

# Tortally Awesome Survival!!

Surviving out in the desert isn't always easy. It's hot, it's dusty, it rarely rains, and most of the native plants are prickly. Thankfully, the animals that live here in Arizona - yes, even people! - have all developed the **strategies** necessary in order to not only survive but thrive. Many of these strategies revolve around conserving the desert's most precious resource: water. Animals can't just go to a sink or fridge to get a glass of water and must be very smart and careful about where they get it and how to make it last. **Tortoises**, in particular, have a very impressive means for **conserving** water. Skilled diggers, they will hide underground in a **burrow**, away from the hot desert sun, and are most active during monsoon season, when temperatures are cooler and water is plentiful. Desert tortoises are not the only animals that use burrows to stay out of the sun and conserve water. Most animals in the desert need shade in order to survive, including but not limited to: tarantulas, kangaroo rats, burrowing owls, gophers, etc. See what animals you can look up online. You might be surprised!

**Time Needed:** 20 minutes

## Words to know:

- **Survival Strategy:** the way an animal prefers to live in its environment; how they deal with harsh climates or challenges.
- **Burrow:** a hole underground dug by an animal that is used as a home.
- **Conservation:** carefully using something so that it lasts longer, like water.
- **Tortoise vs Turtle:**
  - Are tortoises a kind of turtle? Believe it or not, turtles and tortoises are entirely different animals. Turtles are **amphibious**, which means they like to swim in addition to living on land. Tortoises are almost entirely **terrestrial**, which means they exclusively live on land.
- **Xerocole:**
  - Did you know there's a word to specifically refer to desert-dwelling animals? It's xerocole (ZER-ah-kohl) and it's not used a lot in everyday speech... but you can use it to impress your friends!

**What You Will need:**

- Paper bag. (You can also use sheets of paper to make one!)
- Sheets of paper, colored or uncolored
- Markers, crayons, paints, etc.
- Tape and/or glue
- (Optional) Googly eyes, sequins, rhinestones, glitter, sand, rocks, etc.

**Making your *tortally* awesome tortoise:**

- 1) First, crumple a piece of paper into a ball. This ball is going to be the inside of your tortoise, so make it as big or small as you want!
- 2) Cut out legs and a head for your tortoise. Draw or put googly eyes on your tortoise's head.
- 3) Take two sheets of paper and cut them down to a size that can wrap easily around your paper ball.
- 4) Before you put your tortoise together, keep the paper flat so that you can decorate it with whatever colors and decorations you'd like.
- 5) Take your decorated tortoiseshell and wrap it around your paper ball, using glue or tape to make sure the ball stays inside. You can use the example to help you.
- 6) Glue or tape the head and legs to the tortoiseshell.

### Making your burrow:

- 7) **IF** using a paper bag:
  - a) First, decorate your burrow in any way that you want. If you want a more realistic burrow, use sand or rocks to make it rough-looking. If you'd prefer more colorful use your colors and sequins and glitter.
  - b) When you're happy with your burrow, carefully roll the open edges backward so the burrow won't close on your tortoise and slip the tortoise inside.
- 8) **IF** using sheets of paper:
  - a) Take two pieces of paper and make sure to decorate them while they're still flat. If you want a realistic burrow, use sand and rocks and earthy colors to give it a desert-y look. If you want a more colorful burrow, glitter and sequins and markers will do the trick. Even tortoises might like to party!
  - b) Put your finished tortoise on top of one of the pieces of paper so you can wrap the two of them around it. Tape three edges together to make a closed 'burrow.' If you'd like, you can roll back the edge around your tortoise's head to make it look a little more open.



### Can You Conserve Water Like a Desert Tortoise?

The desert tortoise is one of the most capable water conservators in Arizona, requiring only a **gallon** of water every six months. In contrast, the average adult human is recommended to drink half a gallon *per day*! Every day, people use a *lot* of water - more than a tortoise, for sure! In the desert water is a precious resource for all of us. Where do you and your family use the most water? Is there anything you can do to reduce the amount of water you use? One easy place to start is at your sink. Do you keep the water running

while you brush your teeth? On average, you waste a gallon of water every time you leave the water running while you apply soap to your hands and face, or brush your teeth. By turning off the faucet when you're not actually using water, you can save 200 gallons of water every month!