CELL ENERGY STUDY GUIDE

PHOTOSYNTHESIS REVIEW

Match the terms below with the correct description

Chlorophyll	Light-independent reactions (DARK REACTION)
Chloroplast	Photosynthesis
Light-dependant reactions (LIGHT REACTION)	

a. _____energy-capturing portion of photosynthesis that takes place in thylakoid membranes of chloroplasts and cannot proceed without solar energy, it produces ATP and NADPH
b. _____green pigment that absorbs solar energy and is important in photosynthesis
c. _____ membrane-bounded organelle with chlorophyll – containing membranous thylakoids; where photosynthesis takes place
d. _____Process usually occurring within chloroplasts whereby chlorophyll traps solar energy and carbon dioxide is reduced to a carbohydrate.
e. _____Synthesis portion of photosynthesis that takes place in the stroma of chloroplasts and does not directly require solar energy; it uses the products of the light dependant reactions to reduce carbon dioxide to a carbohydrate

Answer the following questions

1. Explain the difference between autotrophs and heterotrophs. Give two examples of each.

2. Draw a picture of a molecule of ATP and an ADP molecule (make sure to KNOW the differences between these models). ALSO Label: adenosine, ribose, and phosphate groups. Also show the chemical bond that would be broken if energy needed to be released.