Blizzard Bag
Lesson Plan 1

Grade Level:	K-3
Lesson:	I.A.1—What is Waste? The Solid Waste Stream What is in Our Solid Waste Stream?
Source:	*3Rs of the Common Core*
Activity/Craft:	Reading & Writing Activities About Recycling by Erica Miller PDF Snowman Bingo PDF
Video Link:	Litter and Our Oceans ((https://nhpbs.pbslearningmedia.org/resource/ee18-sci-waterpol/kids-go-green-litter-and-our-oceans/)
Game Link:	EPA Planet Protectors Jelly Jar Coloring Book PDF (https://www.epa.gov/sites/production/files/2015-09/

Lesson Matrix Grade K-3

3R's of the Common Core

Lesson	Leading Question	Objective	Common Core Alignments		Skills
K-3 Garbage Bag Recipe I.A.I	What things do we throw away?	Define solid waste Identify components of waste stream Question personal rubbish habits	**Kindergarten** CC.RI.K.10 CC.SL.K.1 CC.W.K.2 CC.K.MD.3	**Grade 1** CC.RI.1.1 CC.SL.1.2 CC.W.1.2 CC.1.MD.4	Collaborating Communicating Conducting investigations Gathering information Using mathematics and computational skills
			Grade 2 CC.RI.2.1 CC.SL.2.3 CC.W.2.8 CC.2.MD.10	**Grade 3** CC.RI.3.1 CC.SL.3.1.c CC.W.3.4 CC.3.MD.3	
K-3 Litter Walk I.A.2	What's the difference between human-made and natural litter?	Identify human-made and natural objects Classify	**Kindergarten** CC.L.K.5a CC.SL.K.2 CC.W.K.2	**Grade 1** CC.L.1.5a CC.SL.1.2 CC.W.1.8	Collaborating Communicating solutions Investigating Problem solving
			Grade 2 CC.L.2.5a CC.SL.2.2 CC.W.2.8	**Grade 3** CC.L.3.5b CC.SL.3.3 CC.W.3.2a	
K-3 Too Much Packaging I.A.3	Will eating one piece of gum affect the size of our trash pile?	Examination of over-packaging	**Kindergarten** CC.RI.K.1 CC.SL.K.1 CC.K.CC.5	**Grade 1** CC.RI.1.1 CC.SL.1.2 CC.1.MD.4	Collaborating Collecting data Communicating Problem solving Applying mathematical concepts
			Grade 2 CC.RI.2.6 CC.SL.2.1 CC.2.MD.10	**Grade 3** CC.RI.3.1 CC.SL.3.3 CC.3.MD.3	
K-3 What's Hazardous? I.A.4	What does "toxic" mean?	Understand the meanings of: poison, toxic and hazardous waste Identify examples of poison,toxic and hazardous wastes and where they are found in the home	**Kindergarten** CC.RI.K.4 CC.SL.K.1 CC.W.K.2	**Grade 1** CC.RI.1.4 CC.SL.1.1 CC.W.1.2	Communicating Defining problems Gathering information Sharing research and writing
			Grade 2 CC.RI.2.4 CC.SL.2.1 CC.W.2.2	**Grade 3** CC.RI.3.4 CC.SL.3.3 CC.W.3.2	

Lesson	Leading Question	Objective	Common Core Alignments		Skills
K-3 **Machine** **I.B.1**	Where do the things we use come from ?	Develop awareness of the natural origin of products we use Understand limited availability of some natural resources	**Kindergarten** CC.L.K.1.d CC.RI.K.3 CC.SL.K.2	**Grade 1** CC.L.1.6 CC.RI.1.3 CC.SL.1.2	Analyzing Asking questions Communicating Problem solving
			Grade 2 CC.L.2.5a CC.RI.2.1 CC.SL.2.3	**Grade 3** CC.L.3.5b CC.RI.3.7 CC.SL.3.3	
K-3 **Grandparents' Toys** **I.C.1**	What kinds of toys are better for our environment?	Develop understanding of the amount of material consumed to make things Develop understanding of types of materials needed to make things Develop awareness of the impact of the things we make and the impact on solid waste	**Kindergarten** CC.SL.K.1 CC.SL.K.4 CC.W.K.8	**Grade 1** CC.SL.1.1 CC.SL.1.4 CC.W.1.8	Communicating Comparing multiple solutions Interviewing Sharing research and writing
			Grade 2 CC.SL.2.1 CC.SL.2.4 CC.W.2.8	**Grade 3** CC.SL.3.1 CC.SL.3.4 CC.W.3.4	
K-3 **Impressions with E.B. White** **I.C.2**	What does "garbage " mean to you?	Define garbage and evaluate their first understanding of it Develop reasoning skills by looking for more productive alternative uses for garbage	**Kindergarten** CC.RL.K.1 CC.SL.K.1 CC.W.K.3	**Grade 1** CC.RL.1.1 CC.SL.1.1 CC.W.1.3	Analyzing Applying ideas to solve problems Communicating Predicting
			Grade 2 CC.RL.2.1 CC.SL.2.1 CC.W.2.3	**Grade 3** CC.RL.3.1 CC.SL.3.3 CC.W.3.3	
K-3 **Taking Trash Away** **II.A.1**	Why do we take trash away? Where does it go? How does it get there ?	Understand the importance of trash removal Learn where trash is taken to and what happens to it	**Kindergarten** CC.RL.K.1 CC.SL.K.1 CC.W.K.8 CC.K.CC.5	**Grade 1** CC.RL.1.1 CC.SL.1.1 CC.W.1.8 CC.1.MD.3	Collaborating Collecting data Interviewing Sharing research and writing Applying mathematical concepts
			Grade 2 CC.RL.2.1 CC.SL.2.1 CC.W.2.8 CC.2.MD.10	**Grade 3** CC.RL.3.3 CC.SL.3.3 CC.W.3.4 CC.3.MD.3	

Lesson Matrix Grade K-3

3R's of the Common Core

Lesson Matrix Grade K-3

3R's of the Common Core

Lesson	Leading Question	Objective	Common Core Alignments		Skills
K-3 **Come Back to Me** **II.A.2**	When we throw things away, where do they go?	Understand the problem society is having with proper placement of solid waste Understand that we need to find new solutions to solid waste that won't harm the environment	**Kindergarten** CC.RI.K.1 CC.RL.K.5 CC.SL.K.2 CC.W.K.2	**Grade 1** CC.RI.1.1 CC.RL.1.10 CC.SL.1.2 CC.W.1.2	Collaborating Communicating solutions Defining problems Problem solving
			Grade 2 CC.RI.2.1 CC.RL.2.1 CC.SL.2.2 CC.W.2.8	**Grade 3** CC.RI.3.1 CC.RL.3.1 CC.SL.3.2 CC.W.3.4	
K-3 **Litter Garden** **II.A.3**	What happens to our trash after we throw it out?	Compare decomposition rates of different objects Develop an understanding of how littering impacts the environment	**Kindergarten** CC.RI.K.4 CC.SL.K.1 CC.W.K.8	**Grade 1** CC.RI.1.4 CC.SL.1.1 CC.W.1.8	Analyzing Developing models Investigating Sharing research and writing
			Grade 2 CC.RI.2.4 CC.SL.2.3 CC.W.2.8	**Grade 3** CC.RI.3.4 CC.SL.3.4 CC.W.3.7	
K-3 **Egg Cartons** **III.A.1**	Is some packaging better than others?	Recognize that some products entering the waste stream are more harmful to the environment than others Develop an understanding that one can make a difference by carefully choosing what they use	**Kindergarten** CC.RI.K.4 CC.SL.K.1 CC.W.K.2	**Grade 1** CC.RI.1.4 CC.SL.1.1 CC.W.1.8	Collaborating Communicating solutions Inventing Researching
			Grade 2 CC.RI.2.4 CC.SL.2.3 CC.W.2.8	**Grade 3** CC.RI.3.1 CC.SL.3.3 CC.W.3.7	
K-3 **Yesterday's Paper** **III.A.2**	What can we make with this box?	Recognize other uses for items we normally throw away Create a new purpose for something being thrown away	**Kindergarten** CC.RL.K.5 CC.SL.K.4 CC.W.K.2	**Grade 1** CC.RL.1.1 CC.SL.1.5 CC.W.1.2	Applying ideas to solve problems Collaborating Designing Sharing research and writing
			Grade 2 CC.RL.2.4 CC.SL.2.2 CC.W.2.1	**Grade 3** CC.RL.3.5 CC.SL.3.3 CC.W.3.2	

What is in Our Solid Waste Stream?

Concept
Solid waste is everything we find useless and throw away.

Objective
Students will define solid waste, identify major components of the waste stream and begin to question their throw-away habits.

Method
Students will create a classroom trash bag.

Materials
Waste basket, typical trash items from the attached Garbage Bag Recipe, diagram of a landfill. Classroom activity: fish tank, clay, small rocks, plastic wrap, soil, chopped up trash

Subjects
Language Arts, Social Studies, Mathematics

Skills
Conducting investigations, gathering information, communicating, using mathematical and computational skills, collaborating

Time
One to two class periods, homework

Vocabulary
Trash/garbage, resource, waste, reuse, recycle, landfill

Resources
Current waste stream composition studies; Erika L. Shores, *How Garbage Gets from Trash Cans to Landfills (Here to There)*; Marlene Targ Brill, *Garbage Trucks (Pull Ahead Books)*; Barbara Odanaka, *Smash! Mash! Crash! There Goes the Trash!*

3R's of the Common Core
Parallel Activities
4-6, Litter Search
7-8, School Trash Analysis
Information
Components of the Waste Stream
Litter
Resources
General
Environmental Education and Educational Resources

Background

According to the EPA, approximately 70% of what we throw away still has a value and could be reused, recycled or composted. Diverting these resources from the waste stream begins with recognizing the resource potential of what we throw away each day. This activity sets the stage for many different lessons by creating a classroom prop you can use repeatedly.

Leading Question

What kinds of things do we throw away?

Procedure

1. Begin by examining the objects in the classroom trash can. Discuss the differences between trash in different places. What kinds of trash would be found in the cafeteria or in different rooms at home?
2. Cut up the attached list so that each student has only one or two items. Ask them to bring either the item itself or a drawing of the item pasted on cardboard to class the next day. Put all of the 'recipe' items into a clean garbage bag.
3. When all the components have been assembled, the garbage bag can be used for different lessons. The contents can be sorted and classified by different packaging types, objects with different resource bases, biodegradable or nonbiodegradable, made from renewable or nonrenewable resources, recyclable or reusable, etc. Count, categorize and compare numbers of 3 or more groups of garbage (e.g.: recycle, reuse, compost). Graph the results. What can they be recycled into? How could they be reused? Pick an item and draw and/or write to show how you can reuse the 'garbage' item.

Evaluation

- What is waste? (things we don't use/want anymore)
- What are resources? (things that we do use/need or value)
- Name one thing that is waste and one thing that is a resource.
- Name one thing that you throw away which could be a resource instead of waste.

Common Core Alignments

KINDERGARTEN

CC.RI.K.10
Reading Informational Text:
Range of Reading & Level of Text Complexity

CC.SL.K.1
Speaking & Listening:
Comprehension & Collaboration

CC.W.K.2
Writing:
Text Types & Purposes

CC.K.MD.3
Mathematics:
Measurement & Data

GRADE 1

CC.RI.1.1
Reading Informational Text:
Key Ideas & Details

CC.SL.1.2
Speaking & Listening:
Comprehension & Collaboration

CC.W.1.2
Writing:
Text Type & Purposes

CC.1.MD.4
Mathematics:
Measurement & Data

GRADE 2

CC.RI.2.1
Reading Informational Text:
Key Ideas & Details

CC.SL.2.3
Speaking & Listening:
Comprehension & Collaboration

CC.W.2.8
Writing:
Research to Build & Present Knowledge

CC.2.MD.10
Mathematics:
Measurement & Data

Classroom Activities

A. Who wants to go to the dump? Hand one trash object to each student and have all the students stand together in a group representing one large trash bag. The teacher can be the trash collector who will take the trash away. Show the diagram of a landfill. Describe what happens at a sanitary landfill and ask if anyone really wants to go to the dump. If not, they can be rescued by thinking of a way they can be reused or recycled. Try to save all the items of the trash bag by thinking of alternatives. Discuss ways to redesign products that cannot be recycled or reused. Continue until all the students have been rescued.

B. Make a trash can display showing typical breakdown of different types of trash, similar to the attached illustration. Use magazines cutouts for a collage and bring in real items.

C. Find magazine pictures of things that get thrown out after one use (or a short period of time) and things that last a long time. Make posters or a display of the two types. Compare each throw away object to the same object fifty or one hundred years ago.

Examples of Things Thrown Out After One Use (or Short Period of Time):

- Paper towel/napkin
- Paper grocery bag
- Disposable razor
- Plastic sandwich bag
- Plastic utensil
- Straw
- K-cups for coffee makers
- Dryer sheets
- Disposable diaper/wipe
- Plastic water bottle
- Pen

Examples of Things That Last a Long Time:

- Reusable water bottles
- Cloth napkins
- Canvas grocery bag
- Reusable sandwich/snack container
- Metal utensil
- Cloth diapers
- Clothes
- Books
- Tools

D. Have the children work together to create a sanitary landfill model or provide a teacher-created landfill model to be used throughout the lessons in this Guide. Have students examine the diagram of

GRADE 3

CC.RI.3.1
Reading Informational Text:
Key Ideas & Details

CC.SL.3.1c
Speaking & Listening:
Comprehension & Collaboration

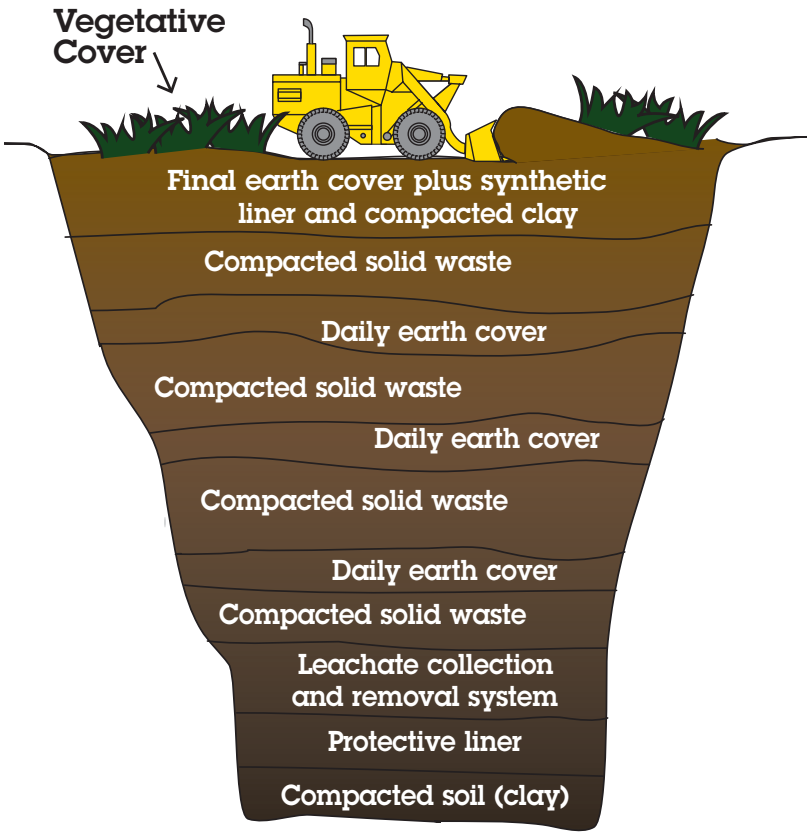
CC.W.3.4
Writing:
Production & Distribution of Writing

CC.3.MD.3
Mathematics:
Measurement & Data

a landfill below and then take turns adding items to a fish tank in layers. The fish tank is ideal because the children can see the contents.

E. As an alternative activity, build a 3-D model of a landfill using cereal boxes covered in construction paper labeled with a layer name. Stack the boxes horizontally.

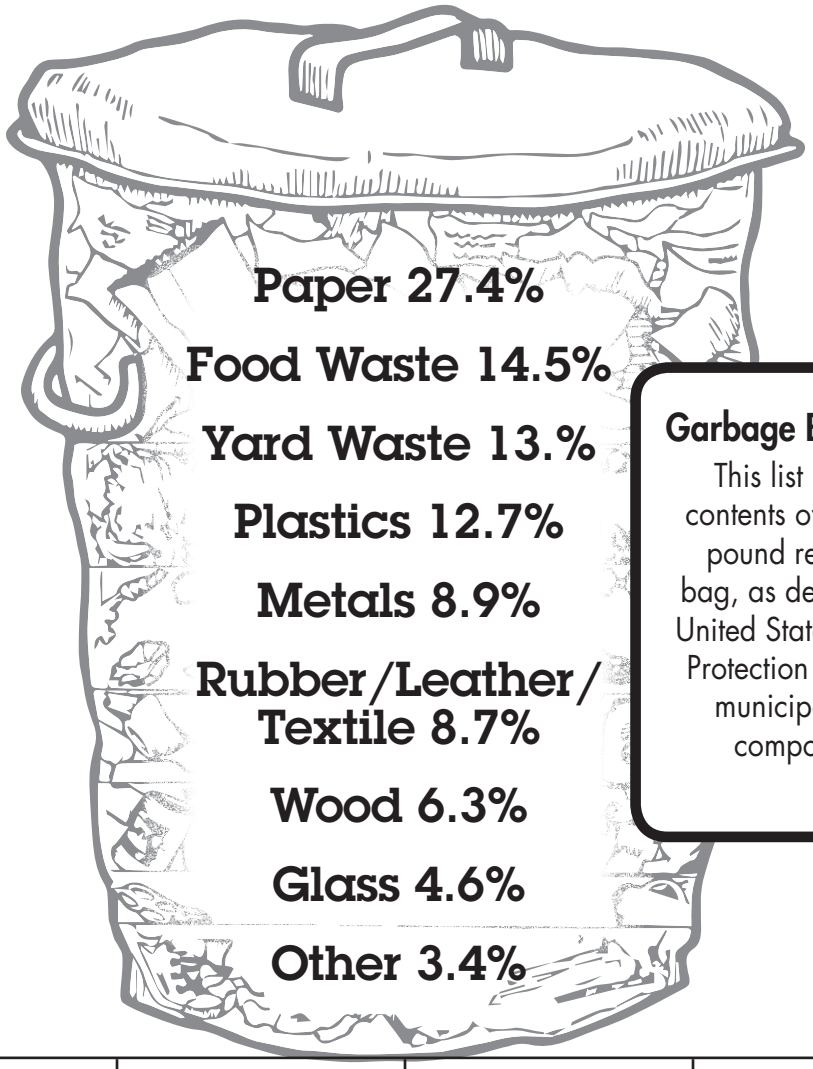
Cross Section of a Landfill



Reprinted from United States Environmental Protection Agency, "Landfills and Combustion," *Quest for Less: Activities and Resources for Teaching K-8*, EPA530-R-05-005 (Washington, D.C.: Government Printing Office, 2005), 165.

Trash Can Display

How can we save our resources from being landfilled?



Garbage Bag Ingredients

This list represents the contents of a typical three-pound residential trash bag, as determined by The United States Environmental Protection Agency's 2012 municipal solid waste composition study.

paper plate	glass jar	an old rag	six-pack ring
brown paper bag	aluminum can	egg carton	some junk mail
corrugated paper box	plastic fresh produce bag	Styrofoam cup	plastic detergent bottle
plastic film	newspaper	apple core	banana peel
some dead flowers	dead leaves/ branches	plastic container	milk container
juice container	fast food packaging	plastic milk jug	coffee grounds
disposable diaper	chicken bones	cereal box	

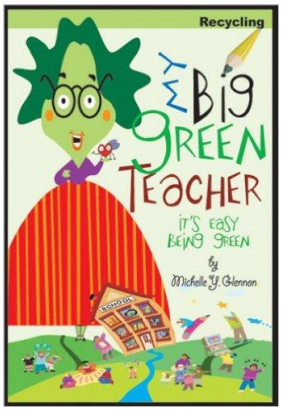
Name:_____ Date: _____

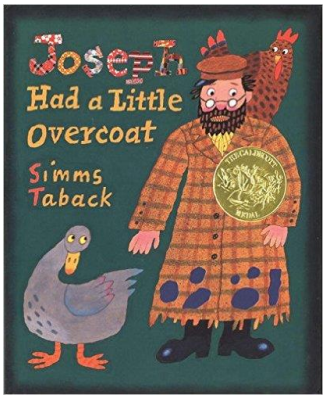
Save these from the trash.

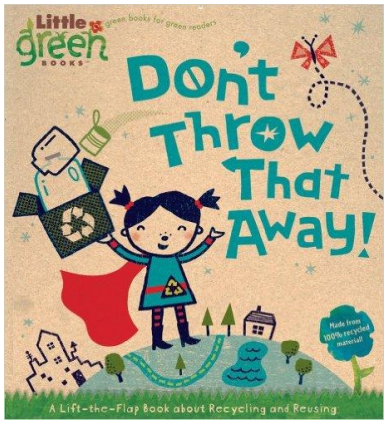
Draw a line from the trash object to its bag of recyclables

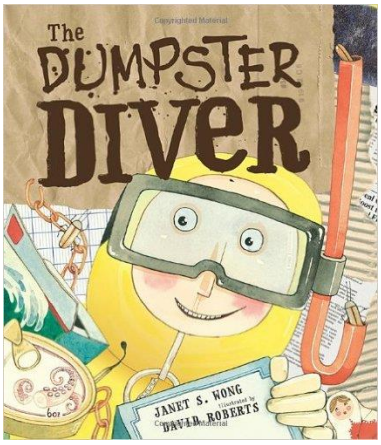
Reading & Writing Activities to Learn about Recycling

- **I-Spy Recycling Words-** Introduce recycling words to the children. Where do you see these words in the classroom or around town? Make a list together!
- **Posters-** Using cardboard boxes or big sheets of paper create a classroom poster about the importance of recycling for our planet.
- **Create a Story about Recycling-** Pre-K or K-Wrap can create a group story with pictures about recycling and share it with the younger classrooms.
- **Puppet Show-** Put on a performance about recycling.









From our Friends at AllFreePaperCrafts.com

Snowman Bingo

http://www.allfreepapercrafts.com/Crafts-for-Christmas/Snowman-Printable-Bingo-Cards

Snowman Printable Bingo Cards

By: Amber from crazylittleprojects.com

Updated October 20, 2016

Snowman Printable Bingo Cards
This image courtesy of crazylittleprojects.com

Instead of going out in the cold, stay in and play a game with these Snowman Printable Bingo Cards. You may be able to build a snowman by getting a bingo. Some of the bingo space images including a branch arm, carrot nose, scarf, and top hat. There are also other winter themes, such as snowflakes and Santa's beard. This printable bingo game is an awesome winter activity for kids and adults alike. After you've made these printable bingo cards, you can laminate them so that you can reuse them whenever it's too chilly outside.

Click here for the free paper project

Estimated CostUnder $10

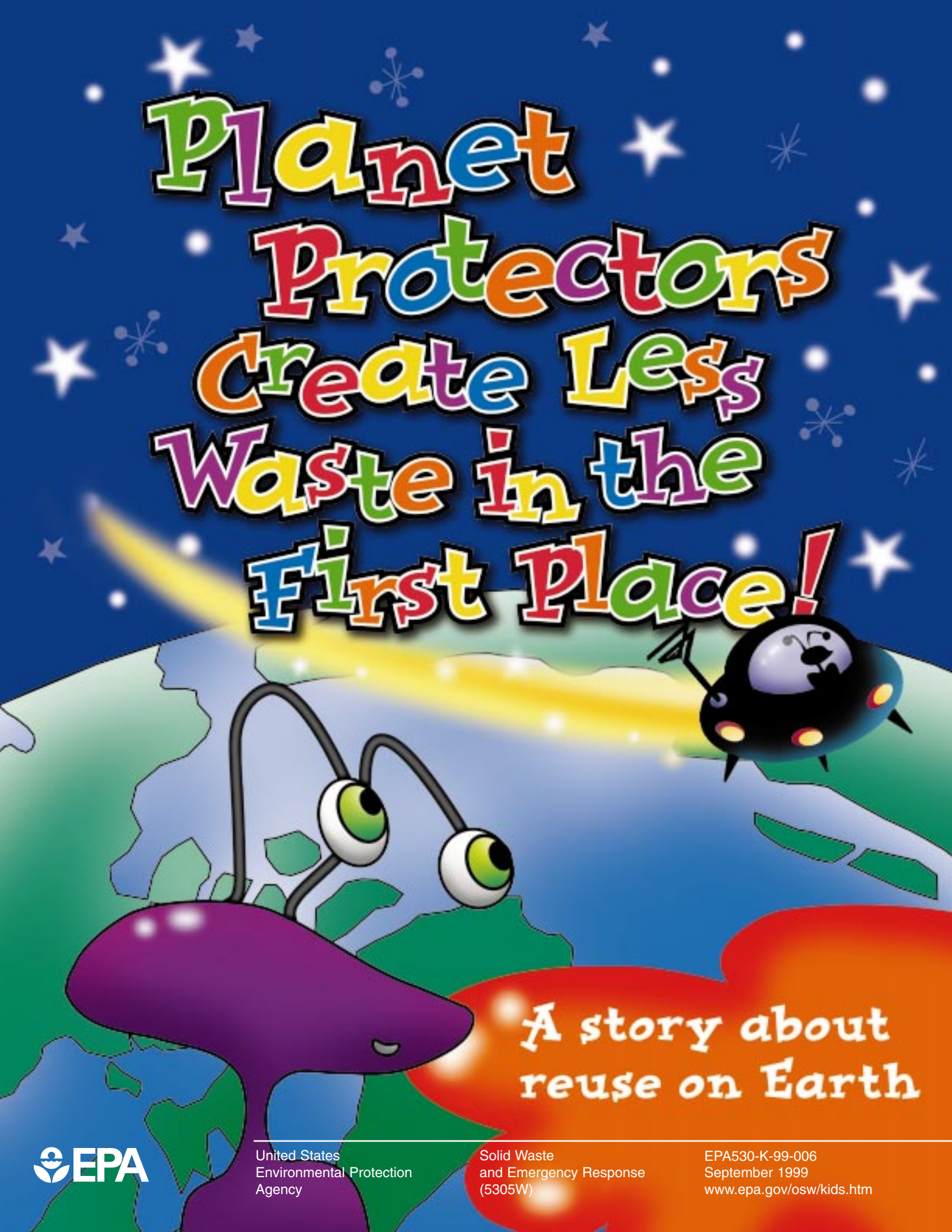
Time to CompleteUnder an hour

Primary TechniquePaper Crafts

Project or Page Size8.5 inches x 11 inches

Type of Paper UsedCardstock

Planet Protectors Create Less Waste in the First Place!



A story about reuse on Earth

EPA

United States
Environmental Protection
Agency

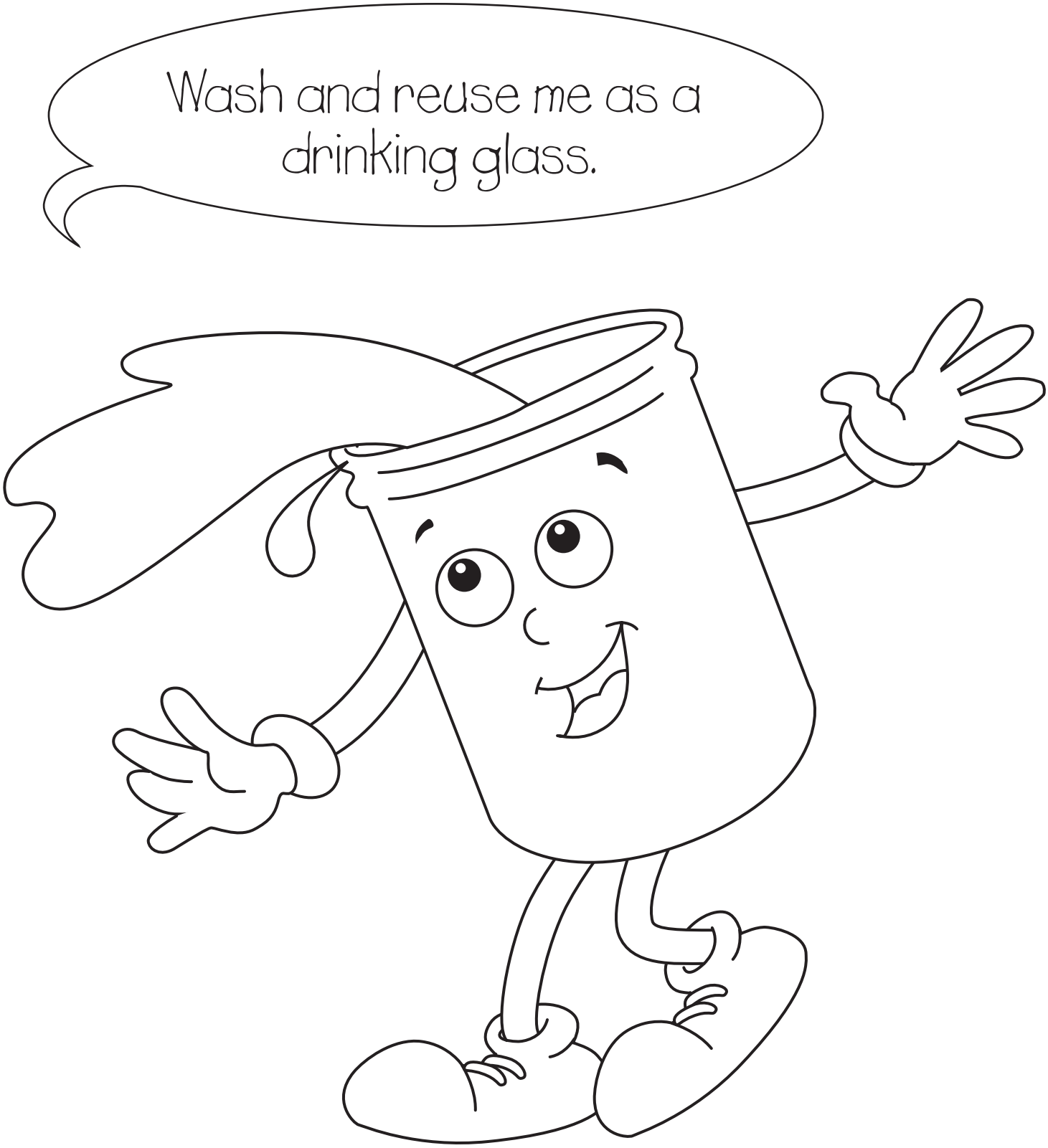
Solid Waste
and Emergency Response
(5305W)

EPA530-K-99-006
September 1999
www.epa.gov/osw/kids.htm

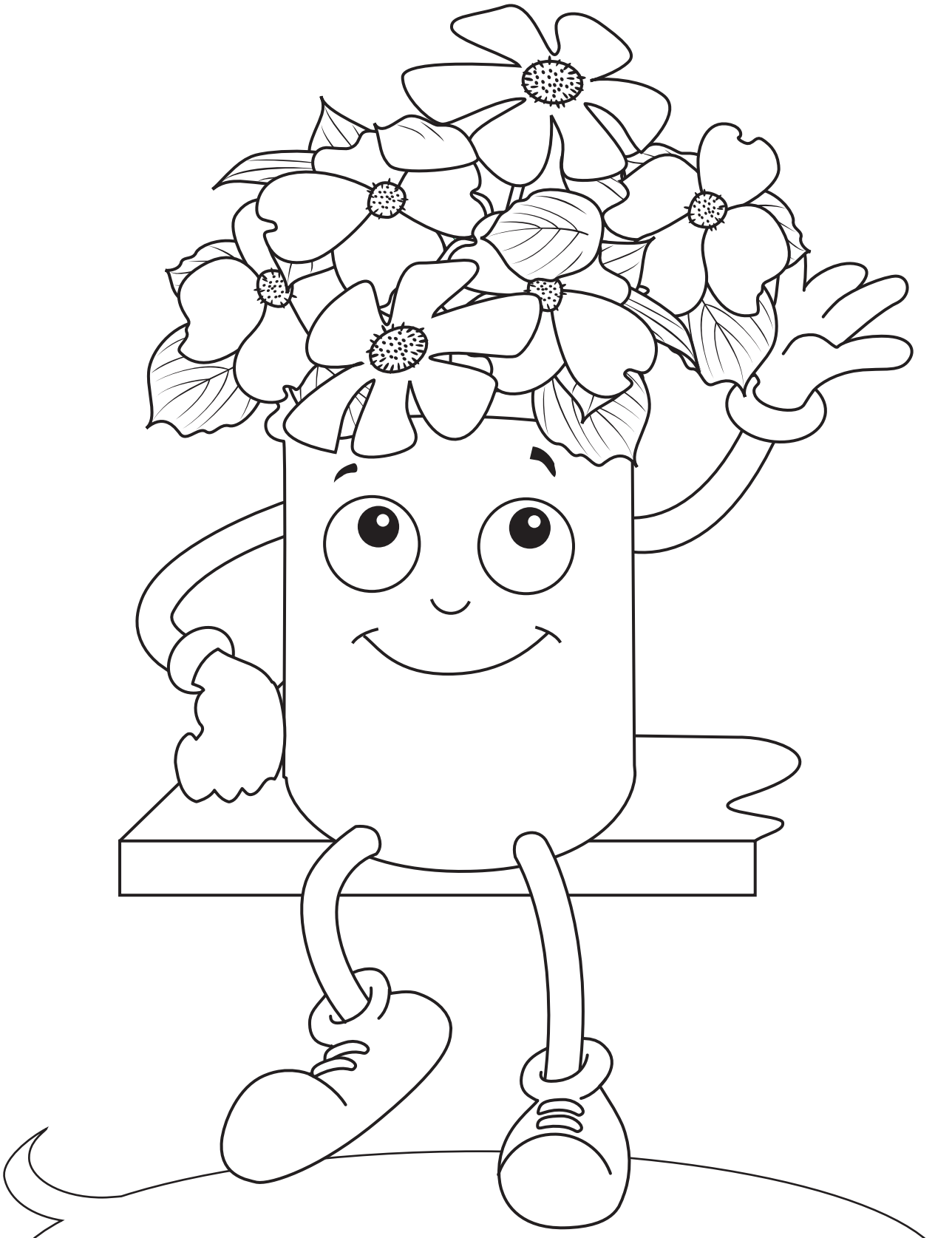
What On Earth Can You Do With An Old Jelly Jar?

Space creatures might think the idea of reusing containers is an alien concept but here on Earth it's easy to keep an old jar out of the trash and give it new life. Follow these tips to keep a jar in use and out of orbit. Or, take a trek around your home or school to find more ways to reuse old jars or other items.

Printed on paper that contains at least 30 percent postconsumer fiber.

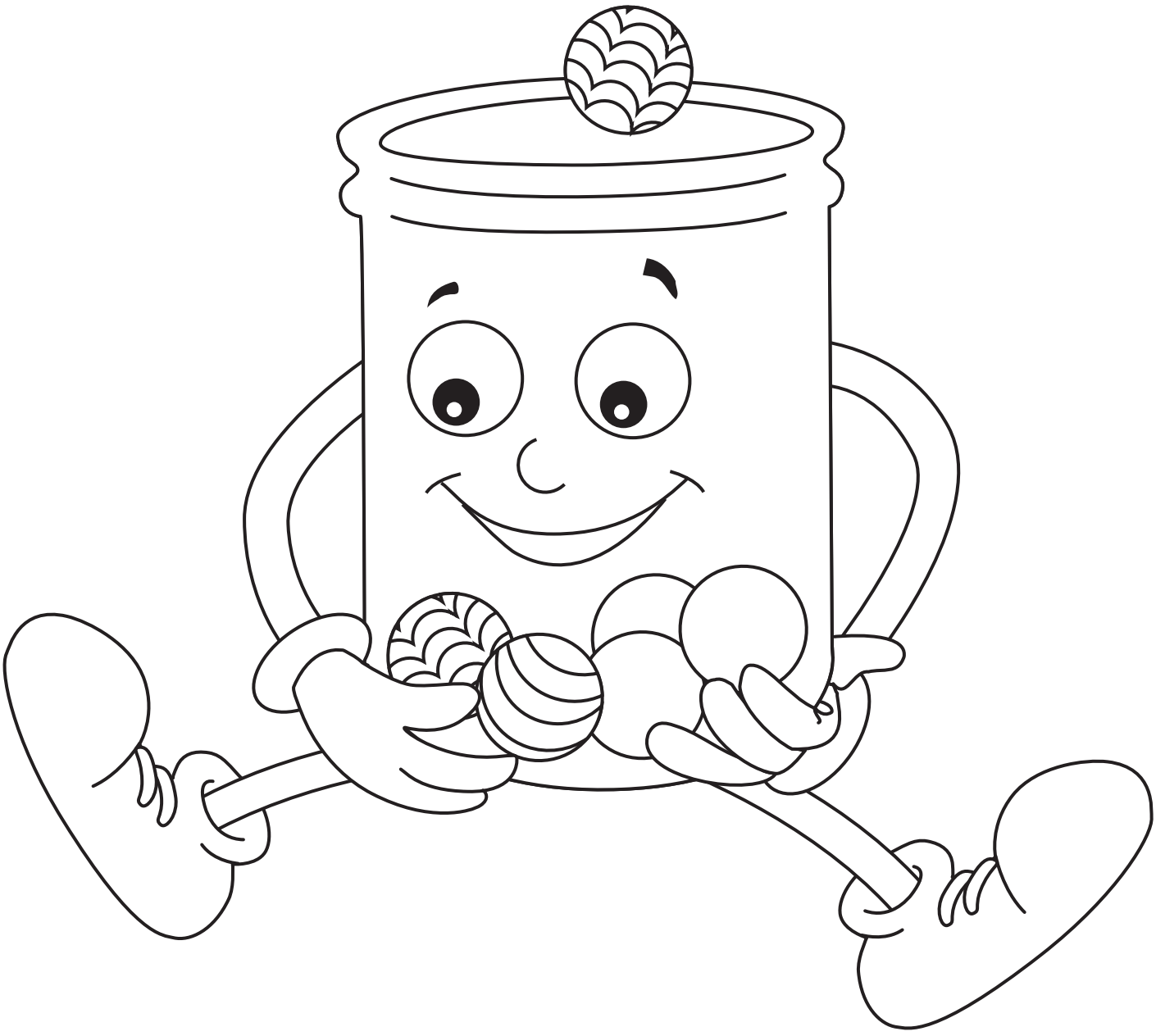

Wash and reuse me as a drinking glass.

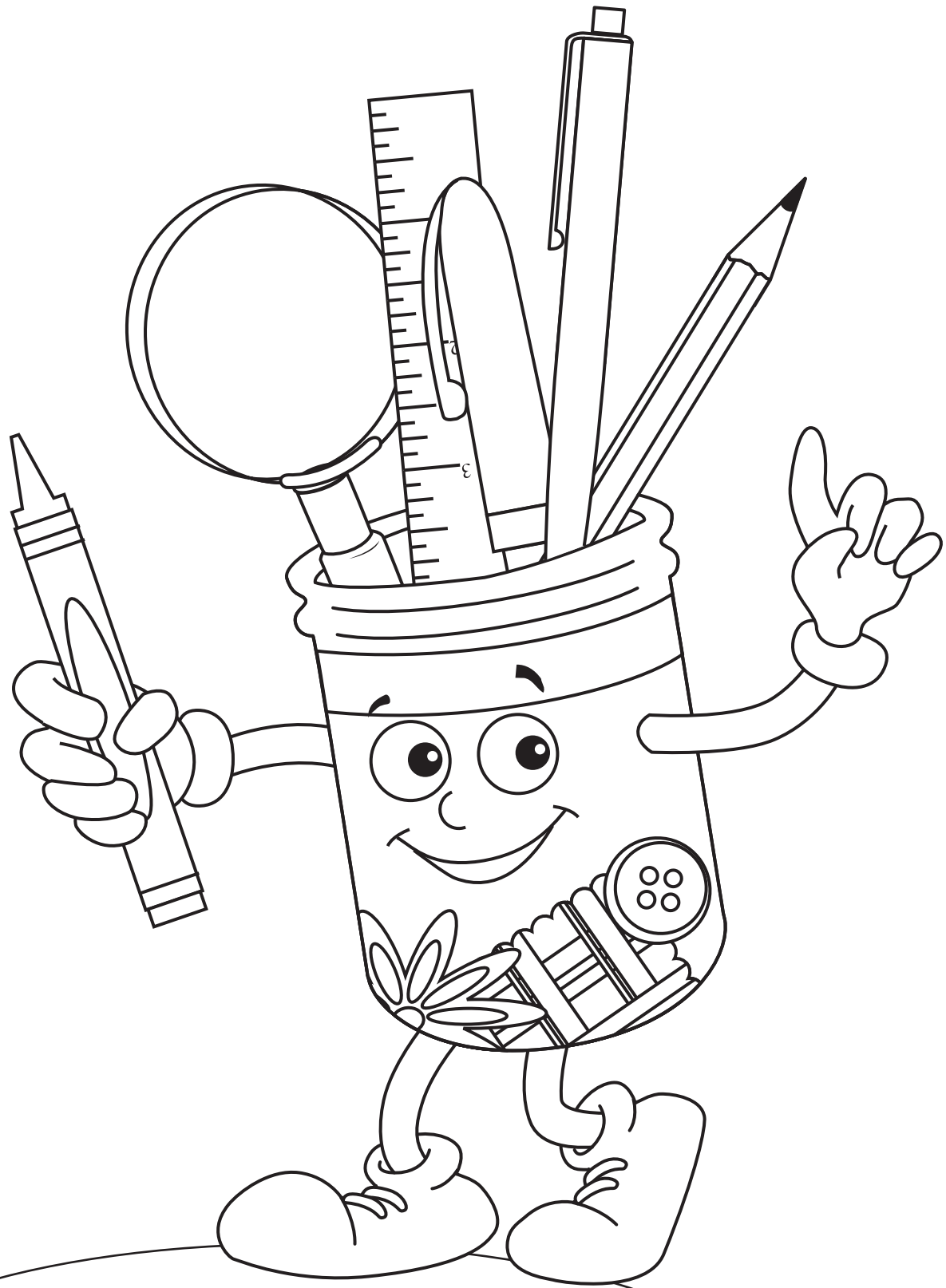

Take me on your next fishing trip to carry bait.



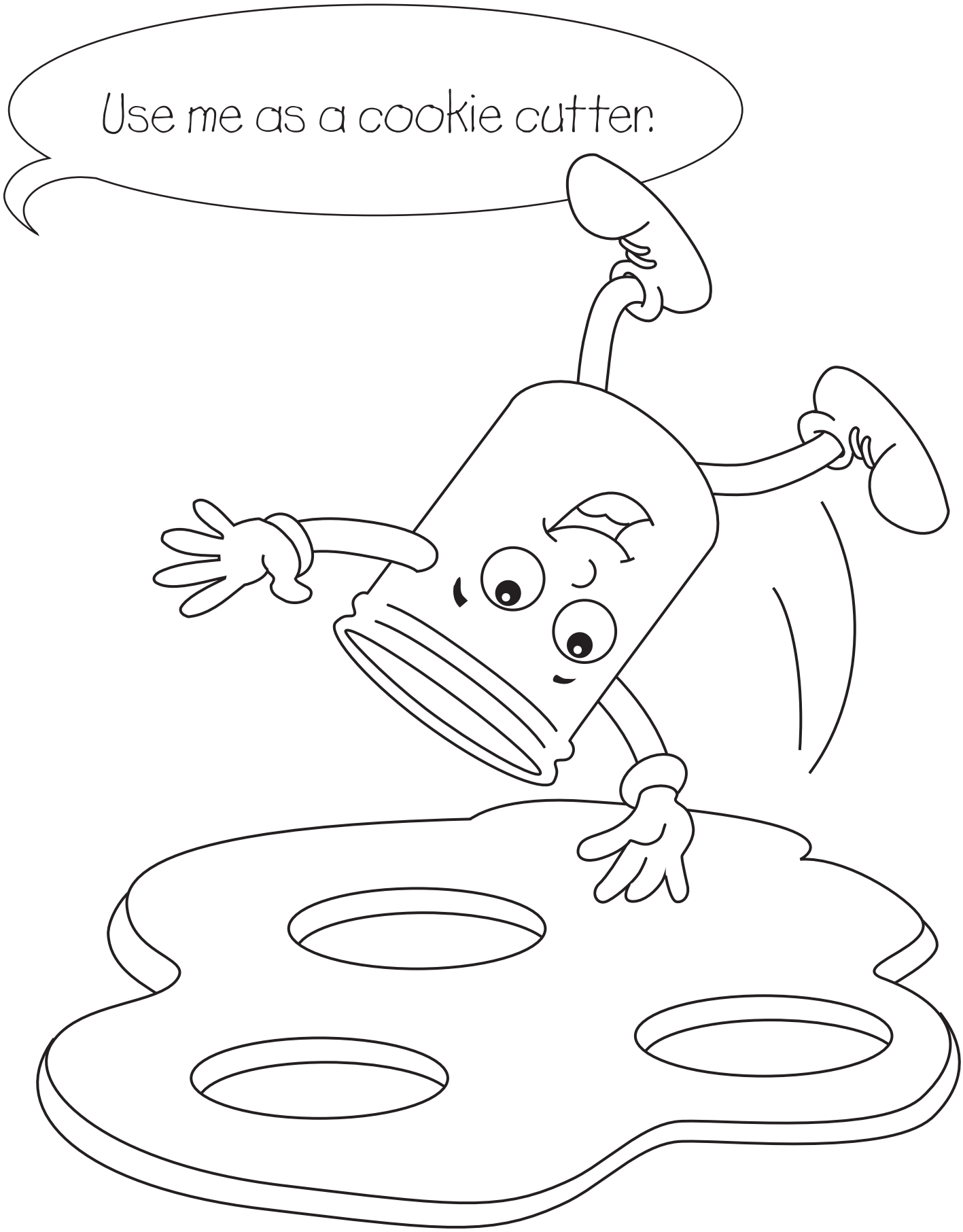
Fill me with freshly picked flowers
or use me to water them.

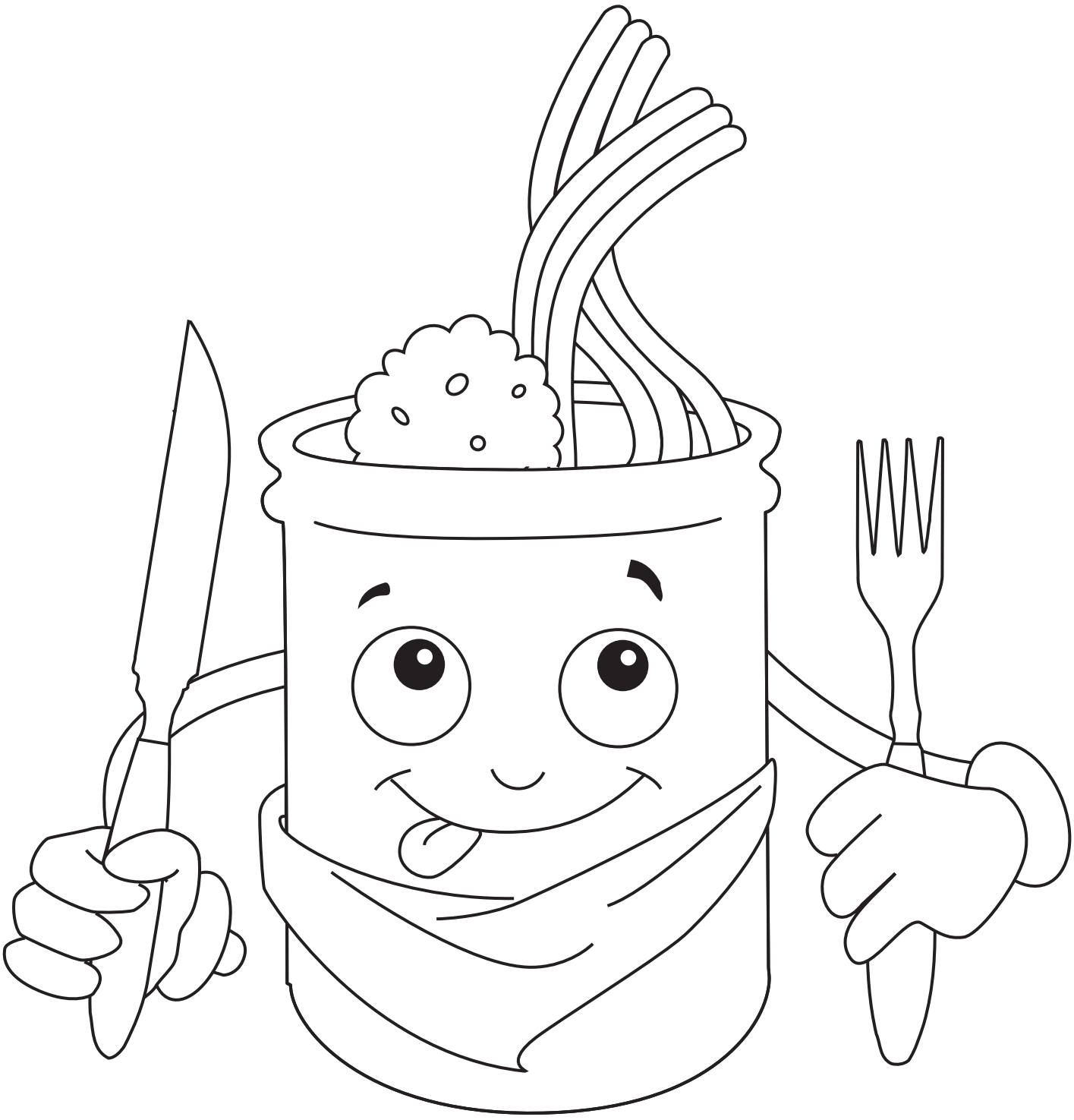
Display a prized marble collection.

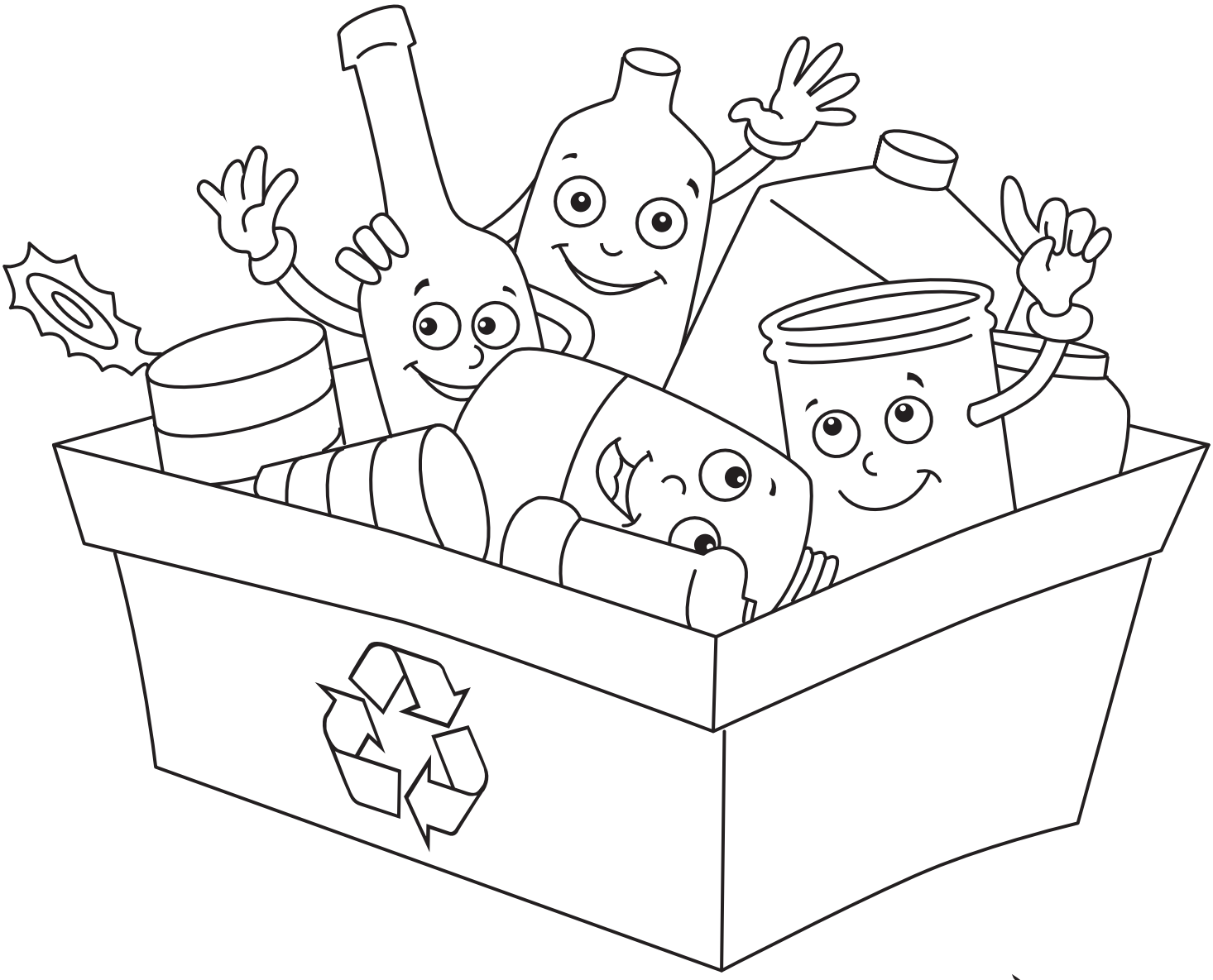




Decorate me with your favorite things and use me to store pens and pencils.


Use me as a cookie cutter.


Use me to store leftovers.



When you run out of jobs
for me, recycle me.

Be a Planet Protector!

Find your own ways to make less trash, and help other people learn to reduce, reuse, and recycle. Fill in the blanks below with your own ideas.

Reduce

Hint:
Use products with less packaging, like toys you don't have to unwrap.

Reuse

Hint:
Reuse scrap paper to draw pictures or make grocery lists.

Recycle

Hint:
Find out what can be recycled in your community.

Choose to Reduce, Reuse, and Recycle.