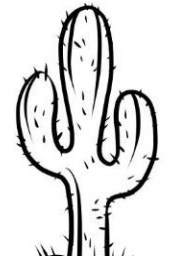


Use your creativity to solve a problem!

**YOU BE THE ENGINEER**

The Sonoran Desert can be hotter than 110°F (43C°) and receives fewer than 15" of rainfall per year. Based on the animals and plants you learned about today that avoid heat and conserve water, draw a desert home for YOU! Be creative!



**Design by Nature**

**Answer Key**

**BIO**= Life

**MIMIC**= a near copy

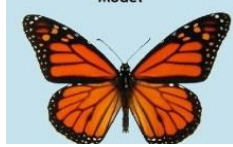


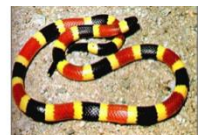


What other words have the BIO prefix?

Biology/Biologist \_\_\_\_\_

Biochemistry \_\_\_\_\_

Examples of animal mimics

Model	Mimic
	
Monarch	Viceroy
	
Coral Snake	King Snake

Show us your BIG IDEA! Email or scan a pic to: [education@desertmuseum.org](mailto:education@desertmuseum.org)



@desertmuseum

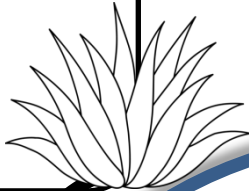


Want more Biomimicry? Go to:  
[www.asknature.org](http://www.asknature.org)

#### 4) Agave Garden

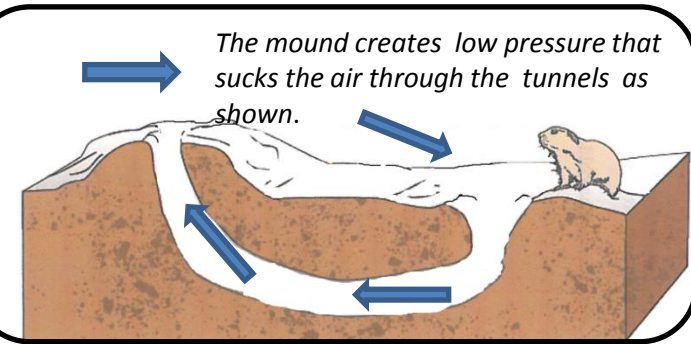
Rain Capture: Observe an agave. Describe 2 ways agaves capture and store water.

1. They can catch it on their extended branches and channel it to their base.
2. They store it in their succulent tissue.



#### 3) Prairie Dogs

Air flow: Prairie dog mounds help circulate air. Draw arrows to show which way you think air moves in the burrow.



#### 5) Tortoise



Tortoises have been on Earth for 50 million years. What's one secret to their survival?

*A few: they store water in their bladders, burrow underground in extreme temperatures, use their shell as protection from predators.*

## Find an animal at the Museum

Which animal did you choose?  
\_\_\_\_\_

I would use the animal's \_\_\_\_\_  
as an inspiration to invent:

#### 2) Earth Sciences Center

Caves keep things cool! How does this help to design a house? *Caves keep a more constant temperature by being protected from the elements/extremes on the ground surface. Perhaps build partially under ground?*

#### 6) Warden Aquarium

Olympic swimmers now wear suits modeled after the shape of shark skin. The grooved scales help cut through water quickly. How could you use the shark skin design? Draw it!

*All kinds of ideas! Submarines, boats, wetsuits...etc.*

#### 1) Reptiles and Invertebrates

Observe a reptile's skin. How does it help this animal survive in the desert? *It is hard and protective, keeps animals from drying out, provides camouflage*

How could we apply this to help humans? *Create protective clothing based on reptile scales, use scale designs for camouflage patterning and sun protection, etc*

# START

Entrance  
Welcome! ¡Bienvenidos!

Follow your map!