



## DESERT INDOORS®

### Environmental Education Activities for Students at Home

(This activity was created in accordance with shelter-in-place. Remember to practice social distancing and stay local.)

#### Module: *Exploring Flowers in your Backyard!*

**Topic:** Desert Habitats and Ecosystems - Plant Adaptation.

**Objective/Learning Goal:** Children will be able to use scientific knowledge to explain adaptations of plant species through learning about plant anatomy.

#### Glossary:

- **Adapted** - A change or the process of change by which an organism or species becomes better suited to its environment.
- **Petals** - Leaf-like, the often-colorful part of the plant that surrounds the reproductive parts of the flower and make the flower conspicuous to pollinators.
- **Pollen** - Fine powder dust that contains the sperm from a male plant.
- **Pollinator** - An animal or insect that moves pollen from one flower to another.

**Materials:** Pens, colored pencils, pencils, markers, paper, magnifying glass (optional).

#### Outdoor Activity:

Build/Check Background Knowledge - Ask children what they already know about the relationship between plants and *pollinators*. What are Pollinators? What do they do and why are they important?

- What are basic requirements that plants and pollinators need to live and survive?
  - Light, air, water, nutrients, time, temperature, and room.

Which pollinator will be attracted to a plant is called "*Pollinator Syndrome*." It is the characteristic or trait that will appeal to a pollinator. A combination of smell, color, *pollen* location and type, *petal* structure, and nectar amount all affect what type of pollinator will be attracted to the flower.

Examples: Hummingbirds have *adapted* and specialize in gathering nectar from long funnel shaped flowers that usually are bright red, like penstemons; Native bees are

attracted to the mild sweet smell, brighter color, and shallow shape of flowers, like lupine; the Hawkmoth is attracted to the nighttime smell of the Sacred Datura flowers.

Go Outside - Students can go outside (in a safe place) and observe nearby flowers. They can write about or draw the flowers. Can they identify the male and female parts of the flower? Can they guess what kind of pollinator visits the flower? Do they observe any pollinators at work?

| Type of Mojave Pollinator |                                    |   |                                    |                                      |  |                        |
|---------------------------|------------------------------------|---|------------------------------------|--------------------------------------|--|------------------------|
| Trait                     | Bat                                | Bee                                       | Butterfly                          | Bird                                 | Moth   | Beetle                 |
| <b>Color</b>              | White, green, purple               | white, yellow, blue, purple               | red and purple                     | red, orange                          | pale purples, red, pink, white, pale yellow or green | green                  |
| <b>Flower Shape</b>       | Bowl shaped, closed during the day | shallow or flat, has platform for landing | tubular with landing pad           | tubular funnel shaped                | tubular without landing pad                          | large bowl shape       |
| <b>Nectar</b>             | Abundant and hidden                | present                                   | abundant deeply hidden within tube | abundant deeply hidden within funnel | abundant and hidden                                  | present                |
| <b>Odor/Smell</b>         | emitted at night, musky            | mild smell, usually agreeable             | mild smell, usually agreeable      | mild to no smell                     | emitted at night, sweet                              | no smell to unpleasant |
| <b>Pollen</b>             | plentiful                          | minimal and sticky                        | minimal                            | minimal                              | minimal  | plentiful              |

See [pollinator.org](http://pollinator.org) for more information on the other types of pollinators and how to become pollinator aware.

# Common Flower Parts



*We would love to hear how your science project went and to have you share your findings as scientists?*