Name_____ Class_____ Date_____

Section 8–1 Energy and Life (pages 201–203)

TEKS FOCUS: 4B Cellular processes; **TEKS SUPPORT:** 9A Structure and function of biomolecules

This section explains where plants get the energy they need to produce food. It also describes the role of the chemical compound ATP in cellular activities.

Autotrophs and Heterotrophs (page 201)

1. Where does the energy of food originally come from? _____

_____

2. Complete the table describing the types of organisms.

TYPES OF ORGANISMS

Type	Description	Examples
	Organisms that make their own food	
	Organisms that obtain energy from the food they eat	

Chemical Energy and ATP (pages 202–203)

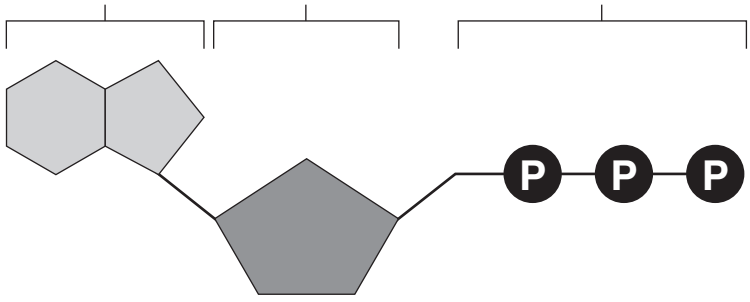
3. What is one of the principal chemical compounds that cells use to store energy?

_____

4. How is ATP different from ADP? _____

_____

5. Label each part of the ATP molecule illustrated below.



6. When a cell has energy available, how can it store small amounts of that energy?

_____

_____

Name_____ Class_____ Date_____

7. When is the energy stored in ATP released? _____

_____

8. For what purpose do the characteristics of ATP make it exceptionally useful to all types of cells? _____

_____

9. What are two ways in which cells use the energy provided by ATP?

a. _____

b. _____

Using Biochemical Energy (pages 202–203)

10. Why is it efficient for cells to keep only a small supply of ATP on hand?

_____

_____

_____

11. Circle the letter of where cells get the energy to regenerate ATP.

a. ADP

b. phosphates

c. foods like glucose

d. organelles