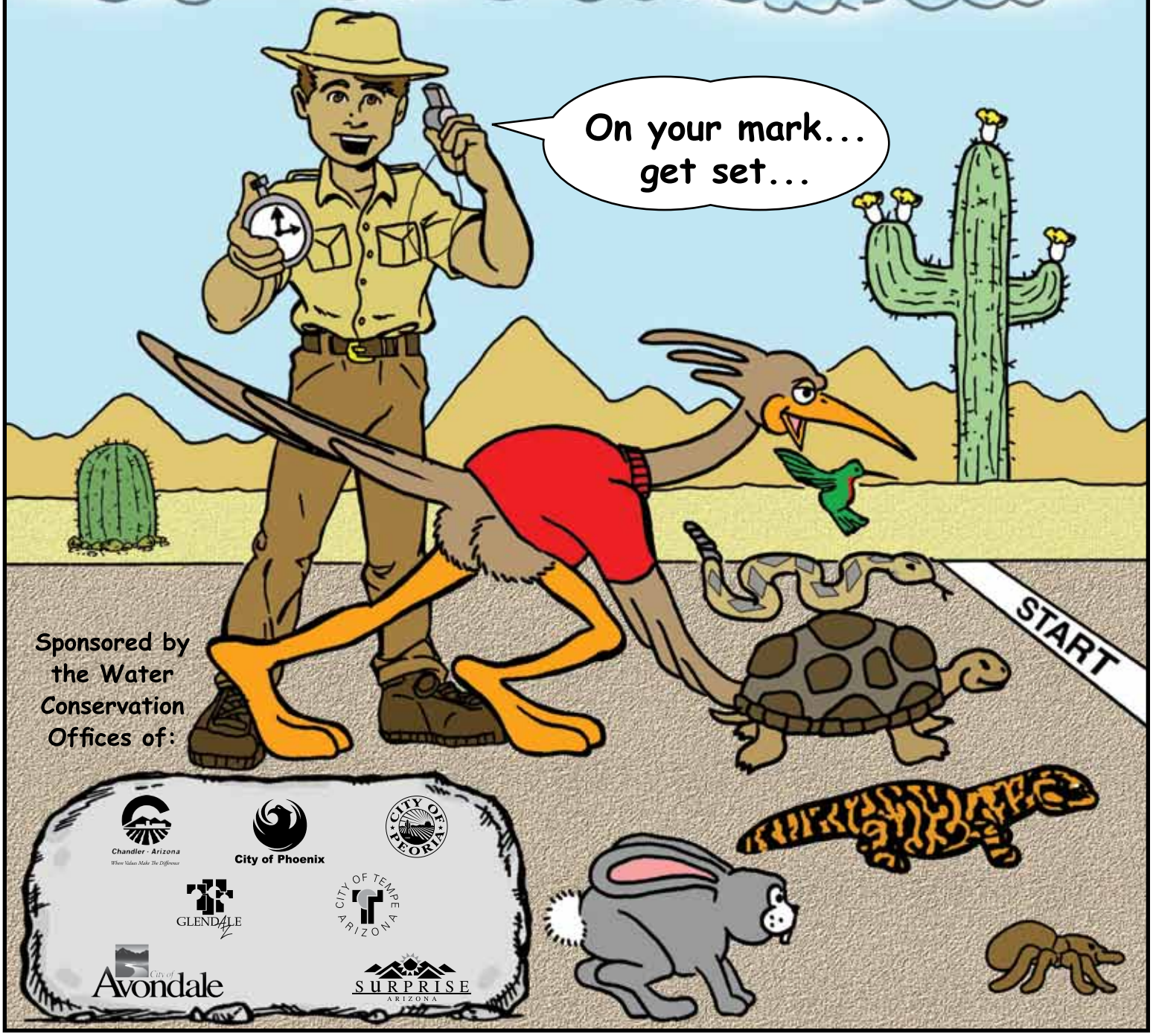
THE AMAZING RACE

A Youth Education Program for Grades K-5

TO CONSERVE ARIZONA'S WATER!



Sponsored by the Water Conservation Offices of:

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City of Phoenix

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Surprise Arizona

Water is very important. We all need water to live!
Hot Feet is getting ready for the big race.
He's already ahead because he loves to conserve water.
Find the six ways he is saving water.
Write the correct number in the circles above and color.

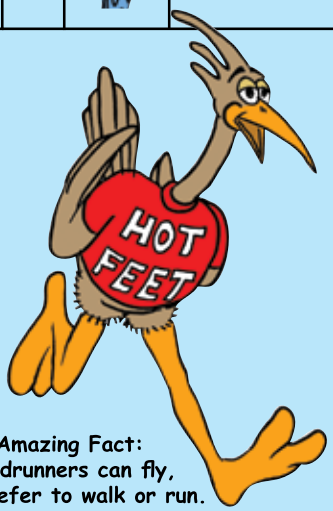
1. Low-flow showerhead
2. Half-full tub
3. Low-flow toilet
4. Full loads of laundry
5. Faucet off while brushing teeth
6. Trash in trash can not toilet

The Amazing Race is on...

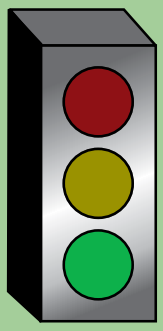
Ready... Set... Go..!

Start

Hot Feet conserves water by using water wisely. He knows that by practicing a few good habits, he could pull ahead in the race. Can you help Hot Feet find the fastest way through the maze? (Hint: Stay close to the water conserving objects.)



Amazing Fact:
Roadrunners can fly,
but prefer to walk or run.



O In the maze above, circle the water conservation objects.

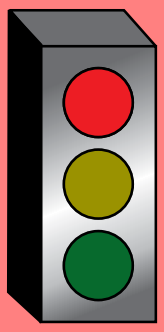
Use a broom to clean sidewalks and driveways.

Use a shut-off nozzle on all garden hoses.

Take shorter showers, five minutes or less.

Install low-flow showerheads.

Use a wrench to fix leaks.



X In the maze above, cross out the water wasting objects.

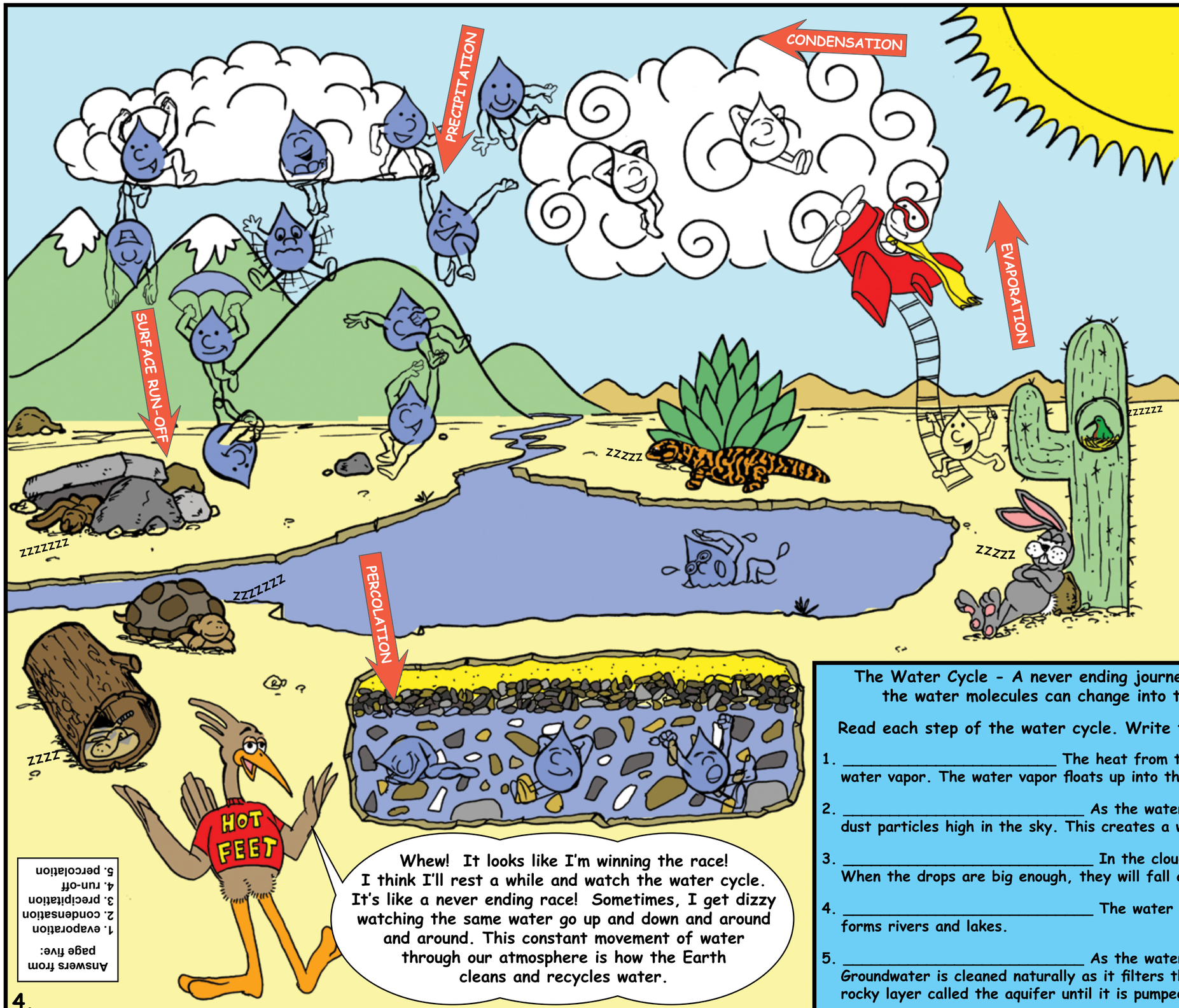
Avoid overfilling the tub.

Avoid letting faucets drip.

Avoid flushing dead bugs down the toilet.

Avoid leaving the faucet running.

Avoid leaving hoses running.



Answers from page five:
1. evaporation
2. condensation
3. precipitation
4. run-off
5. percolation

Amazing Math

These desert animals have learned to adapt to the arid climate in our desert.

1. The jack rabbit is caught snoozing in the shade. If this strategy saves 1 tsp. of water per hour, how much water will it save if it sleeps for 8 hours?

   _____

2. The hummingbird is resting comfortably in its nest, insulated from the sun's heat. If this saves 1 tsp. of water per day. how much water does it save in a week?

   _____

3. The rattlesnake tries not to touch the hot sand with its entire body. If this saves 1/8 cup of water per day, how much will it save in a week?

   _____

4. The gila monster stores water in its tail. If this saves 1/3 cup per week, how much does it save in a month?

   _____

5. The desert tortoise retains water in its body. If this saves 1/4 cup per day, how much does it save in a week?

   _____

6. The tarantula spider is hiding under a rock where it is much cooler. If this saves 1 drop of water per day, how much will it save in a year?

   _____

7. The roadrunner saves water by sneezing out salt and impurities instead of sweating. If this saves 2 tablespoons per day, how much will it save in 5 days?

   _____

Answers: 1. 8 tsp. 2. 7 tsp. 3. 7/8 cup 4. 1 1/3 cups 5. 1 3/4 cups 6. 365 drops 7. 10 Tbs.

The Water Cycle - A never ending journey for water. Depending upon the temperature, the water molecules can change into three different forms: liquid, solid and gas.

Read each step of the water cycle. Write the correct name found in the red arrows above.

1. _____ The heat from the sun changes the water from a liquid to a gas called water vapor. The water vapor floats up into the sky leaving behind salt and impurities.

2. _____ As the water vapor rises, it becomes cooler and condenses around dust particles high in the sky. This creates a water droplet. It takes many droplets to form a cloud.

3. _____ In the cloud, the small droplets stick together and become drops. When the drops are big enough, they will fall as rain or snow.

4. _____ The water from rain and melted snow runs off hard surfaces and forms rivers and lakes.

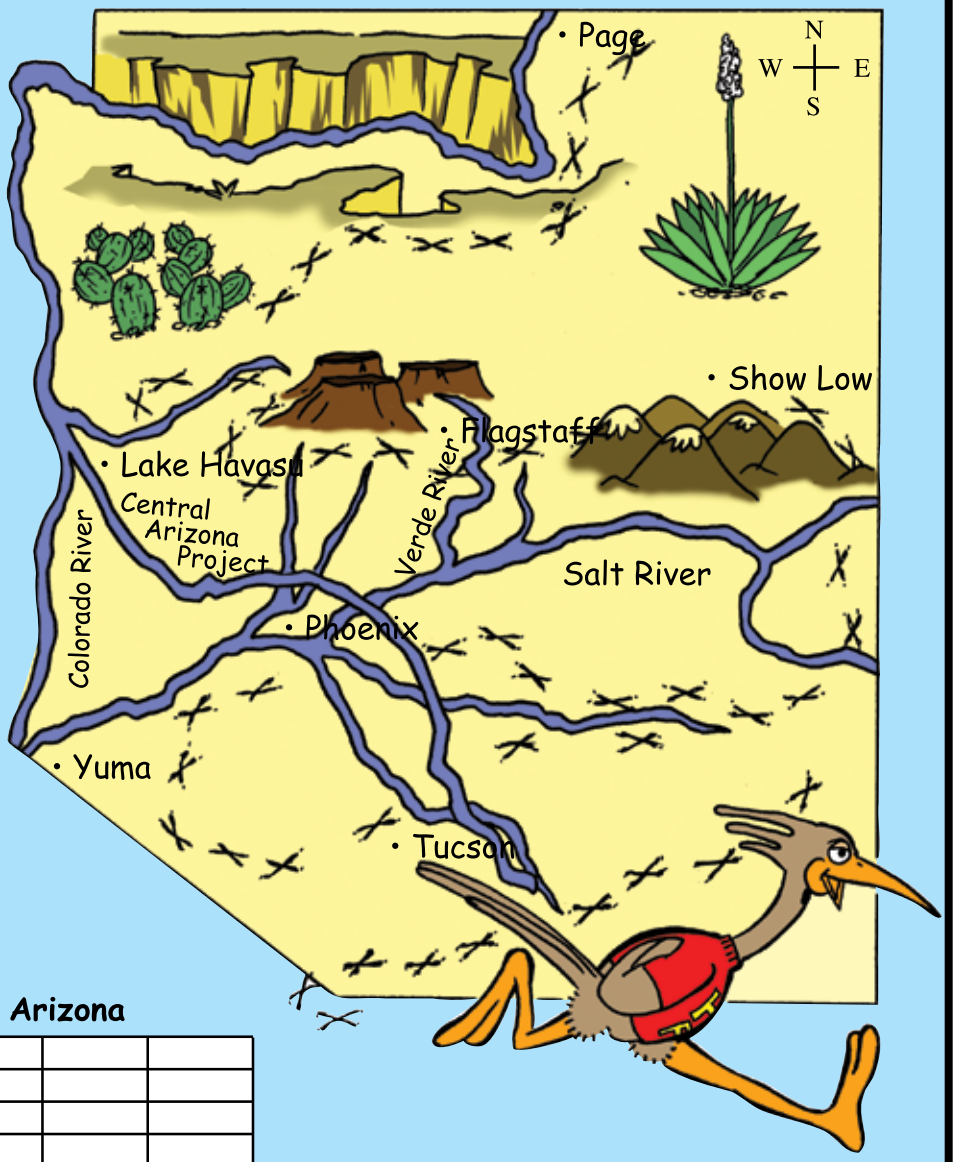
5. _____ As the water soaks slowly into the ground it becomes groundwater. Groundwater is cleaned naturally as it filters through layers of sand and gravel. It is stored in the rocky layer called the aquifer until it is pumped up through wells.

Keeping On Track

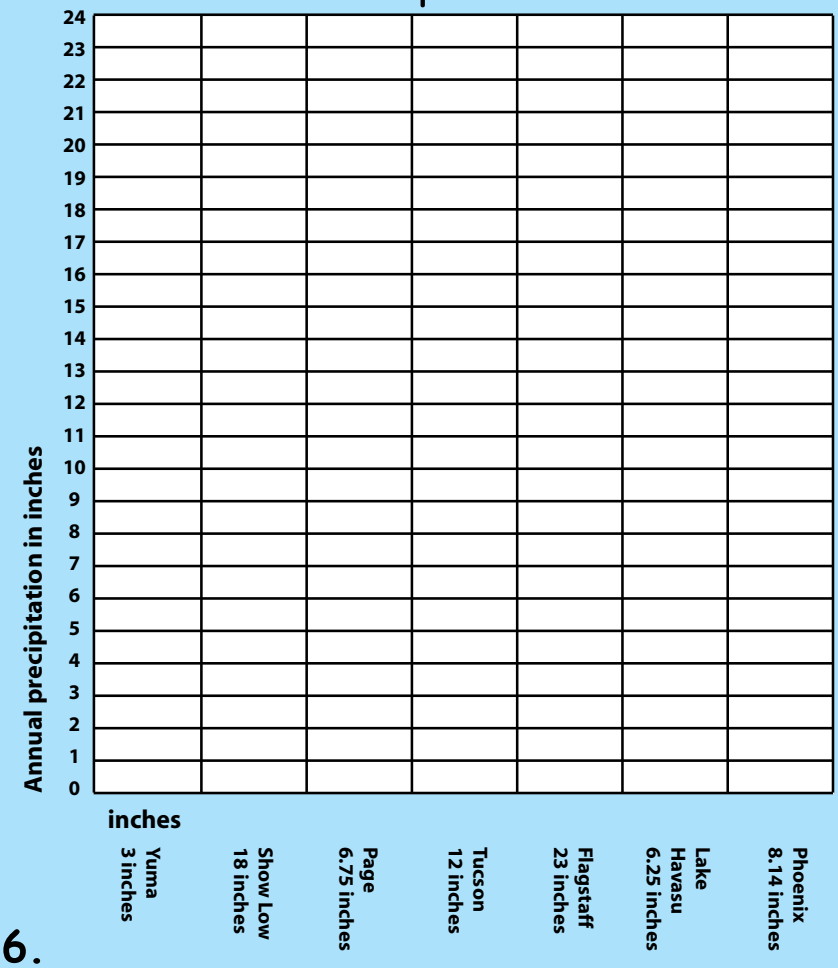
The average rainfall in our area is approximately 8 inches annually. Unfortunately, many parts of our state have not been receiving the levels of precipitation they were expecting. This affects the water levels in our lakes and reservoirs.

In northern Arizona, most places receive more precipitation than in southern Arizona. This surface run-off creates rivers like the Colorado River, Salt River and Verde River. Then, it travels down man-made canals like the Central Arizona Project and the Salt River Project to southern Arizona.

Directions:
Make a bar graph to compare annual precipitation levels for these Arizona cities. Color one box for each inch of rain.



Annual Precipitation in Arizona



1. Which city gets the most precipitation?

_____

2. Which city gets the least precipitation?

_____

3. Which city is the farthest north?

_____

4. Which city is the farthest south?

_____

Answers: 1. Flagstaff 2. Yuma 3. Page 4. Tucson

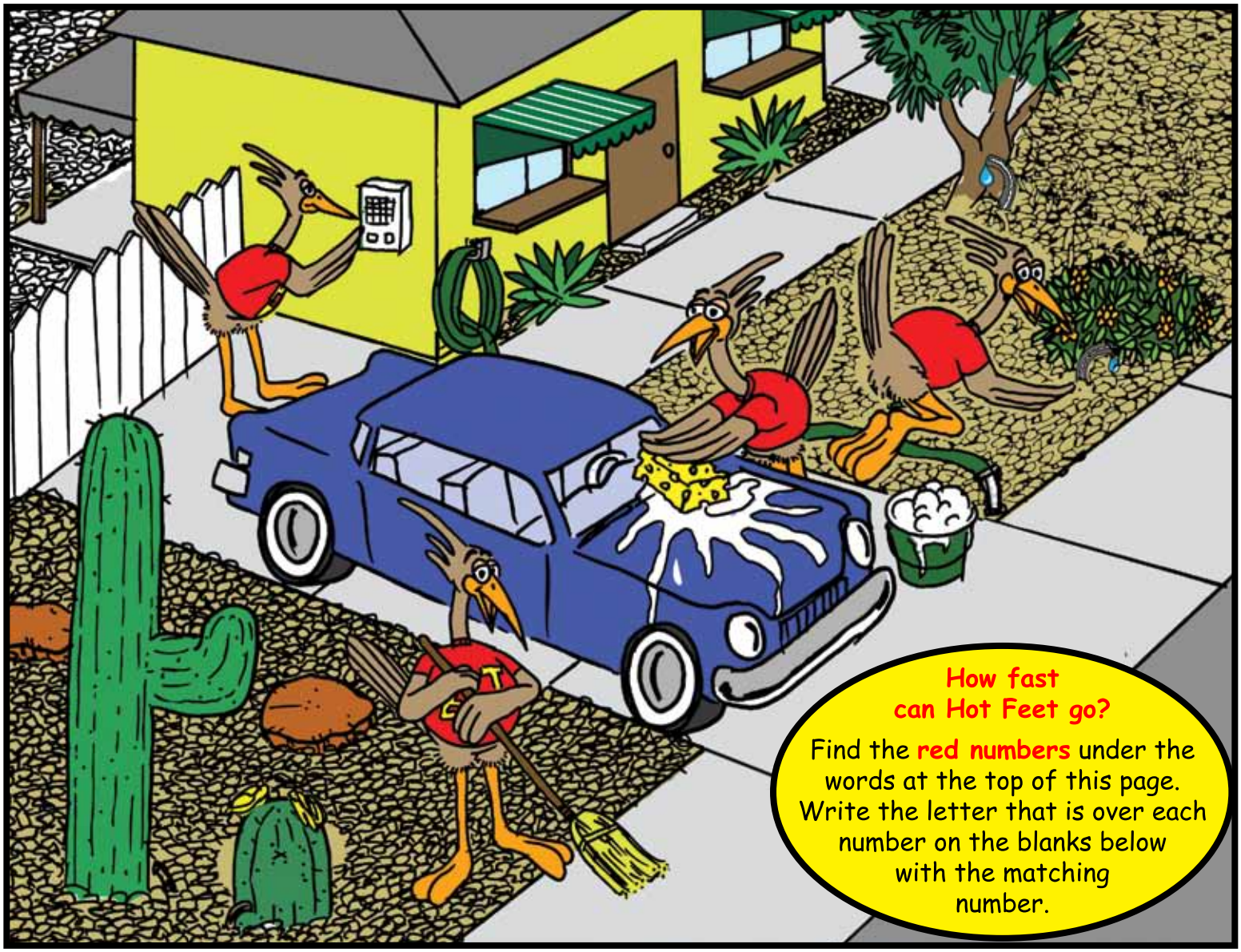
Cuckoo for Conservation!

The roadrunner is part of the cuckoo bird family. He loves to save water!
At home, he pulls ahead in the race with a few quick moves. He:

installs drip irrigation, checks emitters carefully, washes car with a bucket and sponge,
12 1 14 3 2 4 10 5

uses plants that conserve water, uses mulch to reduce evaporation, plants trees to create shade,
6 9 8 7 17 13

installs awnings to cool windows, and cleans sidewalks with a broom instead of the hose.
15 16 11



7.

___ ___ ___

THE AMAZING RACE Water Conservation Check List

Check all the ways you and your family save water at home.

- ❒ Take short showers, 5 minutes or less.
- ❒ Install low-flow showerheads.
- ❒ Fill the bathtub half way.
- ❒ Turn off the faucet when we brush our teeth.
- ❒ Throw trash in the trashcan.
- ❒ Install new low-flow toilets.
- ❒ Fix leaky faucets.
- ❒ Put nozzles on all our garden hoses.
- ❒ Use a broom to clean walkways.

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