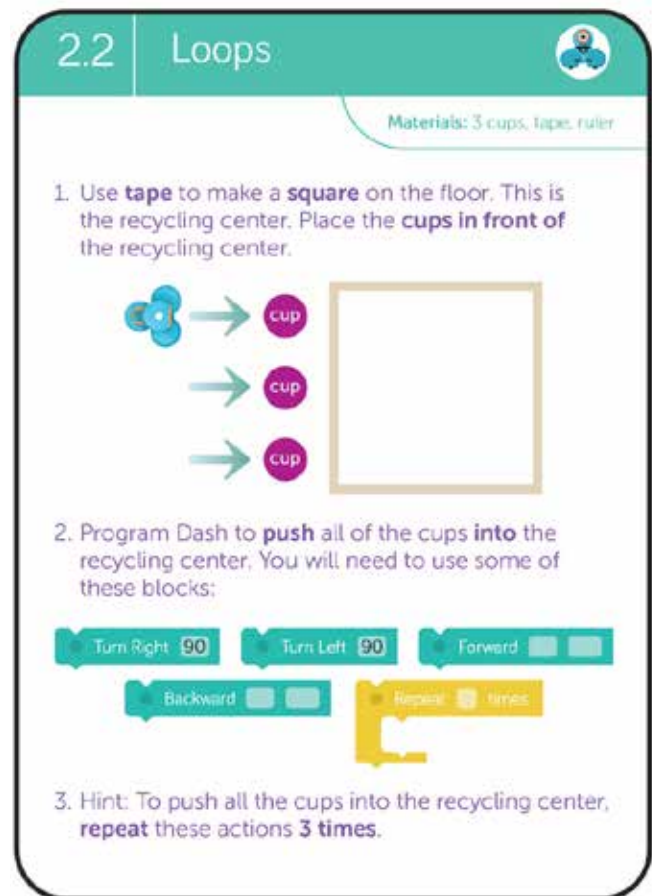


Up for a Challenge?

MATERIALS:

- Dash robot
- Blockly app
- 3 18 oz. plastic cups
- Painter's tape
- Dash Challenge Card



STEPS:

1. Use the "Recycling Rush" Dash Challenge Card to create a sequence of commands for Dash.
2. Open Blockly on your compatible device (www.makewonder.com/compatibility) and create a new program.
3. Follow the instructions on the Challenge Card by dragging the block commands onto your screen. Connect them in order below the START block.
4. Press the green PLAY button to test your program.

Now Let's Get Creative!

Get designing by helping Dash keep the beaches and lakes clean this summer.
Design your own recycle bin and create a program that encourages people to recycle while having fun on summer vacation.

MATERIALS:

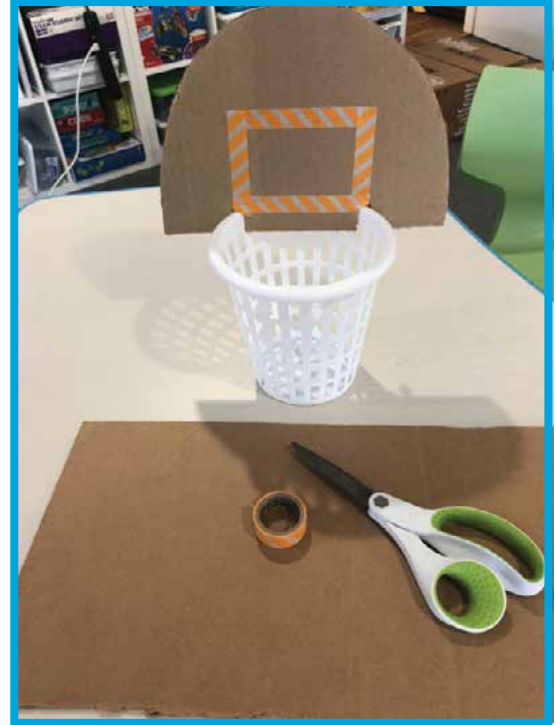
- Dash robot
- Blockly or Wonder app
- Launcher accessory
- DIY materials such as tape, cups, cardboard, scissors, baskets, etc.

Dash Launcher attachment help:

<https://www.makewonder.com/play/setup/launcher>

STEPS:

1. Create a recycle bin or basket out of DIY materials and place it on the ground. See our video on our Summer of Wonder Inspiration page (www.makewonder.com/summer-inspiration).
2. Use the painter's tape to mark three different spots near the basket, from which Dash can "throw" the recyclables into the bin.
3. Program Dash to move to each spot and try to "throw" the recyclables (the Launcher balls or other items such as aluminum foil balls, bottle caps, etc.) into the bin.
4. Remember to try to use loops in your program if you are repeating the same command multiple times.
5. Create a scoring system. How many points will you award for cleaning up quickly, for recycling several pieces, or for throwing successfully into the bins from afar?



Record a video of Dash running your program successfully. Share your video and tag @WonderWorkshop & use the hashtag #SummerofWonder.

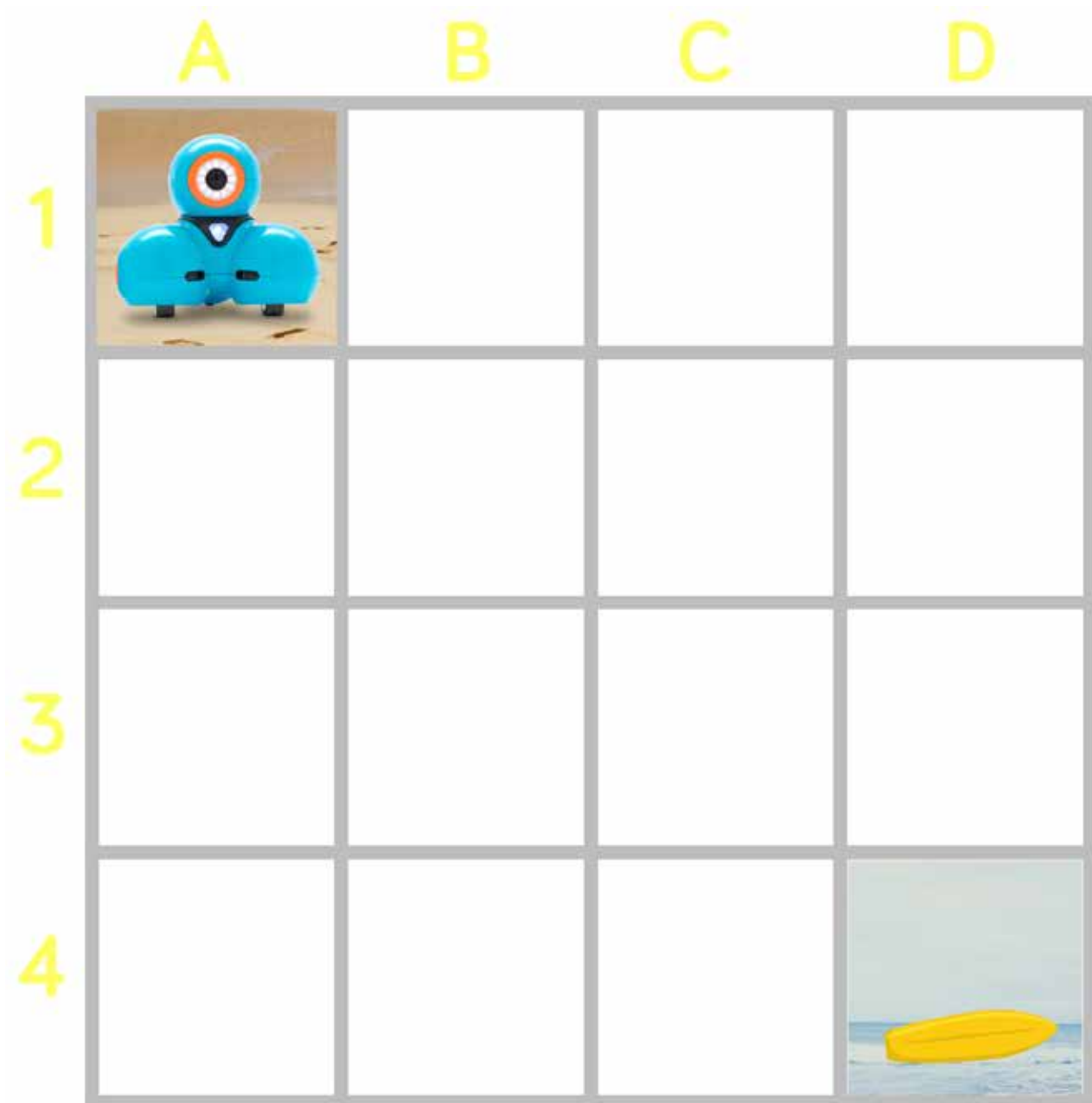
Vocabulary

Loop: a command used to repeat a portion of code until a desired process is complete.

Help Dash Find the Surfboard

Want to unplug for a while? Help Dash find a surfboard! Follow the sequence of commands to move Dash across the beach

- Move Dash two blocks to the right. Draw a palm tree. What are the coordinates? _____
- Move Dash one block down and one block to the right. Color the block blue. _____
 - Move Dash one block down and three blocks to the left. Draw a sand castle. _____
 - Move Dash two blocks to the right, one block down, and one block to the right. _____
 - Did you reach the surfboard? Draw Dash on the surfboard. Hang ten!



Fun fact: Did you know that Leonardo da Vinci first sketched robots as "mechanized knights" back in 1495?

Time to Go Offline!

Want to unplug for a while? Build your own robot!
Let's build a robot out of recyclable materials you can find around the house.

KEEP AN EYE OUT FOR:

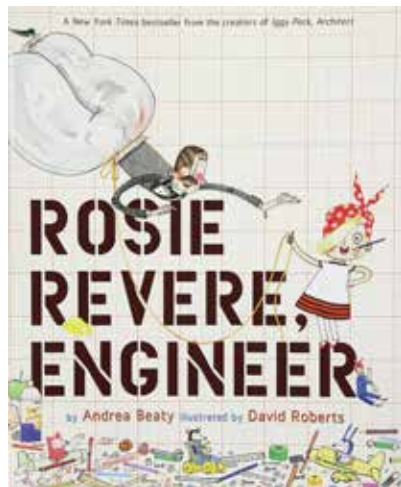
- Paper towel or toilet paper rolls
- Aluminum or tin cans (no sharp edges)
- Plastic and paper cups
- Empty cereal boxes
- Plastic food containers
- Bottles and their caps, etc.

Use the activity sheets on pages 5 and 6 to design and plan your robot. Then, use glue or tape to engineer your materials into a robot masterpiece!

When you are finished building, write a story about your robot and its summer adventures.

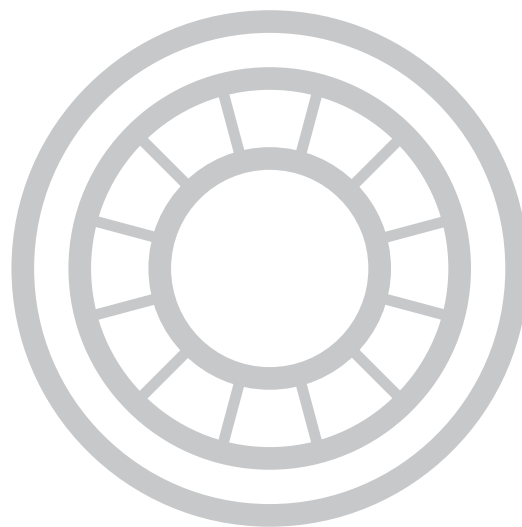


SUMMER READING:



Take a look at our blog's Summer STEAM Reading List. We've just added chapter books to the current list of picture books for older readers. How many books have you read this summer that have to do with coding or robotics? <http://bit.ly/STEAMreading>

COLOR IN OUR ROBOT'S EYE
TO SHOW HOW MANY BOOKS
YOU'VE READ SO FAR:



FUN FACT:

The first known robot in recorded history was created in the 5th century B.C. by Archytas of Tarentum. He created mechanical doves.

Design Your Own Robot!

w:onder
workshop

MATERIALS

List the recyclable materials you found around your house here:

DESIGN PLAN

Sketch a design for your robot using the materials you have found:



Write About It

Write a story about your robot in the space below.

What is your robot's name?

Does your robot have a job?

What kind of adventures does it go on?



DON'T FORGET TO SHARE!