Use a Text to Speech Engine

Photosynthesis - The cycle of plants and how they make energy!
The sun (light energy), water, minerals and carbon dioxide are all absorbed by the plant. The plant then uses them to make glucose/sugar, which is the energy/food for the plant. Oxygen is also produced by the plant in this cycle, which is then let off into the air! Have you noticed how clean and pure the air feels when there are plants around? They are filling the air with oxygen!

Text to Speech allows readers of all levels to:
~read fluently
~concentrate on comprehension of concepts presented
~easily reread more difficult text
~hear new vocabulary pronounced
Use **Text to Speech** Engine to allow for fluent comprehension. Students can note unknown words using **Study Skills highlighters**, then go back and use the **Dictionary tool** to clarify meaning.

Scanning for Key Words after reading a passage:
- Helps to build background knowledge about a topic
- Strengthens highest level of thinking skills – evaluation
- Makes students responsible for their learning
- Provides opportunity to reason why choices were made
- Allows for students to hear words aloud multiple times
Elementary Vocabulary

English Language Arts Standards » Reading: Informational Text » Grade 3

Craft and Structure
RI.3.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

✓ After an initial reading, ask students to look for 5 words the author should have chosen as vocabulary words for the section (words usually bolded in text). Have them highlight these words in one color. These words will mainly be your domain-specific or Tier 3 words.

✓ Then ask students to identify 5 words that might be difficult for others, such as someone younger or new to this country, in a different color. These are likely to be your general academic or Tier 2 words.
Photosynthesis - The cycle of plants and how they make energy! The sun (light energy), water, minerals and carbon dioxide are all absorbed by the plant. The plant then uses them to make glucose/sugar, which is the energy/food for the plant. Oxygen is also produced by the plant in this cycle, which is then let off into the air! Have you noticed how clean and pure the air feels when there are plants around? They are filling the air with oxygen!

Words the Author Thinks You Should Know

Words that Might be Difficult for Others
Craft and Structure

RI.3.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

✓ Once students have highlighted their words, ask them to press the Vocabulary icon to create a Vocabulary List of meanings and symbols.

✓ Then model for students how to make two modifications to their list: 1) Change the name of the final column from Notes to Memory Clues and 2) Add a column after the Meaning (definition) and title it My Definition. This will provide a place for the meaning in the students’ own words and a place to write how they will remember the meaning of the word.
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Symbol</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photosynthesis</td>
<td>Synthesis of compounds with the aid of radiant energy (especially in plants).</td>
<td><img src="image" alt="symbol" /></td>
<td></td>
</tr>
<tr>
<td>energy</td>
<td>Power that makes machinery work, &quot;We need more energy to keep this machine going&quot;.</td>
<td><img src="image" alt="symbol" /></td>
<td></td>
</tr>
<tr>
<td>minerals</td>
<td>A substance that is found naturally in the earth, &quot;This area is rich in minerals&quot;.</td>
<td><img src="image" alt="symbol" /></td>
<td></td>
</tr>
<tr>
<td>carbon dioxide</td>
<td>A heavy odorless colorless gas formed during respiration and by the decomposition of organic substances; absorbed from the air by plants in photosynthesis.</td>
<td><img src="image" alt="symbol" /></td>
<td></td>
</tr>
<tr>
<td>absorbed</td>
<td>When something absorbs something, it takes it into itself, &quot;He absorbed the information; The cloth absorbed the split drink&quot;.</td>
<td><img src="image" alt="symbol" /></td>
<td></td>
</tr>
<tr>
<td>glucose</td>
<td>A monosaccharide sugar that has several forms; an important source of physiological energy.</td>
<td><img src="image" alt="symbol" /></td>
<td></td>
</tr>
</tbody>
</table>
**Modify** Vocabulary List to include column for **Student Definitions** and **Memory Clues** to add during/after reading.

### Photosynthesis Vocabulary List

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>My Definition</th>
<th>Symbol</th>
<th>Memory Clues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photosynthesis</td>
<td>Synthesis of compounds with the aid of radiant energy (especially in plants).</td>
<td>Plants turning sunlight into energy</td>
<td>$\text{CO}_2 \rightarrow \text{O}_2$</td>
<td>Process of how plants make energy</td>
</tr>
<tr>
<td>energy</td>
<td>Power that makes machinery work, &quot;We need more energy to keep this machine going&quot;.</td>
<td>Power that makes things work</td>
<td>$\text{E}$</td>
<td>Light contains electromagnetic energy</td>
</tr>
<tr>
<td>minerals</td>
<td>A substance that is found naturally in the earth, &quot;This area is rich in minerals&quot;.</td>
<td></td>
<td>$\text{rock}$</td>
<td></td>
</tr>
<tr>
<td>glucose</td>
<td>A monosaccharide sugar that has several forms; an important source of physiological energy.</td>
<td></td>
<td>$\text{can}$</td>
<td></td>
</tr>
</tbody>
</table>
Using the original text, have students create a word bank from their targeted vocabulary words.

Have students use this content frame and their word bank to help them **summarize** the process of photosynthesis.

**Photosynthesis** is a **process** that begins with ____________________________________________
______________________, continues with ______________________
__________________________, and ends with__________________________
__________________________.