|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Biology** | | Mr. Rodrigo | | | |
| Name |  |  | Period |  |  |
| **Worksheet** | | Arthropods | | | |

**Introduction:**

Even if you have never heard the word arthropod before, you have seen and probably even eaten arthropods many times. A beetle is an arthropod. A spider is an arthropod. A lobster is an arthropod.

**Arthropods:**

|  |  |  |
| --- | --- | --- |
| C:\My Documents\My Pictures\arthopods\beetle1.jpg | C:\My Documents\My Pictures\arthopods\spider1.jpg | C:\My Documents\My Pictures\arthopods\lobster3.jpg |
| **An insect** | An arachnid | A crustacean |

Observe the pictures above: What do all of these arthropods have in common?

One thing they have in common is . . .

Another thing they have in common is . . .

Write a well written paragraph using your observations and the sentence patterns above.

Now observe some more *insects*, *arachnids*, and *crustaceans* and try to find some differences:

|  |  |  |  |
| --- | --- | --- | --- |
| Insects | | | |
| My Pictures\arthopods\bee1.jpg | My Pictures\arthopods\grasshopper.jpg | | My Pictures\arthopods\insect4.jpg |
| Arachnids | | | |
| My Pictures\arthopods\spider1.jpg | My Pictures\arthopods\spider2.jpg | My Pictures\arthopods\scorpion1.jpg | |
| Crustaceans | | | |
| My Pictures\arthopods\lobster.jpg | My Pictures\arthopods\shrimp2.jpg | | My Pictures\arthopods\crab5.jpg |

What differences can you observe?

**Comparing and Contrasting:**

When you **compare** something you find things *that are similar*. When you **contrast** something you find things *that are different*.

Look at these sentences and decide if the two objects are similar or different. Write **similar** or **different** in the blank space:

\_\_\_\_\_\_\_\_\_\_\_\_ *Both* **spiders** *and* **scorpions** have eight legs.

\_\_\_\_\_\_\_\_\_\_\_\_ **Scorpions** have claws *but* **spiders** don’t.

\_\_\_\_\_\_\_\_\_\_\_\_ Some **scorpions** are poisonous *and* some **spiders**

are poisonous as well.

\_\_\_\_\_\_\_\_\_\_\_\_ *Unlike* **scorpions**, **spiders** don’t have a tail.

\_\_\_\_\_\_\_\_\_\_\_\_ **Spiders** *and* **scorpions** are *both* arachnids.

\_\_\_\_\_\_\_\_\_\_\_\_ All **scorpions** are nocturnal, *whereas* **spiders** can be diurnal or nocturnal.

\_\_\_\_\_\_\_\_\_\_\_\_*Like* **scorpions**, **spiders** have two main body parts, a head and an abdomen.

|  |  |
| --- | --- |
| My Pictures\scorpionandspider.jpg | **Patterns to compare:** |
| **both. . . and . . .**  **Like . . . ,**  **. . . as well.** |
| **Patterns to contrast:** |
| **. . . but . . .**  **Unlike . . .**  **. . . whereas . . .** |

What does **nocturnal** mean? Can you think of some nocturnal animals?

What does **diurnal** mean? Can you name some diurnal animals?

**Contrasting and Comparing Arthropods:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Features** | **Insects** | **Arachnids** | **Crustaceans** |
| **Body Parts** | **Three:**  **head, thorax, abdomen** | **Two:**  **cephalothorax\*, abdomen** | **Two:**  **cephalothorax\*, abdomen** |
| **Antennae** | **One pair** | **None** | **Two pairs** |
| **Legs** | **3 pairs** | **4 pairs** | **Usually 5 pairs**  **Sometimes more** |

\*A cephalothorax is a body part that is a head and a thorax combined into one.

Write 9 sentences comparing these three classes of arthropods. Try to use all of the patterns of comparison and contrast that you see on the other page.