

ATP

1. Draw and annotate a molecule of ATP to show how it stores and releases energy.
2. List six cellular process that use ATP as a source of energy.

3.7 Cell Respiration

3. Define *cell respiration*.

The _____ release of _____ in the form of _____
from _____ in cells.

4. State the word and symbol equations for the process of cell respiration.

Word:

Symbol:

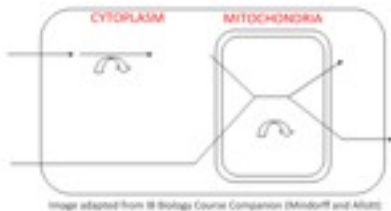
5. Identify organic molecules, other than glucose, which could be used for respiration.



6. Identify the two components of the cell in which respiration takes place.

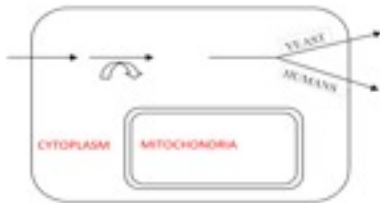
7. Distinguish between *aerobic* and *anaerobic* in terms of cell respiration.

8.



Label the diagram of *aerobic* cell respiration below.

9. Label the diagram of *anaerobic* cell respiration below.



10. Complete the table below, comparing aerobic and anaerobic respiration.

Aerobic	Anaerobic
Hexose sugar input in both types of respiration	

Oxygen in		
	2 ATP produced	
Pyruvate as an intermediate compound in both types of respiration		
	<i>Yeast</i>	<i>Animals</i>
Carbon dioxide produced		
Water produced		

11. Complete the table below summarizing the events of aerobic cell respiration.

Reaction	Location	Purpose	ATP yield
Glycolysis			2
	Matrix of the mitochondrion	Convert pyruvate (3C) to acetyl CoA (2C)	0
Krebs Cycle			
	Inner mitochondrial membrane		
Oxidative phosphorylation			

12. Label the diagram below with the correct processes, locations and compounds:

