?*  *How does this strategy provide comprehensible input for my students?* | | | | | | | | | |
| Lesson Sequence: | | | C:\Users\SSS\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\IDYDB43H\MC900238193[1].wmfSpeaking | Writing | Listening | C:\Users\SSS\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\VZ71B42W\MC900281284[1].wmfReading | |
| **Lesson 1 - Lever poster**  After choosing a partner and a card with the name of a lever on it, they will partner read about their lever in Levers and Pulleys. | | | C:\Users\SSS\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\IDYDB43H\MC900238193[1].wmf |  |  | C:\Users\SSS\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\VZ71B42W\MC900281284[1].wmf | | Partner Reading | | | | | | | | | |
| Next, they will write a paragraph with information about their lever. The paragraph will contain what their lever is, what class lever it is, how it is used, and how it is helpful. A model will be provided for all and a Language Experience Approach paragraph will be provided for those students who need it. Finally, students will draw a picture of their lever to complete their poster. | | |  |  |  |  | | LEA  Drawing Pictures | | | | | | | | | |
| **Lesson 2 – Gallerywalk**  The students will create a graphic organizer with three columns. The columns will be labeled – Class 1/Class 2/ Class 3. They will then use this for their Gallerywalk. During the Gallerywalk, the students are to read the other students posters on the different levers. They then list each lever in the column of which class lever it is. After the Walk, we will discuss their findings as a class. | | |  |  |  |  | | Graphic Organizer  Gallerywalk | | | | | | | | | |
| **Lesson 3 – Jigsaw**  Prior to the students reading, I frontloaded the Tier 2 vocabulary words. Then I used the 7 Step Process to pre-teach the Tier 3 word – mechanical advantage. | | |  |  |  |  | | Frontloading  7 Step Process | | | | | | | | | |
| C:\Users\SSS\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\IDYDB43H\MC900238193[1].wmfNext, the students read using a jigsaw. Each group was assigned text from Levers and Pulleys to read on a specific simple machine. The group was then asked to report out on that simple machine. The report out was to include an explanation of the simple machine and examples of it. | | |  |  |  | C:\Users\SSS\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\VZ71B42W\MC900281284[1].wmf | | Jigsaw | | | | | | | | | |
| **Lesson 4 – Simple Machine Foldable**  As a class, we will read the section in the ScienceSaurus book on Simple Machines. Next, we will create a foldable booklet which has six tabs on the top. On each tab, the students will write the name of a different simple machine. Under the tab, the students will write an explanation of that simple machine. Inside, students will draw pictures of examples of each simple machine. The ScienceSaurus and Levers and Pulleys books will be used by the students for reference and examples. Sentence frames will be provided for students who need them. | | | C:\Users\SSS\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\IDYDB43H\MC900238193[1].wmf | C:\Users\sss\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\Q4SKKRUB\MC900359575[1].wmf |  | C:\Users\SSS\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\VZ71B42W\MC900281284[1].wmf | | Graphic organizer  Drawing Pictures  Sentence Frames | | | | | | | | | |
| Further Practice:  *Homework or extension activities: How do these activities reinforce the comprehension and discourse as well as content or language objectives I have set for my ELLs?*  As a follow-up to these activities, we will be visiting a website called EdHeads.org. This website has a game of identifying simple machines. In this interactive game, players visit different rooms of the house and search for simple machines. After finding them, they are asked simple questions about how they are used. The game has an audio feature associated with it which will allow the ELLs to continue to hear the vocabulary being used. Also, since the game visits different rooms of the house, the simple machines are placed in familiar places. This furthers the students’ understanding of the basic use of these machines | | |  |  |  |  | |  | | | | | | | | | |

**Lesson Integration Checklist:**

* My Content and Language Objectives support each other.
* I differentiated my language objectives to accommodate my students’ proficiency levels.
* I used my students’ proficiency levels when choosing my instructional strategies to support their content and language learning.
* I chose activities that integrate speaking, writing, reading, and listening to the extent possible.
* I differentiated my assessment to accommodate my students’ proficiency levels.
* My assessment reflects the targeted language from my lesson’s mentor text or source.

**Capstone Reflection**

The most effective part of my Capstone lesson was the first activity of creating a poster on a specific lever. For this activity, the strategies of partner reading, language experience approach, and drawing pictures were utilized. The partner reading was effective because the students were able to read about their assigned lever and discuss what they read. The LEA approach provided a scaffolded approach for those who needed it to produce the paragraph, and the drawing of pictures allowed all of the students to represent their ideas. The posters were excellent and provided quality examples for our gallery walk.

In producing the foldable booklet, we used a number of sources as reference. Unfortunately, due to the complexity of some of the writing in those samples, students copied information which they did not understand instead of writing in their own words. The next time I implement this lesson, I will provide them with only one basic book as an example and we will work on incorporating the ideas into our own words.

1. For more information about WIDA ACCESS Scores and levels, see <http://www.wida.us/assessment/ACCESS/> “Interpretive Guide for Score Reports” [↑](#footnote-ref-1)
2. http://www.wida.us/standards/CAN\_DOs/ [↑](#footnote-ref-2)
3. For more information on Tiered vocabulary, see Beck & McKeon (1985), Calderón (2007). [↑](#footnote-ref-3)