

**Photosynthesis : Mini Unit
for
Middle & High School**

**For
Special
Ed**





This unit was created with this guy in mind. He has autism and an intellectual disability. He is a non-reader, and still is totally in love with Sesame Street. With some support he is able to do this unit, and enjoys the challenge. He is my tester!!

Table of Contents

Pages	Activity
4-25	Photosynthesis part 1
26-47	Photosynthesis part 2
48-50	Vocabulary board
51	Fact sheet
52-56	Vocabulary cards
57-66	Vocabulary cards cut and paste
67-72	Circle map
73-78	Ins and outs diagram
79-86	Sequencing photosynthesis
87-104	Assessment
105-106	Terms of Use

Also included with this unit is a power point show that is narrated and has automatic advancement of slides. Let me know in the feedback if this was helpful 😊

Also included with this unit are detailed lesson plans in a separate file. Let me know in the feedback if this was helpful 😊

This unit contains over 100 pages of material. I have included a detailed lesson plan to help you make the most of everything in this unit including how to add some group activities.

Photosynthesis Lesson Plan

Preparation

- Print out a vocabulary board for each student to use throughout unit
 - Laminate or place in page protector
- Books
 - Print out, laminate, and bind
 - OR your students can listen to the pre-recorded version
- Vocabulary cards
 - Print out a set of cards onto cardstock and laminate
 - Make one set for each student and one for the teacher to use in various games

Preassessment (do day 1 before starting lesson)

- Choose the form of the assessment that best fits the learning level of your students
- Give the assessment to assess what your students may already know
- I cannot emphasize enough how important this step is. If you want to see student growth, this preassessment is so important!!

Teaching Tips

- *Color Coding:* this is a really easy way to add more structure to a matching activity. Outline or color in an empty box or sorting label. Outline or color in the corresponding picture symbols the same colors. Becomes a color matching task.
 - a. For more info, read more here:
<https://specialneedsforspecialkids.org/2015/09/05/using-color-coding-for-differentiation/>
 - b. I also have a blog post on differentiating one activity 3 ways:
<https://specialneedsforspecialkids.org/2018/10/22/differentiating-1-activity-3-ways-easily-and-effectively/>
- *Make your own copies of the activities:* Every day I review the activity we did yesterday. For that reason:
 - a. I often complete the activity myself and often laminated it for easy review that I could use year after year.
 - b. My copies were also helpful as either a model for students who needed more support or as a way for more advanced students to self-check their work.

The lesson plans contain:

Overall tips for teaching
students with significant
needs

Quick Look

Day	Activity
1	<ul style="list-style-type: none">• Books• Fact sheet• Vocab cards activity• Circle map
2	<ul style="list-style-type: none">• Books• Fact sheet• Vocab cards activity• Ins and outs worksheet
3	<ul style="list-style-type: none">• Books• Fact sheet• Vocab cards activity• Sequence steps
4	<ul style="list-style-type: none">• Books• Fact sheet• Vocab cards cut and paste
5	<ul style="list-style-type: none">• Assessment

The lesson plans contain:

A quick look at what you will do each day

Day 3

Activity	Notes	Materials
Read or listen to a recording of both books (10 minutes)	<ul style="list-style-type: none"> • Read through the story, asking lots of questions • Continue to make connections between book and vocabulary board 	<ul style="list-style-type: none"> • Book • Vocabulary board
Photosynthesis Fact sheet (5 minutes)	<ul style="list-style-type: none"> • Review the fact sheet on photosynthesis (laminat or place in page protector for durability) • Find relevant points in the book • Make connections to the vocabulary board 	<ul style="list-style-type: none"> • Fact sheet • Vocabulary board
Vocabulary cards Bean Bag Toss (10 minutes)	<ul style="list-style-type: none"> • Glue the cut apart symbols to the paper plates (one on each plate) • Arrange them around the room • Students toss the bean bag trying to get it to land on a paper plate <ul style="list-style-type: none"> ◦ Students retrieve the paper plate and share the vocabulary card they retrieved 	<ul style="list-style-type: none"> • Vocabulary cards • Vocabulary cards cut out • Small plates of cut paper • Bean bag
Ins and out activity review (5 minutes)	<ul style="list-style-type: none"> • Review the labeling activity completed yesterday 	<ul style="list-style-type: none"> • Labeling activity completed yesterday
Photosynthesis sequencing (10 minutes)	<ul style="list-style-type: none"> • Choose the level that is best for your student. • Complete the photosynthesis sequence • Add color-coding if needed • Make connections to the book as necessary 	<ul style="list-style-type: none"> • Sequencing worksheet • Scissors • Glue
Sharing (10 minutes)	<ul style="list-style-type: none"> • Each student shares their finished worksheet with the group using the communication method of their choice 	<ul style="list-style-type: none"> • Completed worksheet • Communication devices

The lesson plans contain:

Detailed instructions on how that day's lesson should run

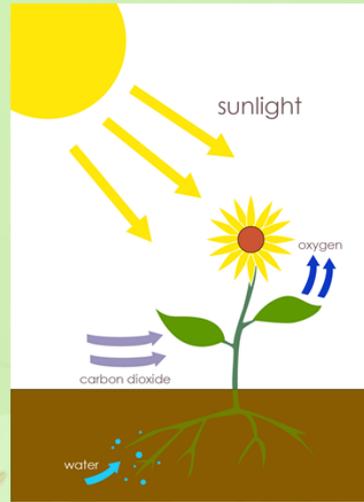
This unit comes with a vocabulary board.

Vocabulary boards are great for ALL students to assist with participation and engagement in group discussions.

Tips on how to use in the unit!!



When plants turn energy into food, it is called photosynthesis.



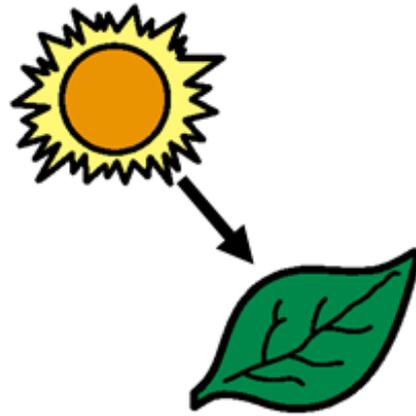
Plants breathe in that carbon dioxide.



There are 2 books with this unit using simple text and photos.

They come in a pdf version as well as a voice recorded powerpoint (so you don't have to print them out.)

Photosynthesis Fact sheet

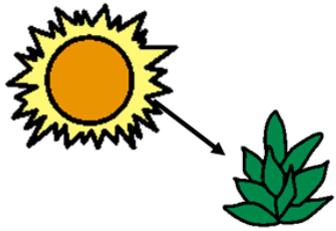


-  All plants perform photosynthesis.
-  Plants need sunlight for photosynthesis to occur.
-  Plants turn carbon dioxide into oxygen.
-  Plants turn sunlight into energy.
-  Plants need soil, water, and sunlight.

There is a fact sheet to review daily.

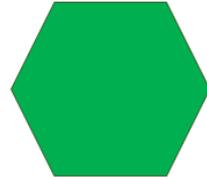
photosynthesis

Occurs in plant cells. Takes sunlight, combines it with water and carbon dioxide to make energy.



chlorophyll

Green pigment in plant cells that turns sunlight into food.



carbon dioxide

Air that plants take in and use for photosynthesis.



oxygen

Air that is produced by plants for us to breathe.



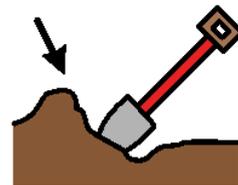
glucose

Sugar made by plants and used for photosynthesis.



soil

Dirt needed by plants for photosynthesis.



cell

Building block of the plant where photosynthesis occurs.

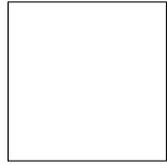


There are 7 vocabulary cards that come in color and black and white.

Included are suggestions for group activities to do with these each day.

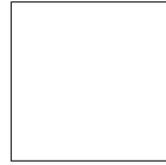
photosynthesis

Occurs in plant cells. Takes sunlight, combines it with water and carbon dioxide to make energy.



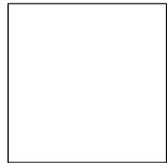
chlorophyll

Green pigment in plant cells that turn sunlight into food.



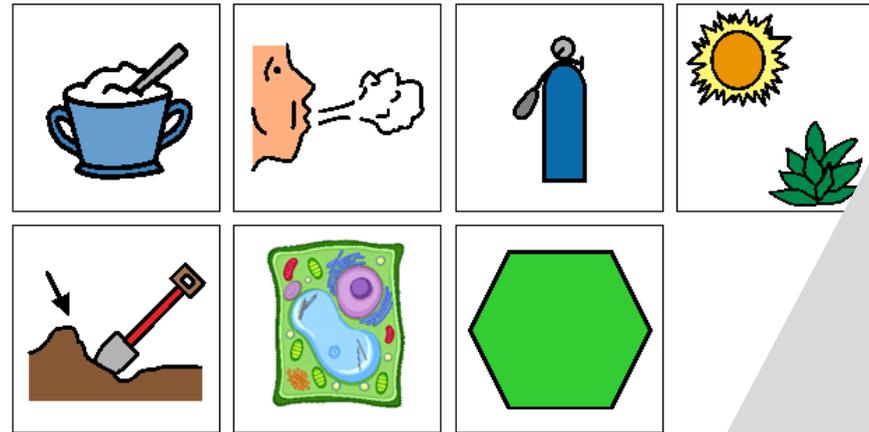
carbon dioxide

Air that plants take in and use for photosynthesis.

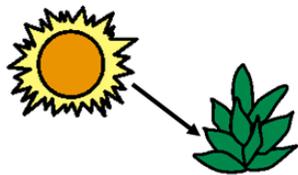


oxygen

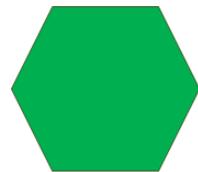
Air that is produced by plants for us to breathe.



photosynthesis



chlorophyll



carbon dioxide



oxygen



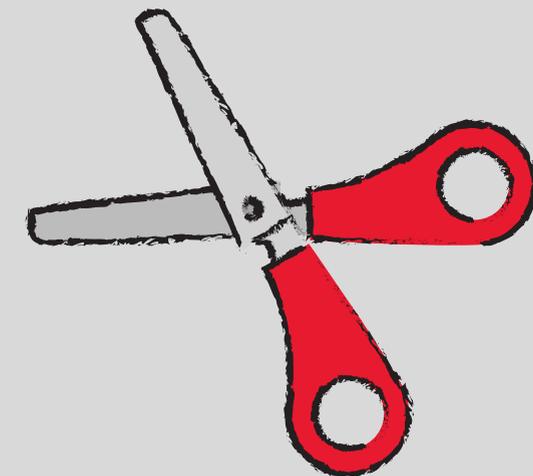
Air that plants take in and use for photosynthesis.

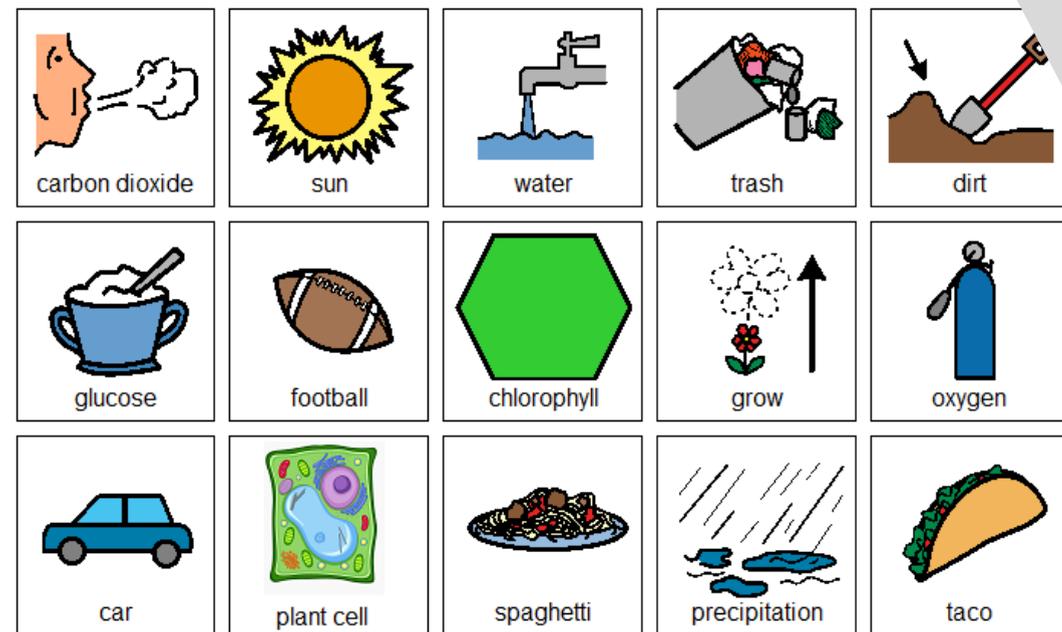
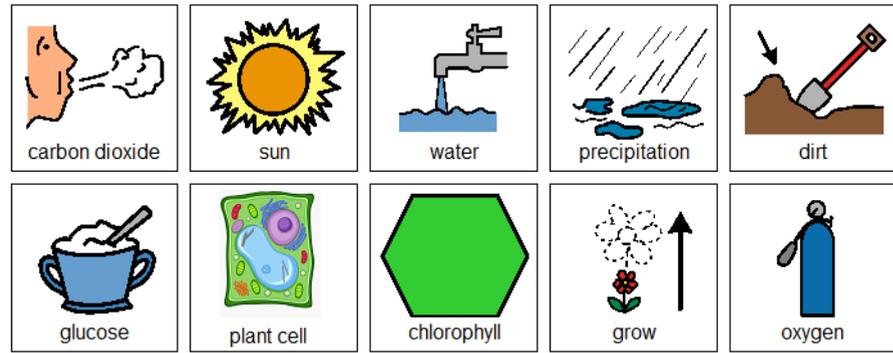
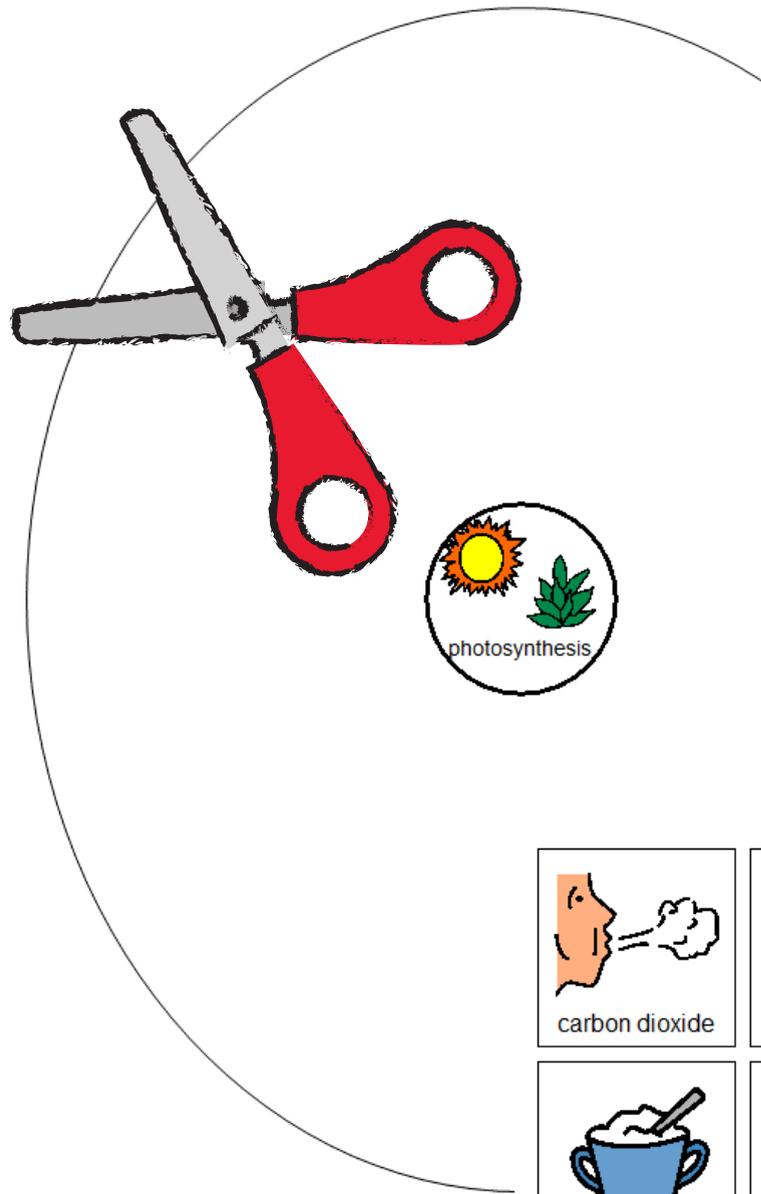
Sugar made by plants and used for photosynthesis.

Green pigment in plant cells that turns sunlight into food.

Building block of the plant where photosynthesis occurs.

On day 4 there is an activity where students will match either the picture to the definition or the definition to the picture (harder).



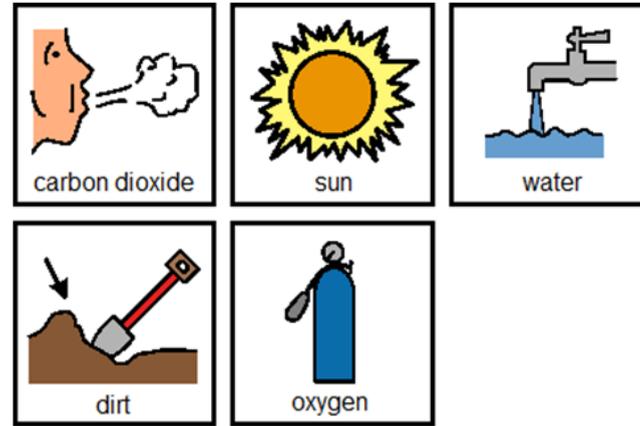
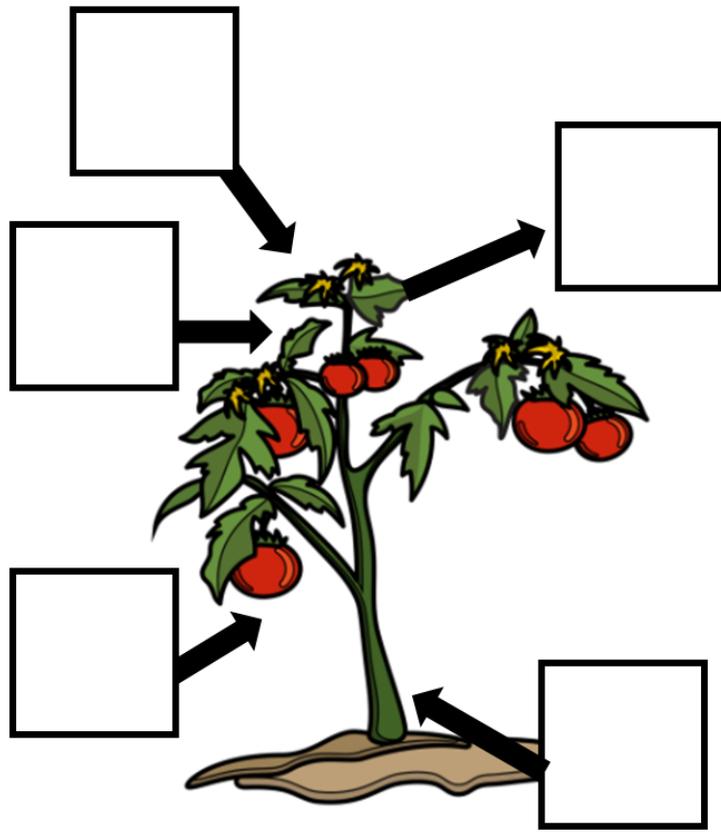


There is a circle map.

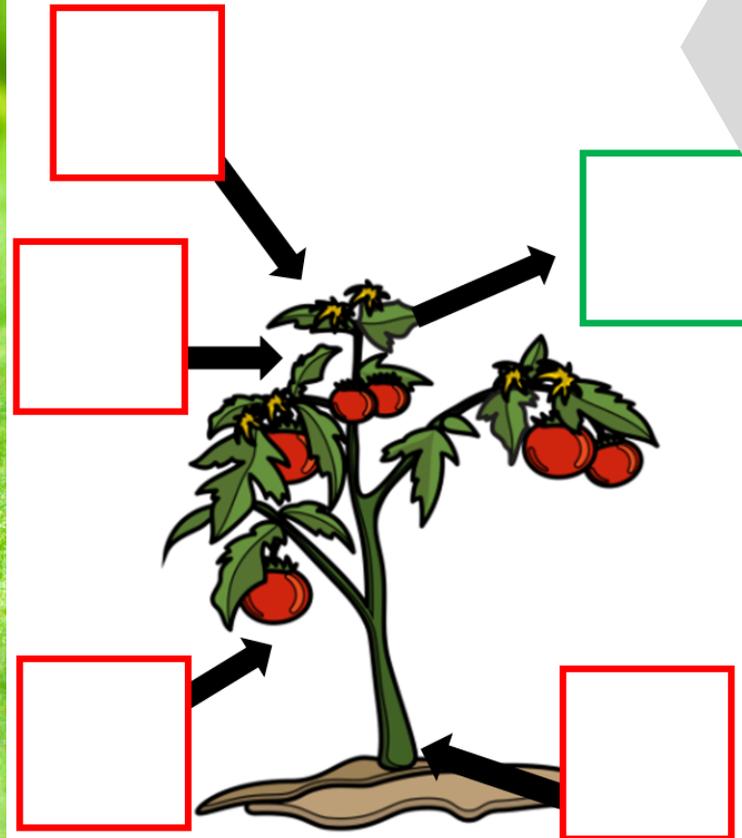
Circle maps are a great way for students to see the concept at a glance. There are 2 versions:

- One is errorless
- One has wrong answers mixed in students will have to set aside

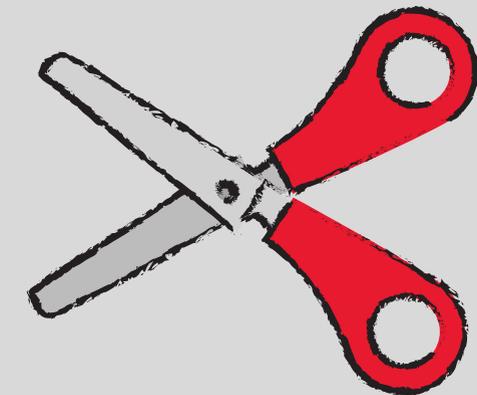
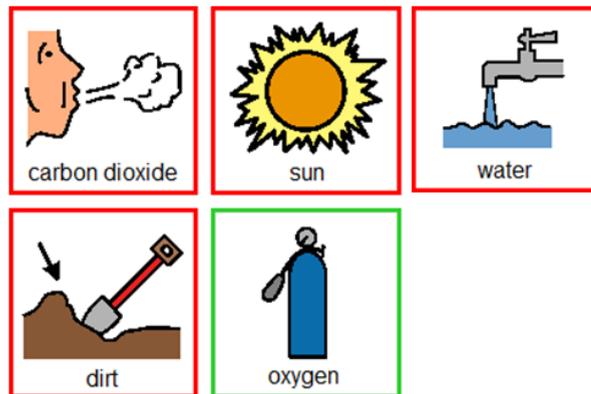
Label the inputs and outputs of photosynthesis.



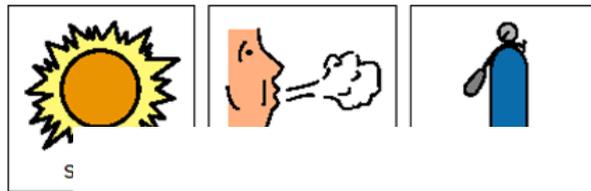
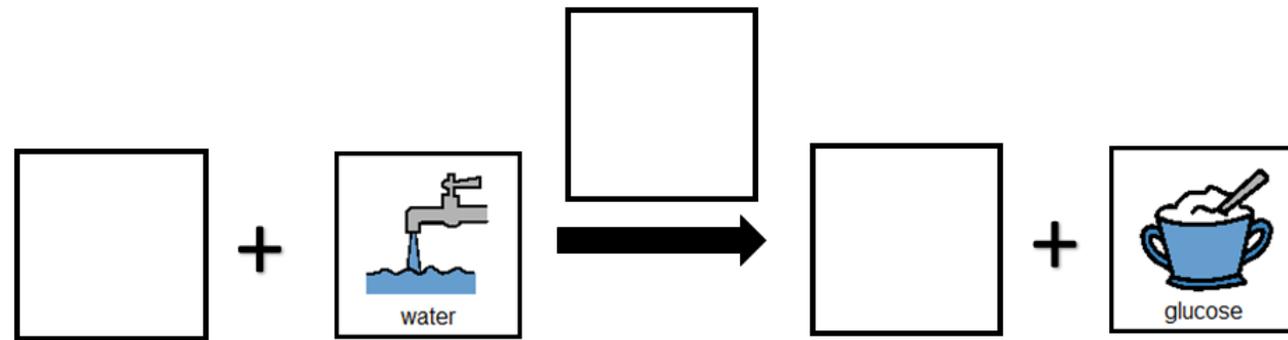
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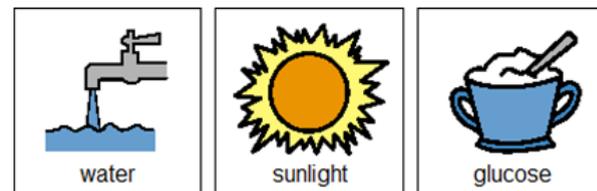
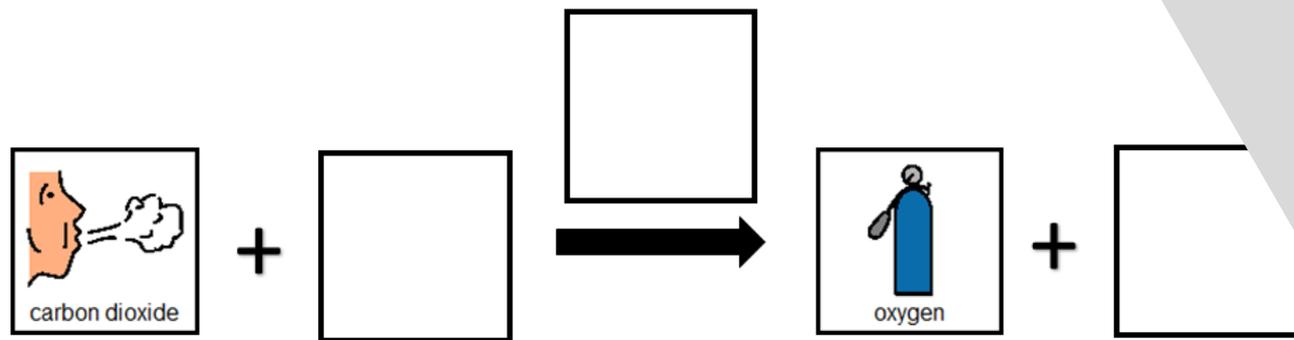
There is an activity where students identify the factors going in that cause photosynthesis and well as the primary product. There is a color-coded option provided.



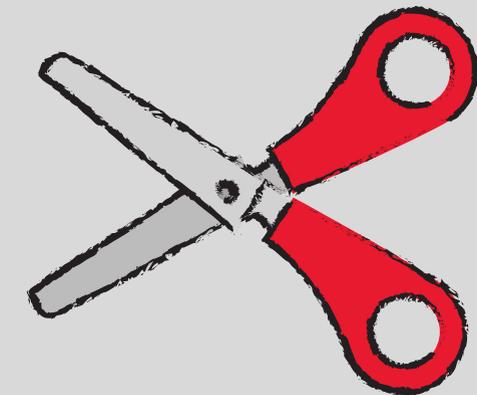
Complete the steps of photosynthesis.



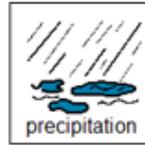
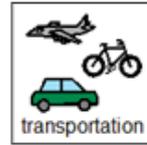
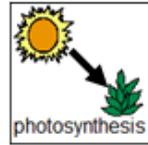
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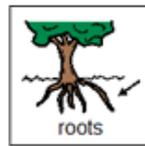
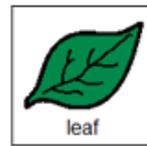
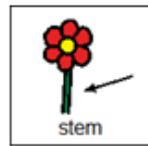
There is an activity where students sequence the actual steps of photosynthesis. There are 3 options to choose from. Each one has fewer steps filled in.



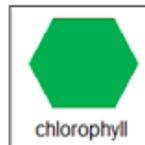
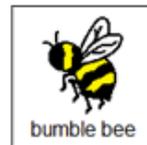
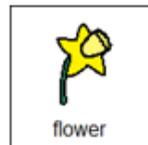
1. What is the name of the process plants use to make food?



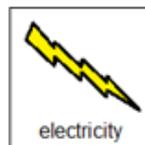
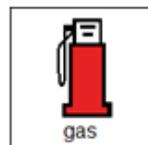
2. What part of the plant turns sunlight into food?



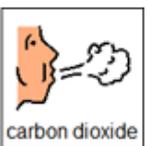
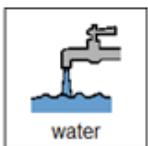
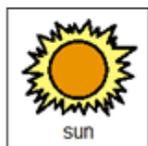
3. What is the name of the green pigment in plants that makes the food?



4. What type of food does the plant make for energy?



5. Circle all the things plants need to survive.

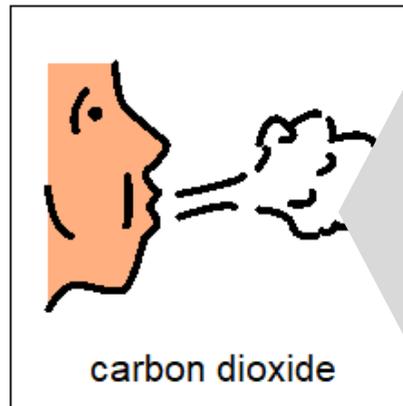
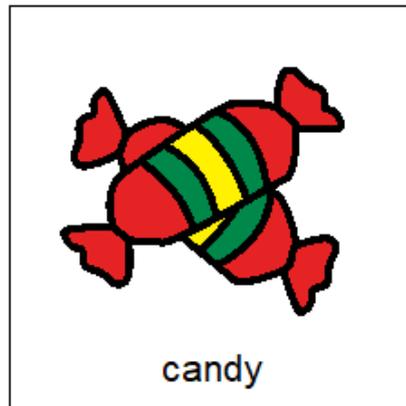
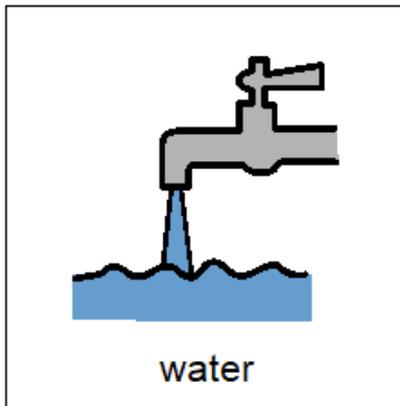
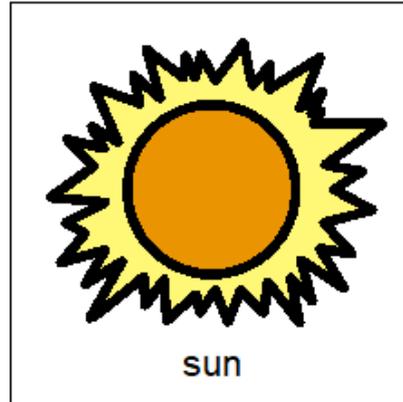
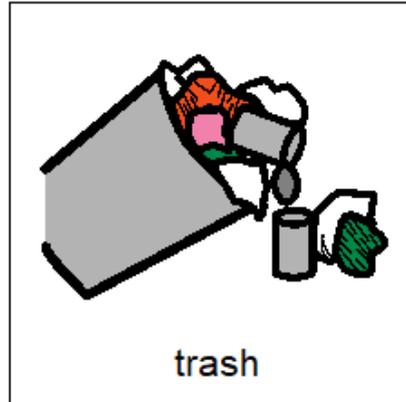
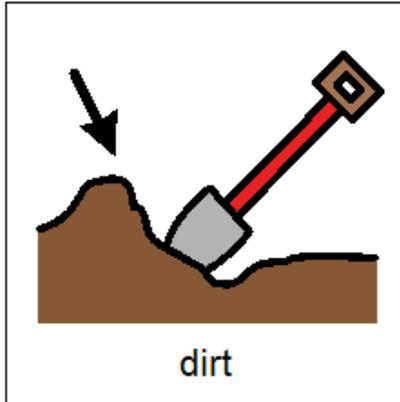


FINALLY the assessment!! There are 3 versions. This version has 10 questions with 3 picture choices for each question.

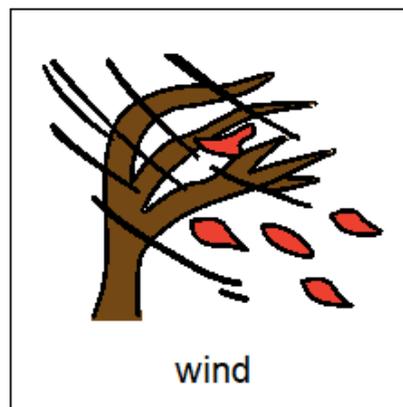
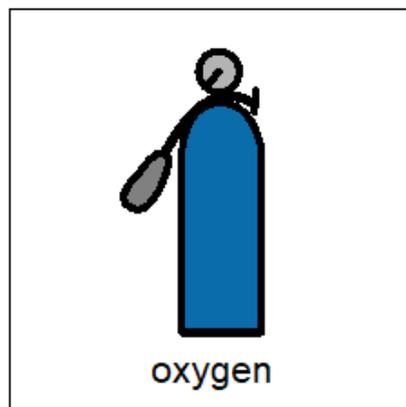
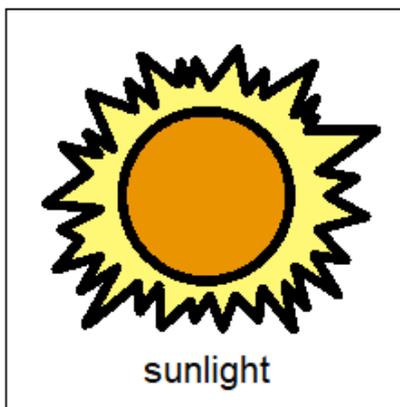
Answer key included.

Print onto cardstock or mount on index cards. Cut pictures apart and show student answer choices for each question.

Q 5



Q 6



With this version, you cut out the answer choices and glue them on index cards. Ask the student the question, and they point to the correct answer.

1. What is the name of the process plants use to make food?
 - A. Photosynthesis
 - B. Transportation
 - C. precipitation
2. What part of the plant turns sunlight into food?
 - A. Stem
 - B. Leaf
 - C. roots
3. What is the name of the green pigment in plants that makes the food?
 - A. Flower
 - B. Bumble bee
 - C. chlorophyll
4. What type of food does the plant make for energy?
 - A. Gas
 - B. Glucose
 - C. electricity
5. Circle all the things plants need to survive.

A. Dirt	D. water
B. Trash	E. candy
C. Sunlight	F. carbon dioxide
6. Plants turn carbon dioxide into:
 - A. Sunlight
 - B. Oxygen
 - C. wind

This is your traditional multiple choice version. It can also be used as a recording sheet if your students are using the version with index cards.



I realize there will be some students out there unable to do cutting activities. I have a blog post with ways to complete activities without a pair of scissors!!

All of the activities (except the books and fact sheet) come in color and black and white.

[Click Here to read more!!](#)