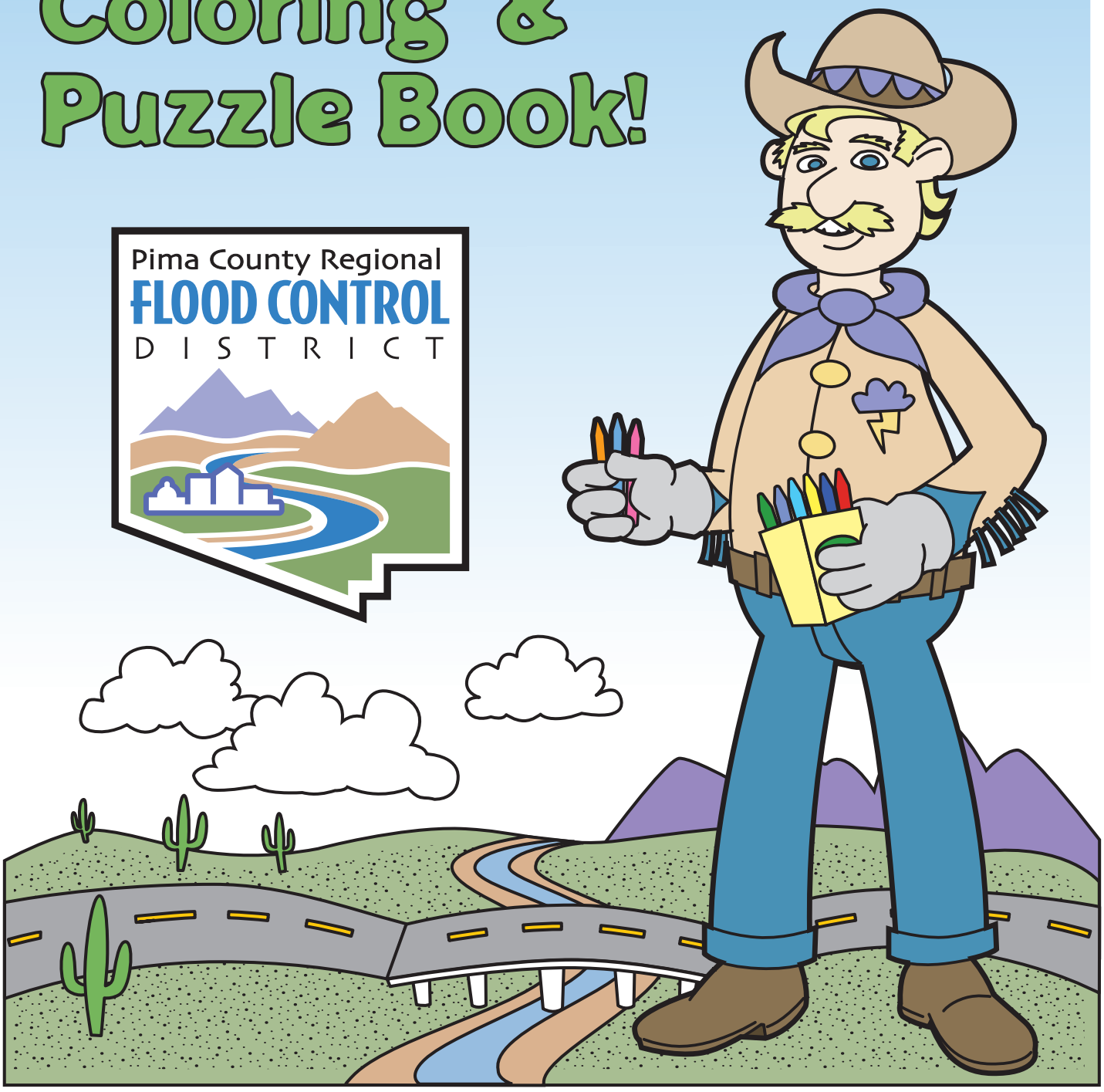
Sheriff Hank Highwater's

SUMMER SAFETY

Coloring & Puzzle Book!

Pima County Regional
FLOOD CONTROL
DISTRICT

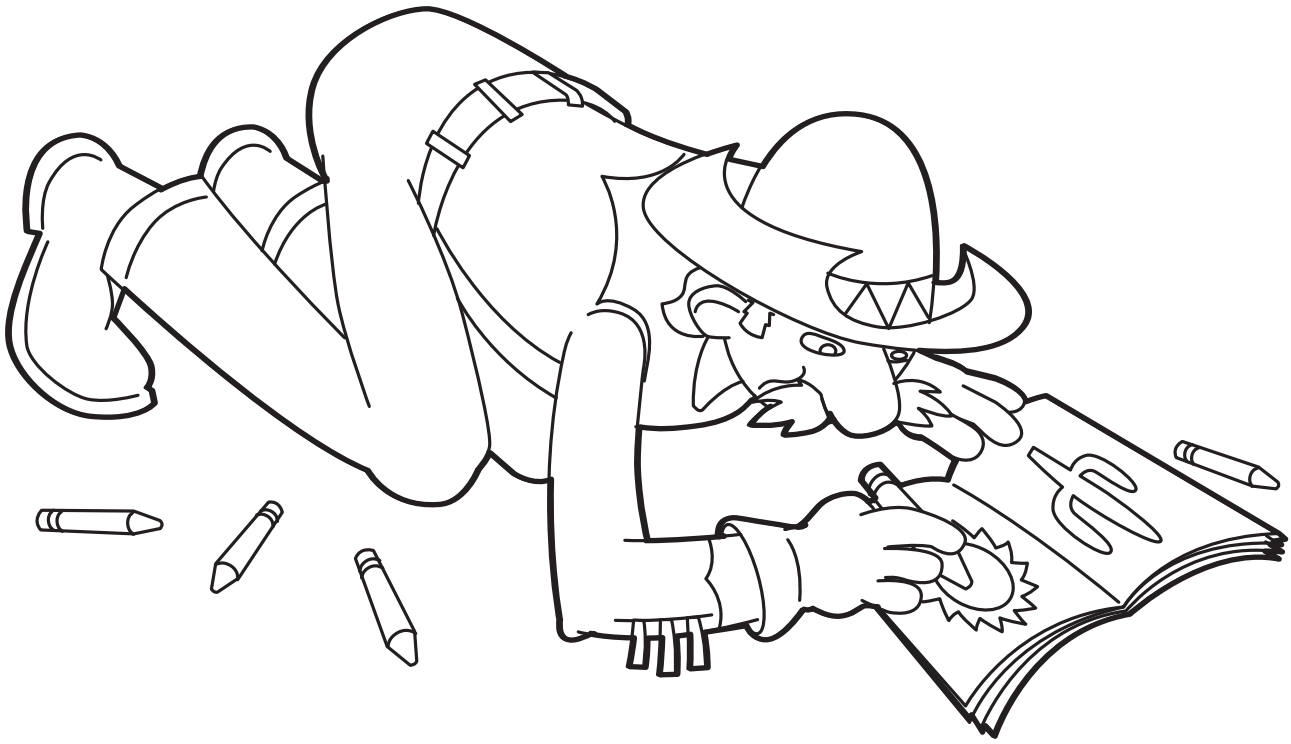


Sheriff Hank Highwater wants you to remember:

BE FLOOD SAFE, DON'T PLAY IN WASHES.

ENJOY AND PROTECT THE DESERT AND RIPARIAN HABITAT AREAS.

CONSERVE WATER WHENEVER YOU CAN.



The people at Pima County Regional Flood Control District have made this book with pictures to color and fun puzzles to keep you safe and teach you about our desert world.

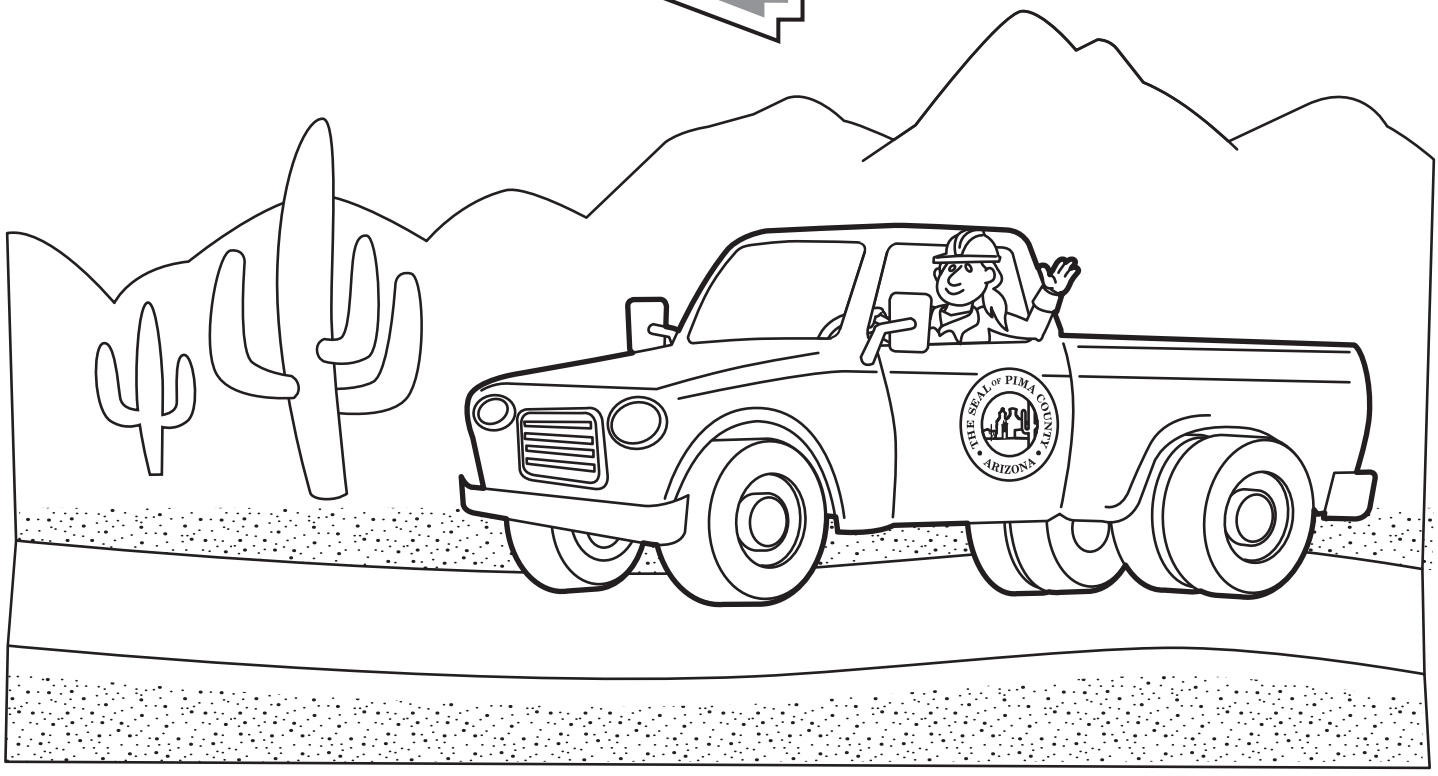
What is the Pima County Regional Flood Control District?

Pima County Regional Flood Control District employs people who protect our houses, streets and businesses from flooding in times of heavy rain.

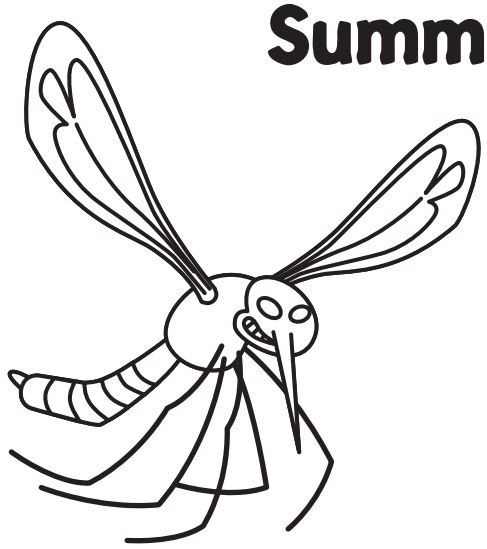
They work to protect our desert streams and riparian habitats so that desert animals and plants have good places to live.

They also work hard to make sure that stormwater is captured to recharge our groundwater aquifers.

Pima County Regional
FLOOD CONTROL
DISTRICT



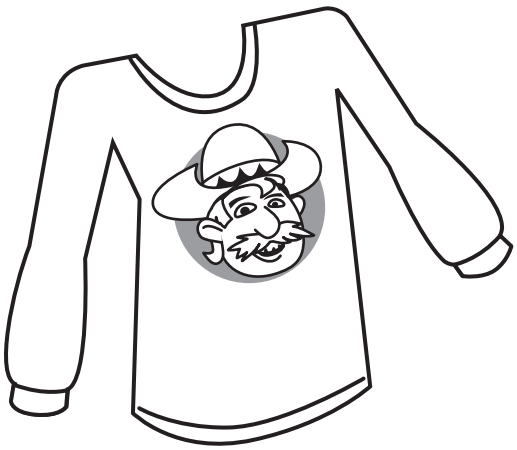
Summertime 'SKEETER Facts!



Mosquitoes can fly up to 1.5 miles per hour. They find you by detecting the carbon dioxide you exhale; they can do this from about 60 to 75 feet away.

Female mosquitoes need blood and water to lay eggs.

When mosquitoes bite you they inject a chemical to keep your blood flowing, this is why you itch after getting bitten. Mosquitoes can carry diseases, such as West Nile Virus.

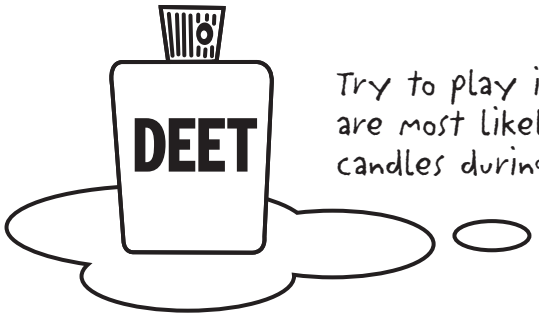


SOME THINGS YOU CAN DO TO AVOID GETTING BIT:

Hold your breath! (just kidding!)

Wear light-colored, long-sleeved shirts and long pants to keep mosquitoes away from your skin.

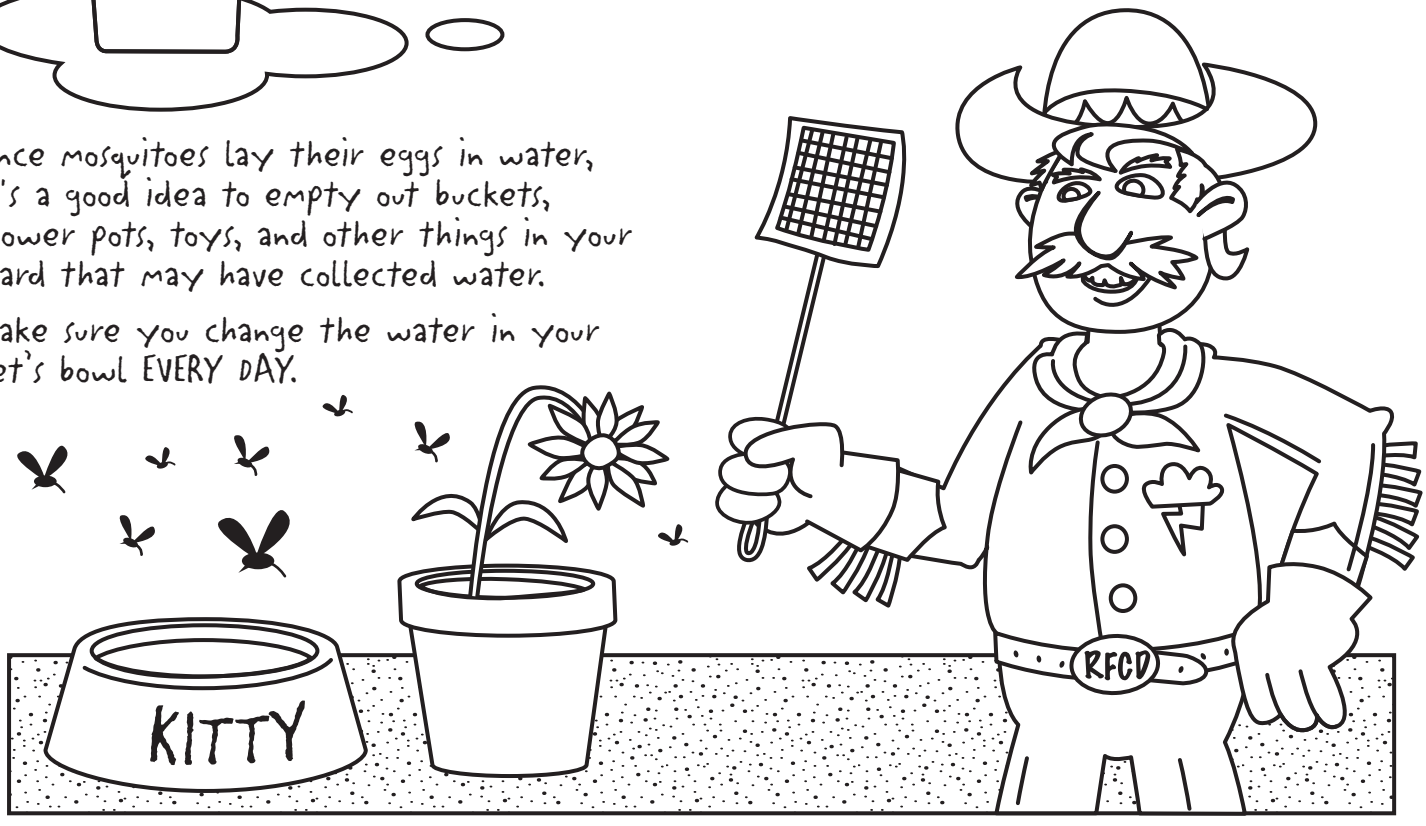
Avoid fruity fragrances that attract mosquitoes like hair products, perfumes and scented sunscreens.



Try to play inside during early mornings and evenings when mosquitoes are most likely to be looking for a meal. Have an adult light citronella candles during barbecues. Use insect repellant with DEET.

Since mosquitoes lay their eggs in water, it's a good idea to empty out buckets, flower pots, toys, and other things in your yard that may have collected water.

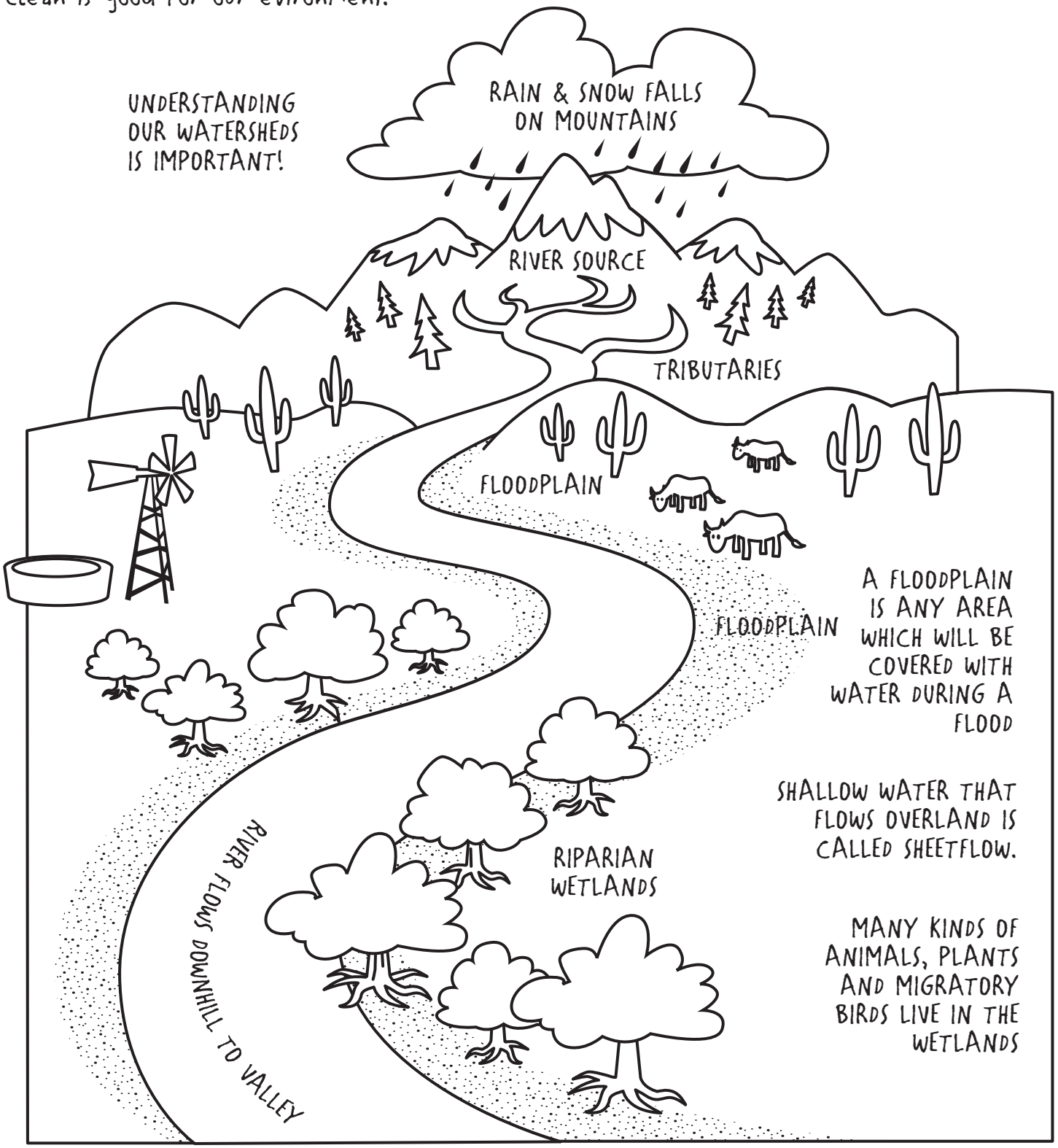
Make sure you change the water in your pet's bowl EVERY DAY.



Keep Our WATERSHED Clean and Healthy!

When it rains in the mountains or when snow melts, the water flows into little streams, then those little streams join to form rivers, lakes or other bodies of water.

All of the land where this water falls and flows is called a WATERSHED. Watersheds vary in size. Thinking about where our water comes from and how we can keep it clean is good for our evironment.

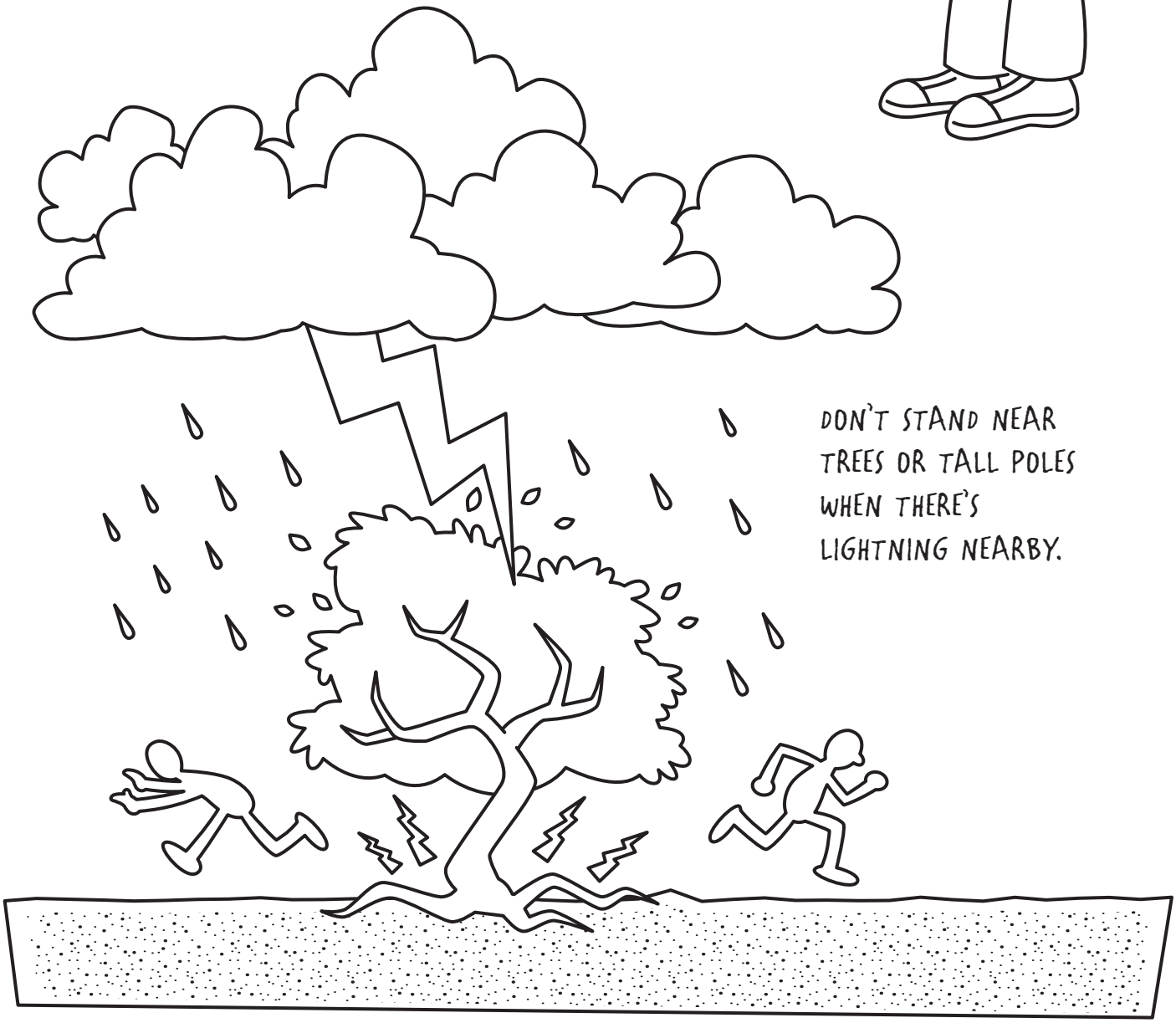


How to be Safe When the Summer Thunderstorms Come...

IF YOU ARE OUTSIDE:

AVOID OPEN AREAS LIKE BALL FIELDS OR GOLF COURSES.

GET TO THE LOWEST POINT OF GROUND AND KNEEL OR SQUAT TO MINIMIZE CONTACT POINTS WITH THE GROUND.



DON'T STAND NEAR TREES OR TALL POLES WHEN THERE'S LIGHTNING NEARBY.

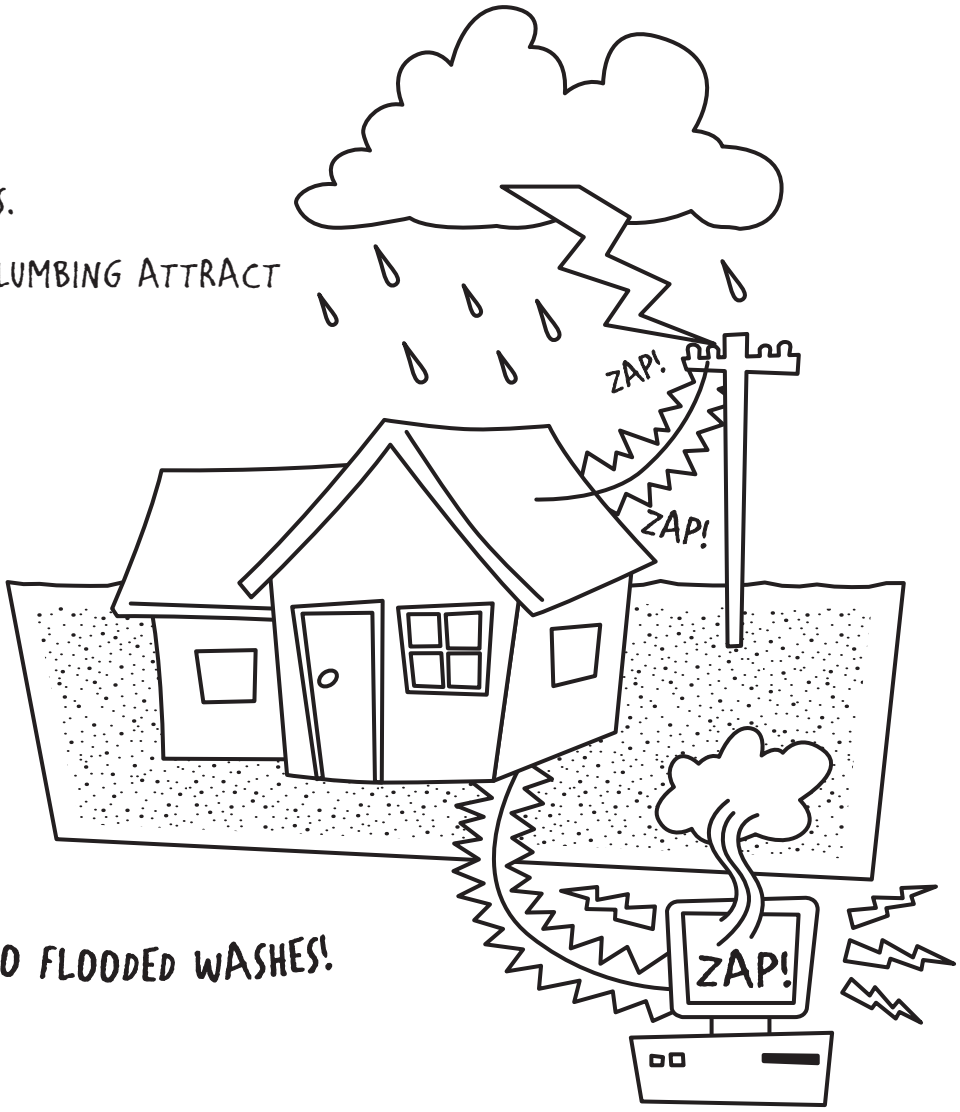
IF YOU ARE INDOORS:

STAY AWAY FROM WINDOWS.

ELECTRICAL WIRING AND PLUMBING ATTRACT LIGHTNING!

DON'T USE YOUR COMPUTER OR HOUSE TELEPHONE UNLESS IT'S AN EMERGENCY.

DON'T WASH DISHES OR TAKE A SHOWER DURING A LIGHTNING STORM.

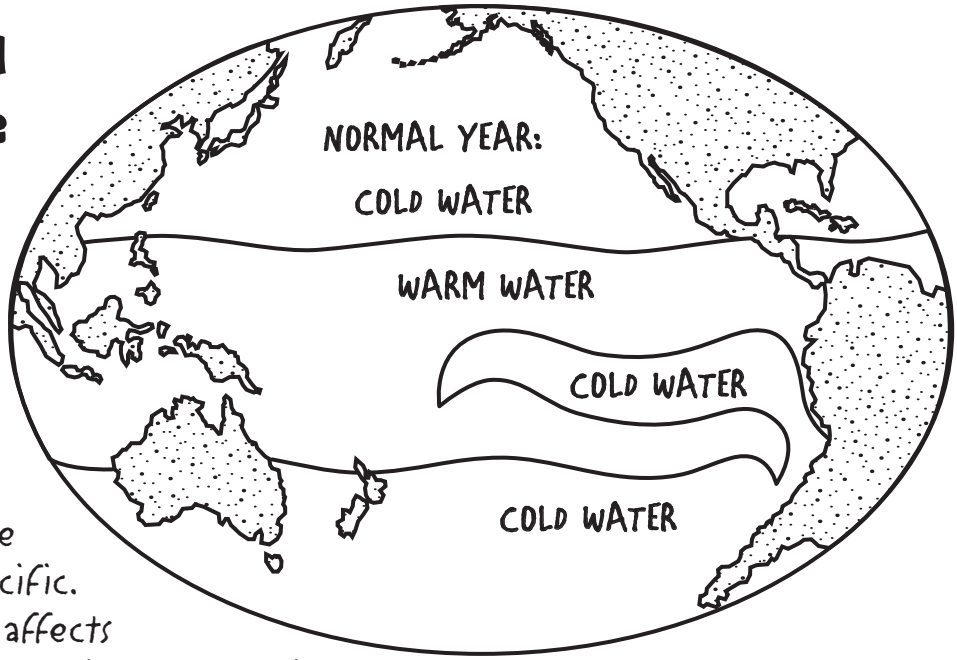


NEVER, EVER DRIVE INTO FLOODED WASHES!

IF YOU ARE IN THE CAR:

SLOW DOWN! WATER ON THE ROAD MAY CAUSE YOUR CAR TO HYDROPLANE. WATER ON ROADS AND IN WASHES MAY BE DEEPER THAN IT LOOKS. DO NOT CROSS FLOODED WASHES.
IF YOU GET STUCK IN A WASH, CALL 911.
IF YOU CAN DO SO SAFELY, CLIMB ONTO THE ROOF OF YOUR CAR AND WAIT TO BE RESCUED.

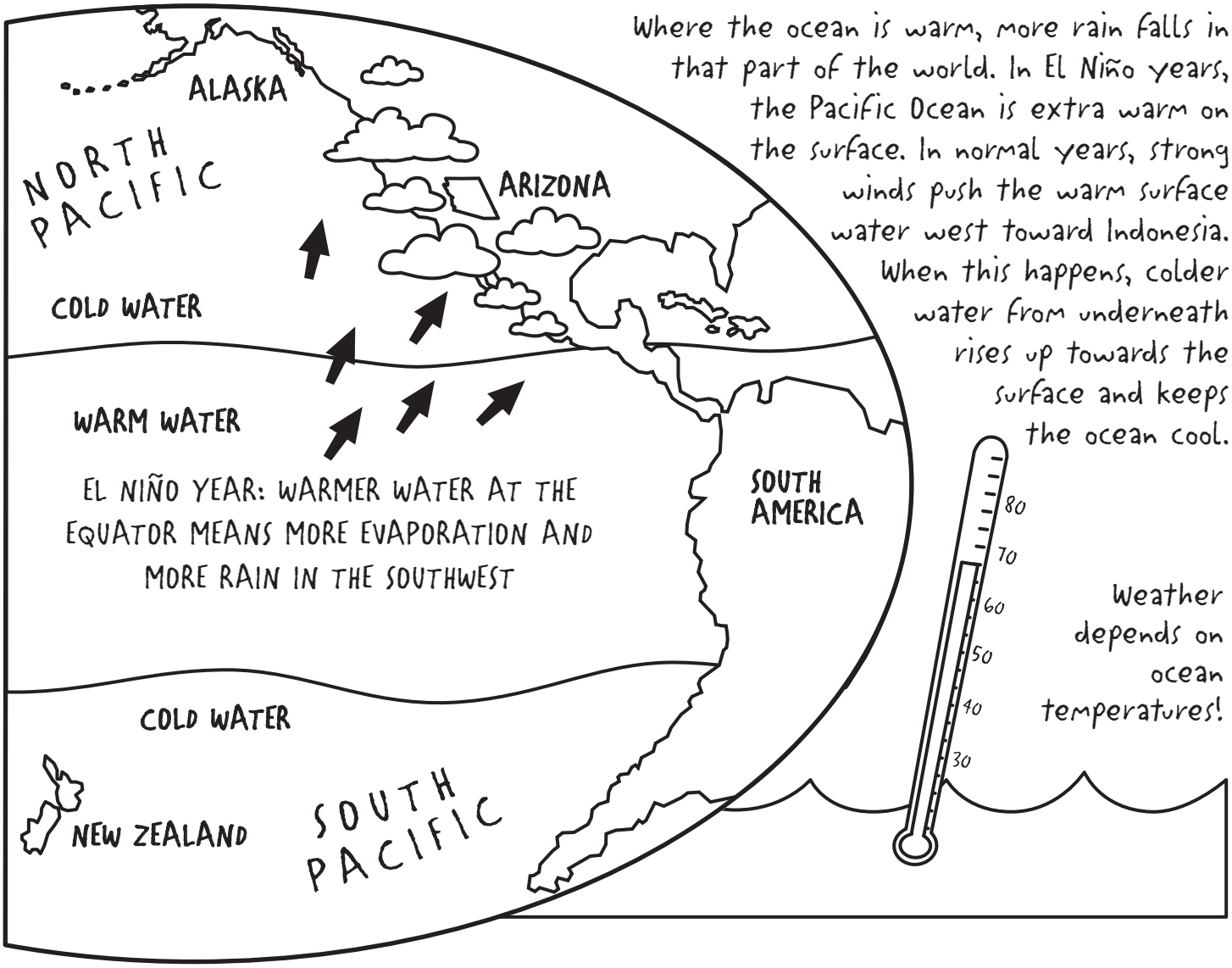
Who is El Niño, and why does he make it rain in Arizona?



Every 2 to 7 years, warm water builds up in the Pacific near South America.

The warm water heats the air above it, affecting air pressure, the sea level and the winds that blow across the Pacific. This is called 'EL NIÑO' and it affects weather all around the world, causing heavy rains in dry areas (Arizona) and droughts in places that are normally rainy.

Where the ocean is warm, more rain falls in that part of the world. In El Niño years, the Pacific Ocean is extra warm on the surface. In normal years, strong winds push the warm surface water west toward Indonesia. When this happens, colder water from underneath rises up towards the surface and keeps the ocean cool.

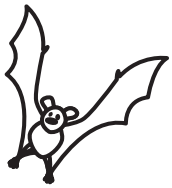


Weather depends on ocean temperatures!

Bats and Bridges

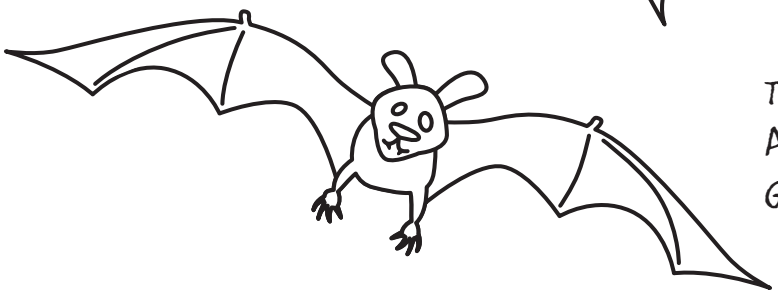
MANY PEOPLE THINK BATS ARE SCARY BUT DID YOU KNOW ONE BAT CAN EAT 600 MOSQUITO'S IN ONE HOUR?

BATS ARE THE ONLY MAMMAL THAT CAN FLY.



IF YOU FIND A SICK OR INJURED BAT, YOU SHOULD LEAVE IT ALONE!

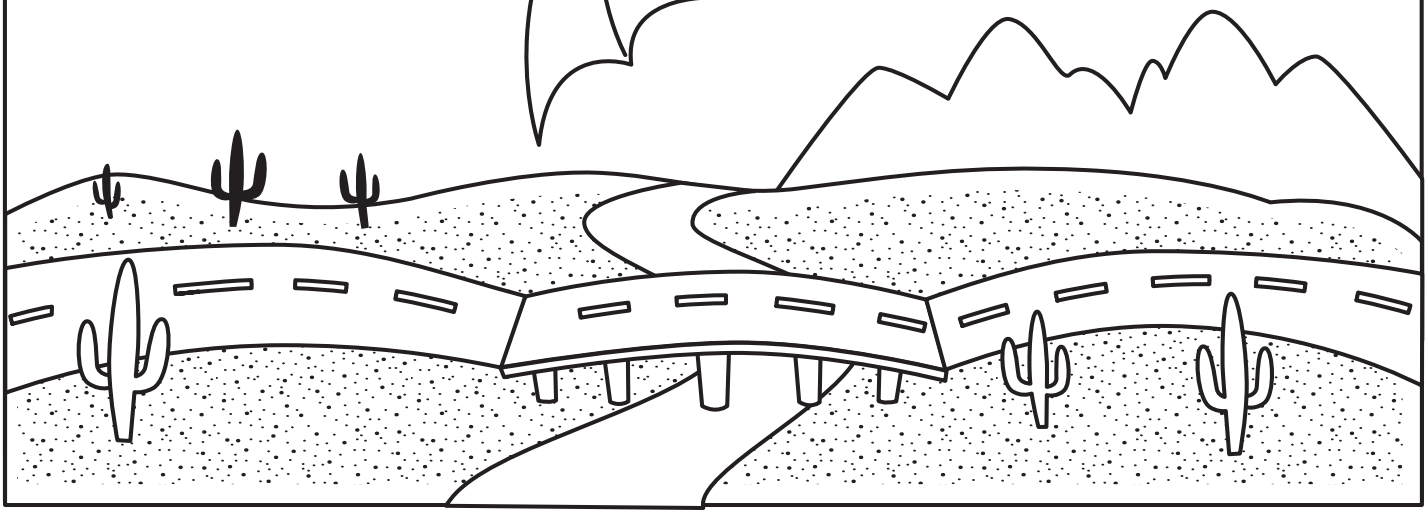
BATS DO NOT FLY INTO PEOPLE'S HAIR & THEY ARE NOT BLIND.



THERE ARE 1,100 VARIETIES OF BATS AND THEY VARY IN SIZE FROM 2 GRAMS TO MORE THAN 2 POUNDS.

BATS LIKE TO LIVE IN PLACES LIKE CAVES, IN BAT HOUSES AND UNDER BRIDGES.

PIMA COUNTY HAS ABOUT 80 BRIDGES.
CAN YOU THINK OF OTHER PLACES BATS LIKE TO LIVE?



Washes, Rivers, Arroyos and Creeks!

THERE ARE DOZENS OF WASHES AROUND TUCSON. SOME ARE BIG, SOME ARE SMALL, BUT THEY ALL CAN BE DANGEROUS, ESPECIALLY DURING THE RAINY SEASON.

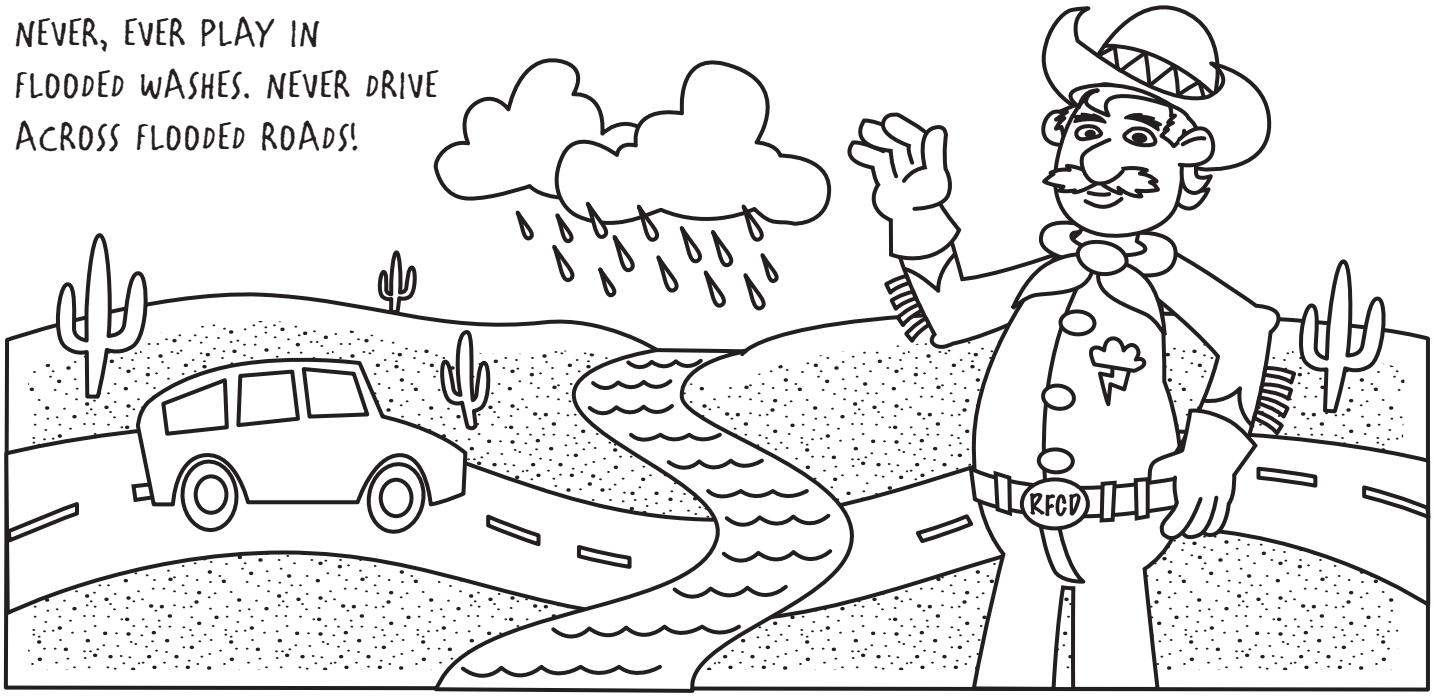
CAN YOU NAME THESE TUCSON AREA WATERCOURSES?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____

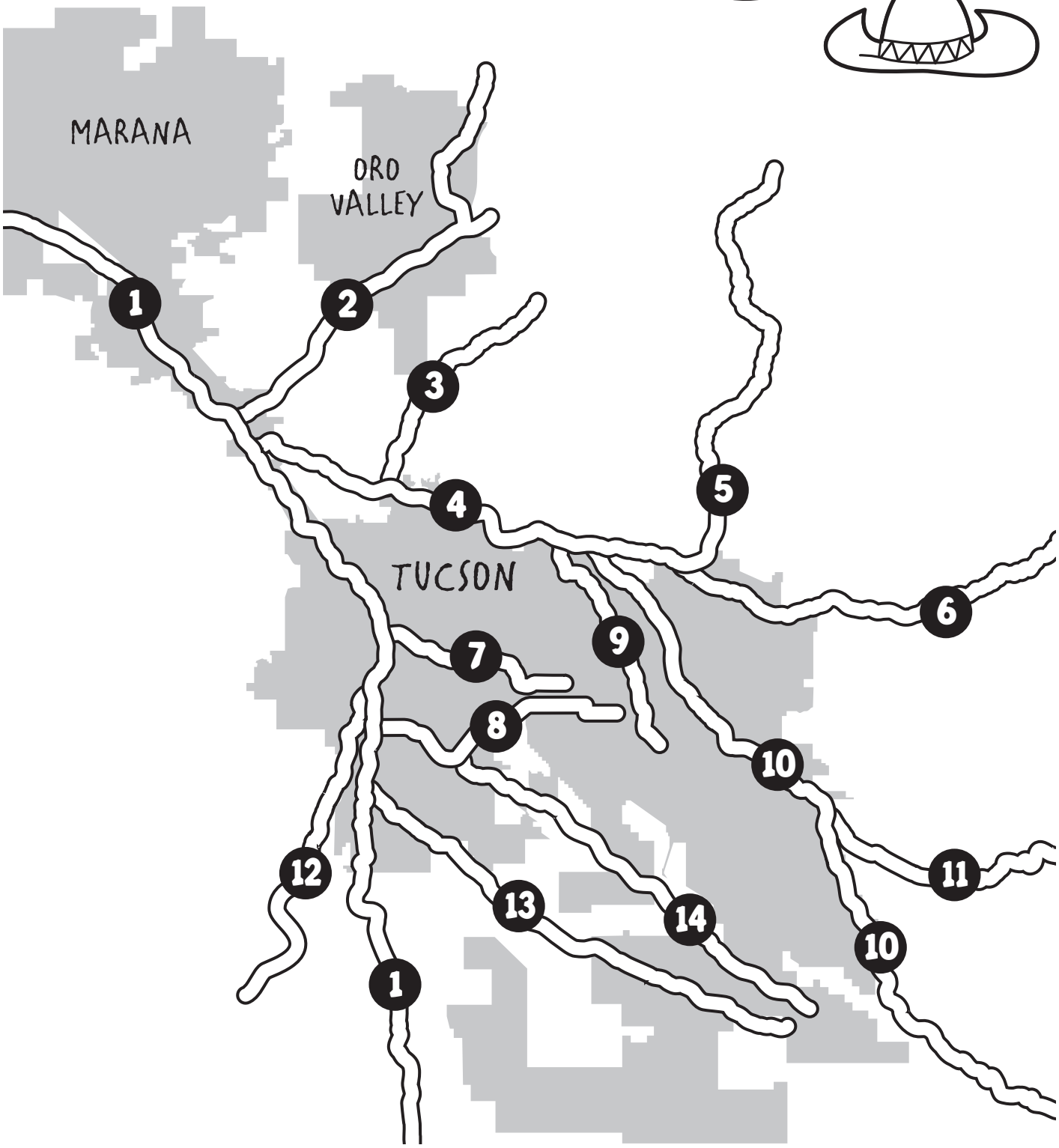
ANSWERS:

1. Santa Cruz River
2. Cañada del Oro
3. Pima Wash
4. Rillito Creek
5. Sabino Creek
6. Tanque Verde Creek
7. Arroyo Chico
8. Tucson Diversion Channel
9. Alamo Wash
10. Pantano Wash
11. Rincon Creek
12. West Branch Santa Cruz
13. Airport Wash
14. Julian Wash

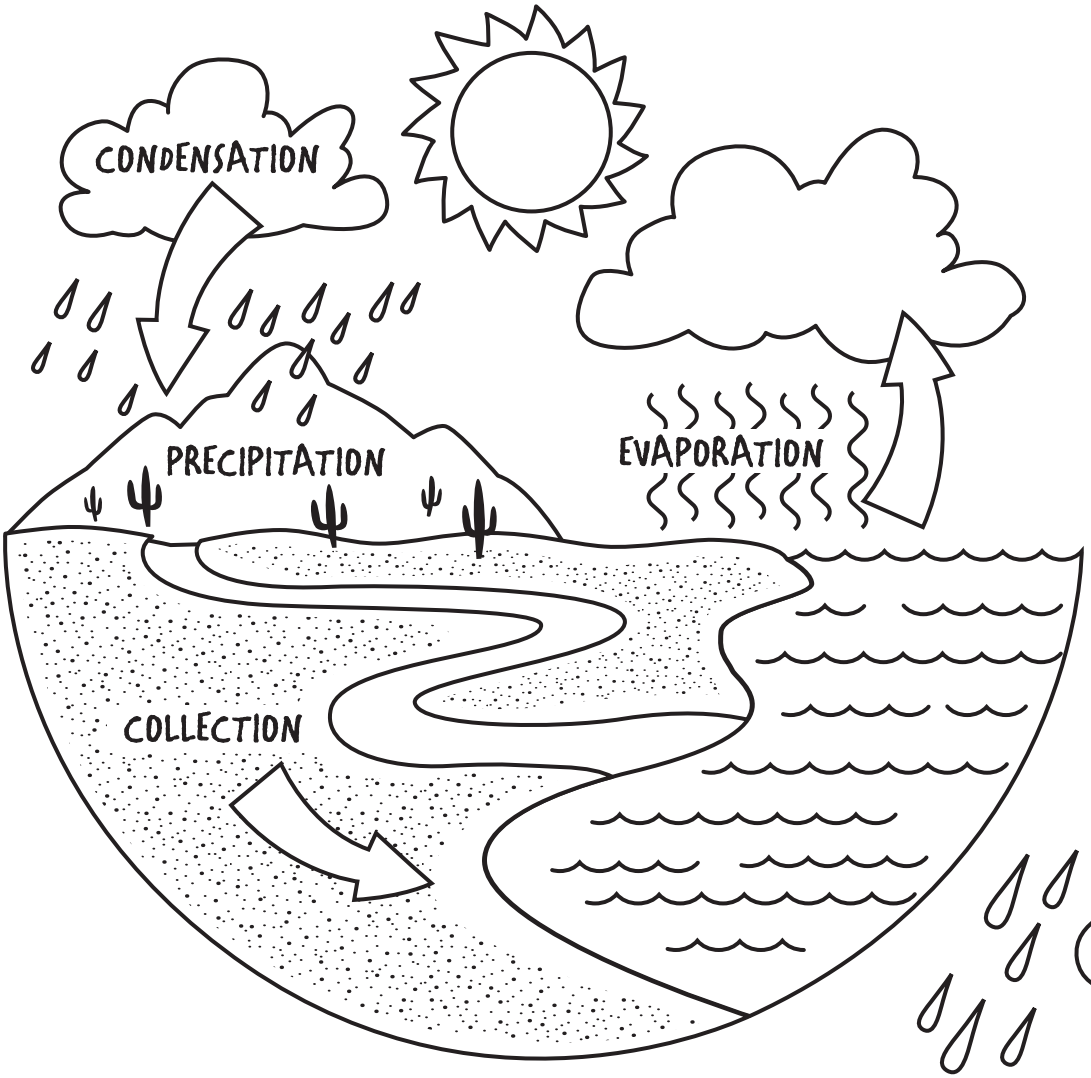
NEVER, EVER PLAY IN FLOODED WASHES. NEVER DRIVE ACROSS FLOODED ROADS!



THESE ARE SOME OF THE LARGER WASHES THAT RUN THROUGH OUR CITIES AND TOWNS. THERE ARE MANY MORE SMALL WASHES, CREEKS AND ARROYOS.



Learn about our WATER CYCLE



EVAPORATION: THE SUN HEATS UP WATER IN RIVERS, LAKES OR THE OCEAN AND TURNS IT INTO VAPOR OR STEAM. THE SAME WATER HAS BEEN RECYCLED ON EARTH OVER AND OVER, FOR MILLIONS OF YEARS.

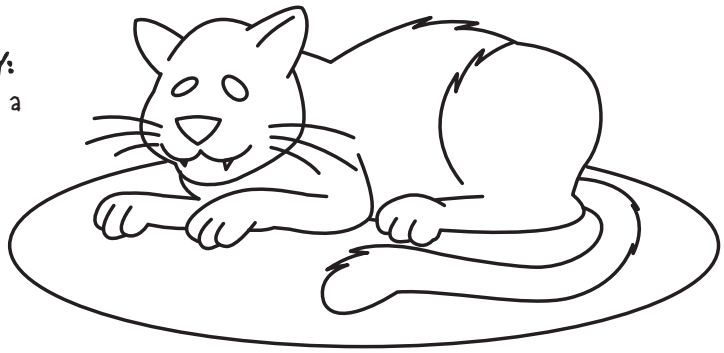
CONDENSATION: WATER VAPOR IN THE AIR GETS COLD AND CHANGES BACK INTO LIQUID FORMING CLOUDS.

PRECIPITATION: WHEN SO MUCH WATER HAS CONDENSED THAT THE AIR CAN NOT HOLD IT ANYMORE, THE CLOUDS GET HEAVY AND THE WATER FALLS BACK TO EARTH IN THE FORM OF RAIN, HAIL, SLEET OR SNOW.

COLLECTION: WHEN WATER FALLS BACK TO EARTH, IT FALLS BACK INTO THE RIVERS, LAKES AND OCEANS, OR IT MAY END UP AS PUDDLES AND GET SOAKED BACK INTO THE EARTH AS GROUND WATER. THE CYCLE STARTS AGAIN!

How Much Do You Know About the DROUGHT?

CIRCLE THE CORRECT ANSWER TO TAKE THE QUIZ! COLOR THE CHARACTERS!



1. ONE WAY WE CAN SAVE WATER OUTSIDE THE HOUSE IS BY:
A. washing our cars **B.** playing in the sprinkler **C.** using a trigger nozzle on the hose

2. IN ARIZONA, C.A.P. STANDS FOR:
A. Cats Are Pretty **B.** Central Arizona Project
C. Cookies, Apples and Pears

3. ONE WAY TO SAVE WATER IN THE HOUSE IS:
A. nail the bathroom door shut **B.** take shorter showers
C. let the water run when you brush your teeth

4. TO XERISCAPE YOUR YARD, YOU SHOULD PLANT:
A. cactus **B.** mulberry trees **C.**grass

5. HOW MANY GALLONS OF WATER CAN YOU SAVE WHEN YOU BRUSH YOUR TEETH?
A. 10 gallons **B.** 2 gallons **C.** One billion gallons

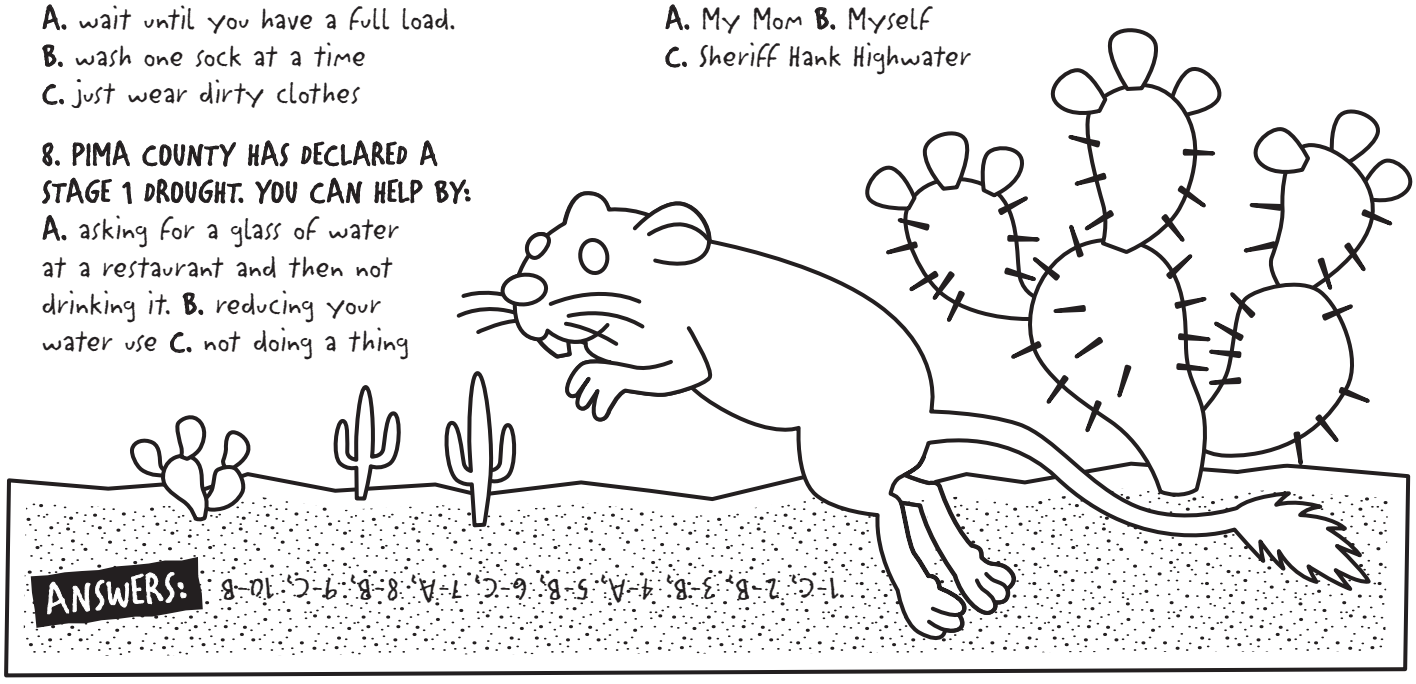
6. IF YOU NOTICE A LEAKY FAUCET YOU SHOULD:
A. slowly fill up water balloons
B. call the President **C.** tell an adult

7. WHEN WASHING YOUR CLOTHES, YOU SHOULD:
A. wait until you have a full load.
B. wash one sock at a time
C. just wear dirty clothes

8. PIMA COUNTY HAS DECLARED A STAGE 1 DROUGHT. YOU CAN HELP BY:
A. asking for a glass of water at a restaurant and then not drinking it. **B.** reducing your water use **C.** not doing a thing

9. WHAT ARIZONA ANIMAL DOESN'T DRINK WATER?
A. Yak **B.** Gila monster **C.** Desert Rat

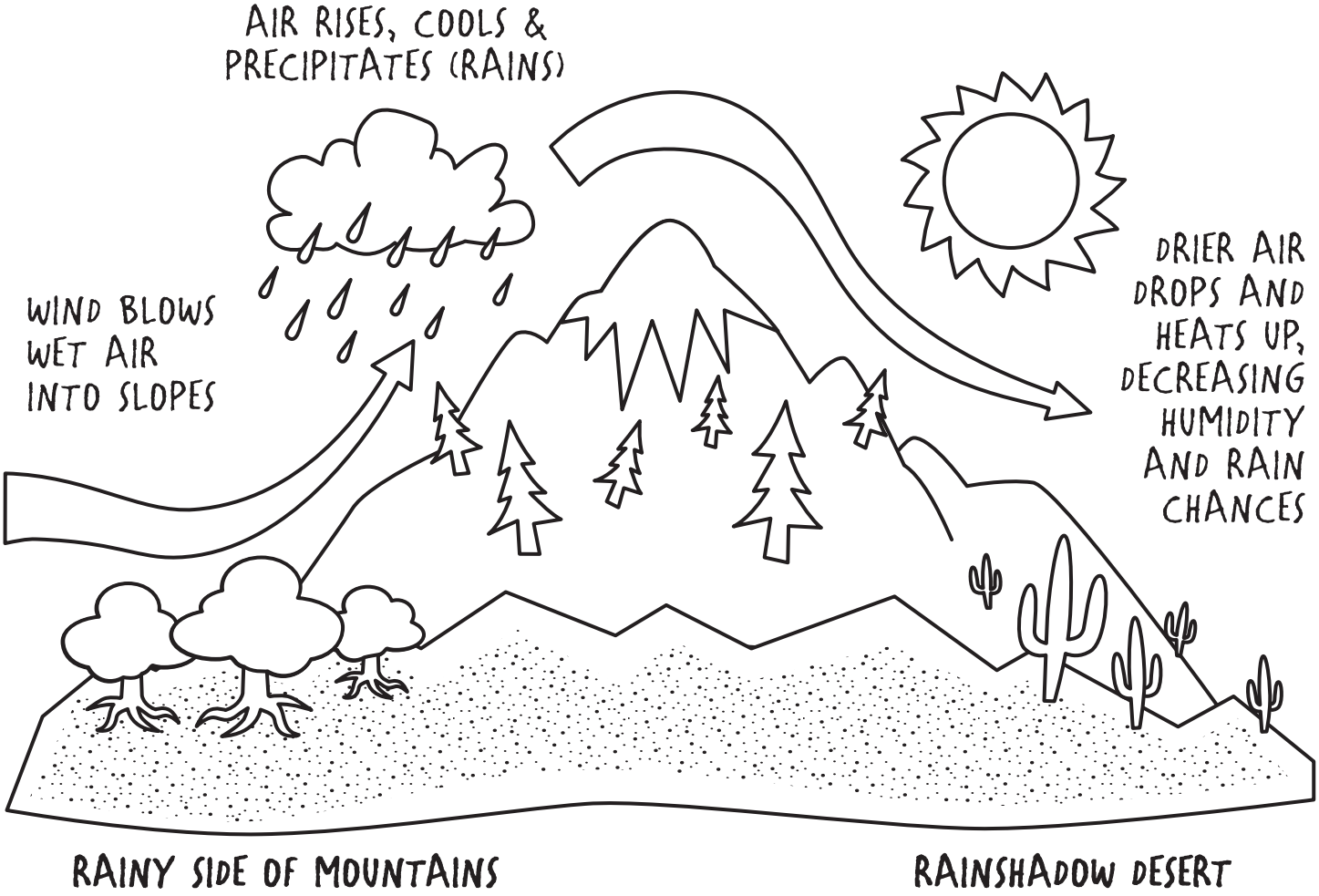
10. THE MOST IMPORTANT PERSON I KNOW THAT CAN HELP SAVE WATER IS:
A. My Mom **B.** Myself
C. Sheriff Hank Highwater



ANSWERS: 1-C, 2-B, 3-B, 4-A, 5-B, 6-C, 7-A, 8-B, 9-C, 10-B

What is a RAIN SHADOW?

Did you know that Tucson is in a region called a rain shadow?

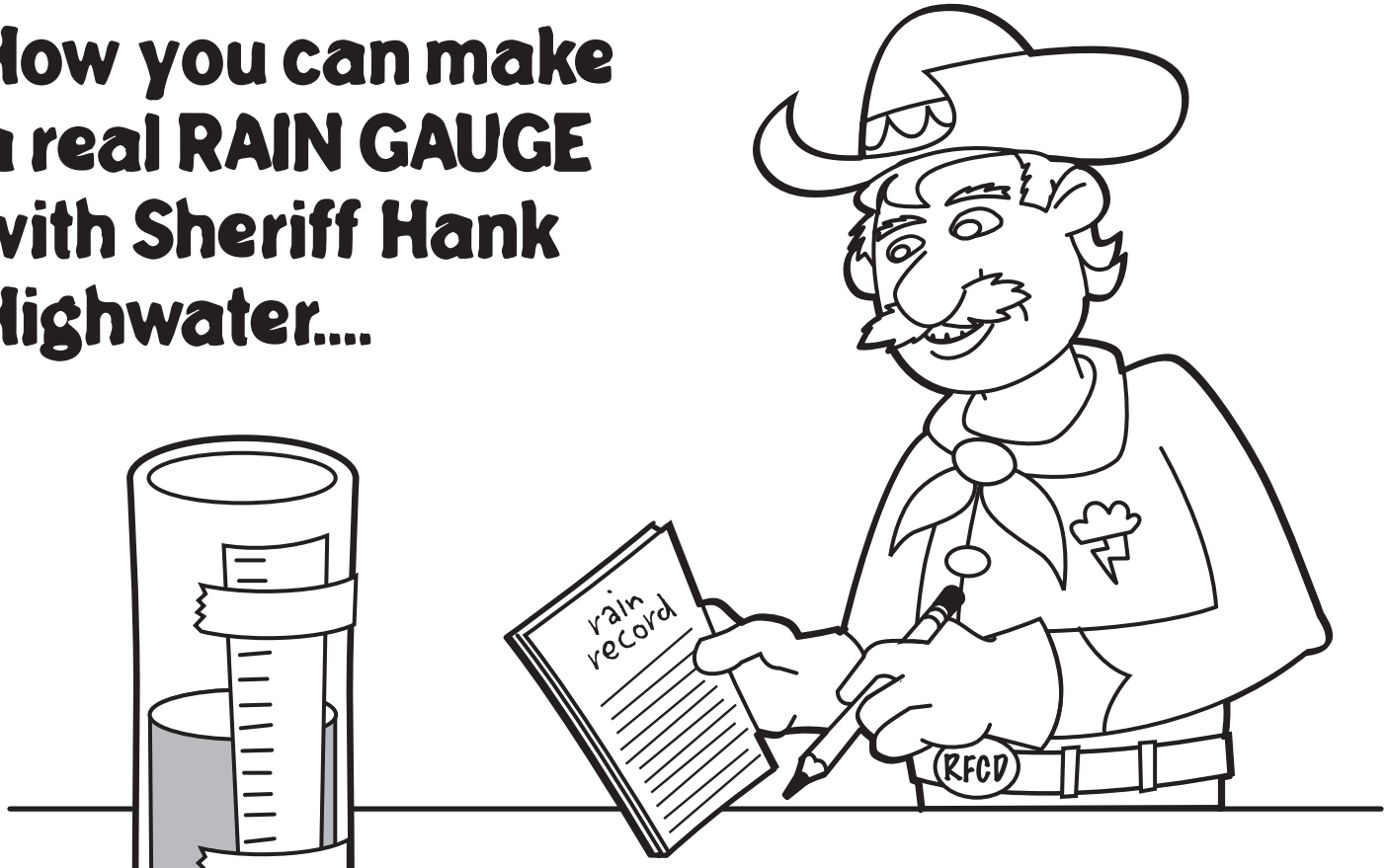


A RAINSHADOW IS A DRY REGION THAT IS DOWNWIND OF A MOUNTAIN WITH RESPECT TO THE PREVAILING WIND DIRECTION.

A RAINSHADOW IS ALSO CALLED A PRECIPITATION SHADOW. THIS HAPPENS WHEN A RAIN CLOUD RISES TO THE TOP OF A MOUNTAIN RANGE WHERE THE COOL AIR SQUEEZES OUT THE MOISTURE AND MAKES IT RAIN.

BY THE TIME THE WIND BLOWS THE CLOUD TO OUR SIDE OF THE MOUNTAIN, THE CLOUDS' CAPACITY TO HOLD WATER INCREASES TAKING ANY MOISTURE AVAILABLE FROM THE SOIL, PLANTS, OR EVEN SWIMMING POOLS.

How you can make a real RAIN GAUGE with Sheriff Hank Highwater....



How much does it rain at your house? Find out with a rain gauge that you can make.

STUFF YOU'LL NEED...

PAPER RULER

SCISSORS

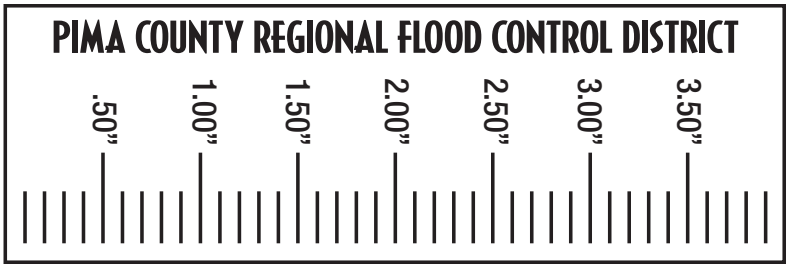
CLEAR TAPE

FOOD JAR

Cut out the ruler and tape it to the outside of a straight sided food jar, like one used for jelly or olives. The bottom of the ruler needs to be even with the bottom of the jar.

Cover the strip with clear tape to protect it from the rain. Set it on a flat surface where rain can fill it up. You can keep a diary of how much rain falls where you live.

cut this out & tape it to the jar



Pima County Board of Supervisors

Ann Day, District 1
Ramón Valadez, District 2
Sharon Bronson, District 3
Ray Carroll, District 4
Richard Elías, Chairman, District 5

County Administrator

C.H. Huckelberry

© copyright 2008, Pima County Regional Flood Control District

By Nanette Reynolds, Pima County Regional Flood Control District
Illustrations by Dave Burnham, Pima County Graphic Services