

## Energy and Matter for Your Critter

How does your critter use matter and energy to build its body and carry out activities? Respond with an explanation, diagram, model, or demonstration of your choice. Address the following in your answer:

- Indicate your critter’s source of energy and matter and how these are obtained from its surroundings
- Identify the trophic level your critter occupies in a specific food chain
- Demonstrate how energy is stored and made available for the critter’s activities
- Distinguish the macromolecules (carbohydrates, proteins, lipids and nucleic acids) that your critter can synthesize from those that it must obtain from its external environment (through diet or other means)

### Energy and Matter for Your Critter Rubric

Name \_\_\_\_\_ Period \_\_\_\_\_

Criteria	5/4 points	3/2 points	1/0 points
Indicate your critter’s source of energy and matter and how these are obtained from its surroundings	Source of energy and matter fit with critter and environment	Only energy or matter discussed (not both)	Most or all information missing
Identify the trophic level your critter occupies in a specific food chain	Specific food chain and critter’s trophic level identified	Only food chain or trophic level discussed (not both)	Most or all information missing
Demonstrate how energy is stored and made available for the critter’s activities	Description includes discussion of energy storage and how critter accesses it	Only energy storage or availability is discussed (not both)	Most or all information is missing
Distinguish the macromolecules that your critter can synthesize from those that it must obtain from its external environment (through diet or other means)	All four types of macromolecules thoroughly discussed	Two or three macromolecules discussed or weak discussion of four	One macromolecule discussed or information missing

Total

Points = \_\_\_\_\_ /20