



## Desert Tortoise – Can You Dig It?

*Meets Kindergarten California Science Content Standards – 2c, 3a and 4e (see Standards Key)*

*California Visual Art Standard 2.6 - Use geometric shapes/forms (circle, triangle, square) in a work of art.*

*Taking It Further - California Visual Art Standard 2.3 - Make a collage with cut or torn paper shapes/forms.*

**Animal to Draw for Art Contest** – turtle or tortoise

**Writing prompt for the sentence of the back of the student's drawing** – What is your tortoise doing in your drawing?  
Why do tortoises have a shell?

**Objective** – To better understand the different body parts of the desert tortoise

**Time** - 15 min.

**Background** – The desert tortoise is California's state reptile, living in the southeastern portion of the state in the Mojave Desert. They use their extremely long nails to dig burrows in order to avoid the heat of the day or to hibernate. When battling over territory, males use their gular shields to try and flip another male over on to its back, which can be fatal. If desert tortoises find water, they will drink some, but most of the water they need comes from the plants they eat.

**Vocabulary** -

Carapace – the part of the shell that covers the tortoise's back

Plastron – the part of the shell that covers the tortoise's belly

Scute (sk-oot) – the outer layer of horny shields that cover the shell; these are made of keratin, the same material found in our fingernails and hair.

Gular (goo-lar) shield– the part of the plastron that sticks out under the chin of male desert tortoises

**Materials** – Images of desert tortoises, the Mojave Desert, and desert plants (visit \*\* resource link below)

**Directions** – Discuss with the students the different characteristics of deserts. The typical response may be that deserts are hot, but explain that the temperature changes a lot from the day into the night. Would it be easy to deal with very hot days and very cold night? All deserts are very dry, with less than 10 inches of rain for the whole year. Ask: What types of plants grow there? (Cactus, grasses, some flowers after a rain, trees and even some fruit.) What kinds of animals live in the desert? (Rattlesnakes, sidewinder, desert iguana, coyote, tarantula.) Use an image of a desert tortoise to engage the students in a discussion of the different body parts and what they are used for. You could also use images of the Mojave Desert and plants found there to give the students an idea of what the habitat looks like.

**Questions for discussion** – What do desert tortoises use their claws for? (digging) Where do you think a desert tortoise goes when the weather is too hot or too cold? (underground) How would the tortoise's shell help to camouflage it? (it looks like a rock) What does a tortoise use its shell for? (protection, shelter) Can it ever leave its shell? (No, its spine and ribs are part of the shell) Do you think it is easy for an animal to survive in the desert? (No; extreme temperatures, little water, plants are sparse) What plants does a desert tortoise eat? (cactus, grasses)

**Resources-**

“Owen and Mzee: The True Tale of a Remarkable Friendship” by Isabella Hatkoff, Craig Hatkoff, Paula Kahumbu and Peter Greste

The Tortoise and the Hare by Aesop

\*\* <http://www.californiaherps.com/turtles/pages/g.agassizii.html>

<http://geochange.er.usgs.gov/sw/impacts/biology/tortoise1/>

Desert tortoise virtual field trip <http://www.tortoise-tracks.org/wptortoisetracks/visting-the-dtrna/visiting-the-dtrna-main-loop/>

Desert tortoise life cycle <http://www.tortoise-tracks.org/wptortoisetracks/about-the-desert-tortoise/lifecycle-of-the-desert-tortoise/>

**Taking it Further** – Use classroom chalk to mark the length of a desert tortoise burrow on the playground or sidewalk. Their hibernation burrows reach 30 ft. long!

**Conservation Action** - Making choices that help our wild places and wild things is important. Saving water is one of those choices. Turn off the water while brushing your teeth, take shorter showers and keep some water in the refrigerator so you don't need to run the tap to get cold water.