CREEC NETWORK
Mojave Environmental Education Consortium

Presents... Clean Air

Working Together -

We are the solution to pollution!

CREEC NETWORK
MOJAVE ENVIRONMENTAL EDUCATION CONSORTIUM

The Mojave Environmental Education Consortium is headquartered at the Mojave Desert Air Quality Management District located at:
14306 Park Avenue
Victorville, CA 92392

MOJAVE DESERT air quality management district

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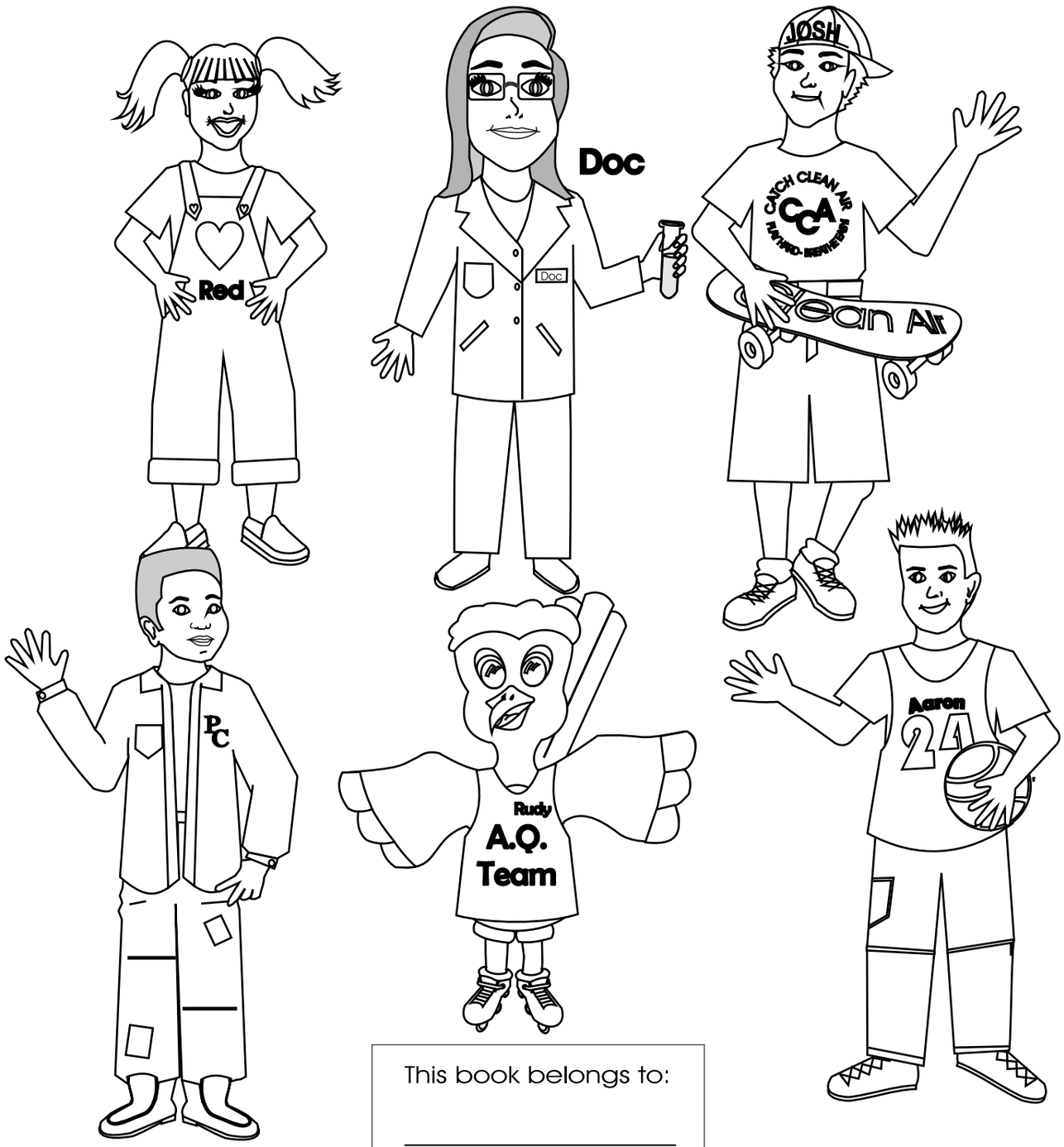
Air Pollution Control Officer: Charles L. Fryxell
Illustrations: Cynnthia Baker, Ralph Baker Jr., & Brian Baker
Text & Design: Cynnthia Baker
Project Management: Violette Roberts

MEET THE A.Q. TEAM!

Hi! We're the **Mojave Desert Air Quality Management District's** (MDAQMD) Air Quality Team, or the "A.Q. Team" for short. We're teaming up with organizations and businesses throughout the High Desert to share fun ways that you can help prevent pollution and protect our environment!

Pollution comes from many different sources. Here in the High Desert, most of our air pollution comes from cars and trucks on the road. The MDAQMD is the local government agency responsible for regulating stationary sources of air pollution in the High Desert. Stationary sources of pollution include factories, gas stations, dry cleaners and just about anything that has emissions, but is **not** on wheels!



This book belongs to:

_____

DRIVE POLLUTION AWAY!

Polluted air is unhealthy for everyone, but can be especially harmful for sensitive individuals like the elderly, children, and people who have asthma or suffer from heart and lung diseases.

The good news is there are things we can all do to prevent air pollution. Below is a fun activity that will show you ways to help prevent pollution.

Unscramble the words. Here's a hint: Each word is a means of transportation which is less polluting than driving a car.

After unscrambling each word on the left, draw a line to connect it with the corresponding picture on the right.

1. looparc

2. usb

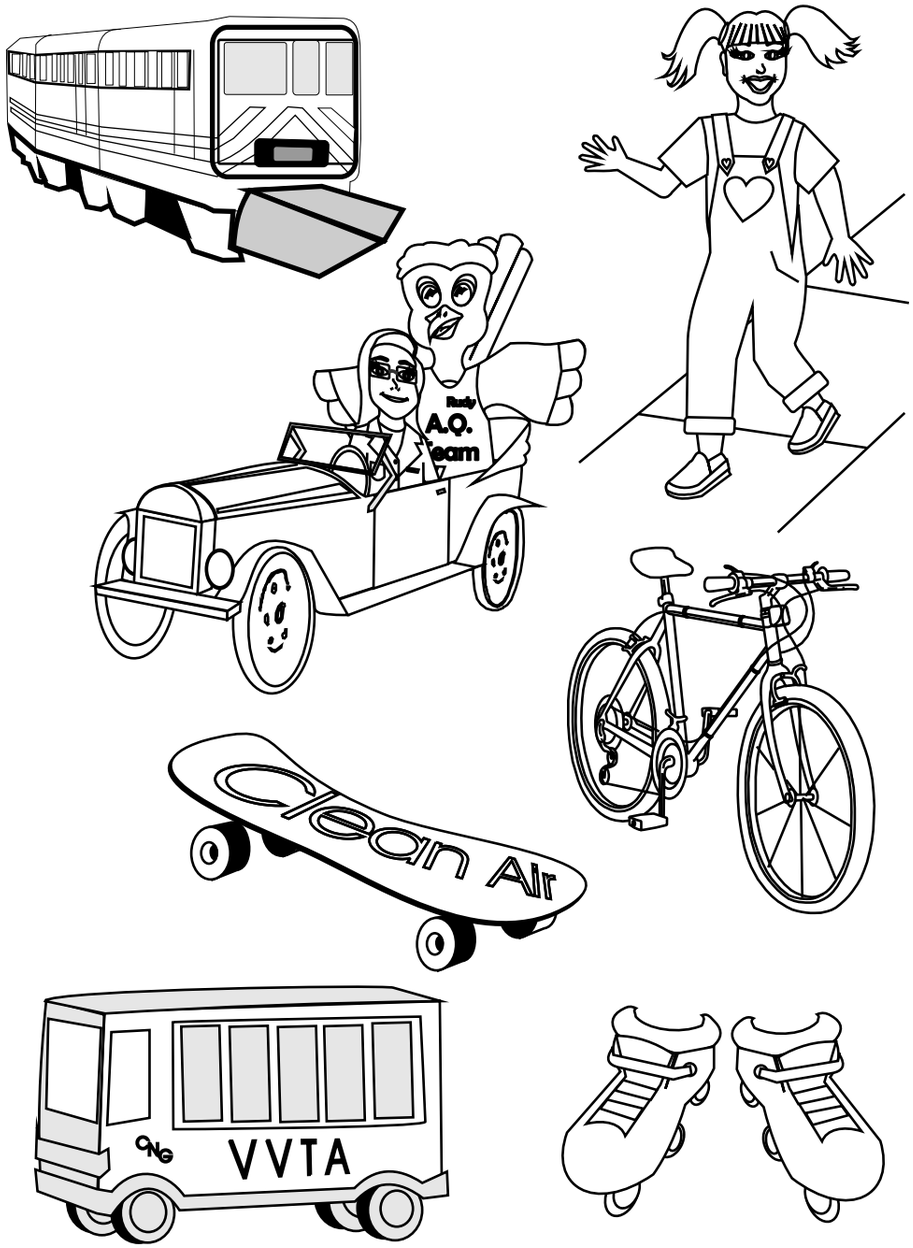
3. arint

4. licyceb

5. draleblorle

6. lwak

7. broadekats

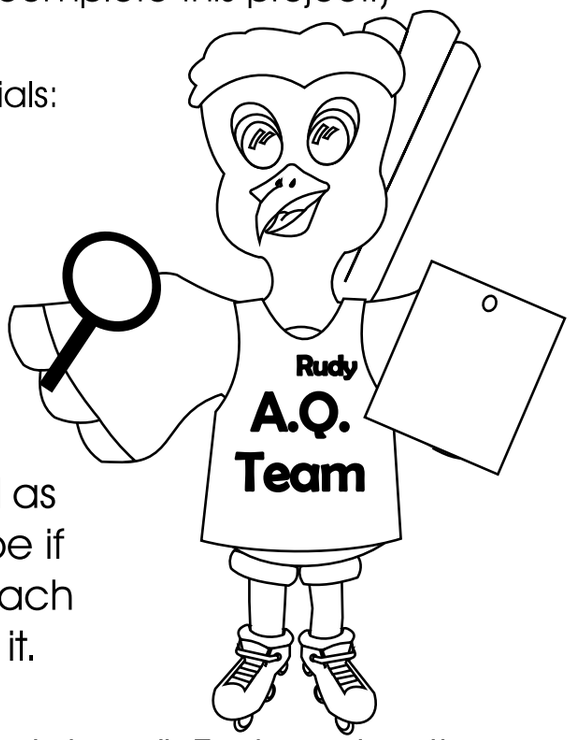


1. Carpool, 2. Bus, 3. Train, 4. Bicycle, 5. Rollerblade, 6. Walk, 7. Skateboard

CATCH CLEAN AIR

Find out what's in the air around your home or school - Make an *"Air Catcher!"*
(Be sure to ask an adult to help you complete this project.)

First you will need to gather the following materials:
Cardboard squares, aluminum foil, scissors,
string, petroleum jelly, hole puncher,
scotch tape, magnifying glass



Instructions:

1. Cover the cardboard squares with aluminum foil. Smoothe out the foil as much as possible, and secure it with tape if necessary. Punch a hole in the top of each "air catcher" and tie a piece of string to it.

2. Decide where you will hang the "air catchers." Try hanging them in a variety of places around the outside of your home or school.

3. Before hanging, carefully apply a thick coat of petroleum jelly to both sides of each catcher. Carefully hang the catchers in the spots you have chosen. Be sure to write down the location of each air catcher.

4. After 1 - 2 days, bring the air catchers inside and examine them for dirt. Did an air catcher in one location catch more dirt than an air catcher in another?

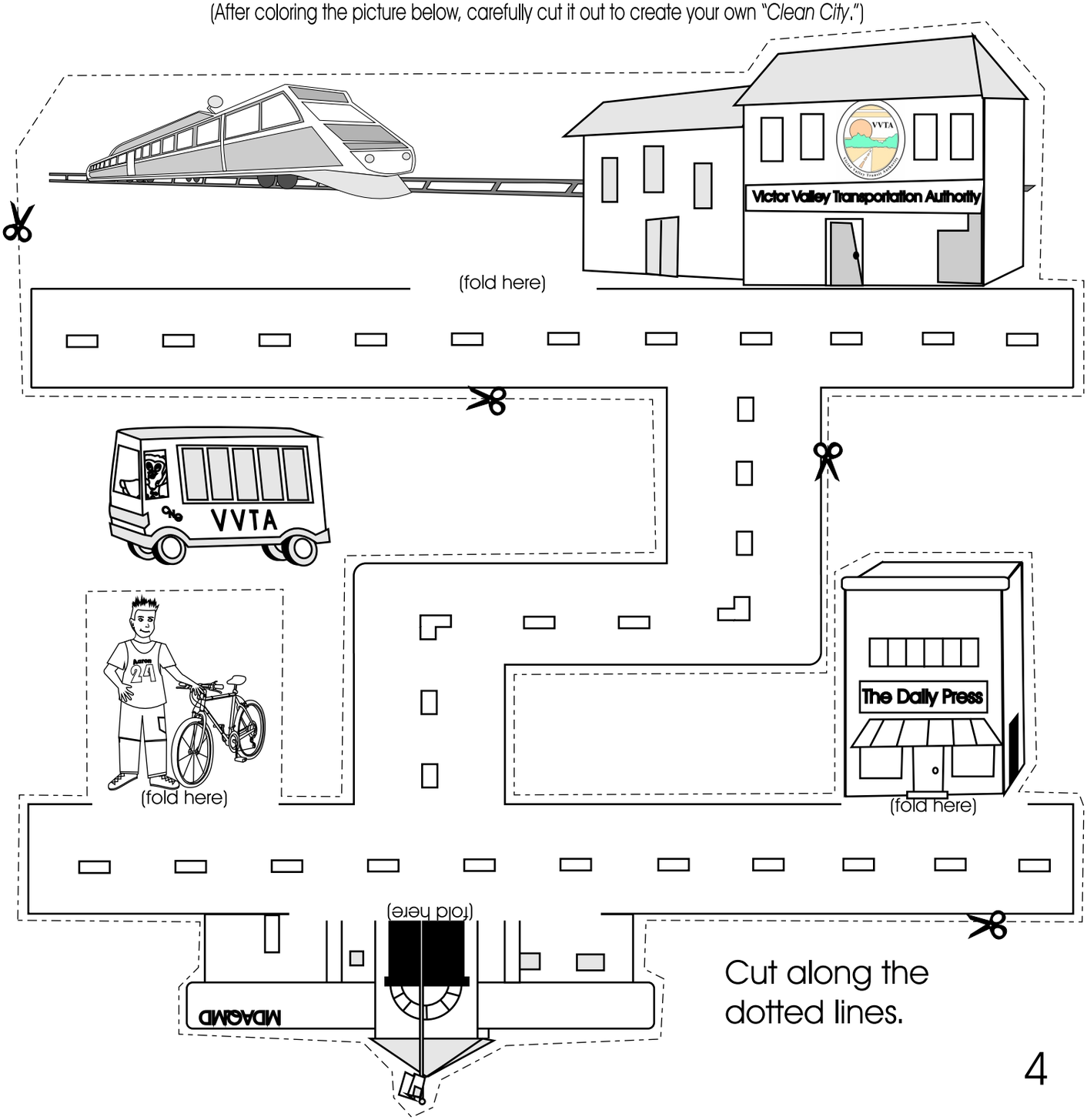
5. Using a magnifying glass, determine what type of dirt is on each catcher and where it came from.

On the Road to Cleaner Air!

Using public transportation to get around town is a great way to "spare the air." The **Victor Valley Transportation Authority** (VVTA) is the agency that operates our city buses. The VVTA uses buses that run on compressed natural gas (CNG) rather than regular gasoline fuel.

CNG fueled buses produce less emissions - less emissions mean cleaner air!

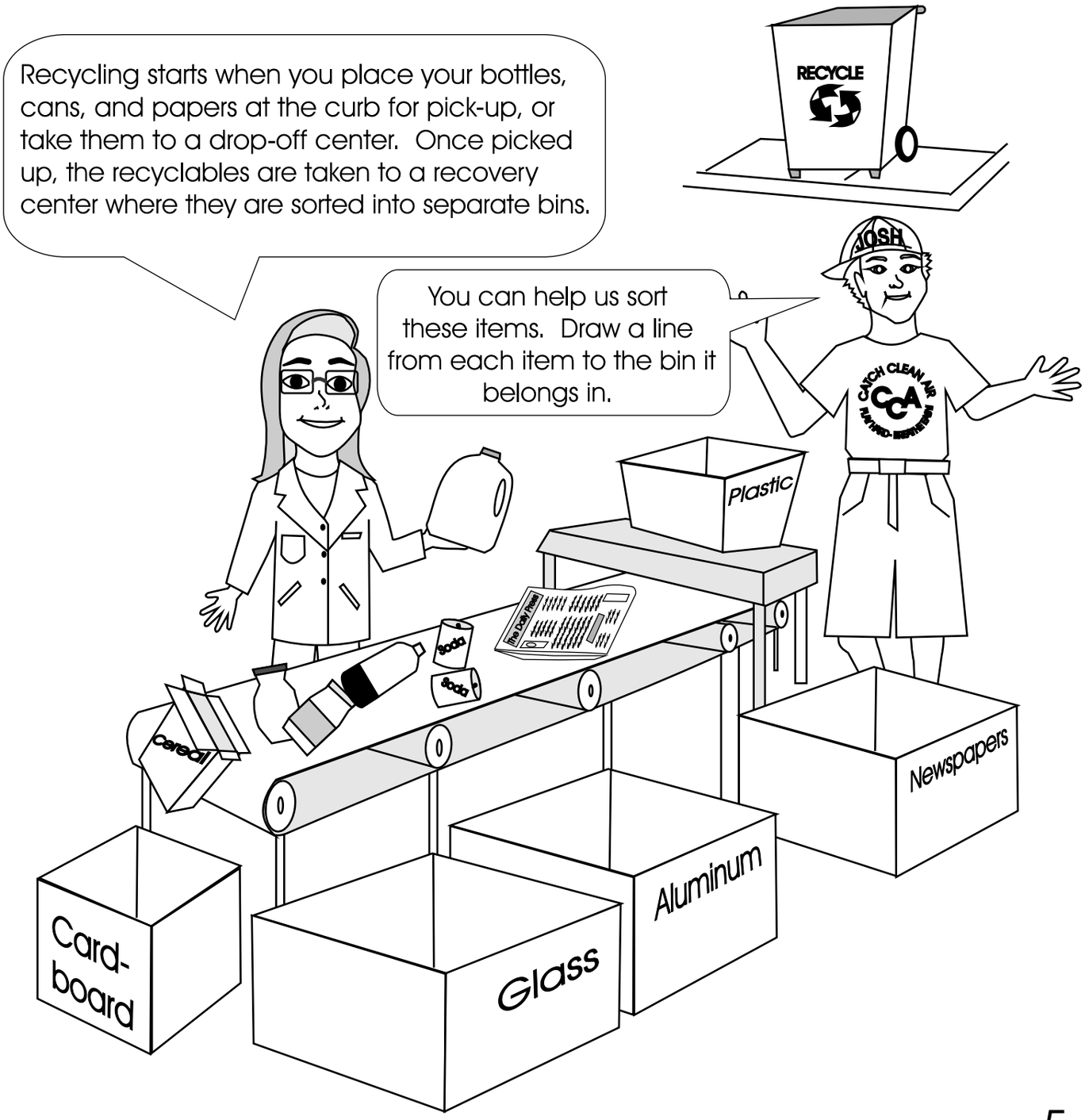
(After coloring the picture below, carefully cut it out to create your own "*Clean City*.")



Cut along the dotted lines.

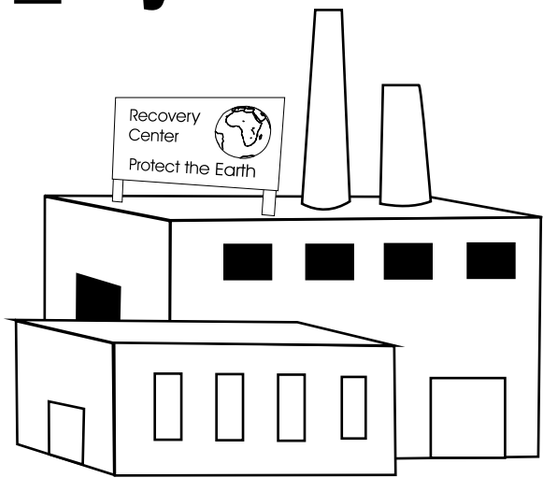
It's not all garbage!

Not everything thrown into a trash can is garbage. There are many things we toss away that could and should, be recycled. Recycling is a very important step in preventing pollution. Several years back, the **City of Victorville** and the **Town of Apple Valley** set up recycling programs to make it easier for people in their cities to prevent pollution and ***protect the environment***.



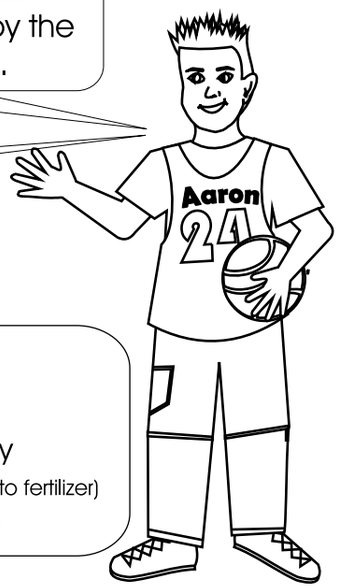
Reduce, Reuse, Recycle!

After sorting, each bin is emptied and the recyclables are chipped, crushed, or baled for shipment to factories, where they will be made into new materials.



For example, in the same way that old newspapers are renewed, then reused by the **Daily Press** to print the next edition...

... plastics can be recycled into materials used to make things like new carpets, soda bottles, and even shoelaces!



Think About It

Here are some items you don't need anymore. What should you do with them? Use the key to identity what should be done with each.

KEY

A. Recycle
B. Donate to charity
C. Compost (make into fertilizer)
D. Put it in the trash

1. ___

2. ___

3. ___

4. ___

5. ___

6. ___

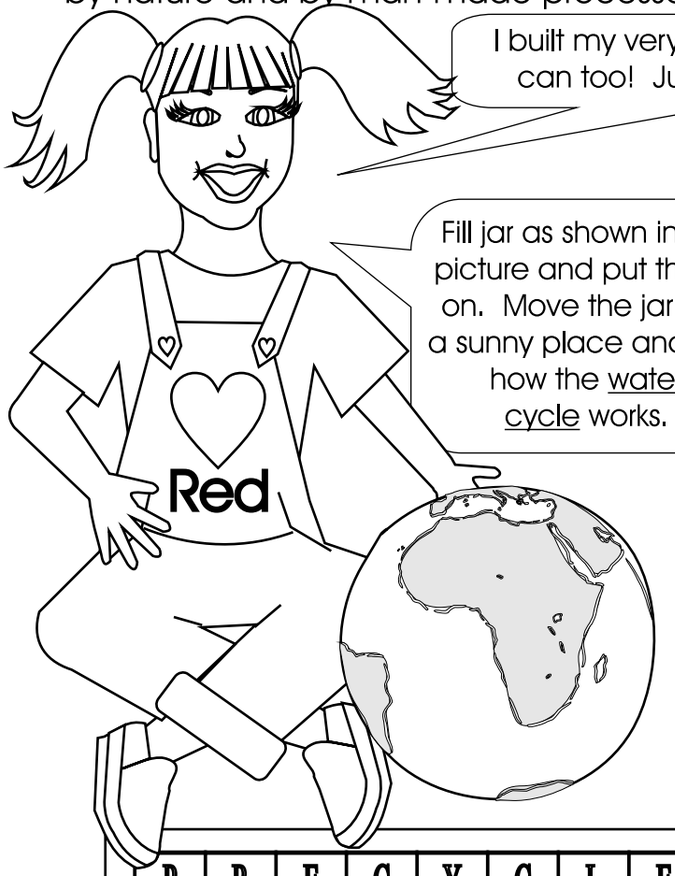
7. ___

8. ___

Answers: 1. D, 2. C., 3. A, 4. B, 5. C, 6. A, 7. B, 8. D.

Nature Recycles Too.

The **Mojave Water Agency** (MWA) understands that trash isn't the only thing worth recycling. Did you know water gets recycled too? Water is recycled in two ways, by nature and by man-made processes.



I built my very own water cycle, and you can too! Just follow these directions.

Fill jar as shown in the picture and put the lid on. Move the jar into a sunny place and see how the water cycle works.

You will need:

1. Jar (with a lid)
2. Bottle cap for water
3. Small plants
4. Soil
5. Sand
6. Small rocks

Fill the bottom of the jar first with the small rocks. Add a layer of sand, then a layer of soil. Add plants to the soil and place your bottle cap filled with water in the jar near the plants.

Enviro-Word-Find

Look across and up and down to find these words in the word box.

P	R	E	C	Y	C	L	E	M	Y	W	U	T
I	M	N	F	O	J	S	E	C	K	A	V	L
N	G	V	A	X	N	R	I	P	R	T	H	G
S	R	I	G	B	Z	S	V	N	A	E	B	N
J	B	R	G	O	R	T	E	N	E	R	G	Y
P	R	O	T	E	C	T	P	R	I	O	A	K
U	F	N	D	M	W	A	T	E	V	S	N	C
R	E	M	O	U	R	I	S	G	L	E	L	A
W	R	E	S	O	U	R	C	E	S	I	A	S
A	X	N	B	F	H	K	S	Q	D	C	N	O
U	E	T	P	S	Y	M	T	B	A	J	D	P

air
conserve
energy
environment
land
protect
recycle
resources
water

What is Recycled Water?

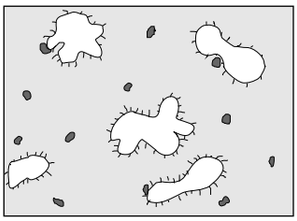
Recycled water starts out as wastewater (water from our sinks, showers, washing machines and toilets) which is then purified so that it is suitable to water lawns and plants.

The **Victor Valley Wastewater Reclamation Authority** recycles water using the same concept as recycling paper, aluminum cans, or bottles. Water is an important resource that can be used again and again.

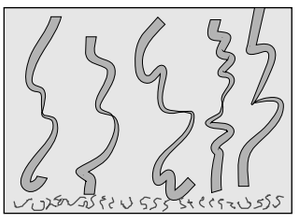
How Recycled Water is Made

1. Wastewater from our sinks, showers, washing machines, and toilets is collected through pipes that take it to a subregional reclamation plant. (See the next page.)

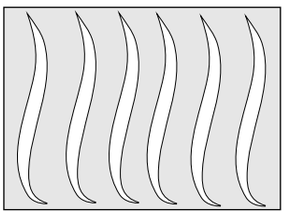
2. At the Subregional Reclamation Plant, this wastewater goes through screens to remove plastics and rags.



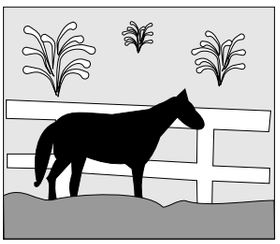
3. Microscopic bacteria are then added to help break down the remaining food solids and wastes.



4. This causes the solid matter to sink to the bottom, where it is removed.



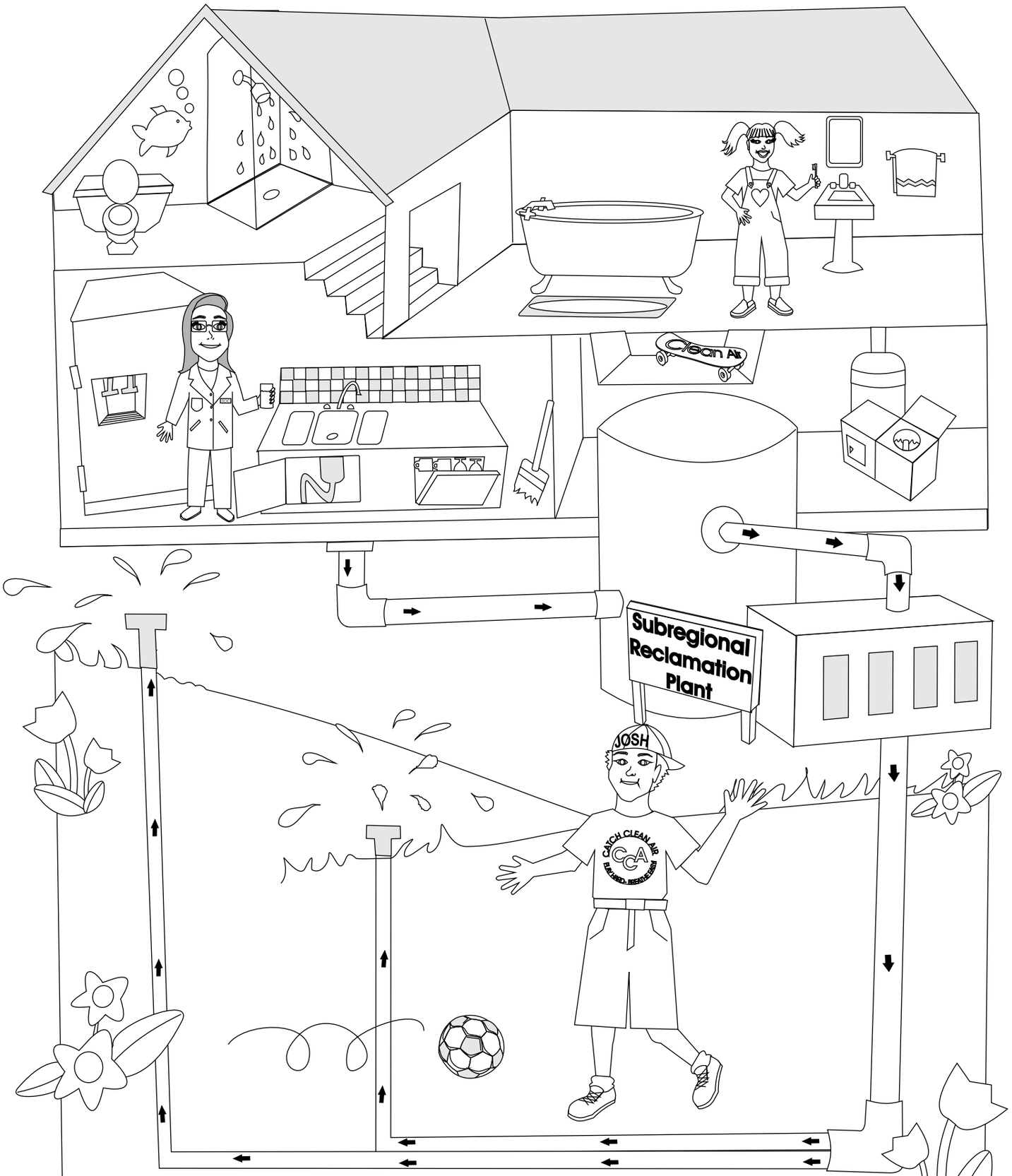
5. Finally, the wastewater is filtered and treated with chemicals to turn it into recycled water.



6. The recycled water then goes through purple pipes to landscaped areas.

Visit www.wwra.com for more information on recycled water.

How Water Is Recycled



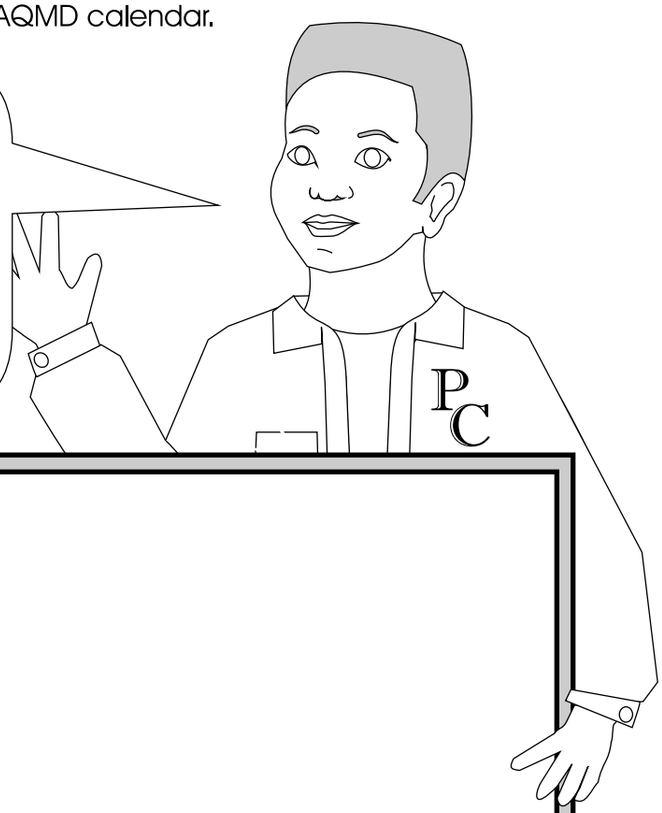
Color the pipes purple, then color the rest of the picture.

Everyone's A Winner When We Prevent Pollution!

The Air and Waste Management Association (A&WMA) is an organization that has members and chapters all over the world. The Mojave Desert Chapter is very involved in educating people about preventing pollution. Each year the Mojave Desert Chapter co-sponsors a Pollution Prevention Week Poster Contest with the MDAQMD. The contest is open to all local youths between the ages of 4 and 18. Winners earn saving bonds and their winning posters are featured in the following year's official MDAQMD calendar.

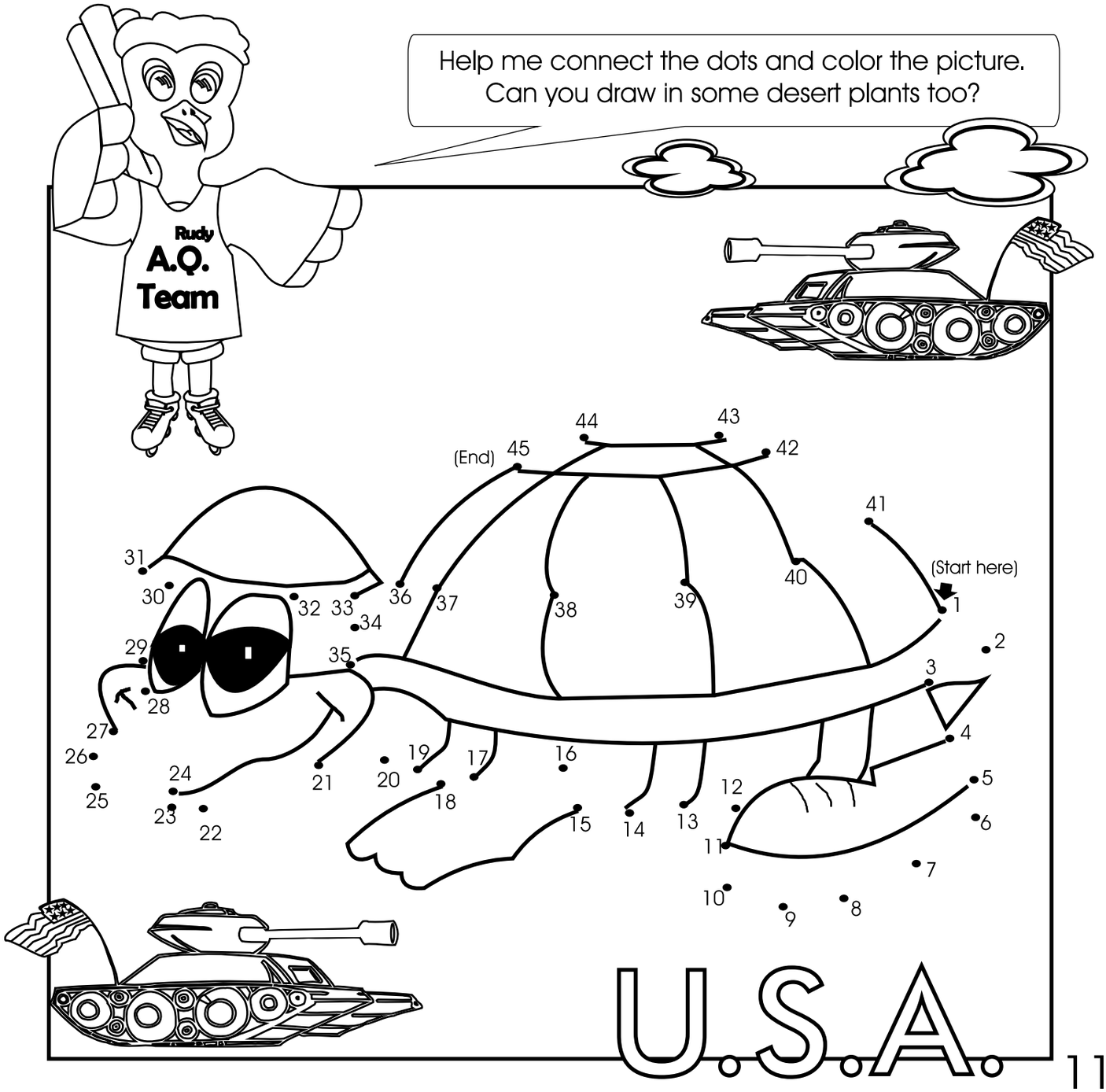
Why not use the space below to draw a picture showing what you can do to help prevent pollution? This way you'll be ready for this year's contest. You could be one of this year's lucky winners!

Be sure to pick-up your free copy of this year's calendar by stopping by the MDAQMD's office at 14306 Park Ave. in Victorville!



Fighting to Protect our Natural Resources

The mission of the **National Training Center (NTC)** and **Fort Irwin** is to provide tough, realistic, training for our nation's military personnel. But Fort Irwin also understands how important it is to protect the environment. Did you know that before each "war game," a crew is sent out to find each desert tortoise in the area so it can be safely relocated to avoid harming it during training exercises? When each exercise is completed, the turtles are returned to their home. Then Fort Irwin goes the extra mile by replanting the desert to preserve it's unique habitat!

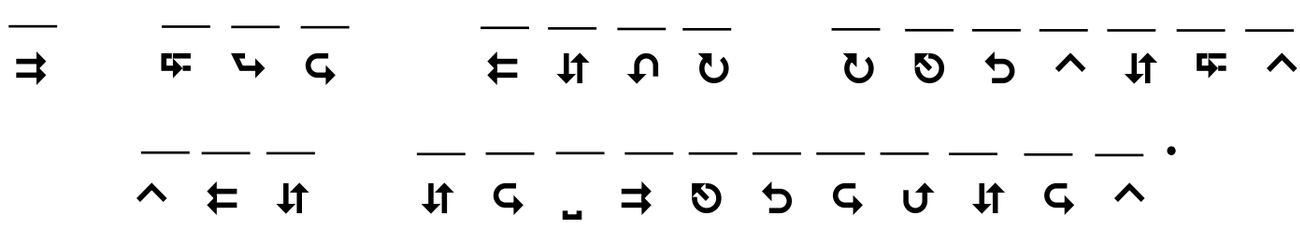


Cementing A Cleaner Environment

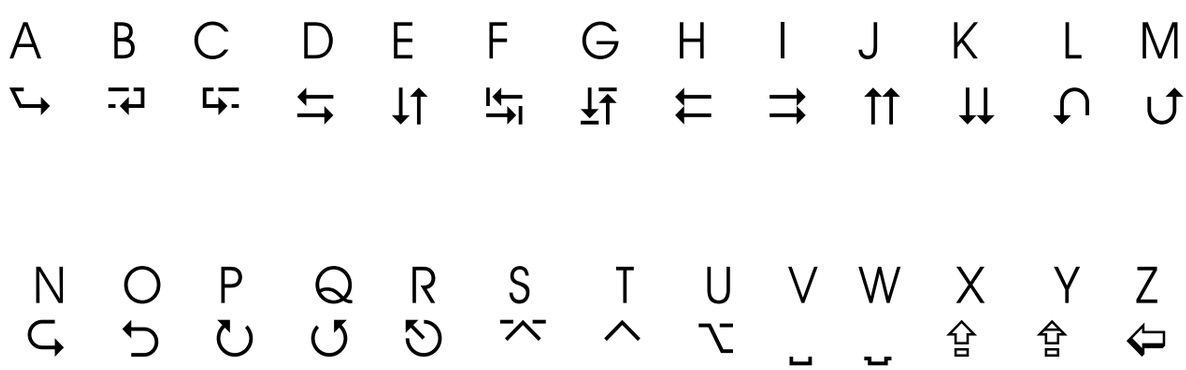
As we learned earlier, discarded items are not always useless. Some industries can use waste materials to create new products.

Two of our nation's largest cement manufacturers are located here in the High Desert. They are **Mitsubishi Cement** and **TXI Riverside Cement.** Both companies recognize the important roles they must play in protecting the environment, and this is the main reason they are part of the **Cement Industry Environmental Consortium (CIEC).** Both companies use discarded products in the process of making cement. By doing this, they conserve energy - which, "*spares the air*" and prevents pollution!

When we work together, using technology, we can accomplish more. Let's use the secret code to decode the message below.

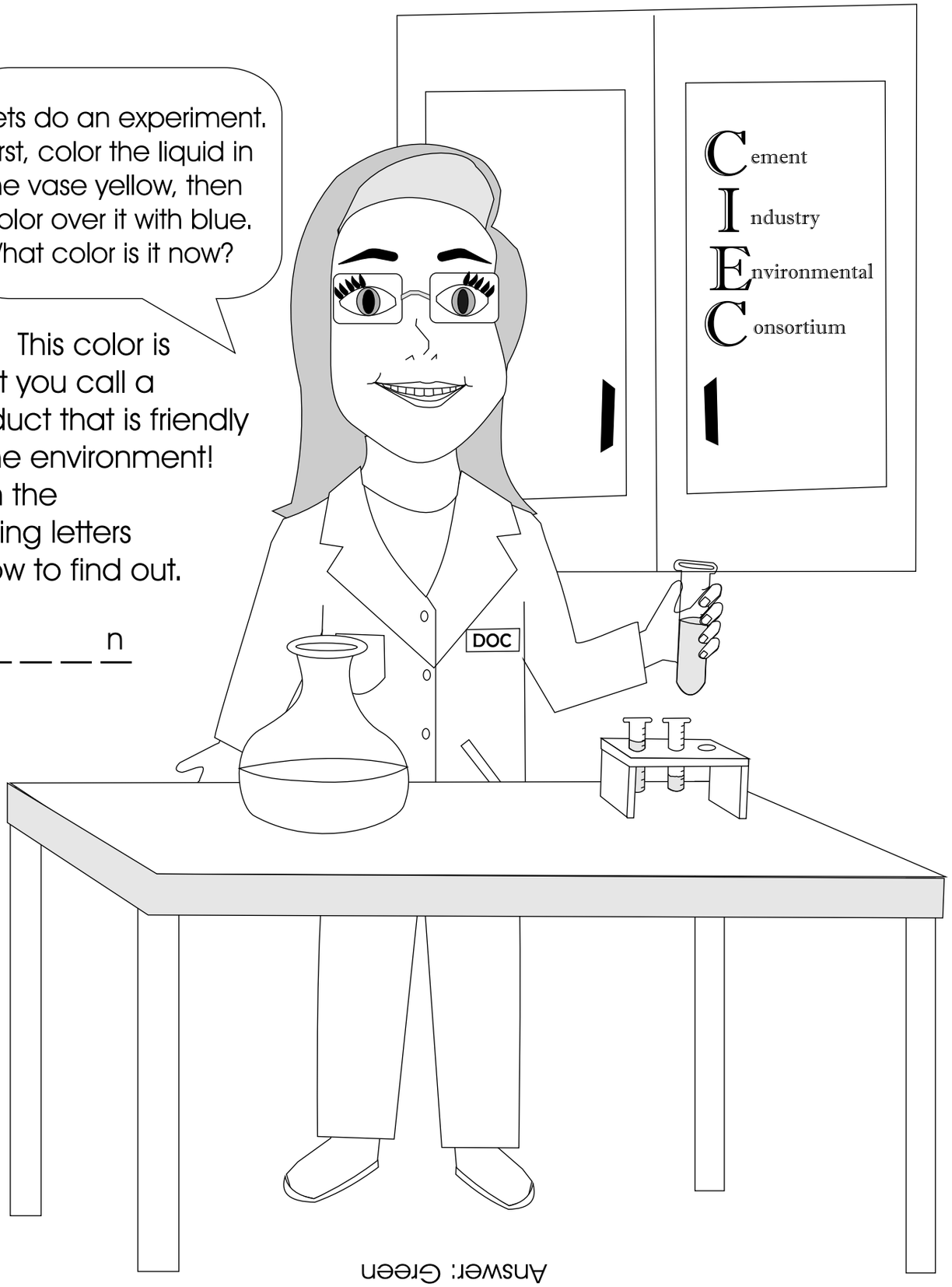


Secret Code



Answer: "I can help protect the environment."

Basic Research to Improve the Environment



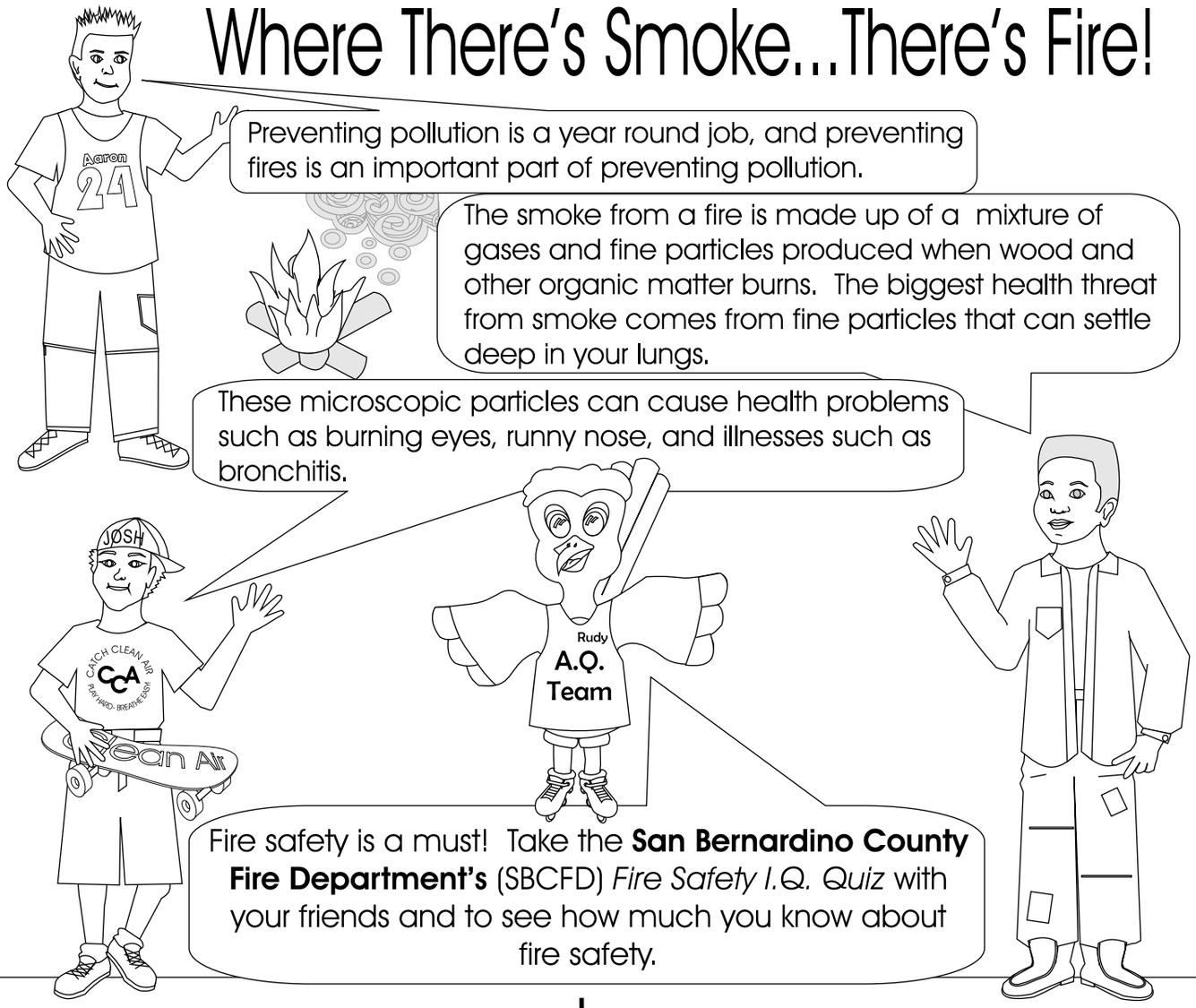
Lets do an experiment. First, color the liquid in the vase yellow, then color over it with blue. What color is it now?

Hint: This color is what you call a product that is friendly to the environment! Fill in the missing letters below to find out.

__ r __ __ n

Answer: Green

Where There's Smoke...There's Fire!



1. What kind of plan should you and your family have so that everyone knows exactly what to do in a fire?

2. How often should you test your smoke alarm?

   A. Once a week.
   B. Once a year.
   C. Once a month.

3. When is Fire Prevention Week?

4. Your home fire escape should have how many ways out of every room?

5. Where should you go once you are safely outside?

6. A pumper truck can pump how many gallons of water every minute?

   A. 1,250 gallons of water.
   B. 2,000 gallons of water.
   C. 3,000 gallons of water.

7. What should you do if you have to escape through a smoky area?

8. How often should you replace the batteries in your smoke alarms?

9. The smoke alarm has sounded and you are escaping. There is smoke blocking your exit. What should you do?

10. What's the name of The SBCFD's mascot?

Answers: 1. A home fire escape plan. 2. Once a month. 3. October 4-10 4. Two - the first exit is a door, and the second way out is usually a window. 5. Your outside meeting place. 6. 1,250 gallons of water (that's 15,000 glasses of water!) 7. Crawl low under smoke to your exit. 8. Once a year (or when the alarm "chirps," warning the batteries are low). 9. Use your second way out. It's important to have a second way out in case your first way is blocked by smoke. 10. Sparky the Fire Dog.

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This coloring/activity book was funded by the

Mojave Environmental Education Consortium

Bringing abstract concepts to life with the help of our community.

...and made possible through the generosity of MEEC's sponsoring partners, which are featured throughout this book.

MEEC is under the umbrella of the California Regional Environmental Education Community (CREEC), Region 10. Our combined mission is to link teachers with high quality environmental education resources to improve the environmental literacy of California's students.

MEEC was created by businesses and organizations who care about the environment to serve educators, students and the communities of the Mojave Desert.

MEEC providers offer standards-based, environmental education resources through its teacher resource library, classroom presentations, school assemblies, tours, and ***free*** teacher workshops.

To find out more about MEEC, visit us online @ ***www.meeconline.com*** or call (760) 245-1661 ext. 6101 or 6717.

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Victor Valley Wastewater Reclamation Authority's
Recycled Water Program
A New Source of Water for Our Communities

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Mojave Water Agency

City of Victorville, California

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