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| Instructors Notes | Activity |
| Day 1:Pre-reading discussion. 1. Photosynthesis
2. Recall from prior lesson
3. What is Photosynthesis
4. Who uses photosynthesis
5. Why
6. What else do we know about photosynthesis
7. Ingredients
8. **Carbon dioxide**
9. **Water**
10. Sunlight
11. Question and answer about video
12. How are trees like plants?
13. What is different about the leaves of a tree than the leaves of a plant? (trees have many leaves)

Closing Activity: Discuss predictions for labs and connect prior knowledge to introduced. | Pre-readingVocabulary review from Unit 4: Lesson 1Discuss review questions from previous lesson (items i-iv on outline)New Vocabulary Video 1: How trees make foodLab 1: Phototropism or GeotropismActivity 1: Photosynthesis paper manipulatives |
| Day 2: 1. Process
	1. **Light energy** into **chemical energy** (sugar)
	2. Latin dissection of photosynthesis
	3. All human food energy is directly or indirectly derived from this process.
	4. Light stimulates **chlorophyll** (located in **chloroplasts**
	5. Plant takes in CO^2 through **stomata** on leaves
	6. Water absorbed through roots
2. **Light-dependent reactions**
3. Certain steps of photosynthesis need light.
4. **Light-independent reactions**
5. Certain steps of photosynthesis do not need light.
6. **Respiration**
7. What do you think of when you hear this word?
8. If you through of breathing you are correct. There is an exchange of gasses in breathing and that exchange is called respiration.
9. Use diagram or draw exchange of gasses in the format of a seller and a buyer. Break down only to the point of oxygen and carbon dioxide.
10. **Transpiration**
11. Recall of process from prior lesson.
12. Discuss role in photosynthesis; photosynthesis needs water, photosynthesis takes place in leaves, water needs to get from other parts of plant where it is collected and transported to site of photosynthesis.
13. **Phototropism**
14. Recall driving down a road where there are trees off to the sides. Did you ever notice the trees leaning a certain way?
15. Ever see a potted plant where the flower is leaning a certain way?
16. **Geotropism**
17. How does a seed know which way to grow while underground?
18. Algae and Bacteria use photosynthesis
19. Use chlorophyll and chloroplasts
20. Use additional pigments similar to chlorophyll and chloroplasts that cause the different colors.
21. Byproduct or Waste (in chemical reaction)
22. Scientists involved in photosynthesis
23. Chemist Richard Willstatter
24. Physiologist Otto Warburg
25. Review
26. Review and modeling of using microscope
 | ReadingVocabulary: Cross-word PuzzleReview of Day 1If time allows, Scientists involved in photosynthesis is in Silverstein bookIf time allows, setup to view stoma under microscope. |
| Day 3:1. Food Webs
2. **Primary Producers**
3. **Primary Consumers**
4. **Omnivores**
5. **Carnivores**
6. **Herbivores**
7. **Autotrouphs**
 | ReadingWorksheet 1: Vocabulary reviewFood Web Activity, Forms A and B. |
| Day 4: No instruction to be provided to general class. Cover instruction not completed on previous days. Monitor class as they work on vocabulary activities, Food Web activities, Journaling. Review upon request and based on assessments (formative) information that students may need more practice.  | Review of Day 3Food Wed Activity, Forms C and D |
| Day 5:Formative assessmentMicroscope activity | Vocabulary assessmentCumulative Exam |