Name/Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Introduction to Photosynthesis

* All life begins with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Draw the photosynthesis diagram:
* Reactant:
* Product:
* Rule:
* Photosynthesis Equation:

Sunlight

\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_

* **Optional:** Draw picture of photosynthesis equation.
* Autotrophic Process:
* What is glucose?
* What do plants use glucose for?
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ make glucose and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are consumers of it.
* Three ways plants use glucose:

1.

2.

Glucose is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ that is linked together to make a polymer called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

What does cellulose create?

3.

Glucose also makes polymers called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to store sugars.

* \_\_\_\_\_\_\_\_\_\_\_\_ energy is being converted into \_\_\_\_\_\_\_\_\_\_\_\_ energy.
* Photosynthesis creates \_\_\_\_\_\_\_\_\_\_\_\_\_ molecules (glucose) out of \_\_\_\_\_\_\_\_\_\_\_\_\_ materials (carbon dioxide and water).
* Photosynthesis is the beginning of all \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Fill in the following shapes with words and diagrams.
* Inside of plant cells are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ absorb light and then use that energy to break down \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and water to create sugars.
* Leaves are green because they contain the pigment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Why do leaves have such a large surface area?
* How do plants produce oxygen?
* What is a stomata?
* What is the activation energy for photosynthesis?
* What is a pigment?

Main pigment:

Accessory pigments:

These pigments absorb all wavelengths EXCEPT \_\_\_\_\_\_\_\_\_\_\_\_\_.

* Name four factors that affect photosynthesis.

1.

2.

3.

4.

* Do plants need oxygen? Explain why.