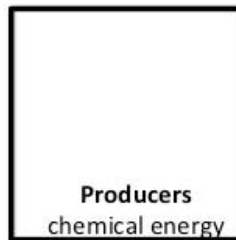
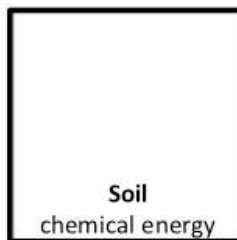
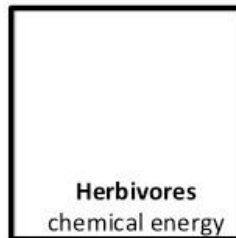
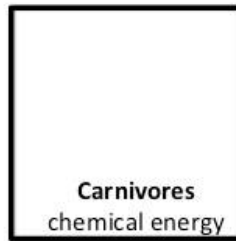


## 3.5: Tracing Energy Worksheet

### A. Tracing energy through an ecosystem.

1. Draw arrows (- - ->) to show how carbon moves through an ecosystem and label the carbon-transforming processes responsible for that movement (photosynthesis, cellular respiration, eating, death and defecation).
2. Next to each arrow, label the form of energy involved with the carbon-transforming process (sunlight, chemical, heat).



3. When energy is in the form of chemical energy, it is associated with matter in the form of a food (or fuel). Put stars on your diagram where matter and energy part ways. What is the name of the process that happens when matter and energy part ways?

**B. Answering the Energy Flow Question**

4. Explain how energy enters an ecosystem. Where does it come from? How is it transformed?

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5. Explain how chemical energy moves between carbon pools. Why does the carnivore pool have less chemical energy?

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6. Explain how chemical energy is transformed when plants or animals use it. When a plant or animal dies, does it still have chemical energy?

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7. Explain how chemical energy eventually leaves an ecosystem. Can plants or animals in this ecosystem use that energy again?

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