Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ATP and Photosynthesis WS

Autotrophs vs. Heterotrophs (p.160)

|  |  |  |
| --- | --- | --- |
|  | How they get their food | Organism examples |
| Autotroph |  |  |
| Heterotroph |  |  |

ATP

|  |  |
| --- | --- |
| Draw and label ATP. (p. 161) | Draw and label ADP. (p. 161) |

What is the difference between ATP and ADP?

What happens when ADP becomes ATP?

What happens with ATP becomes ADP?

Photosynthesis is the process by which some autotrophs \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_from the sun (p.162)

This process creates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Breaking down sugars, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.

Write the word that each chemical formula represents in the photosynthesis equation below. (p. 162)

6CO2 + 6H2O C6H12O6 + 6O2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In order for the chemical reaction above to occur, what source of energy must be present?

Where does photosynthesis occur (which organelle?) (p.166)

What is chlorophyll?

Draw a chloroplast. Label the thylakoids, stroma and grana.

Light Dependent Reactions (p. 170)

Is light required for these reactions?

What is produced as a result of these actions?

In what part of the chloroplast do these reactions take place?

Light Independent Reactions / Calvin Cycle (p. 170)

Is light required for these reactions?

What is produced as a result of these actions?

In what part of the chloroplast do these reactions take place?