Name: _____ Class: _____ Date: _____

ATP & ADP: The Energy Cycle

Instructions: Use what you have learned in Lesson 4.1. Auto-grade your answers when finished, then submit according to the instructions provided in class.

Part A: ATP vs ADP

Instructions: Choose the correct answer from the provided drop-down menu.

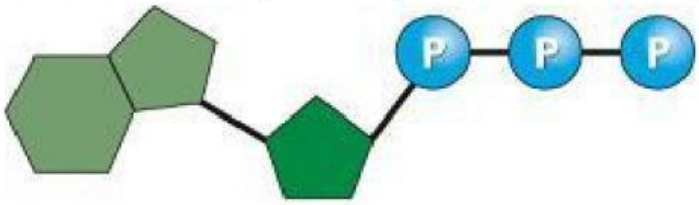
1. ATP stands for: _____
2. The prefix ***tri-*** means: _____
3. The prefix ***di-*** means: _____
4. Which molecule has three (3) phosphate groups? _____
5. Which molecule has two (2) phosphate groups? _____

Part B: Label an ATP Molecule

Instructions: Drag the labels to the correct place on the diagram below, then answer the followup question.

adenine	phosphate(s)	ribose

_____ _____



_____

Part C: Follow the Energy

Instructions: Answer the questions, then drag the steps of the cycle to the correct place on the table below.

6. When a phosphate group is removed from ATP, ATP changes into: _____
7. When ATP changes into ADP, energy is _____.
8. ADP changes back into ATP when a phosphate group is _____.

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9. Drag and drop the three steps in the correct order in the table provided below.

ADP has 2 phosphate groups	ATP has 3 phosphate groups	A phosphate is removed and energy is released

Step 1:	Step 2:	Step 3:
Drop here!	*Drop here!*	*Drop here!*

Part D: Where Does ATP Come From?

Instructions: Choose the correct answer from the provided drop-down menu.

10. Which macromolecule is most commonly broken down to make ATP? _____

11. Which macromolecule stores the most energy? _____

12. Which macromolecules are least likely to be broken down to make ATP? _____

Part E: Energy Challenge

Instructions: Choose the correct answer from the provided drop-down menu.

13. Approximately how many ATP molecules can be produced from the breakdown of one molecule of glucose? _____

14. Approximately how many ATP can be produced from one triglyceride molecule? _____

15. Approximately what percentage of energy is stored in the body is maintained in the form of lipids? _____

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