

Building an Ecodome

Construction Checklist:

Trophic Levels (minimum #):

- _____ 5 producers
- _____ 3 primary consumers
- _____ 2 secondary consumers
- _____ 1 tertiary consumer

_____ **Water:** Shows a source of water

_____ **Soil Nutrient Source:** Must show a source of humus (decomposed/decomposing organic matter) in the soil.

_____ **Decomposers:** Must show decomposers and show their role in the Ecodome.

_____ **Energy source:** Must show the primary energy source for the ecosystem to function.

_____ **Energy Cycle:** *Yellow* arrows showing the nutrient energy cycle (how energy flows through the system).

_____ **Water Cycle:** *Blue* arrows showing the water cycle.

_____ **Nitrogen Cycle:** *Green* arrows showing the nitrogen cycle.

_____ **Carbon cycle:** *Red* arrows showing the carbon cycle

_____ **Phosphorus cycle:** *Brown* arrows showing the phosphorus cycle.

Hints:

- Individual organisms can play multiple roles in your Ecodome (e.g. decomposers can be part of the humus source and nutrient cycle)
- Be sure all cycles are completed and that no dead-ends exist in any of the cycles
- Label all steps of each cycle that carry a name (ex: nitrogen fixation in the nitrogen cycle, respiration in the carbon cycle, etc.)
- Label all individuals within each trophic level (1⁰, 2⁰, 3⁰)
- The Ecodome does not have to be terrestrial. Aquatic/marine ecosystems function on the same principles with only a few added issues