Characteristics of Life Research

Choose an organism from the list below.

Research that organism to explain how it represents each of the characteristics of life. You will need to give very specific examples that pertain to your chosen organism.

For example- Living things reproduce: In February and March, the Monarch Butterflies come out of hibernation to find a mate. The male monarch butterfly courts the female monarch butterfly to reproduce sexually. They then migrate north and east to lay their eggs on the milkweed plant.

**Organisms**

Caribou

Arctic Fox

Sea Cucumber

Anemone

Bearded Dragon

Carpenter Bees

Blue Fin Tuna

Nile Crocodile

Gazelle

Jackrabbit

Emperor Penguin

Sloth

Goliath Frog

Armadillo

**Characteristics of Life**- below are some questions to think about as you decide ways to show that your organism does, indeed, show the 8 characteristics of life.

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| Living things are made of cells. | What type of cell does your organism have?If we were to look at that cell under a microscope, which type of organelles might we see? |
| Living things grow and develop. | What is the life cycle of your organism? How long does your organism live? |
| Living things reproduce. | Does your organism reproduce sexually, asexually, or both? How does it find a mate? When does it reproduce? Is there migration involved? How many offspring do they have at a time? |
| Living things obtain and use energy. | What does your organism eat? What eats your organism? What other organisms might it compete with for food? |
| Living things maintain homeostasis. | How does your organism maintain a stable internal environment? For example- how does it deal with temperature changes? How does your organism breathe? Can they change their respiration rate? |
| Living things respond to the environment. | Does your organism change its behavior in response to seasons? What does it do when attacked or threatened?  |
| Living things are made of DNA. | How many pairs of chromosomes does your organism have? What does the karyotype of your organism look like? |
| Living things evolve.  | Which species are your organisms most closely related to? What are possible common ancestors? What other organisms does it look like that may show convergent evolution? Is there another organism that it might have coevolved with? |

