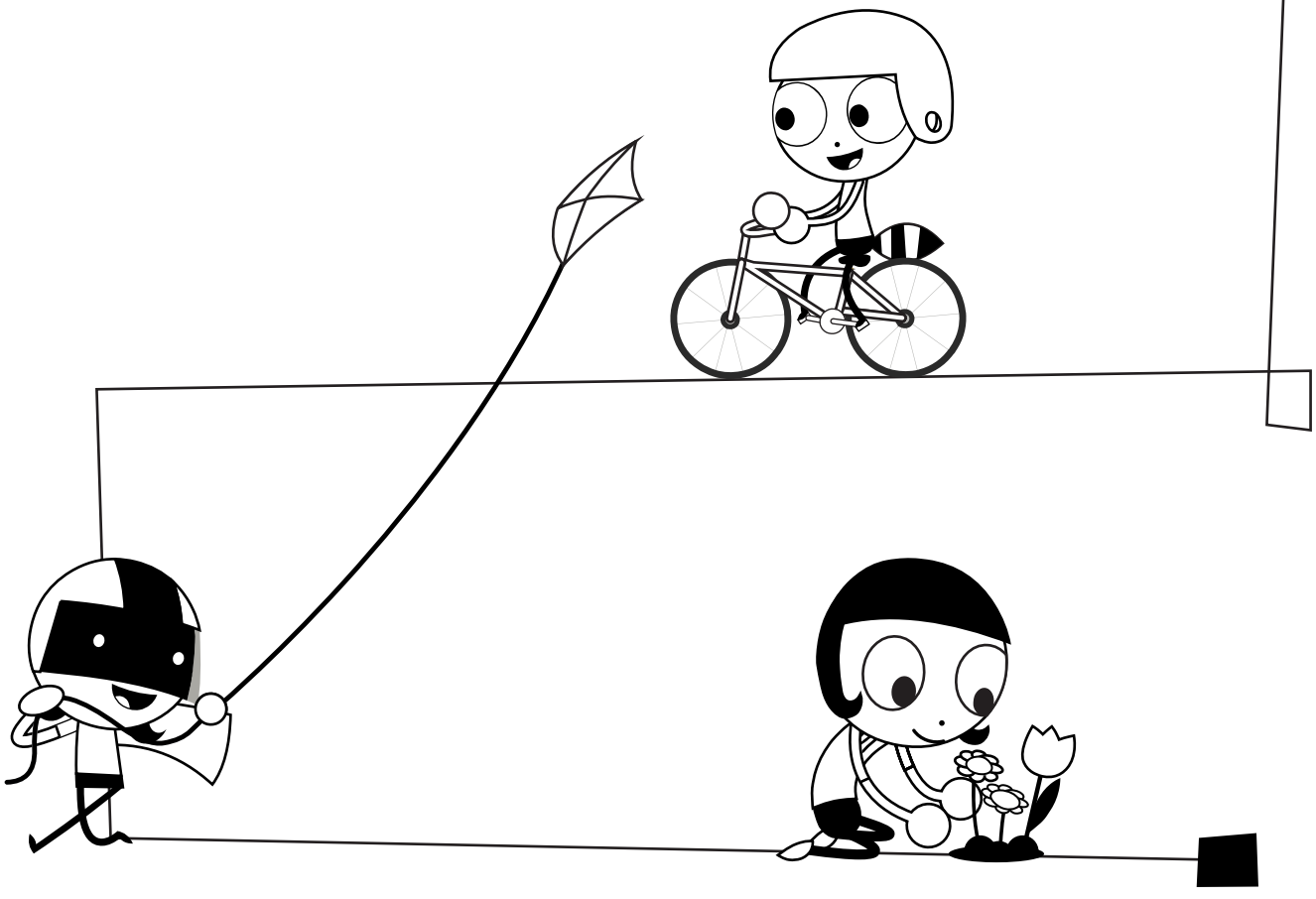
Learn at Home with PBS KIDS

Let's Build BINGO



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Learn at Home with PBS KIDS

Hello, Families!

Welcome to "**Learn Along" Bingo**! We're happy to share PBS KIDS activities with you and to work with PBS member stations and community partners across the country to help support learning at home. With "Learn Along" Bingo, children can view, explore, and play as they learn alongside their PBS KIDS friends on the PBS KIDS 24/7 channel. We hope your family will use it to inspire learning each and every day.

It's Let's Build Week!

In this packet, there are printable activities and everyday learning ideas for you and your child to choose from. As you complete each square, mark it off to celebrate the learning.

Learning Spotlight: "Designing Solutions"

This week, we're learning how to identify real-world problems and design solutions. Engineers use tools to design and build a device that provides a solution to a problem.

Show What You Know: Robotic Arm Challenge

The last activity in this packet is a perfect way for children to show what they've learned about designing solutions with a grown up.

Ready for more? Watch your favorite PBS KIDS shows on the 24/7 channel and live stream at pbskids.org/video/livetv or on your local PBS station.

Happy learning!
PBS KIDS

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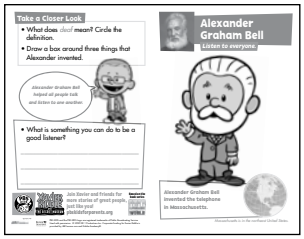
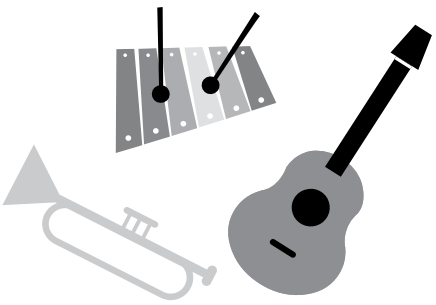
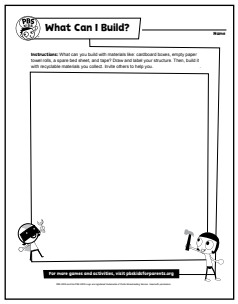
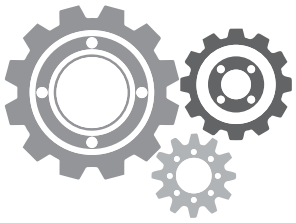
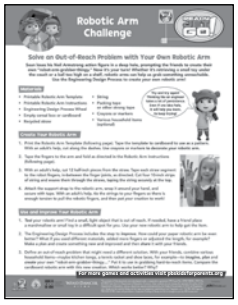
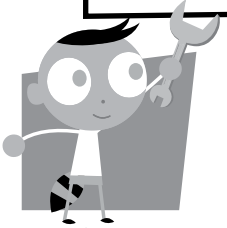
Let's Build BINGO

 Alexander Graham Bell Biosketch	 Make a homemade instrument from recyclable items.	 What Can I Build?
 What can you make with one foot of aluminum foil?	 Robotic Arm Challenge	 Use your feet to measure the length of the room you are in.
 Build a Better Bunny Copter	 Use scrap pieces of paper and make collages of buildings.	 Secret Sequence Scrambler



Grades 1-2

Find more games and activities at pbs.org/parents/learn-at-home

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Take a Closer Look

- What does *deaf* mean? Circle the definition.
- Draw a box around three things that Alexander invented.

Alexander Graham Bell helped all people talk and listen to one another.

- What is something you can do to be a good listener?

PBS KIDS

XAVIER RIDDLE AND THE SECRET MUSEUM

Join Xavier and friends for more stories of great people, just like you!
pbskidsforparents.org

Based on the book series ORDINARY PEOPLE CHANGE THE WORLD

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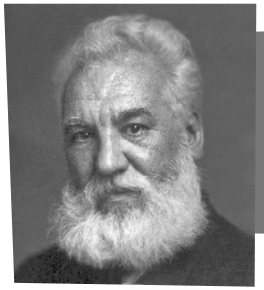


Alexander Graham Bell

Listen to everyone.

Alexander Graham Bell invented the telephone in Massachusetts.

Massachusetts is in the northeast United States.

A Caring Son

Alexander Graham Bell was born in Scotland in 1847. When he was a boy, he liked music. He also liked making things and taking them apart. Alexander loved his mother very much. She was mostly *deaf*. She could not hear well. Alexander would speak very close to her. She could feel the vibrations of his words. This helped her hear.

Teacher and Inventor

Alexander grew up. He moved to Boston. He was a teacher of deaf people. He wanted to help them communicate. Alexander was curious about sound. He would teach deaf students during the day. He would do experiments at night. Alexander wanted to know how to move sound on wires. His experiments led to an invention: the telephone.

This photograph was taken in 1885. It is of Alexander Graham Bell, his wife, and two children.

Amazing Fact!

Early telephones were big! They had a part for speaking into and a separate part for listening.

This photograph shows Alexander making the first long-distance phone call from New York to Chicago in 1892.

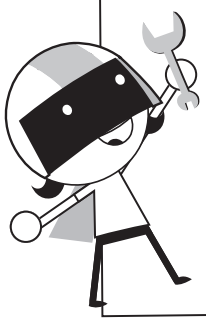
Always Inventing

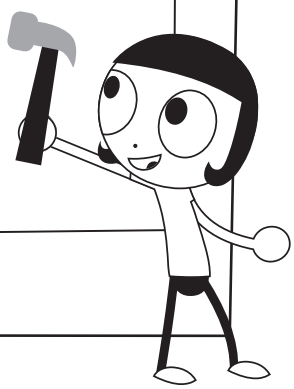
Alexander got married. His wife was deaf. Alexander kept studying sound. He wanted to make things to help deaf people. Alexander made many different inventions along the way. He made a wireless telephone and a metal detector. Alexander was always curious, helpful, and inventive.

What Can I Build?

Name _____

Instructions: What can you build with materials like: cardboard boxes, empty paper towel rolls, a spare bed sheet, and tape? Draw and label your structure. Then, build it with recyclable materials you collect. Invite others to help you.





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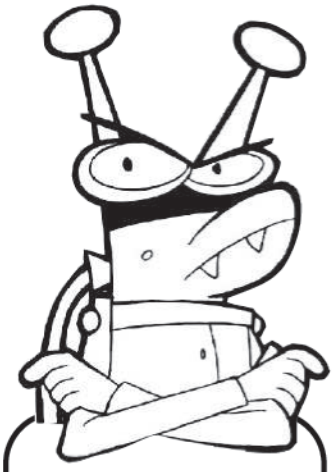


Materials

- 2-3 "Bunny Copter" strips
- 2-3 paper clips
- Crayons
- Scissors (optional)

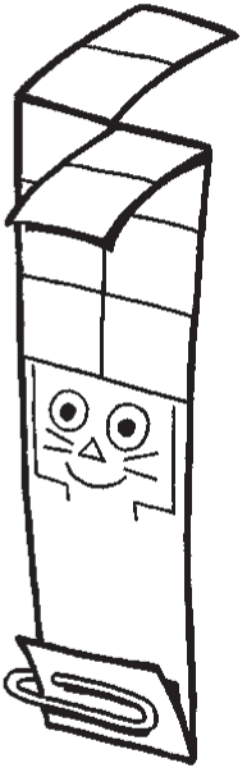
Build a Better Bunny Copter

In the CYBERCHASE episode, "The Fairy Borg Father," Delete invents a Bunny Copter. How can you improve Delete's invention so it twirls faster?

1. **Color the bunny's face.**

2. **Make Delete's Invention:** Starting at the top of a Bunny Copter strip, count down two boxes. Then cut (or tear) along the dotted line to the solid line at the bottom of the 2nd box to make 'ears.' Fold one ear forward on the solid line, and the other back as shown.

3. **Make a place for Delete to ride:** Fold up the bottom of your copter on the solid line. Attach Delete (a paper clip) as shown.



4. **Test Delete's Invention:** Hold up the copter as high as you can and let it drop. How fast does it twirl before it hits the floor? Can you think of ways to change it so it twirls faster?

5. **Build a Better Bunny Copter:** Using new strips, make your changes and test new copters until your invention is as good as it can be!

How Am I Inventing?

Inventors are always looking for ways to make something work better. So, they test and make changes to an invention to improve it. When you make changes to Delete's Bunny Copter to make it twirl faster, you're doing the same thing. Inventors call this process refining and optimizing. You can call it fun!

Get inventive with CYBERCHASE on PBS KIDS!
For more games and activities, visit pbskidsforparents.org

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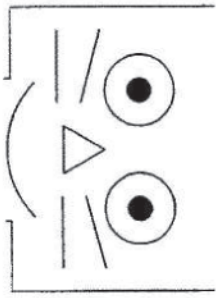
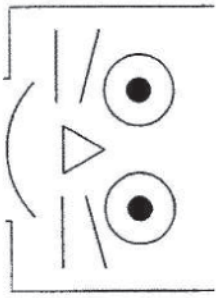
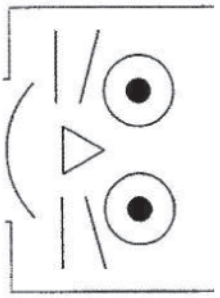
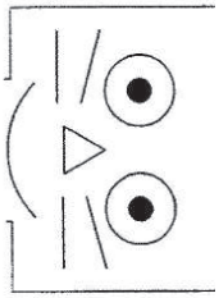
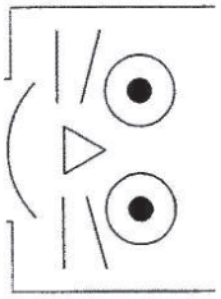
Bunny Copter Strips

To be used with "Build a Better Bunny Copter"

	FOLD HERE 		TEAR OR CUT HERE			
	FOLD HERE 		TEAR OR CUT HERE			
	FOLD HERE 		TEAR OR CUT HERE			
	FOLD HERE 		TEAR OR CUT HERE			
	FOLD HERE 		TEAR OR CUT HERE			

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Secret Sequence Scramble

Jam Sandwich Scramble Cards

Odd Squad needs YOU to help solve a secret sequence scramble! You can use sequencing cards to create a set of "how to" instructions for an activity, like brushing your teeth, planting a flower, or making your own gadget for solving oddness. Here are instructions for making a jam sandwich in seven steps. Cut out the cards and place them in the correct order. On the back of the cards, number them from 1–7. Scramble the cards, and see if you can place them in the correct order for making the sandwich.

Gather bread, jam, knife, and plate.

Lay two pieces of bread flat on plate.

Open jam jar.

Put knife in jar to get jam.

Spread jam on bread.

Close two pieces of bread to form a complete sandwich.

Eat sandwich.

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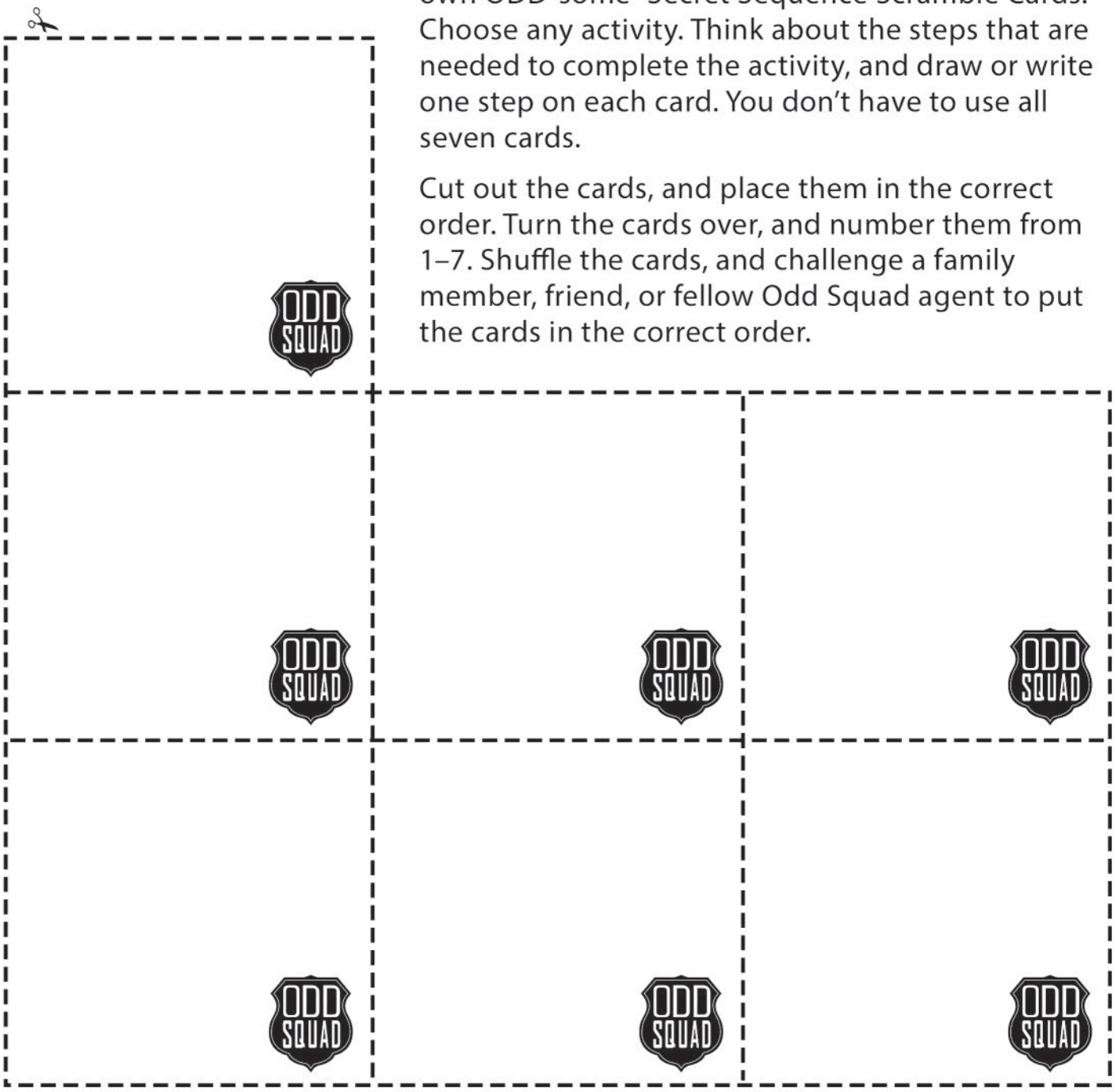
Secret Sequence Scramble

Make-Your-Own Scramble Cards

Use the blank cards on this page to create your own ODD-some "Secret Sequence Scramble Cards." Choose any activity. Think about the steps that are needed to complete the activity, and draw or write one step on each card. You don't have to use all seven cards.

Cut out the cards, and place them in the correct order. Turn the cards over, and number them from 1–7. Shuffle the cards, and challenge a family member, friend, or fellow Odd Squad agent to put the cards in the correct order.



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Fred Rogers PRODUCTIONS

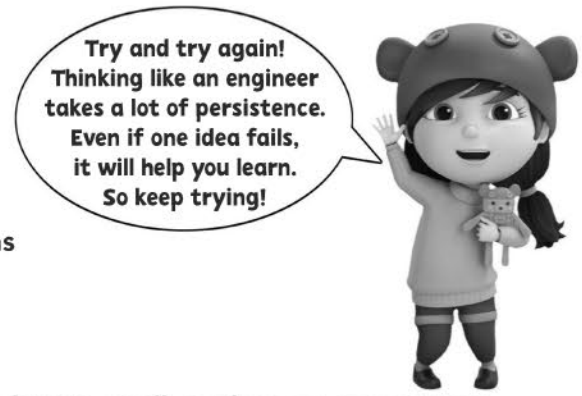
Robotic Arm Challenge

Solve an Out-of-Reach Problem with Your Own Robotic Arm

Sean loses his Neil Armstrong action figure in a deep hole, prompting the friends to create their own "robot-arm-grabber-thingy." Now it's your turn! Whether it's retrieving a small toy under the couch or a ball too high on a shelf, robotic arms can help us grab something unreachable. Use the Engineering Design Process to create your own robotic arm!

Materials

- Printable Robotic Arm Template
- Printable Robotic Arm Instructions
- Engineering Design Process Wheel
- Empty cereal box or cardboard
- Recycled straw
- String
- Packing tape or other strong tape
- Crayons or markers
- Various household items (optional)



Create Your Robotic Arm

1. Print the Robotic Arm Template (following page). Tape the template to cardboard to use as a pattern. With an adult's help, cut along the dashes. Use crayons or markers to decorate your robotic arm.
2. Tape the fingers to the arm and fold as directed in the Robotic Arm Instructions (following page).
3. With an adult's help, cut 12 half-inch pieces from the straw. Tape each straw segment to the robot fingers, in-between the finger joints, as directed. Cut four 10-inch strips of string and weave them through the straws, taping the string securely at the top.
4. Attach the support strap to the robotic arm, wrap it around your hand, and secure with tape. With an adult's help, tie the strings to your fingers so there is enough tension to pull the robotic fingers, and then put your creation to work!

Use and Improve Your Robotic Arm

1. ***Test*** your robotic arm! Find a small, light object that is out of reach. If needed, have a friend place a marshmallow or small toy in a difficult spot for you. Use your new robotic arm to help get the item.
2. The Engineering Design Process includes the step to ***improve***. How could your paper robotic arm be even better? What if you used different materials, added more fingers or adjusted the length, for example? Make a plan and create something new and improved and then ***share*** it with your friends.
3. Define an out-of-reach problem that might need a different solution. With your friends, combine various household items—maybe kitchen tongs, a tennis racket and shoe laces, for example—to ***imagine, plan*** and ***create*** your own "robot-arm-grabber-thingy...." Put it to use in grabbing hard-to-reach items. Compare the cardboard robotic arm with this new creation. Which works better? Why?

For more games and activities visit pbskidsforparents.org

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ARM

Robotic Arm Template

SUPPORT STRAP

FOUR FINGERS

FOLD HERE

FOLD HERE

FOLD HERE

FOLD HERE

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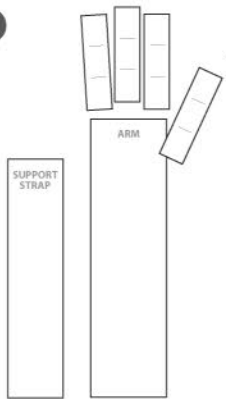
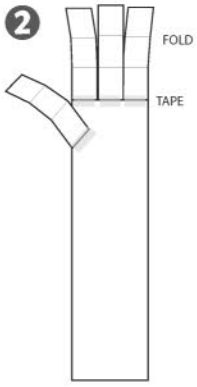
Robotic Arm Instructions

1



◀ CUT OUT FINGERS, ARM AND SUPPORT STRAP.

2

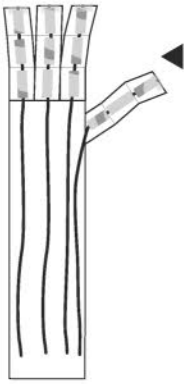


◀ TAPE FINGERS TO BACKSIDE OF ARM. FOLD FINGERS DOWN ON FOLD LINES.

3

◀ CUT STRAW INTO 12 HALF-INCH PIECES.

4

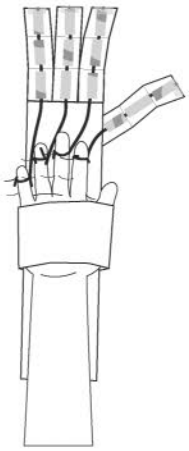


◀ TAPE STRAW PIECES BETWEEN FINGER FOLDS.

WEAVE STRING THROUGH THE STRAWS.

SECURE THE STRINGS TO THE TOP OF THE FINGERS WITH TAPE.

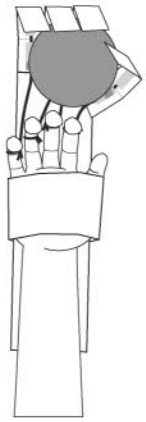
5



◀ ATTACH THE SUPPORT STRAP TO THE ROBOTIC ARM. WRAP AROUND YOUR ARM AND SECURE WITH TAPE.

TIE THE STRINGS AROUND YOUR FINGERS SO THE STRING HAS TENSION AND MOVES THE ROBOTIC FINGERS AS YOU MOVE.

6



◀ NOW PUT YOUR ROBOTIC ARM TO WORK!

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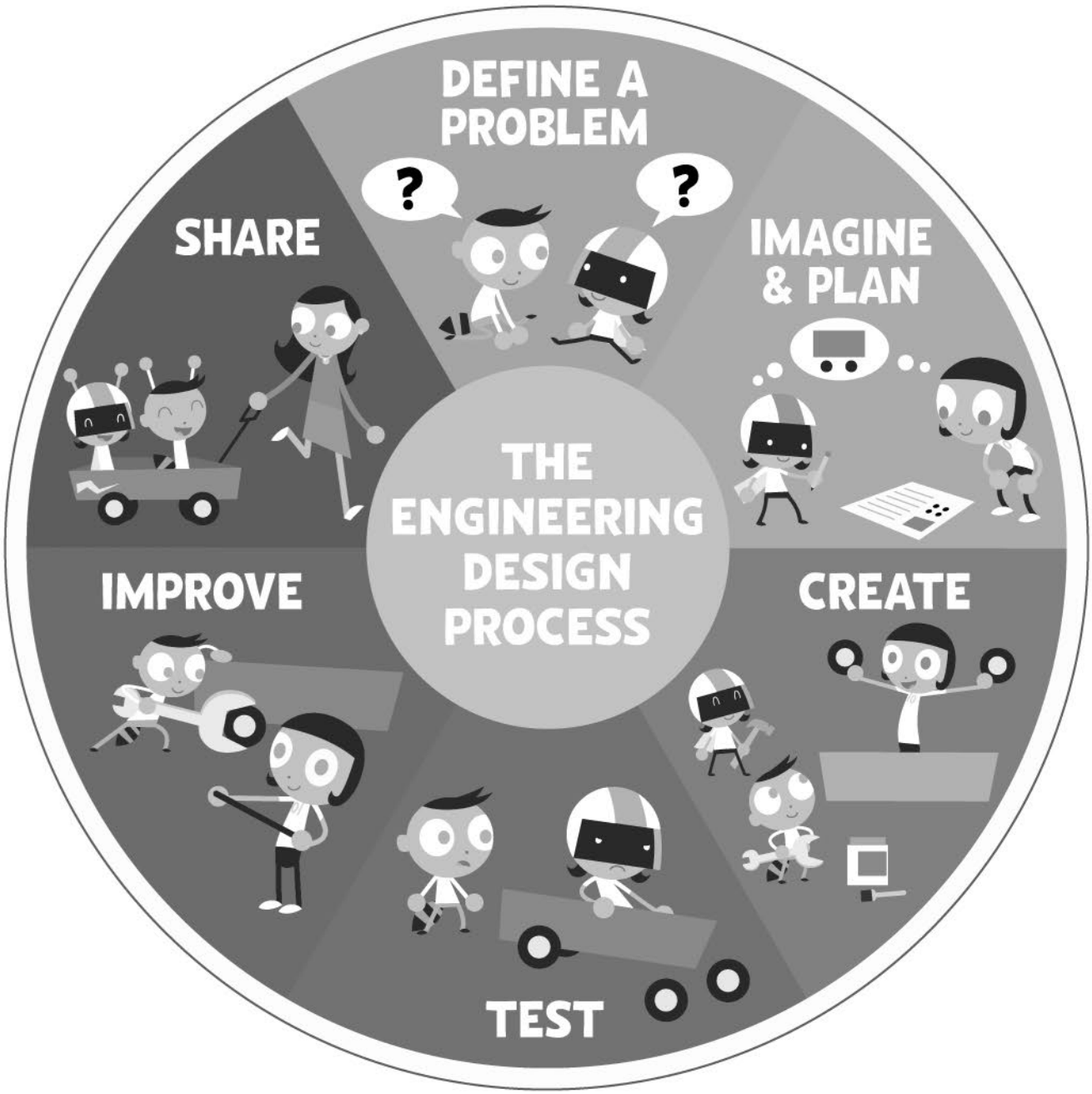
Engineering Design Process Wheel



For more games and activities visit pbskidsforparents.org

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Learn at Home with PBS KIDS

Schedule Begins October 5, 2020

Explore reading, math, science, life lessons, and more on the PBS KIDS 24/7 channel and live stream! The TV schedule below offers you and your child a chance to learn anytime alongside your favorite PBS KIDS characters.

TIME (M-F)	SHOW	GRADE	LEARNING GOAL
6/5c am	Splash and Bubbles	PK-K	Science
6:30/5:30c am	WordWorld	PK-K	Literacy
7/6c am	Peg + Cat	PK-K	Math
7:30/6:30c am	Peep and the Big Wide World	PK-K	Science
8/7c am	Sid the Science Kid	PK-K	Science
8:30/7:30c am	Super WHY!	PK-K	Literacy
9/8c am	Pinkalicious & Peterrific	PK-1	The Arts
9:30/8:30c am	Clifford the Big Red Dog	PK-K	Social & Emotional Learning, Literacy
10/9c am	Let's Go Luna!	K-2	Social Studies
10:30/9:30c am	Dinosaur Train	PK-K	Science
11/10c am	The Cat in the Hat Knows a Lot About That!	PK-1	Science & Engineering
11:30/10:30c am	Martha Speaks	K-2	Literacy
12 pm/11c am	Nature Cat	K-3	Science
12:30 pm/11:30c am	Ready Jet Go!	K-2	Science & Engineering
1/12c pm	Arthur	K-2	Social & Emotional Learning
1:30/12:30c pm	Odd Squad	K-2	Math
2/1c pm	Cyberchase	1-5	Math
2:30/1:30c pm	Molly of Denali	K-2	Literacy
3/2c pm	Pinkalicious & Peterrific	PK-1	The Arts
3:30/2:30c pm	Elinor Wonders Why	PK-K	Science & Engineering
4/3c pm	Sesame Street	PK-K	Literacy, Math, Social & Emotional Learning
4:30/3:30c pm	Daniel Tiger's Neighborhood	PK-K	Social & Emotional Learning
5/4c pm	Curious George	PK-K	Math, Science & Engineering
5:30/4:30c pm	Curious George	PK-K	Math, Science & Engineering
6/5c pm	Wild Kratts	K-2	Science
6:30/5:30c pm	Wild Kratts	K-2	Science

Access FREE, at-home learning activities, tips, and more on pbskidsforparents.org

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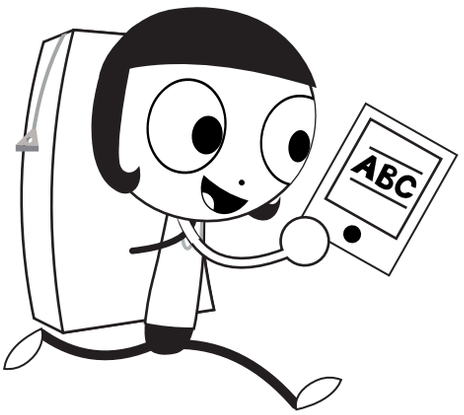
Learn at Home with PBS KIDS

Play and learn anytime and anywhere with free apps from PBS KIDS! Use the chart below to find the app that aligns to your child's grade, learning goal, and favorite PBS KIDS show - then download it on your on your mobile or tablet device to play online, offline, or anytime.

Apps for Social & Emotional Learning

Daniel Tiger for Parents	PK-K	Social & Emotional Learning
PBS KIDS Games app	K-2	Multiple Learning Goals
PBS KIDS Video app	K-2	Multiple Learning Goals



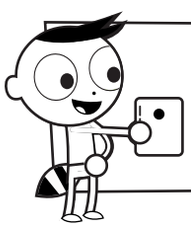
Apps for Literacy Learning

Dinosaur Train A to Z	PK-K	Literacy, Science
Molly of Denali	K-2	Literacy
PBS KIDS Games app	K-2	Multiple Learning Goals
PBS KIDS Video app	K-2	Multiple Learning Goals

Apps for STEM Learning (Science, Technology, Engineering & Math)

PBS Parents Play & Learn	PK-K	Literacy, Math
Play & Learn Engineering	PK-K	Science and Engineering
Play & Learn Science	PK-K	Science
Splash and Bubbles for Parents	PK-K	Science
Splash and Bubbles Ocean Adventure	PK-K	Science
The Cat in the Hat Builds That!	PK-K	Science and Engineering
The Cat in the Hat Invents	PK-K	Science and Engineering
Jet's Bot Builder: Robot Games	K-2	Science and Engineering
Photo Stuff with Ruff	K-2	Science

Ready Jet Go! Space Explorer	K-2	Science
Ready Jet Go! Space Scouts	K-2	Science and Engineering
Nature Cat's Great Outdoors	K-3	Science
PBS KIDS ScratchJr	1-2	Coding
Outdoor Family Fun with Plum	1-3	Science and Engineering
Cyberchase Shape Quest	1-5	Math, Science
PBS KIDS Games app	K-2	Multiple Learning Goals
PBS KIDS Video app	K-2	Multiple Learning Goals



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