Teacher's Name: Sammy & Ernestina

Unit Title: Lima Bean Plants

School: Higginson School

Grade Level: 1st/Inclusion

Approximate Time Frame: 3 weeks

UNIT PLAN TEMPLATE (Whole Unit - summary)

Stage 1-Desired Results (UNIT)

Standards (guiding the whole unit):

http://www.doe.mass.edu/frameworks/current.html

Standard: Life Science (Biology), Strand 1: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.

Standard: Life Science (Biology), Strand 3: Recognize that plants and animals have life cycles, and that life cycles vary for different living things.

Students will know:

(Simple general single sentence statement)

- ~Students will know that plants are living things like humans and animals.
- ~Students will know that plants grow.
- ~Students will know that stages of a plants life cycle.
- ~Students will know that a plant needs food, air, and water to survive.

Students will be able to:

(Simple general single sentence statement)

- ~Students will be able to make predictions of the growth of a lima bean.
- ~Students will be able to draw/write their observations about the growth of their lima plants.
- ~Students will be able to describe the stages of a lima bean plants life cycle through role-play.
- ~Students will be able to describe the needs (i.e. food, air, water) a plant needs to grow.

Brief Summary of the Unit (overall view): Through this unit, students will engage in learning about the needs and growth (life cycles) of plants (lima bean plants). Students will engage in a variety of hands-on activities, critical thinking, answering guiding questions, read-alouds, etc. Students will begin the unit discussing how humans grow and change (i.e. babies-children-teenagers-adults) in comparison to a plant (seedsprout-roots-plant). Students will assist in thinking of other living things that change, grow, and develop. Students will listen to the books Life Cycle of a Bean by Angela Royston and One Bean by Anne Rockwell. As students offer their predictions of what they think will happen to a lima bean, the teacher will write their predictions on chart paper. Students will act out the stages of the life cycle of a plant using their bodies. Students will "plant" their lima bean in a plastic cup and will make, write, and draw their observations every couple of days (in their observation journals) until the lima bean grows/sprouts (i.e. what does their lima bean look like, is a plant sprouting, etc). When their lima bean starts to sprout and grow, students will continue with their observations (writing/drawing in their Observation Journals) everyday. Students will be able to observe what is happening to their lima bean, what they see, describe the roots, etc. When their lima bean becomes a plant they will be able to plant it in soil and a pot.

Stage 2- Assessment Evidence (UNIT)

CLEAR DETAILED EVIDENCE DESCRIBING HOW THE STUDENT PERFORMANCE IS ASSESSED (whole Unit)

Students will know (detailed statements):

- Students will know the four stages of a plants life cycle and demonstrate this knowledge through role-play.
- Students will know how to orally tell their predictions using complete sentences and staying on topic.
- Students will know how to use descriptive words about plants and the life cycle in writing/drawing their observations in journals.
- Students will know that plants need food, air, and water to survive and grow and will be able to demonstrate this knowledge through discussions.

Students are able do (detailed ASSESSMENT statements using six facets of understanding statement – explanation, interpretation, application, perspective, empathy, self-knowledge): (Include as many as possible.)

Application

Students will predict what will happen to their lima beans by orally telling.

Interpretation

• Students will be able to role-play the life cycle of a plant.

Explanation

- Students will be able to use descriptive words about plants and life cycles when writing their observations in a journal.
- Students will be able to show their knowledge of the needs (food, air, and water) through discussions.

Rubric to accompany Task (level of expected performance): (UNIT) (You will expand this rubric to include at least 4 rows)

Level	ric to include at l	2	3	4 (high)
Task				
(evidence)				
Application:	Student does	Student implies	Student makes	Student
Students will	not make an	an oral	an oral	successfully
make an oral	oral prediction	prediction of	prediction of	makes a
prediction of	of what will	what will	what will	meaningful oral
what will	happen to their	happen to their	happen to their	prediction of
happen to their	lima bean.	lima bean.	lima bean.	what will
lima beans.				happen to their
				lima bean.
Interpretation:	Student is	Student is able	Student is able	Student is able
Students will	unable to role-	to role-play 1-2	to role-play 3	to role-play all
be able to role-	play any of the	stages of the	stages of the	4 stages of the
play the life	stages of the	life cycle of a	life cycle of a	life cycle of a
cycle of a plant	life cycle of a	plant.	plant.	plant.
(4 stages).	plant.			
Explanation:	Student is	Student is able	Student is able	Student is able
Students will	unable to use	to be able to	to be able to	to be able to
be able to use	any descriptive	use 1	use 2	use 3 or more
descriptive	words when	descriptive	descriptive	descriptive
words when	writing their	word when	words when	words when
writing their	observations in	writing their	writing their	writing their
observations in	a journal.	observations in	observations in	observations in
a journal.		a journal.	a journal.	a journal.
Explanation:	Student is not	Student is able	Student is able	Student is able
Students will	able to show	to show their	to show their	to show their
be able to show	their knowledge	knowledge of 1	knowledge of 2	knowledge of
their knowledge	of the needs	need through	needs through	all three needs
of the needs	(food, air, and	discussions.	discussions.	through
(food, air, and	water) through			discussions.
water) through	discussions.			
discussions.				

Additional evidence (tests, essays, work sample): Predictions, discussions, and ongoing observation journals.

Stage 3: Plan Learning Experiences and Instruction: (LESSON)

ONE LESSON from the Unit (described in detail)

TEACHER: Sammy & Ernestina **DATE:** May 17, 2014

CLASS: Grade One/Inclusion **UNIT:** Life Cycle of a Plant

LESSON TITLE: Let's Plant Lima Beans!

Standards (specific to this lesson in the unit):

Standard: Life Science (Biology), Strand 3: Recognize that plants and animals have life cycles, and that life cycles vary for different living things.

Phase/Time Fi	rame The Teacher Will	The Student Will
Introduction	Start with a whole class discussion about how humans grow and how they are growing from being a baby to being school age (5-6).	How did you get bigger? What changes do you see from when you were babies? Will you grow more? Are there people who are bigger than you?
	Discuss living things like humans (i.e. animals and plants).	What are other living things? Do they grow like you?
	Introduce that we will be learning about how plants grow.	Asking if they know how plants grow will activate their prior knowledge for a discussion.
Body	Read: <u>Life Cycle of a Bean</u> (Pgs. 4-11) by Angela Royston and <u>One</u> <u>Bean</u> by Anne Rockwell.	Students will listen to both books.
	Explain that they will be planting lima beans, and allow children to predict what they think will happen to the lima bean.	Students will offer their predictions to be written on the chart paper.
	Facilitate students lima bean "planting."	Students will sit at their tables with other peers (which is a good way for them to help each other), but are working on individual planting.
		Students will be given their materials: one water bottle per table, one lima bean, clear plastic cup, and paper towel pe child.

	Teacher will give students step-by- step directions of "planting" lima beans.	Students will follow directions of loosely wrapping the lima bean in the paper towel (enough to still see the bean's growth) and putting it in their clear plastic cup (while having the teacher model each step as they go along with the lesson).
	Teacher will walk around and initiate conversations with students by asking questions (i.e. what do you think will happen first? What does a plant need to survive?).	Students take turns using the spray bottle to add some water in the cup (teacher can refer back to books about how water and sunlight is important for the plants to grow). Students will take their plastic cups to designated window with sunlight.
Closure	Have students come back to rug area. Go over the 4 stages of a plants life cycle. Draw and write the stages on chart paper. Ask students if they can demonstrate the first stage, then the second, third, and fourth. Explain that during the next few weeks, they will be making observations in a journal using pictures and words.	Students will orally tell the four stages of a plants life cycle. Students will role-play the stages using their bodies.

Sufficient and Revealing Evidence of Understanding (Lesson Plan) Briefly explain which you will use and why:

Informal Check: I will informally observe whether students are on task (i.e. knowledge of plan life cycle, plant needs, etc.) during whole group discussions and hands-on activity.

Observation/Dialogue: I will initiate discussion, prior knowledge, and ask questions (previously stated above in lesson plan), while also doing the same when students are working on planting their lima beans.

Quiz/ Test: N/A

Performance Task / Project: I will check-in with students during lima bean planting.

Other: N/A

Adaptations: Case study from All Kinds of Minds case studies

Case Study Student Name: Chelsea Grade: 6th (as 1st grade student)

Area of Disability: Understanding Ideas

Modifications	Rationale	
No modifications needed other than specially designed instruction.	Given specifically designed instruction and appropriate accommodations Chelsea can carefully access the curriculum.	
Accommodations	Rationale	
Helping her form complete sentences when making her prediction and writing her observations.	"Walking" Chelsea through her ideas, writing these ideas down, and focusing on how to make them into complete sentences. Allowing Chelsea this support will assist her in keeping organized with her thoughts and a step-by-step technique to incorporate her ideas into writing complete sentences.	
Giving directions for planting step-by-step.	This will allow Chelsea to refer and accomplish one step (of a multi-step hands-on activity) before receiving the next step, so she doesn't feel overwhelmed with too many directions being given at once.	
Cards with pictures of the four stages of the life cycle of a plant.	Having Chelsea use visuals when learning new concepts may help her with her understanding of new ideas. These visuals can always be available to her for support, as she needs it.	
Allowing her to help a friend.	Chelsea enjoys helping her friends. By doing this she is given the opportunity to foster her skills and reinforce areas in which she needs additional practice (i.e. step-by-step directions).	

Resources Used: Websites, books, film clips, etc.

Massachusetts Department of Education (2001) Science and Technology/Engineering Curriculum Frameworks. Malden, MA. Retrieved on May17, 2014 from http://www.doe.mass.edu/frameworks/current.html.

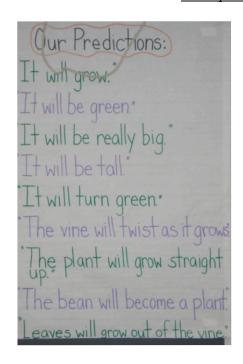
Rockwell, Anne. (1999). One Bean. New York: Walker & Company.

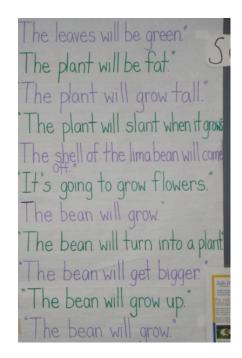
Royston, Angela. (1998). *Life Cycle of a Bean.* Chicago: Reed Educational & Professional Publishing.

SIOP Feature (for First Lesson)

SIOP FEATURES					
PREPARATION	SCAFFOLDING	GROUPING OPTIONS			
Adaption of content: Curriculum	Modeling: Teacher Demonstration	Whole class: Discussion/Prior			
Frameworks		Knowledge			
Links to background: Class	Guided Practice: Planting Lima	Small groups: Planting Lima			
Discussion	Beans	Beans			
Links to past learning: Making	Independent Practice: Observation	Partners			
Predictions	Journals				
Strategies incorporated: Read-	Comprehensive input:	Independent			
Alouds, Step-by-Step Directions					
INTEGRATION OF PROCESSES	APPLICATION	ASSESSMENT			
Reading: Read-Alouds	Hands-on: Planting Lima Beans/	Individual: Successfully Made a			
	Predictions	Meaningful Prediction and			
		Planted Lima Bean			
Writing: Making Predictions	Meaningful:	Group:			
Speaking: Orally Telling	Links to objectives: Rubric	Written:			
Predictions and Discussions					
Listening: Listening to Directions	Promotes engagement:	Oral:			
for Planting Lima Beans	discussion/Lesson				

Example of Prediction Chart





Example of Observation Journal (for following lessons in unit)



