Michigan LEARNING CHANNEL
A PUBLIC MEDIA PARTNERSHIP

SUMMER!

FUN ACTIVITY BOOK

ELEMENTARY

On TV. Online. Statewide. VISIT MichiganLearning.org

SPECIAL THANKS TO OUR MICHIGAN LEARNING CHANNEL PARTNERSHIPS:

Content Partners:

826Michgian
American Chemical Society
Ann Arbor District Library
Battle Creek Symphoy Orchestra
Career Girls
Chris Anderson Science Around Cincy
City Opera House
CODE.org
Colorado Springs Conservatory
Detroit Institute of Arts
Detroit Zoo
Grand Rapids Ballet
Huron-Clinton Metroparks
Illustrative Mathematics
INPACT at Home
Kinetic Affect
LearningScienceIsFun
Library of Congress
Little Kids Rock
Lucky Cat Productions
MAISA Literacy Essentials
Michigan Architectural Foundation
Michigan DNR
Michigan EGLE
Michigan Humanities Council
Midland Center for the Arts
Mindful Practices
Mr. E in the D
MSU Extension
NASA
North Carolina
Department of Public Instruction
Positive Impact for Life
SchoolKit
Roadtrip Nation
SciGirls
Signing Time
SIS4Teachers
Speak It Forward
Square One Education Network
STEM Greenhouse
Story Pirates
Storycorps
The Diatribe
Traverse City Area Public Schools
United States Air Force
WORLD Channel
YouCubed

Local PBS Stations

WKAR - East Lansing
Detroit Public Television
WCMU - Mount Pleasant
WDCQ - Saginaw
WGVU - Grand Rapids
WNIT - South Bend
WNMU - Marquette

Partner PBS Stations

PBS
PBS Books
PBS Kids
APT (Alabama Public Television)
LPB (Louisiana Public Broadcasting)
PBS SoCal
PBSNC
TPT (Twin Cities PBS)
WCMU
WHRO
WIMAGE
WNET (New York Public Media)
WQED
WUCF

WATCH on the Michigan Learning Channel
or stream the channel at MichiganLearning.org

Visit MichiganLearning.org and follow
@MichLearning on social media to find out more.

The Michigan Learning Channel is funded through a grant awarded by the Michigan Department of Education and the U.S. Department of Education.

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DEAR GROWN-UPS,

Summer is full of opportunities to play and learn and we want to make it easy to find inspiring, kid-friendly activities! That's why we've worked with PBS stations and content creators from across the country to bundle up some of our favorite activities into one, easy-to-carry-anywhere book. We hope you and your kids will use this to inspire learning all summer long!

Here are a few quick tips to keep your kids excited about learning this summer:

- **ASK LOTS OF QUESTIONS**. Encourage your kids to participate in conversations by asking them questions like: Why do you think that happened? What will happen next?
- **ENCOURAGE KIDS TO SEARCH FOR ANSWERS**. When your children ask you "why?" see if you can work together to figure out what they need to know or do to find the answer.
- **TRY SOMETHING NEW**. Summer is a great time to try new things like reading a new kind of book, tasting a new food or exploring a new park.
- **JUST HAVE FUN**. Summertime only comes along once a year, so be sure to take the time to relax and have fun while you're learning.
- **BUILD LASTING, POSITIVE MEMORIES THAT WILL LAST A LIFETIME!**

HOW TO USE THIS BOOK

- Keep in mind that this book spans multiple grade levels. Your child won't be using every single page, but choosing a few lessons each week. The goal is to keep kids' brains engaged with a taste of reading, writing, math, art, science, and physical activity every week.
- The grade levels are merely guides to get you started. We recommend starting with the grade that your child just completed and adjusting as needed. Don't be shy about using a different grade level or just picking and choosing lessons that look interesting. This has been a tough year for our children and we want your child to feel proud and confident.
- This book aligns with the content on the Michigan Learning Channel, which can be used on live tv or on demand. There are about 2-3 hours a week of video lessons, plus lots of activities in this book that don't use a screen. We recommend getting outside everyday, reading everyday and having enjoyable moments together as a family!
- This book is designed to use for 8 weeks of summer. We suggest spreading it out over a few days each week and finding a time that works for your family. If you have older children they may do better in the evenings.
- As you go through the weeks, you will find each week has a theme and a link to videos that go with the activities. You can find all the video lessons, plus interactive virtual events and more at **www.michiganlearning.org/summer**.

How do the students in your life use the Michigan Learning Channel? We would love your feedback! Feel free to contact us at mlc@dptv.org.

Michigan Learning Channel Team
MichiganLearning.org

Dates and Themes

The summer program runs from June 20 to August 14, 2022.
Each week has a set of lessons, plus additional programs, activities, and field trips based on the weekly theme.

Take Flight (June 20-26):
From planes and kites to butterflies and birds, discover the fables and physics of things that fly.

Under Water (June 27-July 3):
Dive deep into oceans, rivers, and our own Great Lakes to discover what it takes to live beneath the waves.

Heroes (July 4-10):
Celebrate our nation's birthday and the people we call heroes, whether they are veterans, everyday helpers, or the kind who wear capes.

Creatures (July 11-17):
From the prehistoric to the present, learn about the fascinating features of creatures near and far.

Engineering (July 18-24):
Meet the people who design bridges, cars, and video games and learn how to think like an engineer.

Great Outdoors (July 25-31):
Explore the world outside your door and the incredible parks and waters that belong to us all.

When I Grow Up (August 1-7):
All summer we'll learn about different careers—this week, think about all the exciting possibilities in your future!

Shoot for the Stars (August 8-14):
Look up at the night sky and into outer space and meet people who risked everything to follow their dreams.

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www.michiganlearning.org/summer

Follow @MichLearning on social media to find out more.

Where to Find the Michigan Learning Channel

Find your favorite shows anywhere you go!

Scan the QR Code:

Scan any of the QR codes in this book to see the accompanying video right on your device.

On Demand:

Video lessons and activities at MichiganLearning.org

Click your grade level for this week's selected lessons

Or, use "Find a Lesson" to search by grade, subject, and educational standard

On the App:

Find shows on the free PBS app

The PBS App is available for mobile devices, Roku, Apple TV, and on many Smart TVs.

Search for Read Write Roar, Math Mights, Extra Credit, DIY Science Time, Wimee's Words, InPACT at Home, Simple Gift Series, and more great programs.

On the Livestream:

Watch the 24/7 livestream at MichiganLearning.org/live-tv

On TV:

Find us on broadcast television with an antenna

Coming soon to:

Charter Cable services in Northern Michigan and the Upper Peninsula.
Visit MichiganLearning.org/Schedule for details

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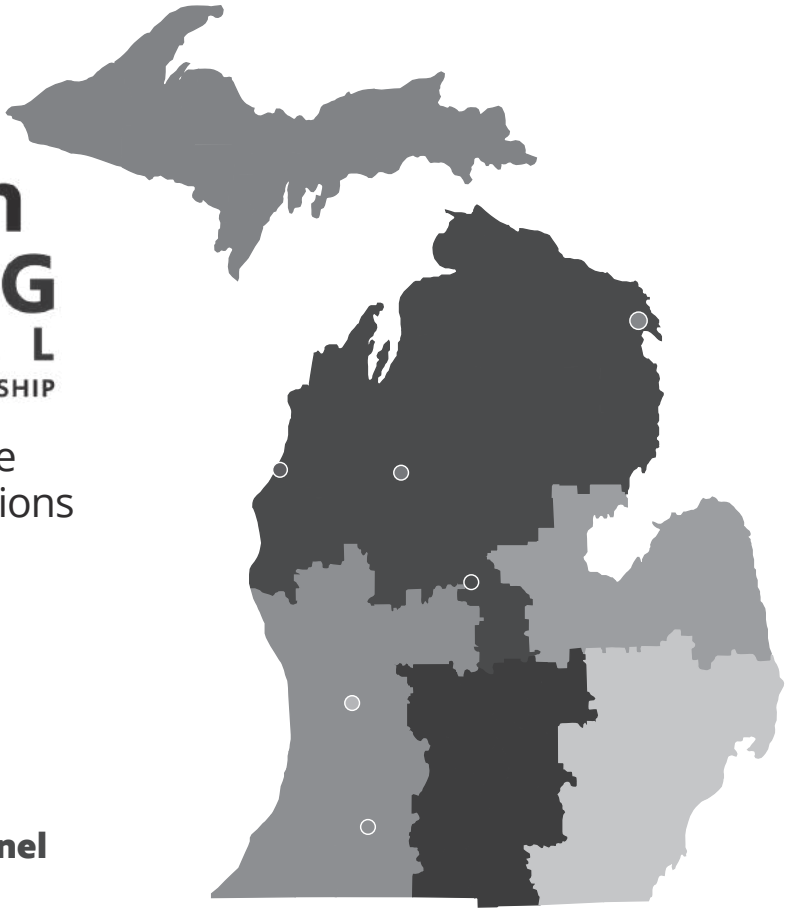
Serving Schools Statewide
Through Your Local PBS Stations



Watch On-Demand at MichiganLearning.org

@MichLearning

The Michigan Learning Channel is Available On:

WCMU
Alpena Channel 6.4

Cadillac
Channel 27.4

Manistee
Channel 21.4

Mt. Pleasant
Channel 14.4

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WNIT
Michiana PBS
Channel 34.5
Sheri Robertson
srobertson@wnit.org
Cass and Berrien counties

COMING SOON
to Charter Cable in Northern and Mid-Michigan and the Upper Peninsula

Rescan Your TV to watch on Broadcast

Your remote control and TV menus may vary, but the steps are the same. Your TV will scan for all available channels.

TV sets connected to cable, satellite or other pay TV providers do not need to scan.

How to Scan

1. Press menu on your remote control.
2. Select setup.
3. Choose antenna then channel scan or auto tune.

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WEEKDAY SUMMER SCHEDULE

TIME	GRADE	WHAT'S ON
5AM	Preschool - Kindergarten	Let's Learn
6AM		PBS Kids shows
6:30AM		Wimee's Words, Simple Gifts Series
7AM		Let's Learn
8AM		Read, Write, ROAR! (Kindergarten)
8:30AM		Math Mights (Kindergarten)
9AM	1st - 3rd Grade	Read, Write, ROAR! (1st Grade)
9:30AM		Math Mights (1st Grade)
10AM		Read, Write, ROAR! (2nd Grade)
10:30AM		Math Mights (2nd Grade)
11AM		Read, Write, ROAR! (3rd Grade)
11:30AM		Math Mights (3rd Grade)
12PM		Live From the City Opera House: It's Storytime
12:30PM		PBS Kids shows
1PM	4th - 6th Grade	Extra Credit
1:30PM		Math & Movement
2PM		Story Pirates
2:30PM		DIY Science Time, SciGirls
3PM		Curious Crew
3:30PM	1st - 3rd Grade	Cyberchase, Into the Outdoors
4PM		Read, Write, ROAR! (2nd & 3rd Grade)
4:30PM		Math Mights (2nd & 3rd Grade)
5PM	Preschool - Kindergarten	Read, Write, ROAR! (Kindergarten & 1st Grade)
5:30PM		Math Mights (Kindergarten & 1st Grade)
6PM		Let's Learn
7PM	4th - 6th Grade	Extra Credit
7:30PM		Math & Movement
8PM		Story Pirates
8:30PM		DIY Science Time, SciGirls
9PM 5AM	6th - 12th Grade	Nature, NOVA, American Experience, Ken Burns and other PBS programming

Details at MichiganLearning.org/schedule

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WATCH on the Michigan Learning Channel.
Episodes are available on-demand or stream the channel at **MichiganLearning.org/summer**

Visit MichiganLearning.org and follow @MichLearning on social media to find out more.

Learn at Home with PBS KIDS

Schedule Begins October 4, 2021

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 friends from PBS KIDS.

TIME (M-F)	SHOW	GRADE	LEARNING GOALS
6/5c am	The Cat in the Hat Knows a Lot About That!	PK-1	Science & Engineering
6:30/5:30c am	Ready Jet Go!	K-2	Science & Engineering
7/6c am	Peg + Cat	PK-K	Math
7:30/6:30c am	Super WHY!	PK-K	Literacy
8/7c am	Daniel Tiger's Neighborhood	PK-K	Social & Emotional Learning
8:30/7:30c am	Daniel Tiger's Neighborhood	PK-K	Social & Emotional Learning
9/8c am	Sesame Street	PK-K	Literacy, Math, Social & Emotional Learning
9:30/8:30c am	Elinor Wonders Why	PK-K	Science & Engineering
10/9c am	Clifford the Big Red Dog	PK-K	Social & Emotional Learning, Literacy
10:30/9:30c am	Dinosaur Train	PK-K	Science
11/10c am	Let's Go Luna!	K-2	Social Studies
11:30/10:30c am	Curious George	PK-K	Math, Science & Engineering
12 pm/11c am	Nature Cat	K-3	Science
12:30 pm/11:30c am	Xavier Riddle and the Secret Museum	K-2	Social & Emotional Learning
1/12c pm	Molly of Denali	K-2	Literacy
1:30/12:30c pm	Hero Elementary	K-2	Science & Engineering
2/1c pm	Cyberchase	1-5	Math & Science
2:30/1:30c pm	Pinkalicious & Peterrific	PK-1	The Arts
3/2c pm	Pinkalicious & Peterrific	PK-1	The Arts
3:30/2:30c pm	Elinor Wonders Why	PK-K	Science & Engineering
4/3c pm	Donkey Hodie	PK-K	Social & Emotional Learning
4:30/3:30c pm	Curious George	PK-K	Math, Science & Engineering
5/4c pm	Alma's Way	K-1	Social & Emotional Learning
5:30/4:30c pm	Xavier Riddle and the Secret Museum	K-2	Social & Emotional Learning
6/5c pm	Molly of Denali	K-2	Literacy
6:30/5:30c pm	Hero Elementary	K-2	Science & Engineering

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

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SUMMER!

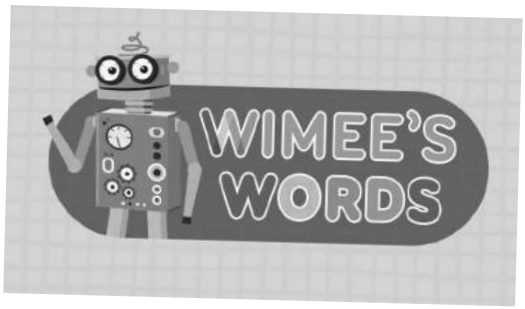
LIVE Virtual Events

As part of the Summer Program, students can participate in live virtual events via Facebook Live. Events are interactive and presenters will take student suggestions and questions in real time. Recorded versions of these events will also be available online.

Live virtual events will be hosted on the Michigan Learning Channel Facebook page.

Wimee's Words Live!

Recommended for ages 4-8



Join the loveable robot puppet Wimee and his friends as they discover more about the weekly theme. Wimee needs your help to write stories! Give Wimee your favorite words and ideas in the comments and watch as he incorporates them into stories and songs in real time. Your ideas may even be featured in future episodes of "Wimee's Words" on PBS!

Wimee's Words Live! with the Michigan Learning Channel
Every Wednesday, June 21-August 9, 4pm
Live on the Michigan Learning Channel Facebook page

Great Lakes Now Watch Party with the Belle Isle Aquarium

Recommended for ages 8 and up

GREATLAKESNOW

The monthly PBS show *Great Lakes Now* explores the water, people, and environmental issues that tie together the whole Great Lakes basin. Once a month, they team up with the Belle Isle Aquarium to take a deep dive into the themes of the show. Students will have the chance to ask questions of the guest scientists and meet fantastic fish and other creatures.

***Great Lakes Now* Watch Party**
Friday, July 1, 1pm
Friday, August 5, 1pm
Live on the Michigan Learning Channel Facebook page

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Learn Anywhere!

On Air. Online. On Demand.

Serving students statewide through your local PBS station, the Michigan Learning Channel has everything kids need to build their brains and engage in learning key concepts to succeed in school!

Preschool

Read, sing, and play with your little one.

Wimee's Words
Join Wimee, the fun, lovable robot that inspires kids to learn through creativity.

Simple Gift Series
Make music, find something new, and read with Betty the Bookworm.

POP Check
Mindful practice tools to Pause, Own what we are feeling, and Practice relaxing.

Kindergarten to 3rd Grade

Keep kids learning with fun lessons taught by Michigan teachers.

Read, Write, Roar
Kids build literacy skills with engaging ELA lessons.

Math Mights
Build number sense and learn strategies for solving math problems.

InPACT
Get moving with this home-based physical activity program.

4th to 6th Grade

Short, engaging videos and hands-on lessons keep tweens engaged.

Extra Credit
Creative writing, math, fitness, career exploration, and more!

Curious Crew
Dr. Rob Stephensen and inquisitive kids take a hands-on apprach to scientific exploration.

Story Pirates
Bite-sized literary lessons with comedians, authors, and teachers.

VISIT us online to view all shows, learn about events, and download activities!

www.michiganlearning.org

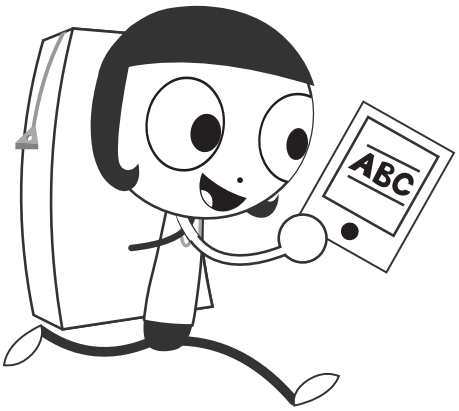
Follow @michlearning to find out more.

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

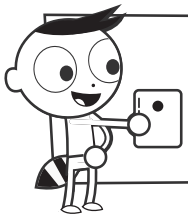


Apps for Literacy Learning

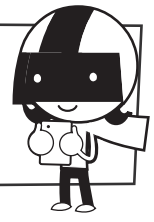
Dinosaur Train A to Z	PK-K	Literacy, Science
Molly of Denali	K-2	Literacy
PBS KIDS Games app	K-2	Multiple Learning Goals
PBS KIDS Video app	K-2	Multiple Learning Goals

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

PBS Parents Play & Learn	PK-K	Literacy, Math
Play & Learn Engineering	PK-K	Science and Engineering
PBS KIDS Measure Up!	PK-K	Math
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
PBS KIDS Games app	K-2	Multiple Learning Goals
PBS KIDS Video app	K-2	Multiple Learning Goals



pbskids.org/apps



GET IT ON Google Play

Download on the App Store

Week 1: Take Flight June 20-26

From planes and kites to butterflies and birds, discover the fables and physics of things that fly.

Use the sheet below to mark off this week's activities as you complete them. See if you can get a BINGO!

Playlists this week: www.michiganlearning.org/takeflight

Be a pollinator with Cyberchase	60 mins. of activity	Read 20 minutes	Make paper airplanes with Ready, Jet, GO!	Watch Read, Write, ROAR!
Read 20 minutes	Watch Math Mights	Look for birds	Spot a plane in the sky	60 mins. of activity
60 mins. of activity	Try an InPACT at Home activity Card	HAVE FUN! (Free Space)	Fly a kite	Read 20 minutes
Watch Read, Write, ROAR!	Spot a helicopter in the sky	Watch Math Mights	Watch InPACT at Home	Watch Live from the Opera House
Watch InPACT at Home	Read 20 minutes	Try Amelia Earhart's word find (pg. 12)	60 mins. of activity	Travel with Let's Go Luna (pg. 11)

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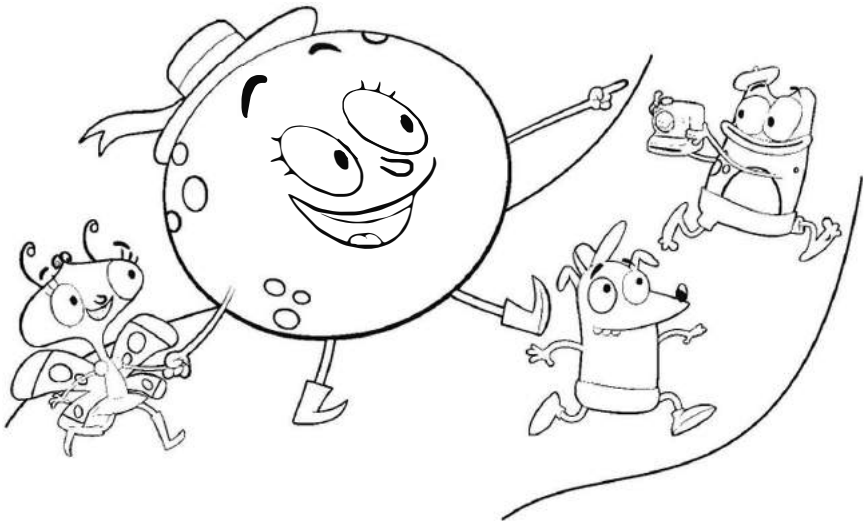
Where Would You Go?

If you could travel anywhere with Luna, Carmen, Andy and Leo, where would you choose to go and why?

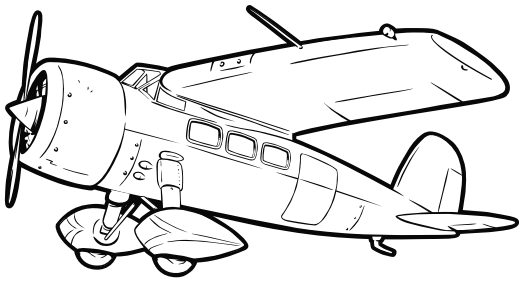


Find more game and activities at pbskidsforparents.org

Funded by:

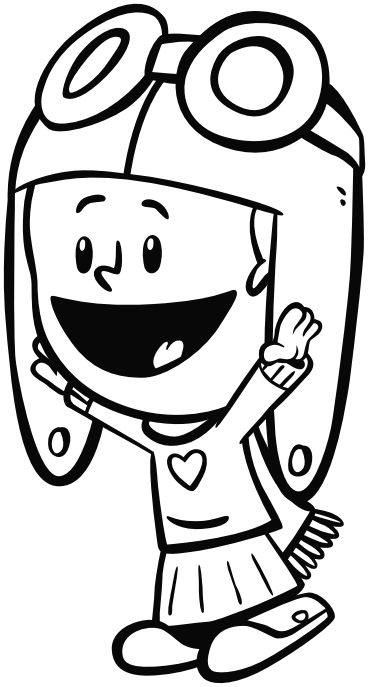
Amelia Earhart's Travelling Word Find

XAVIER RIDDLE AND THE SECRET MOVIE
I Am Madam President



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

Help Amelia find all the words related to her travels!



PLANE FLYING PILOT

SKY PACK FUN

Find more games and activities at pbskids.org/xavier

Produced by: 9 STORY MEDIA GROUP

Sponsored by: ABCmouse.com Early Learning Academy, Kiddie Academy Educational Child Care

Based on Brad Meltzer and Christopher Eliopoulos' best-selling kids book series

INPACT at HOME

Activity Cards

Cut out the cards. When you're feeling antsy, try following the directions for one of the exercises!

Blast-Off Lunges

INSTRUCTIONS

1. Get into a lunge position with left leg forward, hips underneath you, and right leg behind your right hip.
2. Slowly sink into a lunge, trying to get your knee to touch the ground.
3. Immediately "blast off" by hopping upwards and into next lunge position with right leg forward and left leg behind.
4. If needed, instead of jumping into the next lunge position, jump with feet together and then bounce into lunge position.
5. Repeat as many rounds as possible.

Side Leg Lifts

INSTRUCTIONS

1. Start by laying on your side with your legs stacked on top of each other.
2. Slowly raise your top leg up towards the sky and then back down.
3. Complete 10 repetitions and then switch legs.
4. Complete 3 sets per leg.
5. For added challenge, tape a bag of water to the top leg for some added weight!

Tap Backs

INSTRUCTIONS

1. Stand up tall and proud with your feet together and hands on your hips.
2. Take your right foot and tap it right behind you, then place back to starting position.
3. Take your left foot and tap it right behind you, then place back to starting position.
4. Repeat as fast as can to get 100 tapbacks (50 on each leg).

Ski Jumps

INSTRUCTIONS

1. Start by standing tall with your feet shoulder width apart.
2. Using only your right foot, jump to the left about 2-3 feet and land on your left foot.
3. Gather yourself and then using only your left foot, jump to the right 2-3 feet and land on your right foot.
4. Repeat this as many times as you can for 30 seconds.

Bonus: After each time you jump, touch the ground with the same hand as the side you landed on. Ex: Land on your left foot, touch the ground with your left hand.

Cereal Bowl

INSTRUCTIONS

1. Lay flat on your back with feet together.
2. Bring your knees together and raise both legs up so that your feet are facing the ceiling.
3. In slow motion, stir the imaginary bowl of cereal with feet and keep hands under your bottom.
4. Repeat 30 times.

Lay Down Hip Stretch

INSTRUCTIONS

1. Start by sitting at the edge of a bed in a relaxed position with your feet hanging off.
2. Lay back, and pull your right knee towards your chest while keeping your left leg hanging off the bed.
3. Pull your knee until you feel a stretch in your left hip and hold for 10-15 seconds.
4. Relax, switch legs, and then repeat 2-3 times per leg.

Aligator Breath

INSTRUCTIONS

1. Stand with legs hip-width apart.
2. Spread arms out wide and inhale as you reach outward.
3. When you exhale, clap your hands together as many times as possible like baby alligator jaws.

Cloud Watching

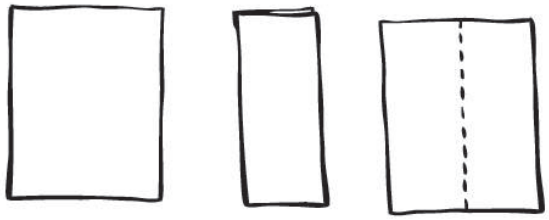
INSTRUCTIONS

1. Find a day where there are a lot of clouds in the sky.
2. Lay down on your back on the ground or in the grass and look up into the sky.
3. Watch and admire all the different clouds. Look at the different shapes they make, how fast/slow they're moving, and where they are moving to!

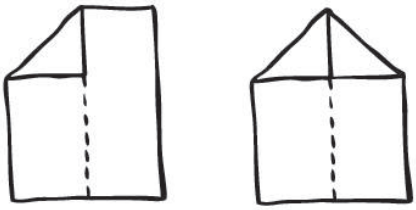
This page was left blank to cut out the activity on the other side.

Paper Airplane

1. Fold paper in half the long way and reopen.



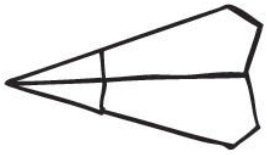
2. Fold the top two corners into the center spine of the paper.



3. Refold lengthwise and rotate the paper to lay on the table like this:

4. Fold the top left corner down to lay parallel to the bottom spine. Repeat this step on the other side.

5. Turn the paper over and repeat the last two steps. Your airplane should look like this!



6. Now, try to fly it to the moon! How far can you make the airplane fly?

For more games and activities, visit pbskidsforparents.org

Produced by: WIND DANCER FILMS

Funded by:

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Pollinators

EXPLORE: Be a Bat!

Students model how bats and other pollinators help plants by spreading pollen from flower to flower.

Materials:

- **Cups**
- **Pompoms or cotton balls**
- **Colored sugar or confetti**
  Add food coloring to sugar or make confetti with a hole punch and tissue paper.
- **Kid-friendly tweezers**
- **60 second timer**

"FLOWERS"

Instructions:

1. Coat the inside of several cups, each with a different color of sugar. These are your flowers.
2. Fill the cups halfway with small pompoms (nectar) that match the color of the sugar in that cup and place around the room.
3. Give each student a pair of kid-friendly tweezers to be their pollinator "nose" and their own cup where they can collect pompoms.
4. Start a timer for 60 seconds. Students need to collect as many different colored pompoms as they can by visiting all the cups around the room. Have each "pollinator" pick up the pom-poms one at a time with their tweezers, lift them out of the flowers, and drop them in their own cups.
5. After 60 seconds, check the flower cups to see if any pollen (sugar) traveled from one flower to another. If the colors got mixed together, that means the flowers were pollinated.

TWEEZER "NOSE"

it's Storytime CHALLENGE

Bernoulli's Pressure Challenge

REUSE Toolbox

What other materials could you find and use?

- Strip of Paper
- Ping Pong Ball
- Bendable Straw
- Round Cheese Puff
- Thin Garbage Bag
- Aluminum Cans
- String
- Clean Funnel
- Hair Dryer

DID YOU KNOW?

Bernoulli's principle explains the reason why airplanes are able to fly.

Between 1725 and 1749 alone, Daniel Bernoulli received 10 prizes from the Paris Academy of Sciences.

My Design Ideas:

How could I improve on my design for next time?

POWER UP WORDS

- Aviation
- Flight Path
- Cargo

CAREER LIFTOFF

- Pilot
- Air Traffic Controller
- Aerospace Engineer
- Avionics Technicians

CITY OPERA HOUSE

TCAPS Traverse City Area Public Schools Great Community, Great Schools

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LIVE from the OPERA HOUSE it's Storytime

Learning Standards: 3rd grade; Engineering Design

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

ACTIVITY GUIDE

Episode 202: More Prefixes and Saving the Trout
Book: *Underwater Adventures with Louis and Louise* by Stephen Schram

Scan below to watch lesson

Phonics Skills

Read the passage out loud. Underline the words with the **prefix** fore- and trans-.

Did you know the Blackpoll Warbler bird weighs less than a pencil? And yet it takes a transoceanic trip every winter! Before using a GPS, scientists didn't foresee this tiny bird flying across the ocean. They were surprised! Scientists think the foremost goal of the Warbler is to migrate quickly.

Words to Know

A **prefix** is a word part added to the beginning of a word that changes the meaning of the word.

The prefix **trans-** means "across" or "beyond".

The prefix **fore-** means "before" or "in front of".

Look for the trans- and fore- prefixes in your own reading.

Write It

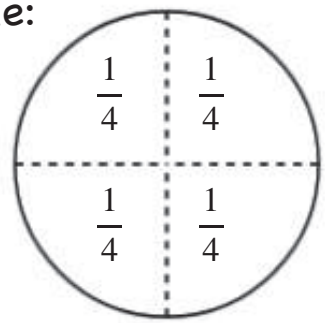
Break each word into syllables and write the word parts in the blanks provided.

word	syllables		meaning
foresee	fore	see	to see before it happens
forewarn			to warn before something happens
foremost			most important
transoceanic			to go across the ocean
transfix			to make something motionless
transplant			to move something from one place to another

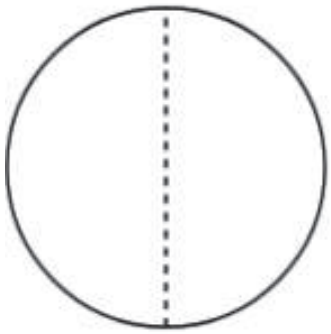
Reading and Writing Fractions

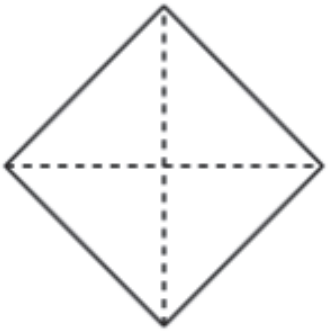
Directions: Label each part of the pictures and practice reading the fraction.

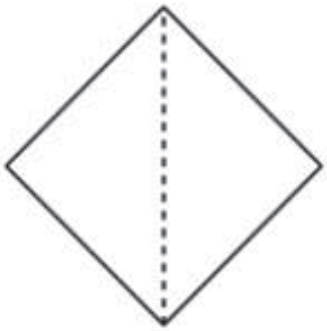
Example:

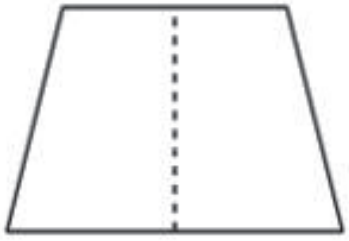


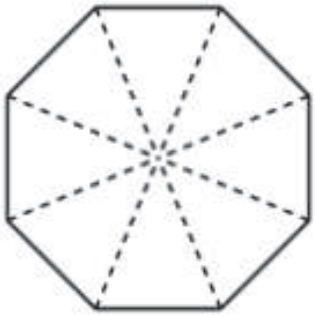
Practice reading: one fourth

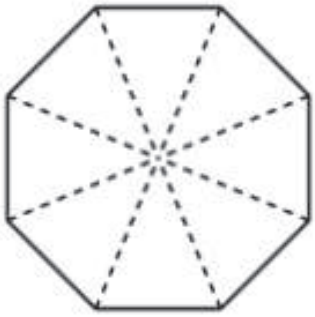


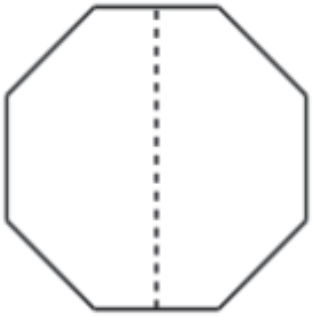


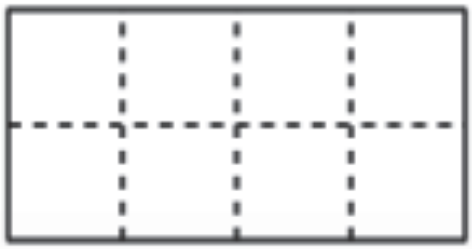


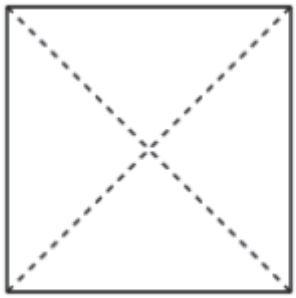


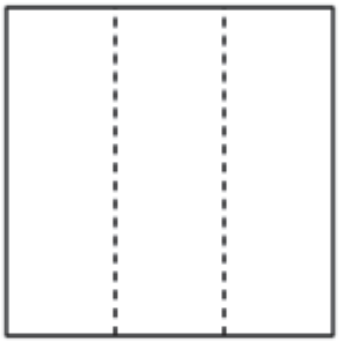


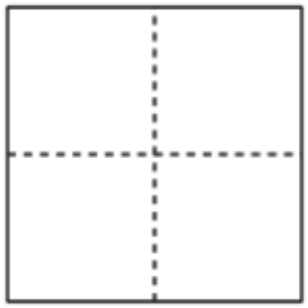


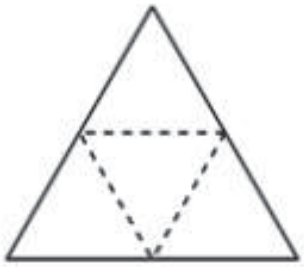












Week 2: Under Water June 27 – July 3

Dive deep into oceans, rivers, and our own Great Lakes to discover what it takes to live beneath the waves.

Use the sheet below to mark off this week's activities as you complete them. See if you can get a BINGO!

Playlists this week: www.michiganlearning.org/underwater

Make a pond viewer (pg. 29)	60 mins. of activity	Read 20 minutes	Draw a deep sea fish (pg. 28)	Watch Read, Write, ROAR!
Read 20 minutes	Watch Math Mights	Go fishing	Watch Live from the Opera House	60 mins. of activity
60 mins. of activity	Try the Glorious Great Lakes Challenge	HAVE FUN! (Free Space)	Go swimming	Read 20 minutes
Watch Read, Write, ROAR!	Watch an ice cube change over time (pg. 31)	Watch Math Mights	Watch InPACT at Home	Watch Wimee's Words
Watch InPACT at Home	Read 20 minutes	Start a paper tracker (pg. 32)	60 mins. of activity	Tidy up the kelp forest! (pg. 27)

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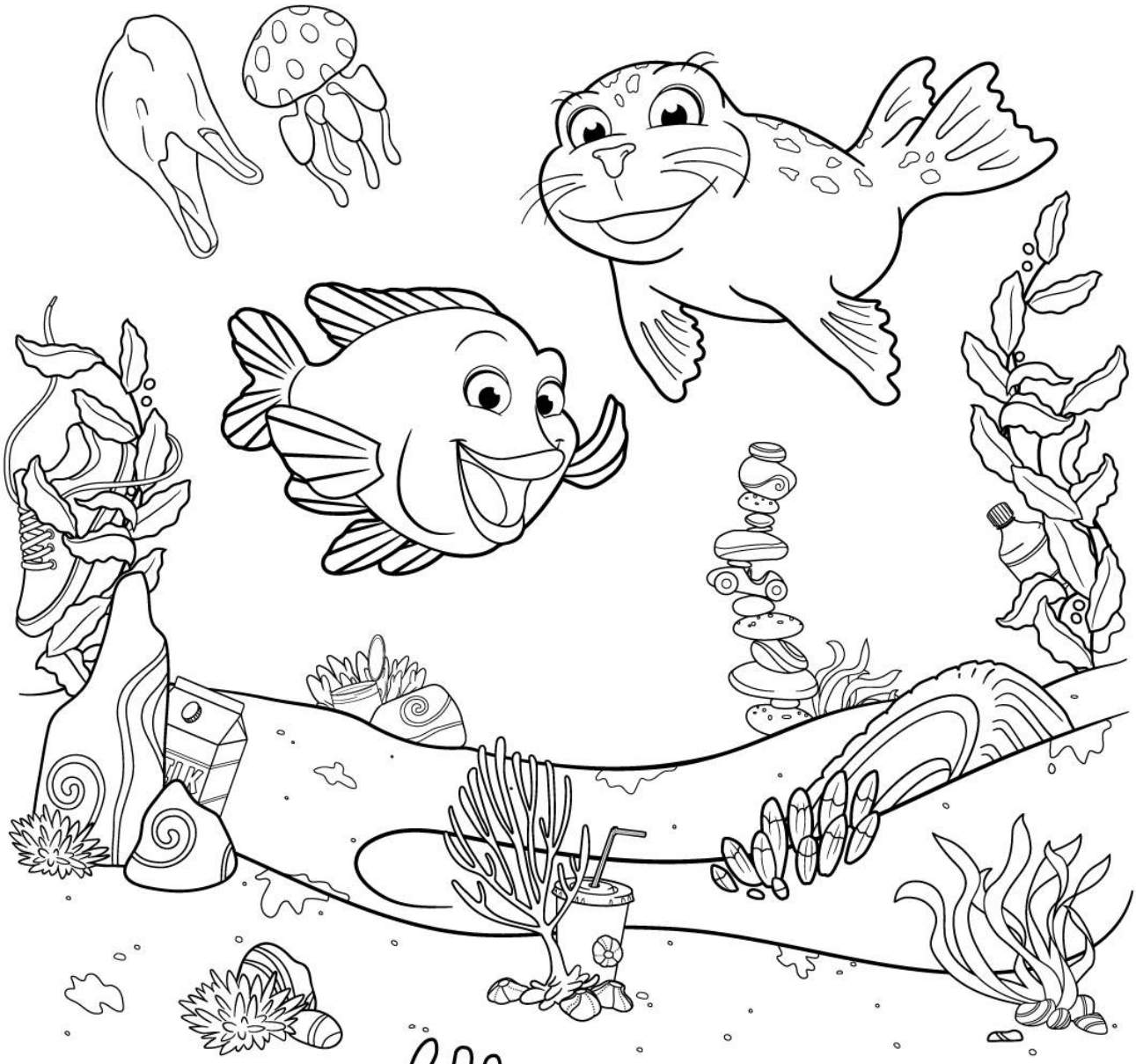
Name

Tidy up the Kelp Forest!

Instructions: Tyke the Pacific Harbor Seal has hidden items that don't belong in the ocean. Can you help Tidy the Garibaldi Fish clean up? Circle the eight items that don't belong.



Reeftown Ranger Tip:

Never throw trash in the street. Rain can wash it down the storm drain and into rivers and streams. All rivers lead to the ocean!

Find more games and activities at pbskidsforparents.org

Jim Henson's SPLASH AND BUBBLES

PBS KIDS

Can you draw a deep sea fish with BIG EYES, a BIG MOUTH, and LONG TEETH?

Fin Fact!

Creatures that live in the deep typically have large mouths, long teeth and hinged jaws to eat large quantities of scarce food. Many deep sea creatures also have very large eyes to capture scarce light.

Jim Henson
THE JIM HENSON COMPANY

HERSCHEND STUDIOS

FUNDING PROVIDED BY:

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NSF

A POND WITH A VIEW

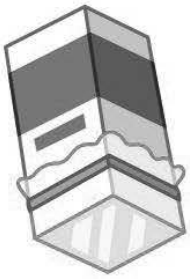
DIFFICULTY: EASY

While there is action all around a pond, what do you think is happening *in* the water? Ponds are filled with animal and plant life that have special qualities that help them spend all or most of their lives underwater. Make this pond viewer to bring on your next pond exploration!

MATERIALS

- One-half gallon milk carton
- Scissors
- Waterproof, strong tape (e.g. duct tape) or a sturdy rubber band
- Heavy, clear plastic wrap

LET'S MAKE A POND VIEWER!



1. Have an adult cut off the very top of the milk carton and the very bottom to create a rectangular tube.

2. Tear off a sheet of plastic wrap and place it over one of the open ends. Fold down the plastic wrap… make sure wrap is smooth and tight for clear viewing.

3. Using the tape or the rubber band, secure the plastic wrap in place. Keep the plastic wrap as tight as possible so you have a flat viewing surface.

pbskids.org/naturecat

POND VIEWING TIPS

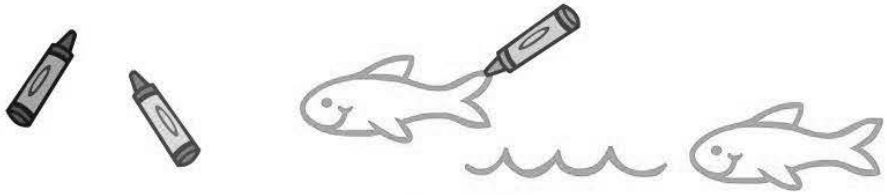
1. Splashing and stirring up mud will make it difficult to see into the pond. Be as still as possible when using your viewer.

2. Despite what NatureCat says, it is noble and fun to get wet! If the shoreline is murky, slowly wade out to your knees before using your viewer where it may be less murky.

3. Other ways to view: on a dock, over the side of a canoe, or in a stream, lake or tide pool!

LET'S TAKE A CLOSER LOOK

Describe a plant or animal that you see. Draw a picture of it, and ask an adult to help you identify and label your picture.



pbskids.org/naturecat

Ice Cubes and Water: Now and Later

Name _____

Instructions:

1. Fill one plastic, clear cup with water and a second plastic, clear cup with ice.
2. Find a piece of chalk, a pencil, and take the two cups and this paper and go outside.
3. Pour a small amount of water on the ground. Outline the water puddle with chalk. In the first column, draw what you notice about the water.
4. Next, place one of your ice cubes on the ground and outline it with chalk. Leave one ice cube in a clear cup. After 30-minutes, in the second column, draw what you observe about the ice.
5. When another 30-minutes pass, write or draw a question you are interested in.

During my investigation I noticed this about the water...

When I first poured the water on the ground, the water looked like this...	After 30-minutes, the water I poured looked like this...

I observed this about the ice...

When I first placed the ice on the ground, the ice looked like this...	After 30-minutes, the ice looked like this..

What do you notice about how liquid water changed? _____

_____

_____

What do you notice about how solid water (ice) changed? _____

_____

_____

A question I still wonder about is... _____

_____

I made the connection in my mind when I observed the water and ice that... _____

_____

WIND DANCER FILMS

Find more games and activities at pbskidsforparents.org

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PAPER TRACKER

RASTREADOR DE PAPEL

The paper you use at home comes from trees. Find out how much paper you use in a month.

1. Every time you go to throw away or recycle a piece of paper or cardboard, put it aside in a bag or box instead.
2. Then recycle any clean paper and compost or throw away any food-stained paper
3. Repeat this every week for a month.
4. At the end of the month, add up the number of pounds of paper you threw away each week. Put the total in the box in the chart below.

El papel que usas en casa viene de los árboles. Averigua cuánto papel utilizas en un mes.

1. Cada vez que vayas a tirar o reciclar un trozo de papel o cartón, guárdalo en una bolsa o caja.
2. Luego recicla el papel limpio y desecha el papel manchado de comida.
3. Repite esto cada semana durante un mes.
4. Al final del mes, suma la cantidad de libras de papel que desechaste cada semana. Pon el total en el cuadro de la tabla a continuación.

	pounds of paper libras de papel
Week 1 Semana 1	
Week 2 Semana 2	
Week 3 Semana 3	
Week 4 Semana 4	
TOTAL	

pounds of paper
libras de papel

If 100 people all used this much paper each month, how much paper would they use all together?

Si 100 personas usaran esta cantidad de papel cada mes, ¿cuánto papel usarían todos juntos?

100 people
100 personas x [ ] **total pounds of paper per person**
total de libras de papel por persona = [ ] **pounds of paper**
libras de papel

To find out how many trees it takes to make that much paper, use a calculator to multiply the total by .012.

Para saber cuántos árboles se necesitan para hacer esa cantidad de papel, utiliza una calculadora para multiplicar el total por 0.012.

[ ] **pounds of paper**
libras de papel x **.012** **trees per pound**
árboles por libra = [ ] **trees**
árboles

Write down one thing you can do at home to use less paper
Escribe una cosa que puedas hacer en casa para utilizar menos papel

it's Storytime CHALLENGE

Glorious Great Lakes

REUSE Toolbox

What other materials could you find and use?

- Cardboard
- Glue
- Scissors
- Colored Paper
- Paper Towels
- Shaving Cream
- Beach Rocks

My Design Ideas:

How could I improve on my design for next time?

DID YOU KNOW?

The five Great Lakes - Superior, Huron, Michigan, Erie and Ontario - span a total surface area of 94,600 square miles, making them the largest freshwater system in the world. More than 20% of the world's freshwater is in the Great Lakes!

POWER UP WORDS

- Peninsula
- Lake
- Fresh Water

CAREER LIFTOFF

- Coast Guard
- Environmental Engineer
- Conservationist
- National Park Service

Learning Standards: 2nd grade

Develop a model to represent the shapes and kinds of land and bodies of water in an area.

2-ESS2-2 MI Develop a model to represent the state of Michigan and the Great Lakes, or a more local land area and water body.

CITY OPERA HOUSE

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LIVE from the OPERA HOUSE it's Storytime

ACTIVITY GUIDE

Episode 203: Suffixes and Saving the Salmon
Book: *Swimming Salmon* by Kathleen Martin-James

Scan below to watch lesson

Phonics Skills

Read the paragraph out loud. Circle the words with the -ous and -en suffixes.

When visiting a lake, you might see a Ring-billed Gull. Although these birds eat fish and insects, you should tighten your grip on your sandwich. These adventurous gulls might feast on your leftovers! Cleaning up your snacks encourages gulls to eat their natural foods.

Try It

A **suffix** is a word part added to the end of a word to change a word and its meaning.

-ous
full of, having

-en
to cause to be or have

We often drop the -e on base words when we add suffixes that start with vowels.

Write It

Combine each base word with the given suffix. Write the new word in the space provided and read each definition. Try using the new words in a sentence, and share them with a family member.

base word	suffix	new word	meaning
danger	ous		full of danger
fame	ous		full of fame
fright	en		to cause to be afraid
sharp	en		to cause to become sharp

Fraction Match Up

Directions: Cut out all the cards. Scatter the cards face down in two piles, one with the fraction cards and one with the shape cards. 2 players take turns flipping over one card from each pile, trying to make a match. If you make a match, keep the pair next to you. If you don't make a match, flip both cards over and it's the other player's turn. The player with the most matching pairs wins!

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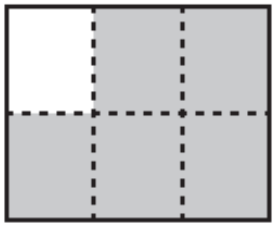		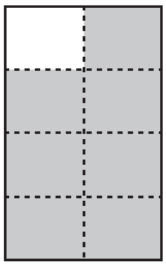
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	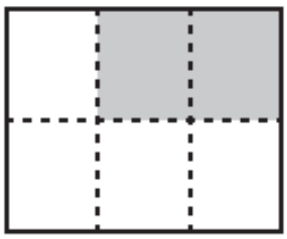	

Week 3: Heroes July 4-10

Celebrate our nation's birthday and the people we call heroes, whether they are veterans, everyday helpers, or the kind who wear capes.

Use the sheet below to mark off this week's activities as you complete them. See if you can get a BINGO!

Playlists this week: www.michiganlearning.org/heroes

Design a gadget (pg. 43)	60 mins. of activity	Read 20 minutes	Make bubble mix (pg. 44)	Watch Read, Write, ROAR!
Read 20 minutes	Watch Math Mights	Spot a mail truck outside	Do a good deed	60 mins. of activity
60 mins. of activity	Try the Cyberchase planting puzzle	HAVE FUN! (Free Space)	Watch Meet the Helpers	Read 20 minutes
Watch Read, Write, ROAR!	Do a good deed	Watch Math Mights	Watch InPACT at Home	Make superhero wrist cuffs (pg. 41)
Watch InPACT at Home	Read 20 minutes	Try a new food	60 mins. of activity	Spot a fire truck outside

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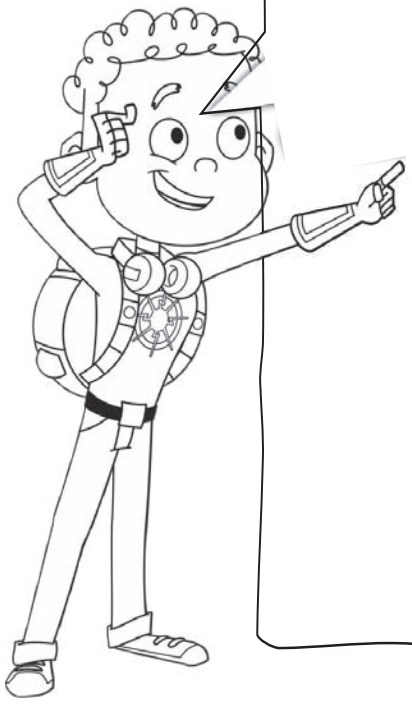
Gadget Gurus

Create a gadget! AJ Gadgets makes super tools from everyday items. You can too! Create a gadget from recyclables. Think about AJ's greatest gadgets: Arm-O-Matic, Rope Launcher, Twigcam, Dragonfly Drone, Launcher, Lacer Racer, Tooth Brushing Gadget, Night Vision Goggles. Next, take some time to think about what you would like to build. Draw your ideas below. Then, gather objects to complete your design! Be sure to ask a grownup for help if you need it.

What you need:

- **Pencil and eraser Recyclables**:
- cardboard boxes, plastic bottles, tin cans, newspapers/magazines, old toys, or other old objects (don't use if there are sharp edges)

- **Joiners**: tape, glue, string, wire, pipe cleaners
- **Decorators**: paint, crayons, markers, stickers, and other craft supplies
- **Cutters**: scissors, hole punchers, etc. Be sure to use a grownup helper!



For more games and activities, visit pbskids.org/heroelementary

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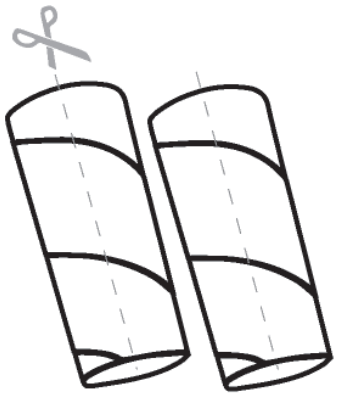
Funding for Hero Elementary is provided by a Ready To Learn grant from the U. S. Department of Education. Additional funding made possible by ABCmouse.com and Target.

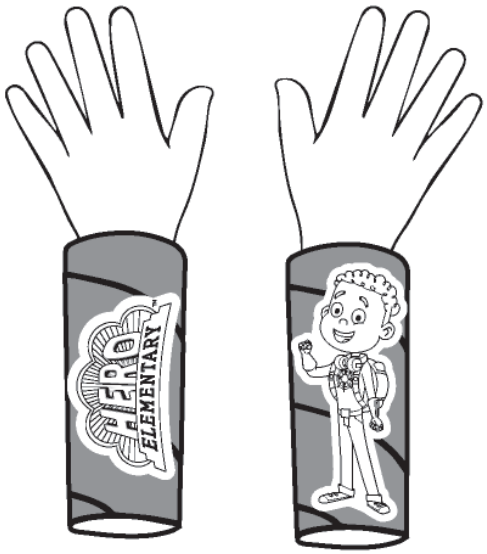
Recycled Superhero Wrist Cuffs

AJ Gadgets uses his Superpowers of Science to engineer cool new gadgets from recycled materials. Join Sparks' Crew by making your own HERO ELEMENTARY superhero wrist cuffs from empty toilet paper rolls.



Directions:

1. Find two empty toilet paper rolls and make a cut down the length of each one so that you can slip one over each wrist.
2. Decorate your superhero wrist cuffs! You can use paint, markers, glitter, yarn, fabric or your favorite art supplies.
3. Color and cut out the images below and affix one to each wrist cuff. Can you find other recycled materials from around your house to add to your cuff?
4. Wear your wrist cuffs and remember you can be a superhero by being kind and helping others!



AJ Gadgets

For more games and activities, visit pbskidsforparents.org

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Bubble Up!

Make a bubble mix at home for some outdoor fun!

What you need:

- 1/2 cup liquid dish soap
- 1/4 cup glycerin (from a pharmacy) or corn syrup (from a grocery)
- 2 cups water
- Bowl (or bucket)
- Spoon or chopstick

What to do:

Pour water, dish soap, and glycerin (or corn syrup) into the bowl or bucket. Stir slowly to mix the liquids, but to keep bubbles from forming. Dip the wand you created (see below) into the mixture and blow bubbles!

Create a Wand!

What you need:

- Pipe cleaners
- Your choice of the following:
  - wire coat hanger
  - cookie cutters
  - old sandbox or beach toys
  - kitchen utensils (ask a parent first!)
  - fly swatter

What to do:

AJ Gadgets makes tools from everyday things and you can too! Create a bubble wand – small or supersized. The larger the bubble wand, the larger the bubbles!

A bubble wand has two parts:

1. A shape (circle or square) with a hole in the middle
2. A handle

Use pipe cleaners or wire to attach the two parts of the bubble wand.
Dip the wand into the bubble mixture you created (see above) and blow bubbles!

Find more games and activities at pbskids.org/heroelementary

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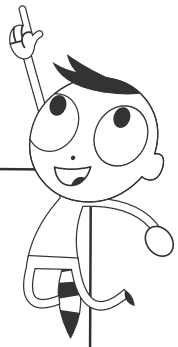
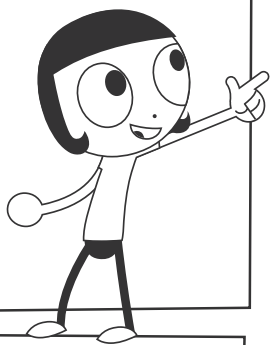
My Summer Adventure

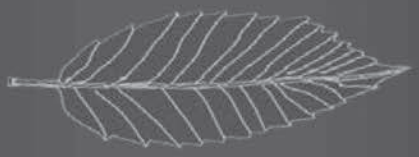
Dot, Dee and Dell love to explore and learn together. Write down or draw the places or things you'd like to explore this summer.





Find more games and activities at **pbskids.org**

PLANTING PUZZLE



EL ROMPECABEZAS DE LA SIEMBRA

Flowers, like trees, help clean our air and make cities more beautiful. Help the CyberSquad plan out a community garden for a new Cyber Site, using these rules:

- Every **green flower** must be directly above, below, or to the side of a **yellow flower**
- Every **green flower** must also be directly above, below, or to the side of a **pink flower**
- **Pink flowers** can't be directly above, below, or to the side of another **pink flower**

Cut out the flowers on the last page. Use a crayon or marker to color in:

- **5 green flowers**
- **8 yellow flowers**
- **5 pink flowers**
- **7 blue flowers**

Use the grid on the next page to make your plan. Move the flowers around until you find a plan that follows all three rules above. Once you have them in place, glue them down to plant your garden.

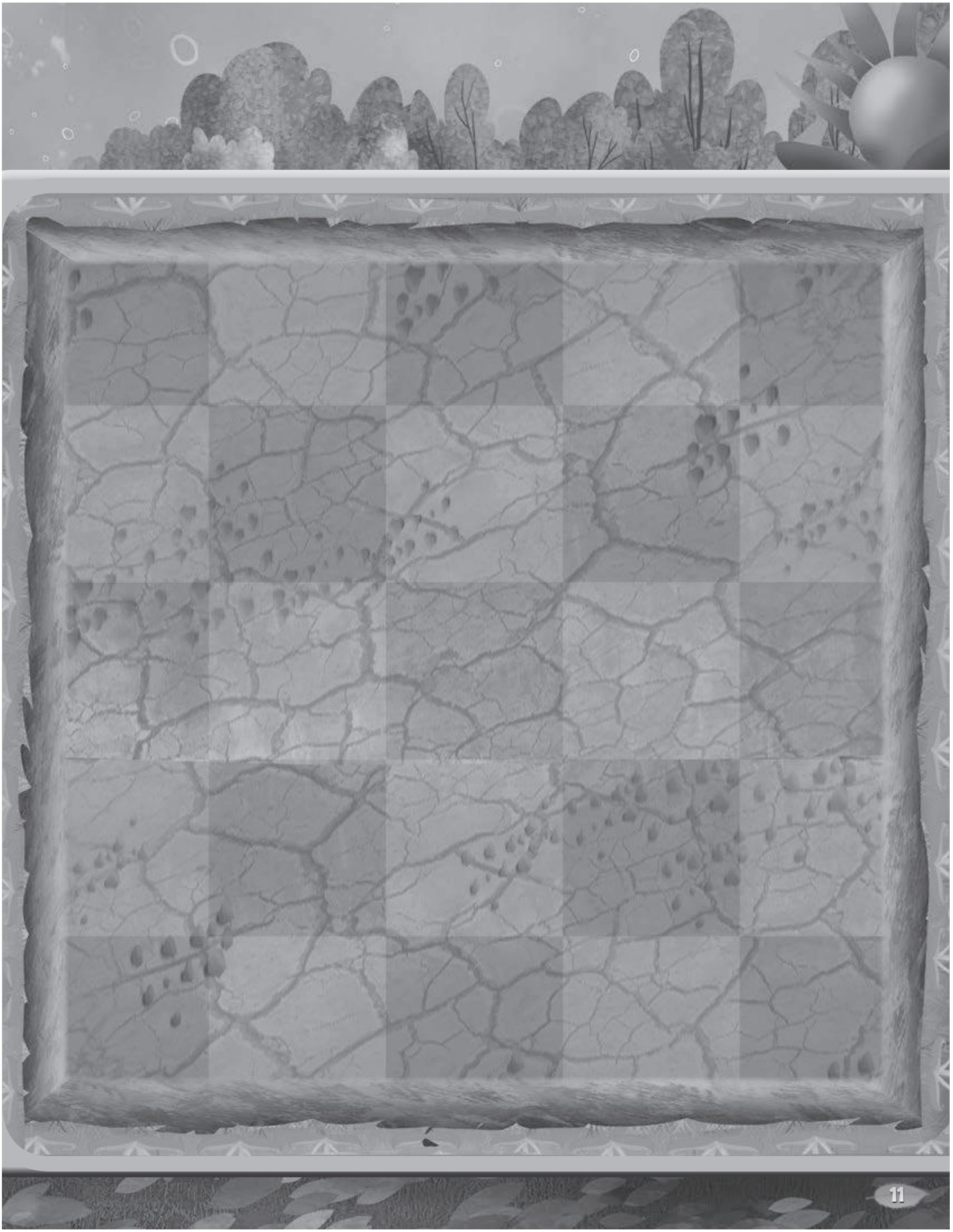
Las flores, como los árboles, ayudan a limpiar nuestro aire y a embellecer las ciudades. Ayuda al CyberSquad a diseñar un jardín comunitario para un nuevo Cyber Site siguiendo estas reglas:

- Cada **flor verde** debe estar justo arriba, abajo o al lado de una **flor amarilla**
- Cada **flor verde** también debe estar justo arriba, abajo o al lado de una **flor rosa**
- **Las flores rosas** no pueden estar justo arriba, abajo o al lado de otra **flor rosa**

Recorta las flores que aparecen en la última página. Usa un crayón o marcador para colorear:

- **5 flores verdes**
- **8 flores amarillas**
- **5 flores rosas**
- **7 flores azules**

Usa la cuadrícula de la página siguiente para hacer tu plano. Cambia las flores de lugar hasta que encuentres un plano que siga las tres reglas anteriores. Una vez que las tengas en su lugar, pégalas para plantar tu jardín.

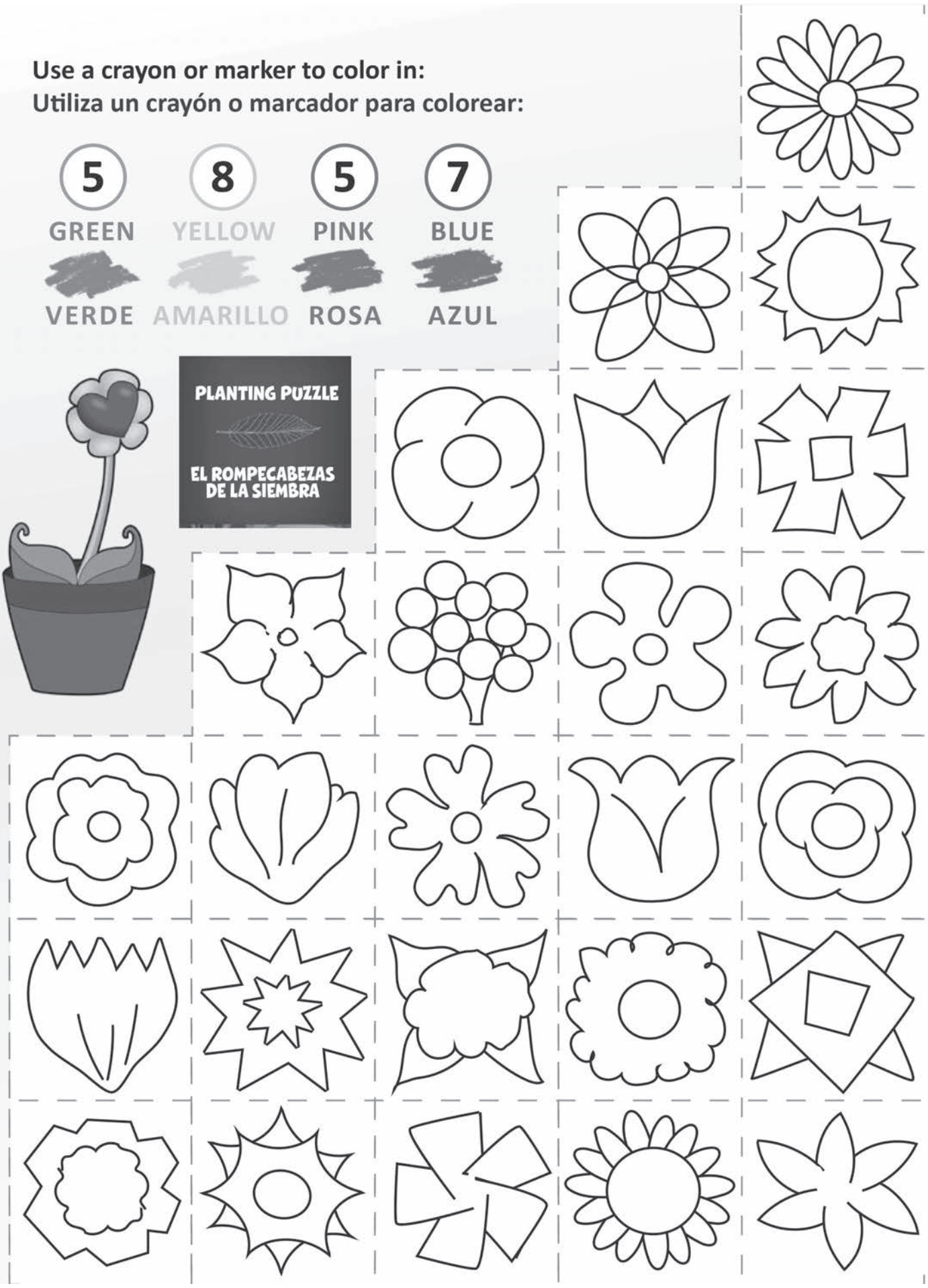


Use a crayon or marker to color in:
Utiliza un crayón o marcador para colorear:

5	8	5	7
GREEN	YELLOW	PINK	BLUE
VERDE	AMARILLO	ROSA	AZUL

PLANTING PUZZLE

EL ROMPECABEZAS DE LA SIEMBRA



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GROW YOUR OWN GARDEN

CULTIVA TU PROPIA HUERTA

Delicious, healthy vegetables don't just come from the store. You and your family can grow them from seeds at home! You don't need a big farm to grow vegetables. Even a small space can be home to a garden.

Use old newspapers to make a pot for planting seeds.

Materials:

- **masking tape**
- **newspaper**
- **seeds for vegetables or herbs**
- **potting soil**
- **a can or jar**

1. To make a newspaper pot:
   a. Tear two strips of newspaper the width of your hand (about 4" wide).
   b. Lay the two strips on top of each other.
   c. Place the can on its side at one end of the strip. Leave a little extra paper hanging off the bottom of the can.
   d. Roll the newspaper strips tightly around the can.
   e. When you get to the end, tape it down. Then fold up the extra newspaper over the bottom of the can and tape it down too.
   f. Pull the can out of the pot.
2. Fill the pot ½ full of soil.
3. Sprinkle some seeds on the soil. Cover the seeds with another layer of soil. Check the seed packet to see how much soil to add on top.
4. Place your pots on a plate or dish and put them by a window where they will get some light.
5. After the plant grows a few leaves, plant the whole pot in the ground or in a bigger pot. Over time, the newspaper will biodegrade (break down) in the soil.

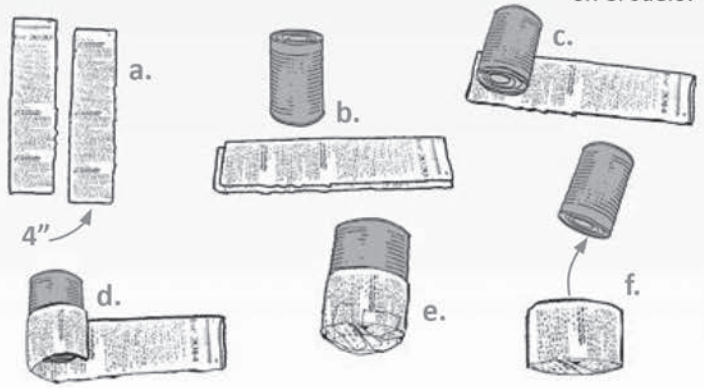
Las verduras deliciosas y saludables no solo vienen de la tienda. ¡Tú y tu familia pueden cultivarlas a partir de semillas en casa! No necesitas una gran granja para cultivar verduras. Incluso un espacio pequeño puede albergar una huerta.

Usa periódicos viejos para hacer una maceta para plantar semillas.

Materiales:

- **cinta de enmascarar**
- **periódico**
- **semillas para verduras o hierbas**
- **tierra de macetas**
- **una lata o un frasco**

1. Para hacer una maceta de periódico, debes:
   a. Cortar dos tiras de papel de periódico del ancho de tu mano (alrededor de 4 pulgadas de ancho).
   b. Pon las dos tiras una encima de la otra.
   c. Pon la lata de lado en un extremo de la tira. Deja un poco de papel extra colgando del fondo de la lata.
   d. Enrolla las tiras de periódico con firmeza alrededor de la lata.
   e. Cuando llegues al final, ponle la cinta. Luego dobla el periódico extra sobre el fondo de la lata y pégalo con cinta también.
   f. Saca la lata de la maceta.
2. Llena la maceta hasta la mitad con tierra.
3. Esparce algunas semillas en la tierra. Cubre las semillas con otra capa de tierra. Revisa el paquete de semillas para ver cuánta tierra agregar en la parte superior.
4. Pon las macetas en un plato o una fuente y colócalas junto a una ventana donde reciban algo de luz.
5. Después de que crezcan algunas hojas, planta toda la maceta en la tierra o en una maceta más grande. Con el tiempo, el periódico se biodegradará (se descompondrá) en el suelo.



Activity adapted from the Children's Museum of Houston

Actividad adaptada del Museo de los Niños de Houston

it's Storytime CHALLENGE

Make Your Own Stethoscope

REUSE Toolbox

What other materials could you find and use?

- Duct tape
- Scissors
- Plastic Funnel
- Cardboard Tube
- Stopwatch or Clock

My Design Ideas:

How could I improve on my design for next time?

DID YOU KNOW?

Heroes are definitely in the medical field, but there are heroes everywhere! Police officers, teachers, scientists, firefighters, and soldiers are all heroes. And that's not all! Who in your community is a hero?

POWER UP WORDS

- Oxygen
- Exercise
- Heart Rate

CAREER LIFTOFF

- Physician
- Biomedical Engineer
- Nurse
- Physical Therapist
- Veterinarian

Learning Standards: 3rd grade

3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

CITY OPERA HOUSE

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ACTIVITY GUIDE

Episode 205: Prefixes and Saving the Salmon Part 1
Book: *Come Back, Salmon* by Molly Cone

Scan below to watch lesson

Read It

Read the paragraph out loud. Circle the words with the after- and under- prefixes.

Piping Plovers are hard to spot! These endangered, sandy-colored birds are almost invisible on the beach. It is easiest to see plovers when they sprint toward worms and insects that hide just underground. When plovers chase their afternoon snack, you might see their white underside and orange legs.

Foundational Skills

A **prefix** is a word part added to the beginning of a word to change a word and its meaning.

after-
later or after

under-
below or less

Try It

Combine each base word with the given prefix. Write the new word in the space provided and read each definition. Try using the new words in a sentence, and share them with a family member.

base word	prefix	new word	meaning
effect	after-		result that happens after some time has passed
eat	over-		eat less than you should
thought	after-		something you think about later
ground	under-		below ground

Locate The Fraction

Directions: Partition each number line. Locate and label each fraction.

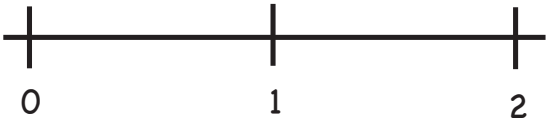
$\frac{1}{4}$

$\frac{1}{8}$

$\frac{1}{3}$

$\frac{1}{4}$

$\frac{1}{6}$



$\frac{1}{8}$

Week 4: Creatures

July 11-17

From the prehistoric to the present, learn about the fascinating features of creatures near and far.

Use the sheet below to mark off this week's activities as you complete them. See if you can get a BINGO!

Playlists this week: www.michiganlearning.org/creatures

Invent a creepy cool creature (62)	60 mins. of activity	Read 20 minutes	Catch a firefly	Watch Read, Write, ROAR!
Read 20 minutes	Watch Math Mights	Make tracks with clay (pg. 63)	Make bird obser-vations (pg. 64)	60 mins. of activity
60 mins. of activity	Make a Rube Goldberg Machine	HAVE FUN! (Free Space)	Track the weather	Read 20 minutes
Watch Read, Write, ROAR!	Go fishing	Watch Math Mights	Watch InPACT at Home	Make a leftover recipe (pg. 66)
Watch InPACT at Home	Read 20 minutes	Write a creature adventure (pg. 61)	60 mins. of activity	Move like a dinosaur (pg. 60)

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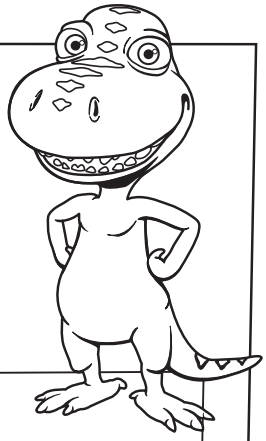
Move Like a Dinosaur



Instructions: Can you move like a dinosaur? Here's a list of movements to get you and your child started! To play, have your child stand at one end of the room and move towards you using one of the prompts below.

WALK like a Theropod
(a bipedal dinosaur that walked on two legs)

MOVE like a Brachiosaurus
(a quadrupedal dinosaur that walked on all fours)

SPRINT like an Ornithomimus
(a dinosaur with long thin legs for sprinting or running really fast)

GLIDE like a Microraptor
(a small bird-like dinosaur that could move smoothly through the air)

SLITHER like a Sanajeh
(a prehistoric snake that slithered or slid around on its belly)

STOMP like a T. rex!
(a powerful dinosaur who walked around with loud, heavy steps)

DIVE like a Hesperonis
(a dinosaur that was good at diving deep underwater for fish)

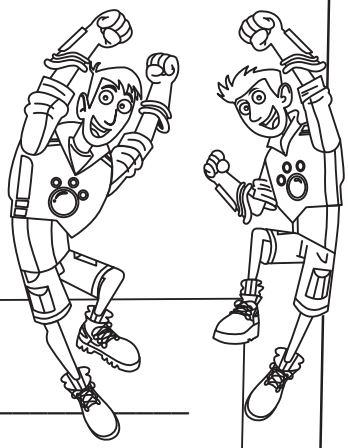
FLY like a Pteranodon
(like Tiny, Shiny, and Don, Pteranodons could fly through the air very easily)

SWIM backwards like a Michelinoceras
(a squid-like creature who lived in the ocean and swam backwards)

HOOT like a Corythosaurus
(a dinosaur with a large crest on top of its head that made a hooting sound like a horn)

Funded by:

My Creature Adventure

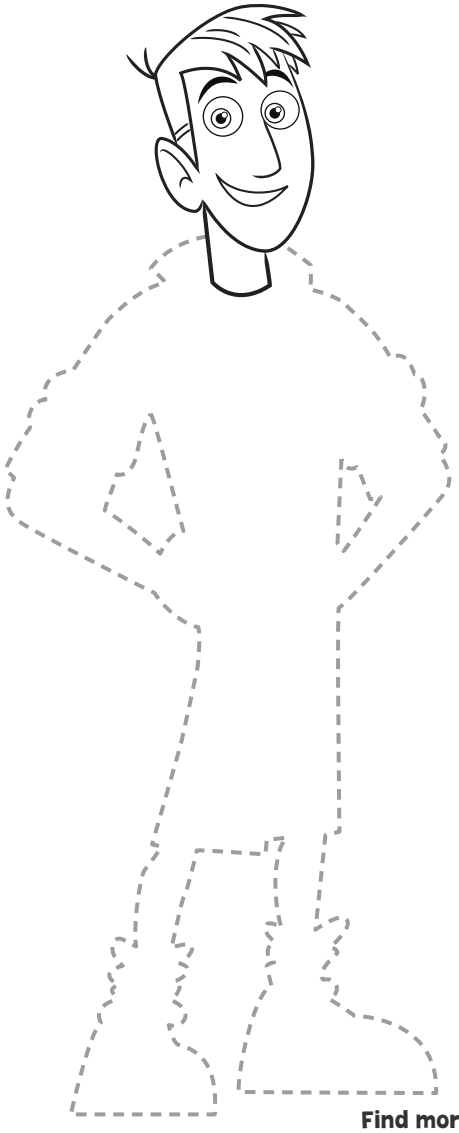


Instructions: It's time to write a creature adventure! To get started, choose a creature and a setting (where the adventure takes place). Then, decide on the plot (what happens to the creature in the setting). Use the space below to begin the story.

Find more games and activities at pbskids.org/wildkratts

Invent A Creepy Cool Creature

Think about what features make a creature creepy. Draw the creepiest creature you can invent, then make a cool Creature Power® suit for Martin to wear.



Find more games and activities at pbskids.org/wildkratts

MAKIN' TRACKS WITH PLAY DOUGH!

DIFFICULTY: EASY

When you walk in wet sand, snow or mud, you leave behind a footprint. Animals do, too! We call those prints, "tracks." Next time you're exploring, look for tracks on the ground!

You can also make your own tracks to compare with friends, your pet, or one of the Nature Cat gang! Using play dough, make YOUR nature tracks to create an artistic masterpiece!

MATERIALS

- Play dough
- Rolling pin
- Washable paint and paintbrush (optional)

CAPTURE YOUR TRACKS

1. Make two balls with your dough.
2. Roll out each dough ball on a flat surface until it is a little bit bigger than your foot.
3. Ready? Press your hand into one piece of the dough.
4. Now repeat with a foot (or a patient pet.)
5. Let it dry and add some color with paint!

Find more games and activities at **pbskidsforparents.org**

Name

My Bird Observations

Look out a window and draw a bird that you see.
Tell someone else about the bird. Share what you notice — for example, the colors of the feathers or the shape of its beak. What was it doing?

Find more games and activities at **pbskidsforparents.org**

Corporation for Public Broadcasting

it's Storytime

CHALLENGE

RUBE GOLDBERG MACHINE

REUSE Toolbox

What other materials could you find and use?

- Dominos or Blocks
- Ball
- Cardboard
- Duct Tape
- Balloon
- Push Pin

My Design Ideas:

How could I improve on my design for next time?

DID YOU KNOW?

Engineers usually design or build things. Some engineers also use their skills to solve technical problems. There are different types of engineers that design everything from computers and buildings to watches and websites.

POWER UP WORDS

- Slope
- Tension
- Gravity

CAREER LIFTOFF

- Civil Engineer
- Mechanical Engineer
- Roller Coaster Engineer

Learning Standards: Kindergarten; Forces and Interactions: Pushes and Pulls

K-PS2-1 Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.
K-PS2-2 Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.

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LEFTOVER RECIPE CHALLENGE
DESAFÍO DE LA RECETA DE SOBRAS

Getting creative with leftovers helps waste less food! Can you help Jackie use her leftover foods to make an exciting new recipe? Pick three of the foods in Jackie's refrigerator below to combine into a new recipe. Draw your leftover creation on the recipe card on the next page. Be sure to add a name for your new dish!

¡Al usar las sobras de forma creativa, se desperdicia menos comida! ¿Puedes ayudar a Jackie a usar las sobras de comida para crear una receta nueva? Escoge tres alimentos del refrigerador de Jackie para combinarlos en una receta nueva. Dibuja lo que creaste en la tarjeta de recetas de la página siguiente. ¡No olvides escribir un nombre para tu plato nuevo!

LEFTOVER RECIPE CHALLENGE
DESAFÍO DE LA RECETA DE SOBRAS

MY NEW RECIPE
MI RECETA NUEVA

Try the same thing with leftovers at home! Make a list of the leftover food in your refrigerator, so that everyone in the family knows what you have. Challenge the whole family to use those leftovers to make new recipes. Don't forget to use "ugly" fruits and veggies too!"

¡Intenta hacer lo mismo con las sobras que tienes en casa! Haz una lista de las sobras de comida que tienes en tu refrigerador para que todos en tu familia sepan lo que hay. Desafía a toda la familia a usar esas sobras para crear recetas nuevas. "¡No olvides usar frutas y verduras que estén 'feas', también!"

ACTIVITY GUIDE

Episode 207: Closed Syllables and Climate Challenges
Book: *Magic School Bus and the Climate Change Challenge* by Bruce Degen

Scan below to watch lesson

Read It

One strategy readers can use to read a word more accurately is to break it into syllables, or word parts.

Rules for Dividing Syllables
Every syllable has one vowel or vowel team. -Place a dot under each vowel -Underline any vowel teams, -Divide between two consonants

Foundational Skills

A **syllable** is a word part that has one, and only one vowel sound. Sometimes a syllable will have more than one of these vowels, but they work together to make only one sound.

A **closed syllable** is a special kind of syllable. Closed syllables have ONLY one vowel that is followed by one or more consonants. Closed syllables USUALLY have vowels that make their short vowel sound.

Try It

Use the rules for dividing syllables above to break the words into word parts.

plastic

_____ _____

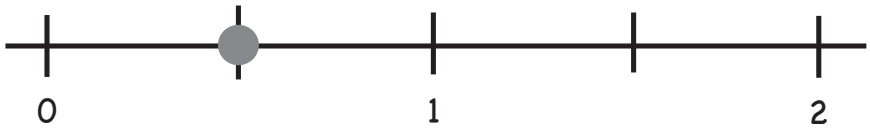
landfill

_____ _____

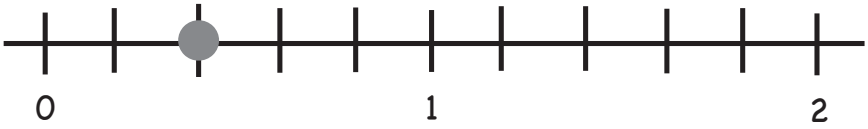
Guess The Fraction

Directions: Guess which fraction is displayed with a dot on the number line. Label the fraction.

1. 

2. 

3. 

4. 

5. 

Week 5: Engineering

July 18-24

Meet the people who design bridges, cars, and video games and learn how to think like an engineer.

Use the sheet below to mark off this week's activities as you complete them. See if you can get a BINGO!

Playlists this week: www.michiganlearning.org/engineering

Watch Live from the Opera House	60 mins. of activity	Read 20 minutes	Act out Structures (pg. 79)	Watch Read, Write, ROAR!
Read 20 minutes	Watch Math Mights	Try the hexagon challenge! (pg. 75)	Travel the Food Miles Maze (pg. 80)	60 mins. of activity
60 mins. of activity	Watch Meet the Helpers	HAVE FUN! (Free Space)	Build and balance an object (pg. 78)	Read 20 minutes
Watch Read, Write, ROAR!	Ride a bike	Watch Math Mights	Watch InPACT at Home	Draw a family member's car
Watch InPACT at Home	Read 20 minutes	Try the Amazing Animals Challenge	60 mins. of activity	Watch ArchiTreks

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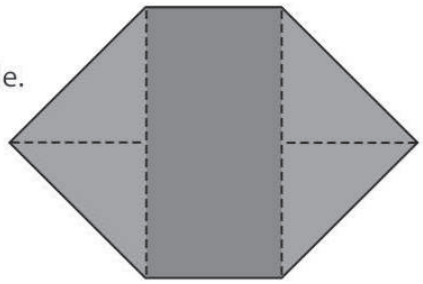
The Hexagon Challenge

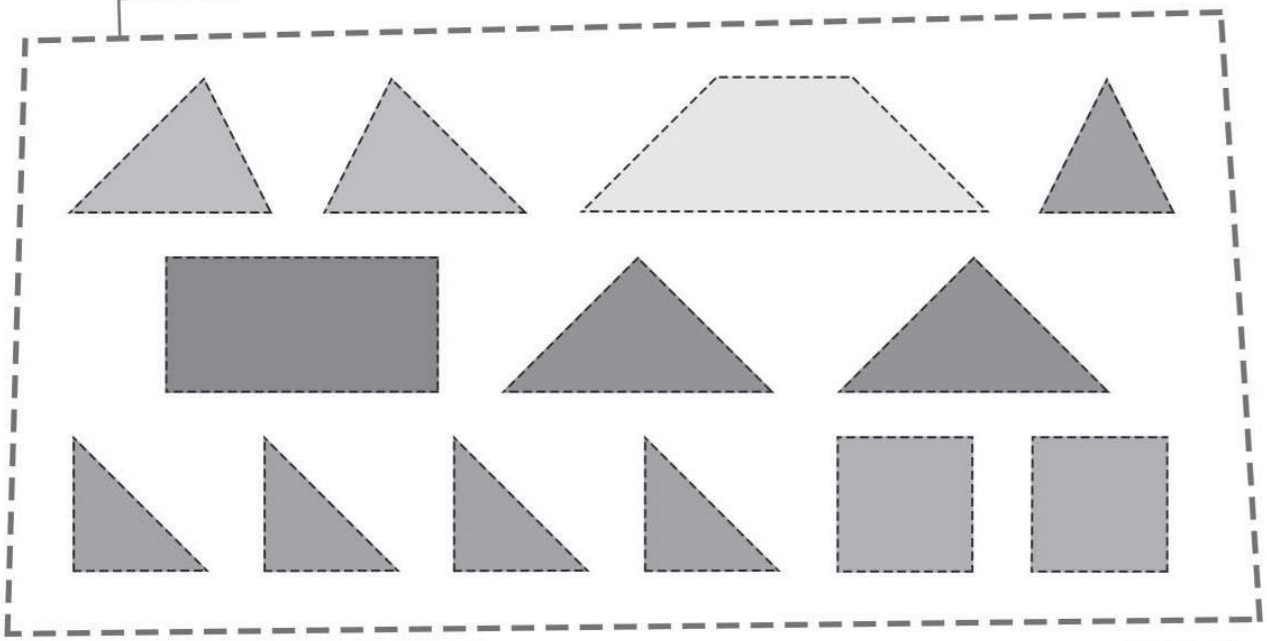
Use your Odd Squad agent skills to solve
The Hexagon Challenge. Print out the two pages.

1. Cut out all the shapes from the Shape Box.
2. On the next page, mix and match your shapes to make a hexagon.
3. Record how you did it by drawing the lines of each shape you used like in the example at the top.
4. Reuse your shapes again and again to make more hexagon patterns. Try to find **8 different** ways to make a hexagon.

Here's a hexagon made with 4 triangles and a rectangle.



Shape Box



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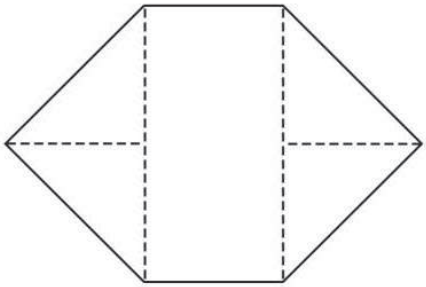
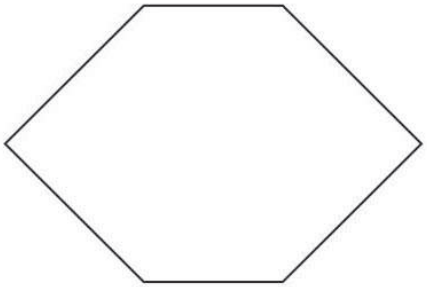
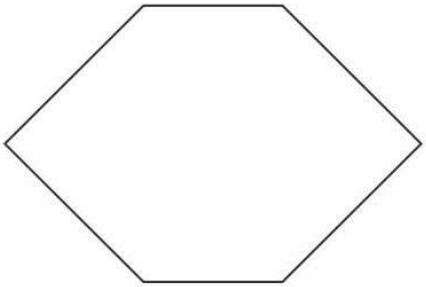
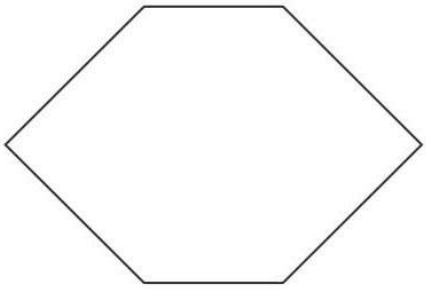
The Hexagon Challenge

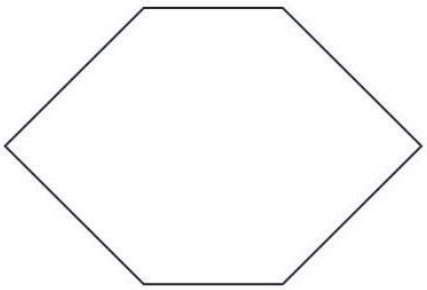


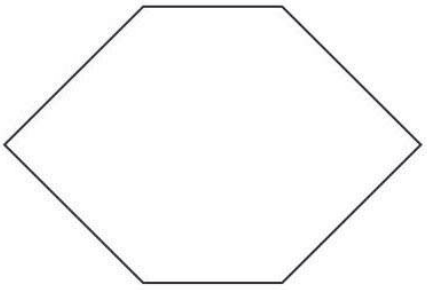
Example

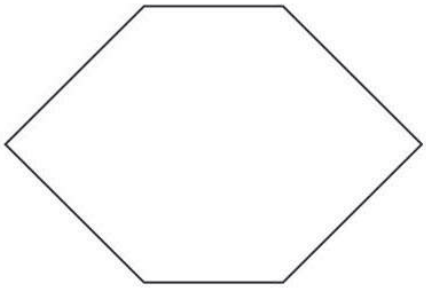


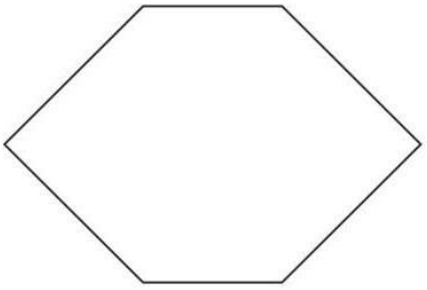


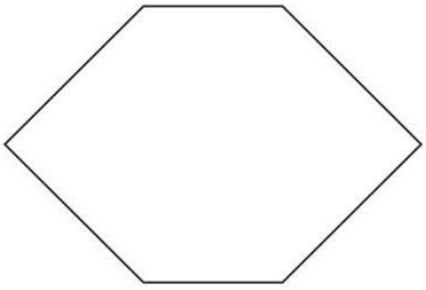












When you are finished with the challenge, check out some possible solutions at www.fredrogers.org/odd-squad-hexagon-solution/

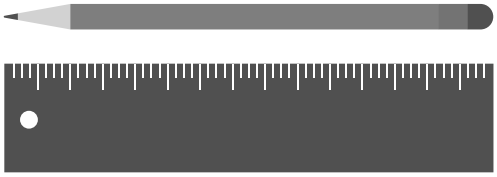
For more printables, go to pbskidsforparents.org

Balance Build

Students will explore symmetry and the properties of balance in this open-ended STEM challenge.

Materials: You can use anything that sparks imagination! Here are some examples.

- Paper
- Scissors
- Craft Sticks
- Beads
- Straws
- Clear Tape
- Masking Tape



Did you know?

Have you ever balanced a pencil or a ruler on your finger? If you have, you helped it reach a **state of equilibrium**. In order to balance an object, you have to find its **center of gravity**. In the case of your pencil, the center of gravity is the same as its midpoint. This is because pencils (and rulers) are **symmetrical** and have equal mass along its length.

Procedure:

1. First, select your materials to create a balancing object. We suggested a few above, but use what you have around your home and challenge your family members to engineer their own design!
2. Creating a symmetrical object, or something that is equal on both sides, will help you in your design process.
3. Once you are satisfied with your design, test it out! See if you can find your new inventions center of gravity to balance it on your finger.
4. What part of your design worked really well in order to achieve balance? Did you experience any failures during your build? What improvements could you make?

Keep Exploring:

Try creating an asymmetrical object that can balance on your finger, or try to create a build to balance on your nose!

1801 W. Saint Andrews Rd.
Midland, MI 48640

800.523.7649
midlandcenter.org

https://michiganarchitecturalfoundation.org

ArchiTREKS: Structures

MICHIGAN ARCHITECTURAL FOUNDATION

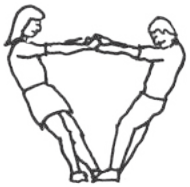
Acting Out Structures

COLUMN

ARCH

COLUMN AND BEAM

DOME



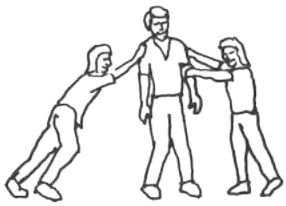
TENSION

CANTILEVER

LOAD AND SUPPORT

VAULT / TUNNEL

COMPRESSION



FLYING BUTTRESSES

How does your house stay standing? Architects use structures like columns, beams, and arches to make buildings strong and be sure they last for many years. Grab a grown-up or a friend and try to make columns, beams, and arches with your body!

FOOD MILES MAZE

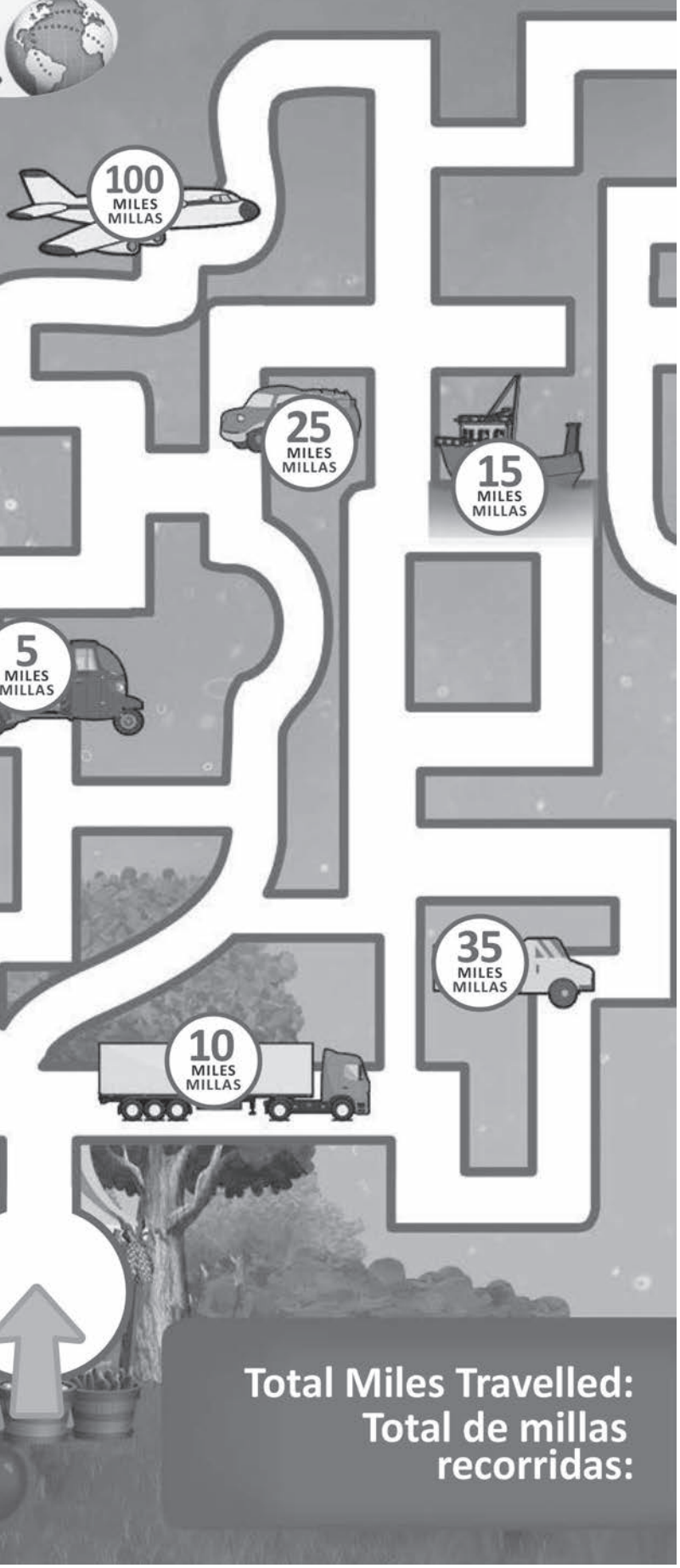
EL LABERINTO DE LAS MILLAS DE COMIDA

Sometimes food travels a long way to get from the farm to our table.

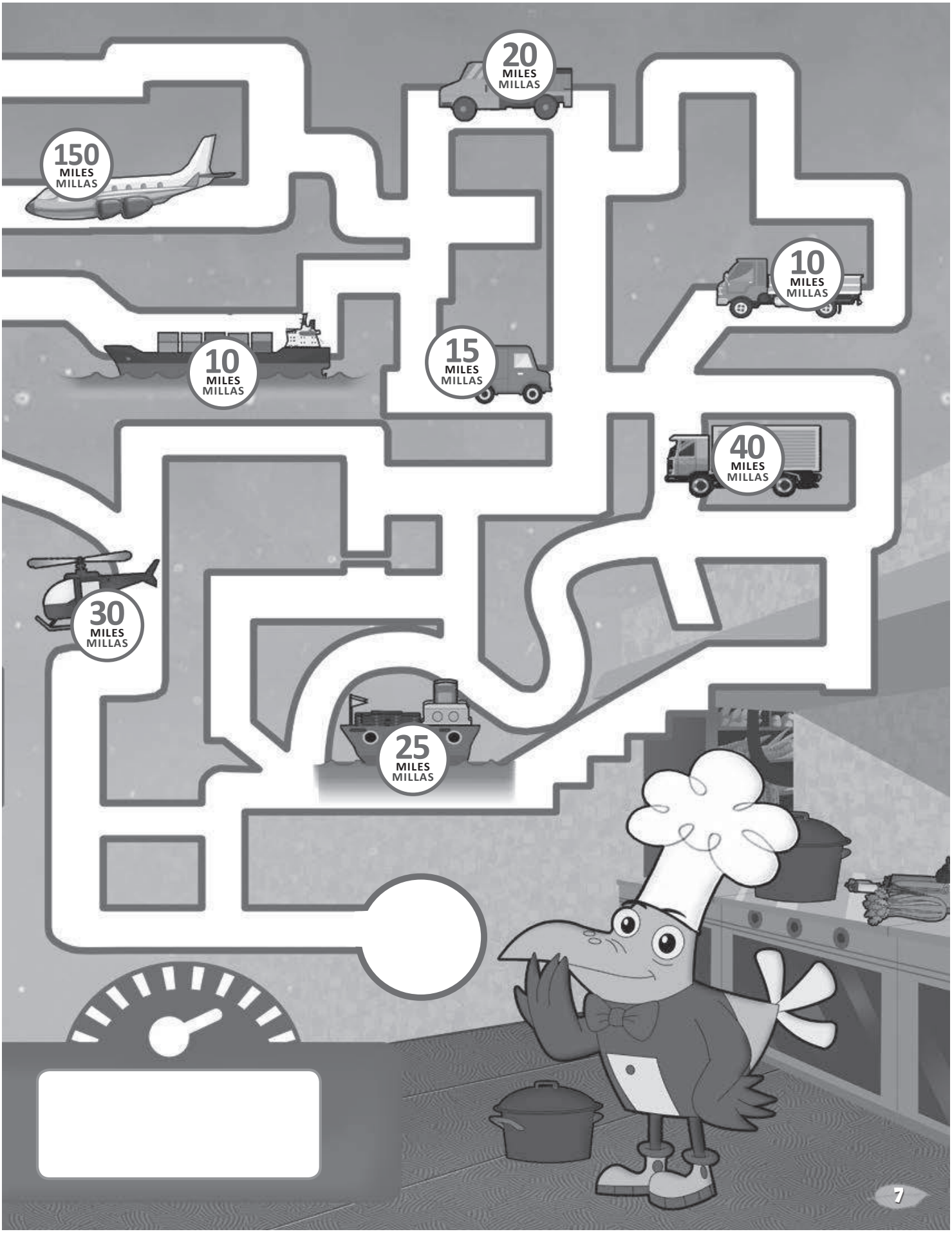
Draw a line to get the cherries from the farm to chef Digit in the maze below. Notice all the different types of transportation you use along the way. Add up the numbers from each type of transportation to see how many miles the cherries had to travel to get to Digit. Do it again and take a different path. Try to find the path with the lowest number of miles!

A veces la comida hace un gran recorrido para ir de la granja a nuestra mesa.

Dibuja una línea para llevar las cerezas desde la granja hasta el chef Digit a través del laberinto. Presta atención a los distintos tipos de transporte que usas en el camino. Suma los números de cada tipo de transporte para ver cuántas millas tuvieron que recorrer las cerezas para llegar a Digit. Luego, hazlo de nuevo, pero toma un camino diferente. ¡Intenta encontrar el camino que tenga menos millas!



Total Miles Travelled:
Total de millas recorridas:


20
MILES
MILLAS
150
MILES
MILLAS
10
MILES
MILLAS
10
MILES
MILLAS
15
MILES
MILLAS
40
MILES
MILLAS
30
MILES
MILLAS
25
MILES
MILLAS

it's Storytime CHALLENGE

Amazing Animals

REUSE Toolbox

What other materials could you find and use?

- Various Boxes
- Foam Blocks, Cubes & Balls
- Form Board
- Fun Fabrics
- Masking Tape
- Small Bag of Bird Seeds
- Pipe Cleaners
- Wiggly Eyes

My Design Ideas:

How could I improve on my design for next time?

DID YOU KNOW?

Animals are truly amazing. Did you know that to hover, hummingbirds may beat their wings up to 200 times per second? Or that a jaguar can see in the dark six times better than a human?

POWER UP WORDS

- Adaptation
- Coexist
- Ecosystem

CAREER LIFTOFF

- Zoologist
- Wildlife Biologist
- Marine Rescue Officer
- Animal Shelter Technician

Learning Standards: 2nd Grade

2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

CITY OPERA HOUSE

TCAPS Traverse City Area Public Schools Great Community, Great Schools

Michigan LEARNING CHANNEL A PUBLIC MEDIA PARTNERSHIP

LIVE from the OPERA HOUSE it's Storytime

ACTIVITY GUIDE

Episode 210: Closed and Open Syllables
Book: *Coyote's Soundbite: A Poem for our Planet* by John Agard

Scan below to watch lesson

Read It

A few years ago, lead was found in Flint's drinking water. Many kids got sick because they had been drinking the water for a long time. Some kids had skin issues and even changes to their brains, making it hard for them to learn. Furthermore, it's happening in Benton Harbor and many cities in Michigan right now!

Michigan needs to check its water to make sure kids are not being hurt from their drinking water. One child in one family is too many!

Foundational Skills

An **open syllable** is a special kind of syllable. Open syllables have one WRITTEN vowel that is NOT followed by one or more consonants. Open syllables USUALLY have vowels that make their long vowel sound.

Rules for Dividing Syllables
Every syllable has one vowel or vowel team. -Place a dot under each vowel -Underline any vowel teams, -Divide between two consonants

Try It

Go through and underline each sentence in the text above according to the color code below:

Green = topic sentence

Yellow = important information (story telling parts)

Blue = details (thoughts; feelings; description sentences)

Think About It

Look at this word. Each syllable is written in a different color. Which syllable in this word is not "closed in" by a consonant or consonants at the end?

newspaper

The second syllable ends with the vowel Aa. It is an open syllable.

Equivalent Fraction Roll

Materials: 6 dice

Directions:

1. Player 1 rolls 2 die and makes a fraction with the 2 amounts shown on the dice. If you roll any fives, they count as a wild card and can be any number you'd like.
2. Player 2 rolls 6 dice and tries to create a fraction that is equivalent to Player 1's fraction. (remember fives are wild)
3. If you cannot, re-roll as many number dice as you'd like. You can re-roll twice.
4. If you can make equivalent fractions, record your statement and show or explain how you know the fractions are equivalent.
5. You get 1 point for each pair of equivalent fractions you write.
6. Repeat steps 1-5 starting with Player 2. Play 8 rounds.

	Equivalent Fractions	If an equivalent fraction was created, circle the player who gets the point.
Round 1	$\frac{\square}{\square} = \frac{\square}{\square}$	Player 1 or Player 2
Round 2	$\frac{\square}{\square} = \frac{\square}{\square}$	Player 1 or Player 2
Round 3	$\frac{\square}{\square} = \frac{\square}{\square}$	Player 1 or Player 2
Round 4	$\frac{\square}{\square} = \frac{\square}{\square}$	Player 1 or Player 2

	Equivalent Fractions	If an equivalent fraction was created, circle the player who gets the point.
Round 5	$\frac{\square}{\square} = \frac{\square}{\square}$	Player 1 or Player 2
Round 6	$\frac{\square}{\square} = \frac{\square}{\square}$	Player 1 or Player 2
Round 7	$\frac{\square}{\square} = \frac{\square}{\square}$	Player 1 or Player 2
Round 8	$\frac{\square}{\square} = \frac{\square}{\square}$	Player 1 or Player 2

Week 6: Great Outdoors

July 25-31

Explore the world outside your door and the incredible parks and waters that belong to us all.

Use the sheet below to mark off this week's activities as you complete them. See if you can get a BINGO!

Playlists this week: www.michiganlearning.org/greatoutdoors

Make a bird feeder (pg. 93)	60 mins. of activity	Read 20 minutes	Watch the sunset	Watch Read, Write, ROAR!
Read 20 minutes	Watch Math Mights	Search for Textured Treasures (pg. 91)	Visit a new place	60 mins. of activity
60 mins. of activity	Draw a pollinator (pg. 95)	HAVE FUN! (Free Space)	Try a new food	Read 20 minutes
Watch Read, Write, ROAR!	Go swimming	Watch Math Mights	Watch InPACT at Home	Make leaf rubbings (pg. 94)
Watch InPACT at Home	Read 20 minutes	Watch the sunrise	60 mins. of activity	Watch Live from the Opera House

Michigan LEARNING CHANNEL
A PUBLIC MEDIA PARTNERSHIP

Search for Textured Treasures!

From a prickly pinecone to a soft sweater, everything we touch has texture. How many textures can you find inside or outside of your house? Race the clock or race a friend with this printable scavenger hunt!

Instructions:

1) Look at the scavenger hunt table on the following page.

2) Begin hunting for textures on your list.

3) When you find something, draw a picture or write the object's name next to its matching texture.

TEXTURE describes the feel or appearance of an object or the material an object is made of.

More Ways to Play:

- Instead of drawing or writing, snap photos with a digital camera or camera phone.
- In the spaces on your sheet, make crayon rubbings of the textures you find.
- Target your scavenger hunt. Look for objects in nature, in your kitchen, or a specific room.
- Explore other senses. Find things with different colors, smells, or even tastes. (Tastes found in the kitchen, of course.)

Find more games and activities at **pbskidsforparents.org**

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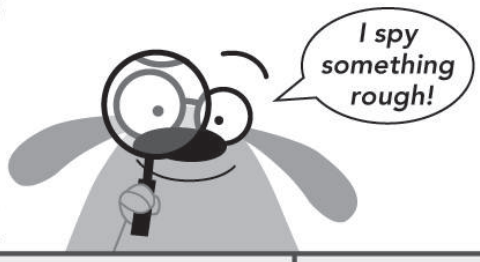
Corporation for Public Broadcasting



Name _____

I'm looking for something...	I found a...
smooth	
rough	
bumpy	
prickly	
sticky	
fluffy	
glossy	

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Make a Bird Feeder

What You Need:

- **Pinecone, paper towel holder or piece of bread**
- **Peanut butter or honey**
- **Your choice of the following:**
  - **Raisins**
  - **Cranberries**
  - **Plain popped popcorn**
  - **Sunflower seeds**
  - **Shelled plain peanuts**
  - **Mixed birdseed**
- **Safety scissors**
- **Wire, dental floss or cotton string**

What to Do:

1. Select a bird feeder base: Pinecones are a popular foundation for a bird feeder, but you may also use an empty paper towel roll or a stale piece of bread.

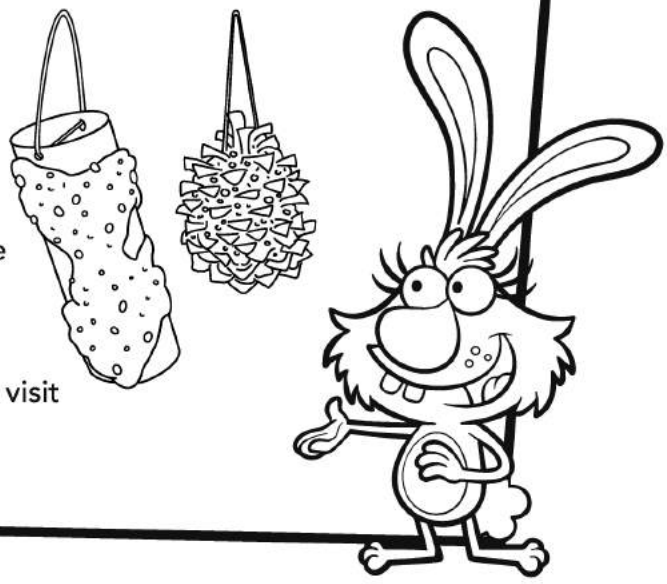
2. String it up: Run a wire, dental floss or cotton string through your bird feeder. Secure the two ends together to make a loop.

3. Make it sticky: Coat the base with peanut butter. If you know someone who has peanut allergies, use honey instead.

4. Add some goodies: Roll the feeder in raisins, cranberries, unsalted and unbuttered popcorn, sunflower seeds, shelled plain peanuts or mixed birdseed.

5. Hang it up: Place your bird feeder on a hook or on a tree branch outside your window. Discover which birds are popular in your neighborhood, research what they like to eat, and make a bird feeder for them.

6. Keep a wildlife journal: Record what kind of birds and other animals come to visit your feeder!



Find more games and activities at pbskidsforparents.org

Name _____

Make Leaf and Bark Rubbings

Instructions

1. You'll need one or more crayons with the labels removed, some cardboard or a clip board and some masking tape to help hold leaves or bark in place.
2. When you're walking outside, collect a few fallen leaves, some bark or other natural materials. It's best if you find leaves or bark where you can feel bumps or ridges.
3. Once you've found your leaves, bark or other items, use tape to secure the edges of the leaves, bark or other materials to the clipboard or cardboard so that they will stay in place while you make your rubbing.
4. Place this paper over the leaves and bark and lightly rub the side of the crayon over the surface of the paper, just hard enough so that the texture shows.
5. Write a list of words to describe how the leaf or bark feels or looks like.

What You'll Need:

- **Trees**
- **Plain white paper**
- **Crayons with label removed**
- **Masking tape (optional)**
- **Cardboard or clipboard**
- **Paper bag for collecting leaves**

Find more games and activities at **pbskidsforparents.org**

FRIENDLY NEIGHBORHOOD POLLINATORS

POLINIZADORES AMISTOSOS DEL VECINDARIO

Pollinators help plants with flowers to grow. Go on a pollinator scavenger hunt! Take a walk around your neighborhood or in a local park. Look for the pollinators below. Draw a circle around each one that you see.

Los polinizadores ayudan a las plantas con flores a crecer. ¡Ve a una búsqueda de polinizadores! Da un paseo por tu vecindario o en un parque local. Busca los polinizadores de abajo. Dibuja un círculo alrededor de cada uno que veas.

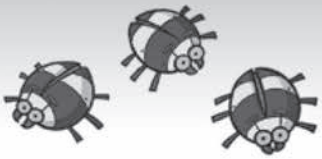
Bats / Murciélagos

Bees / Abejas

Butterflies / Mariposas

Hummingbirds / Colibríes

Moths / Polillas



Beetles / Escarabajos

In the box below, draw a picture of one of the pollinators you saw. If there were plants nearby, put them in your drawing too! What kinds of plants do pollinators seem to like?

En el recuadro de abajo, dibuja uno de los polinizadores que viste. Si había plantas cerca, ¡dibújalas también! ¿Qué tipo de plantas parecen gustar a los polinizadores?

it's Storytime CHALLENGE

Growing Seeds

REUSE Toolbox

What other materials could you find and use?

- Cardboard Egg Carton
- Scissors
- Potting Soil
- Used Coffee Grounds
- Seeds
- A Waterproof Plate or Tray

My Design Ideas:

How could I improve on my design for next time?

DID YOU KNOW?

Humans use more than 2000 different types of plants to create various delicious food items in our meals!

Seeds can be as tiny as a grain of sand or bigger than a fingernail.

POWER UP WORDS

- Seed
- Root
- Stem
- Flower

CAREER LIFTOFF

- Gardener
- Farmer
- Florist
- Agricultural Engineer
- Forester

CITY OPERA HOUSE

TCAPS Traverse City Area Public Schools Great Community, Great Schools

Michigan LEARNING CHANNEL A PUBLIC MEDIA PARTNERSHIP

LIVE from the OPERA HOUSE it's Storytime

Learning Standards: Kindergarten

K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.

K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

ACTIVITY GUIDE

Episode 212: Even More Closed and Open Syllables
Book: *Coyote's Soundbite: A Poem for our Planet* by John Agard

Scan below to watch lesson

Read It

An accurate reader pays close attention to every letter in a word.

Look at each word below. Think about the sounds that the letters make. Read the word out loud.

pan

pant

plant

Think About It

As you are reading a book, you may have different reactions to the words on the page. Sometimes you may feel happy while other times you may feel sad, angry, or confused.

After reading a book and experiencing different feelings, you can respond by writing a sentence that provides evidence from the book to backup your reaction.

Try It

Start at the bottom of the ladder. Follow the instructions to change each word. Write the word in the space provided.

Add a **d** at the end

Change the **f** to a **t**

Change the **v** to a **r**

Change the **d** to a **f**

dive

Write It

Use the sentence starters below to write about a book that you have read.

This book made me happy because

_____

_____

_____

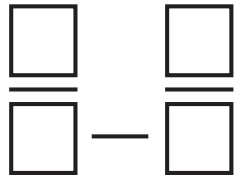
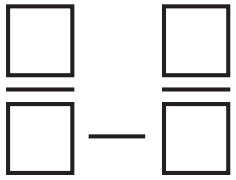
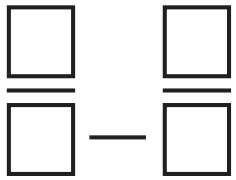
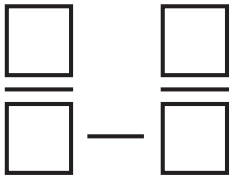
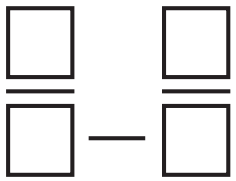
This book made me think because

_____

_____

_____

Recording Sheet

	Locate and label your fraction (each player use a different color).	
Round 1		
Round 2		
Round 3		
Round 4		
Round 5		

Week 7: When I Grow Up August 1-7

All summer we'll learn about different careers—this week, think about all the exciting possibilities in your future!

Use the sheet below to mark off this week's activities as you complete them. See if you can get a BINGO!

Playlists this week: www.michiganlearning.org/growup

Learn about a family member's job	60 mins. of activity	Read 20 minutes	Try Bianca's body math (pg. 107)	Watch Read, Write, ROAR!
Read 20 minutes	Watch Math Mights	Watch Live from the Opera House	Practice ballet positions (pg. 106)	60 mins. of activity
60 mins. of activity	Draw a self portrait	HAVE FUN! (Free Space)	Learn about a family member's job	Read 20 minutes
Watch Read, Write, ROAR!	Watch Meet the Helpers	Watch Math Mights	Watch InPACT at Home	Fill in the compost fractions (pg. 110)
Watch InPACT at Home	Read 20 minutes	Practice Fact Families (pg. 109)	60 mins. of activity	Invent an instrument (pg. 108)

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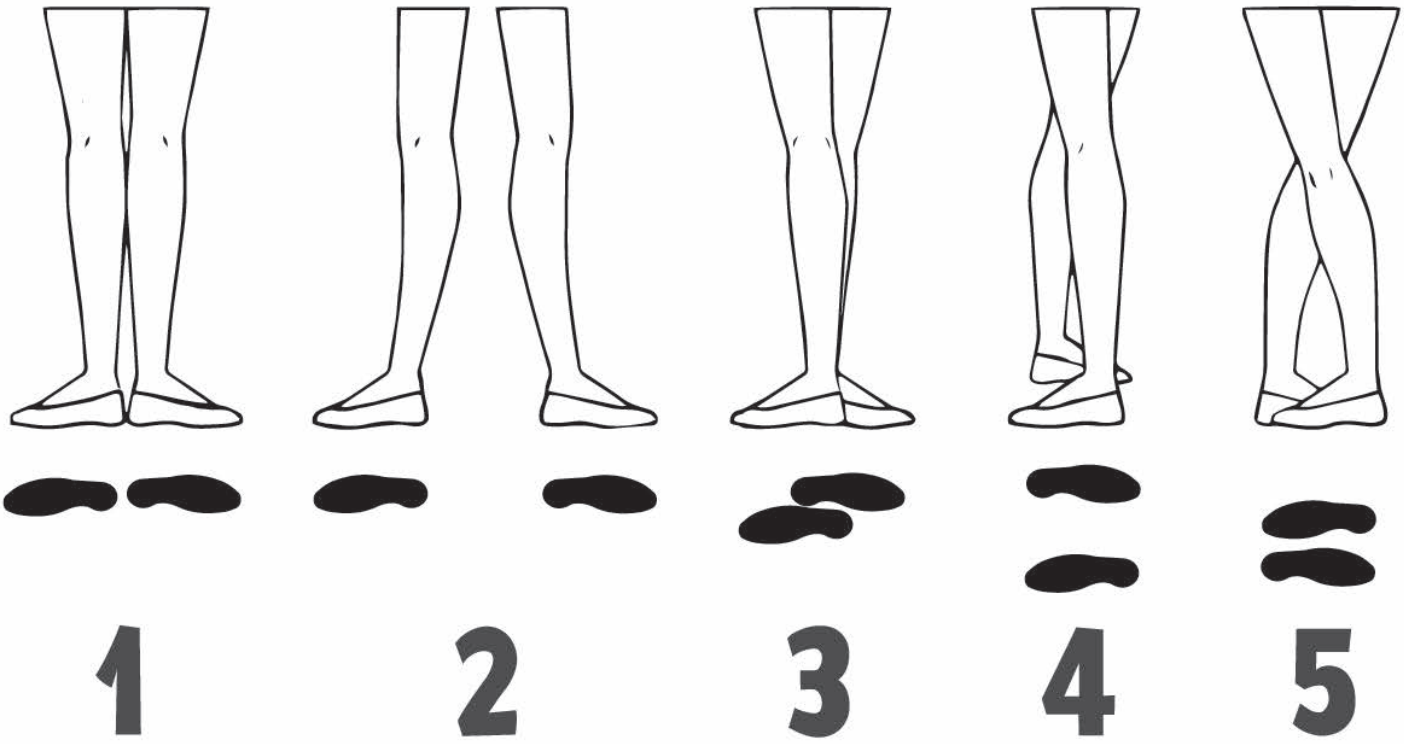
peg + cat

In 2015, Misty Copeland became the first Black principal ballerina with the American Ballet Theater. Learn the five basic foot positions used in ballet. Create a dance using the positions and add leaping and twirling to your moves just like Misty!

The Five Ballet Positions



Find more games and activities at **pbskidsforparents.org**

Bianca's Body Math

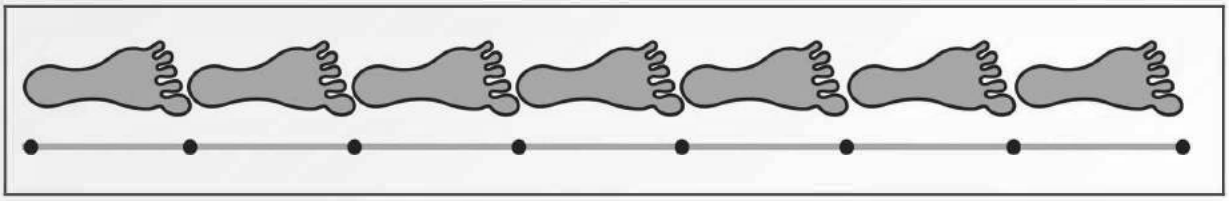
Did you know that for a lot of people, their foot is the same length as their forearm? Find out if it's true for you!

YOU NEED

piece of string (a little longer than your height)
black marker

DIRECTIONS

First, start at the end of your string and mark off seven of your foot-lengths.



Now use the string to measure the body parts listed below. Have a friend help. Be sure to measure from one black mark on the string to the next.

Measure	About how many foot lengths?
From wrist to elbow (forearm)	_____
Around widest part of your fist	_____
Around your forehead	_____
From head to toe	_____

Who Knew?

A person's height is often the same as his or her arm span (arms out to side, middle fingertip to middle fingertip). Is yours?

Cyberchase

Cyberchase SM

Inventive Innovations

Music to Our Ears!

Help! Hacker stole all the musical instruments from the borgs in R-Fair City on the day of their big parade! Can you invent a musical instrument to save the parade?

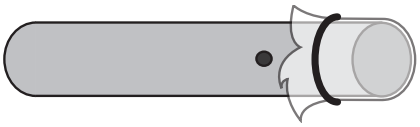
Materials

For your Music Maker:

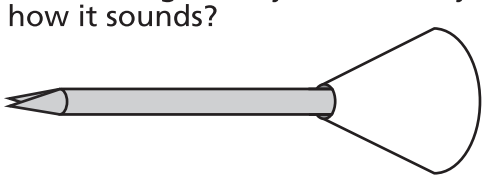
- ❒ plastic and paper cups, paper plates, beans, beads, jingle bells, paper towel rolls, pipe cleaners, paper straws, waxed paper, combs, rubber bands, balloons, craft sticks, plastic salad bar containers, aluminum foil, and other found objects
- ❒ Masking tape
- ❒ Stapler
- ❒ "My Invention Design" handout
- ❒ Pencil

Make Your Instrument

1. Play with the materials. Find sounds that you like by shaking, striking, or spinning objects.



2. Use the "My Invention Design" handout to plan your Music Maker. Make a sketch to show what it looks like.
3. Make your instrument and try it out. Does it work the way you planned?
4. What changes can you make to your instrument to improve how it sounds?



How Am I Inventing?

Inventors take time to plan an invention before they start building. They start with an idea of what they want their invention to do and make a plan. When they stick to that plan, they can build an invention that works the way they want. This is called *designing for function*. When you design your instrument to make a particular sound, you're designing for function, too.

Get inventive with CYBERCHASE on PBS KIDS GO!
Check local listings or visit www.pbskidsgo.org/cyberchase.

CYBERCHASE is produced by Thirteen / WNET New York and Nelvana Limited.
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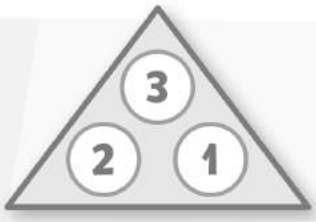
Agents, Villains, and Fact Families

The Odd Squad Mobile Unit must stop a group of villains from causing oddness! Help the agents solve the **fact family** problems shown in the triangles below and on the next page. A fact family is a group of numbers related to one another. Use addition and subtraction to find the answers and help end the oddness that is taking over the city!

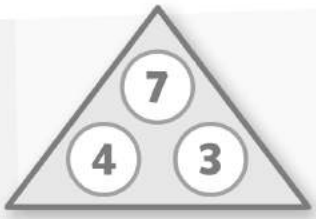
Here's a fact family using the numbers **1**, **2**, and **3**.



$2+1=3$ $1+2=3$

$3-2=1$ $3-1=2$

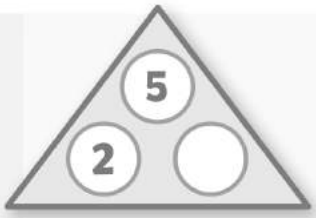
This example shows the fact family for the numbers **3**, **4**, and **7**.



$4+3=7$ $3+4=7$

$7-3=4$ $7-4=3$

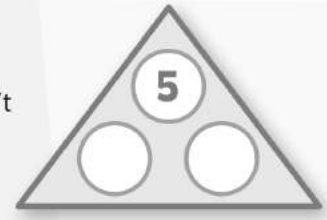
Can you finish this fact family?



$2+\square=5$ $\square+2=5$

$5-2=\square$ $5-\square=2$

Create another fact family with the number **5**, but don't use the numbers **0**, **2**, or **3** in the triangle.



$\square+\square=5$ $\square+\square=5$

$5-\square=\square$ $5-\square=\square$

COMPOST FRACTIONS

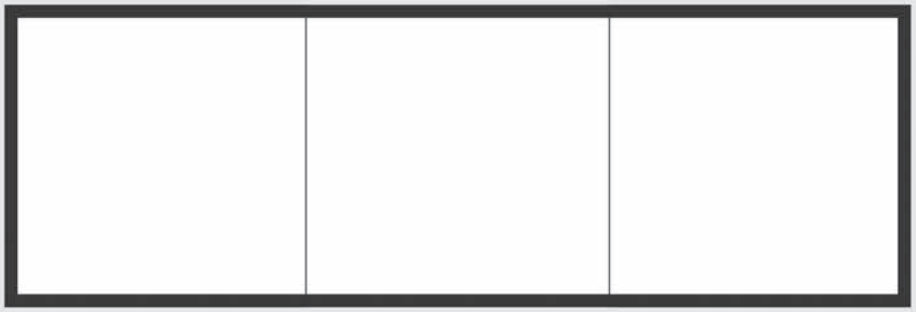
FRACCIONES DE COMPOSTAJE

Composting is the process of changing food waste (and grass and leaves) into new soil. To compost, you need to use 1/3 "green" material (fruit and vegetable scraps) and 2/3 "brown" material (dried leaves and recycled paper).

1. Count the squares below. Each one is 1/3 of the total rectangle.
2. Color 1/3 of the rectangle below (or 1 square) with a green crayon or marker.
3. Color 2/3 of the rectangle below (or 2 squares) with a brown crayon or marker.

El compostaje es el proceso por el cual los residuos de alimentos (el césped y las hojas, también) se transforman en un tipo especial de tierra. Para hacer compost, se necesita 1/3 de material "verde" (restos de frutas y verduras) y 2/3 de material "marrón" (hojas secas y papel reciclado).

1. Cuenta los cuadrados de abajo. Cada uno es 1/3 de todo el rectángulo.
2. Colorea 1/3 del rectángulo de abajo (o 1 cuadrado) con un crayón o marcador verde.
3. Colorea 2/3 del rectángulo de abajo (o 2 cuadrados) con un crayón o marcador marrón.

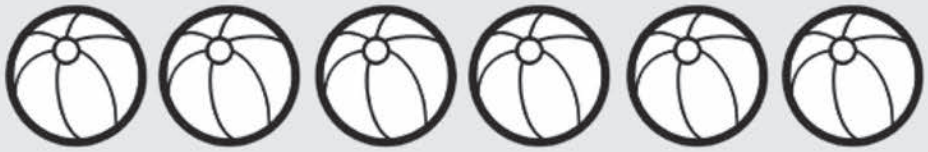


Let's find more ways to show this rule. If you had three balls, how many green balls and how many brown balls would you need?

Veamos más formas de mostrar esta regla. Si tuvieras tres pelotas, ¿cuántas pelotas verdes y cuántas pelotas marrones tendrías?

What if you had six balls?

¿Y si tuvieras seis pelotas?



it's Storytime CHALLENGE

Protect Your Egg

REUSE Toolbox

What other materials could you find and use?

- A Raw Egg
- Foam
- Duct tape
- Masking tape
- White paper
- Colored Pencils
- Crayons

My Design Ideas:

How could I improve on my design for next time?

DID YOU KNOW?

A sports engineer focuses on preventing injury while enhancing the performance of the athletes. That includes what the athlete wears and uses, but also the sporting environment and the tools for analyzing the athlete's performance!

POWER UP WORDS

Iteration
Kinetic energy
Potential energy

CAREER LIFTOFF

- Industrial Designer
- Physical Therapist
- Sports Technologist
- Simulation Engineer

Learning Standards: 3rd-5th Grade

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

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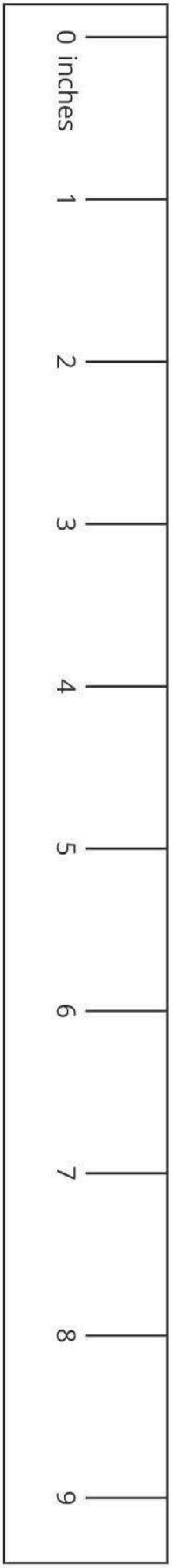
Measure To The Nearest Half or Quarter Inch

Directions:

1. Label one ruler with halves and cut it out.
2. Find 5 objects and use this ruler to measure the objects to the nearest half-inch.
3. Record your measurements on the recording sheet.
4. Label the second ruler with fourths (quarters) and cut it out.
5. Find 5 objects and use this ruler to measure the objects to the nearest quarter-inch.
6. Record your measurements on the recording sheet.



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Recording Sheet

Object	Measurement to the nearest half-inch.

Object	Measurement to the quarter half-inch.

ACTIVITY GUIDE

Episode 213: Closed, Open, and V-C-E Part 1
Book: *Ajijaak ("Crane")* by Cecilia Rose LaPointe

Scan below to watch lesson

Foundational Skills

Asking questions while reading a book can deepen your understanding of the story. Use the chart below to write questions as you are reading. Go back and reread parts of your book to answer your questions. Write your answers below your question. Be sure to include the page number where you found your answer.

Who	
What	
Where	
When	
Why	
How	

Week 8: Shoot for the Stars August 8-14

Look up at the night sky and into outer space and meet people who risked everything to follow their dreams.

Use the sheet below to mark off this week's activities as you complete them. See if you can get a BINGO!

Playlists this week: www.michiganlearning.org/stars

 Stargaze	 60 mins. of activity	 Read 20 minutes	Watch Live from the Opera House	Watch Read, Write, ROAR!
 Read 20 minutes	 Watch Math Mights	 Watch the sunset	Try Luna's word find (pg. 128)	 60 mins. of activity
 60 mins. of activity	Make a poster (pg. 129)	 HAVE FUN! (Free Space)	Look at the clouds	 Read 20 minutes
Watch Read, Write, ROAR!	Draw a space creature (pg. 124)	 Watch Math Mights	Watch InPACT at Home	Visit a new place
Watch InPACT at Home	 Read 20 minutes	 Stargaze	 60 mins. of activity	Make flashlight constella-tions

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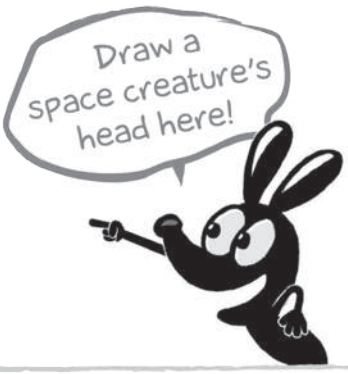
SPACE CREATURE

Scribbles and Ink



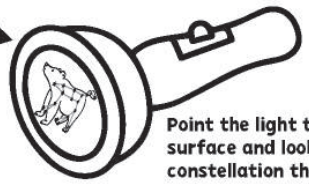
Then you draw its legs and feet here.

pbskids.org

Flashlight Constellations

A constellation is a series of stars that form a picture in the sky. Astronomers use it today to help pinpoint the locations of other stars. Ask an adult to help cut out the four constellations and punch small holes on each star. These points are the locations of the stars in each constellation.

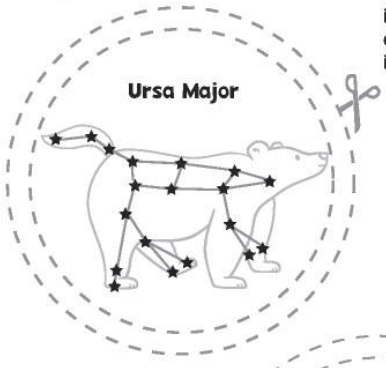
Choose the size circle that fits on your flashlight lens, cutting along the inner or outer dashed circle. Flip the picture so it's facing the flashlight.



Point the light to a dark surface and look at the constellation that shines through. One at a time, identify each constellation and talk about how you identified them.

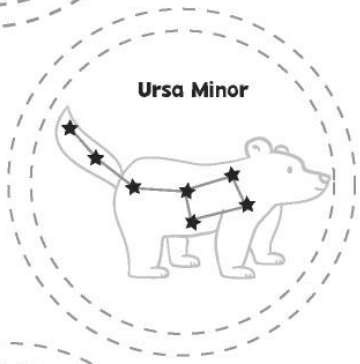
URSA MAJOR

Ursa Major is also known as The Great Bear. Ancient Greeks tell the story about a beautiful girl named Callisto who was turned into a bear by a mean goddess. A tracker tried to catch the bear, but the Greek God Zeus saved Callisto by placing her up in the night sky where she was safe.



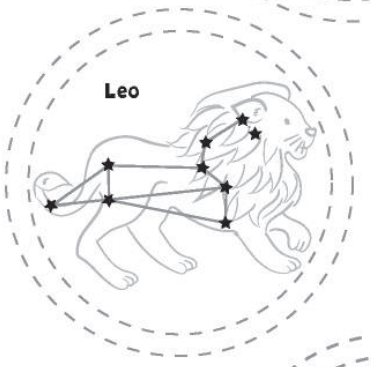
URSA MINOR

The story of Ursa Minor, or The Little Bear, comes from the Ancient Greeks. Arcas was a great hunter. One day while hunting in the woods, he came across a great bear. Little did he know that was actually his mother, Callisto, who was under a spell. Arcas was about to catch the great bear, but the Greek god Zeus, stopped him just in time and turned Arcas into a little bear so he could be with his mom. Zeus placed the two bears into the sky to keep them safe and protected.



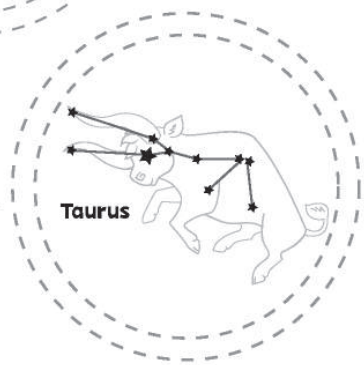
LEO THE LION

In Greek myths, Leo the Lion lived outside an ancient city called Nemea. For many years, Leo would scoop up people from Nemea and no one would stop him. One day, Hercules went to stop the lion and won. Everyone who the lion had caught was set free. Zeus made Leo a constellation in the night sky to remind people of the story of Hercules and Leo.



TAURUS THE BULL

The Ancient Greeks tell the story of a wild bull named Taurus who had a bad temper. One day he trampled a field of wild flowers and Persephone, the Goddess of Spring, got very sad. Taurus apologized and they soon became good friends. From then on, every spring, Persephone would ride on Taurus' back and the two of them would make the flowers bloom as they walked by.



WIND DANCER FILMS

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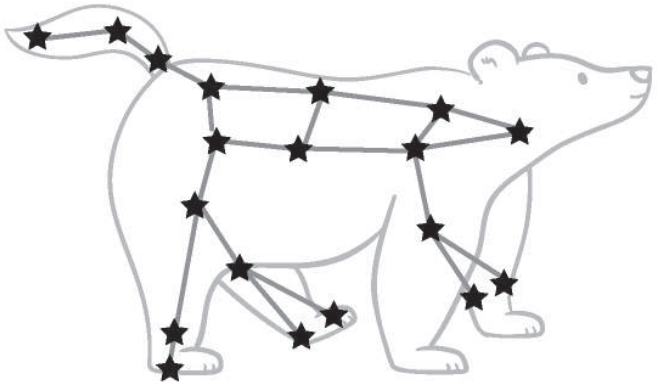
Flashlight Constellations

Constellation Key

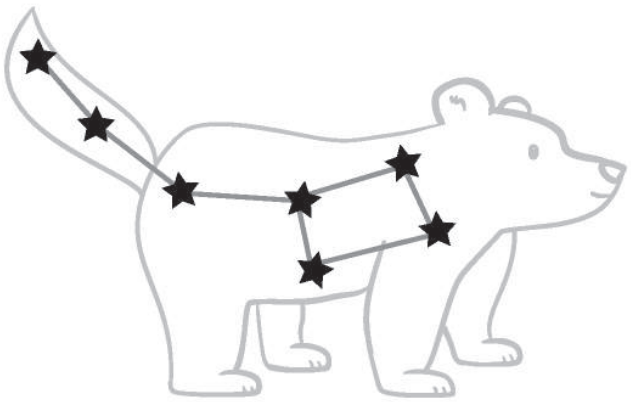
URSA MAJOR

The Great Bear



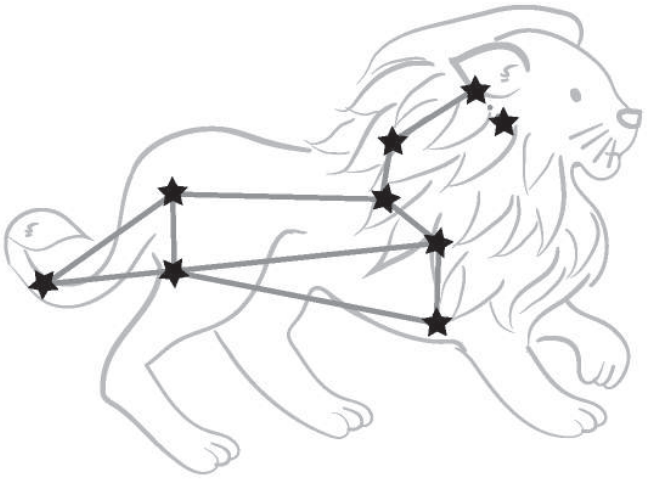
URSA MINOR

The Little Bear



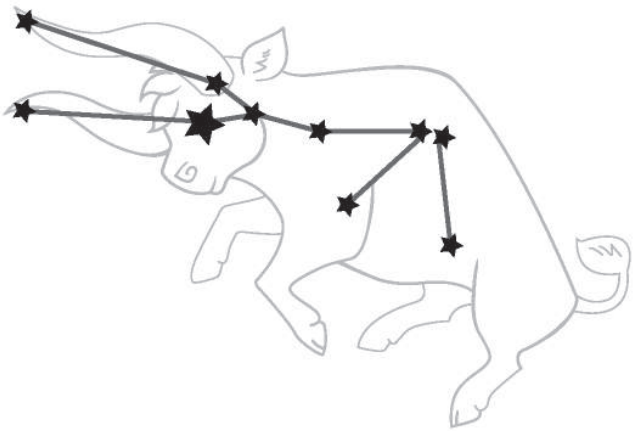
LEO

The Lion



TAURUS

The Bull



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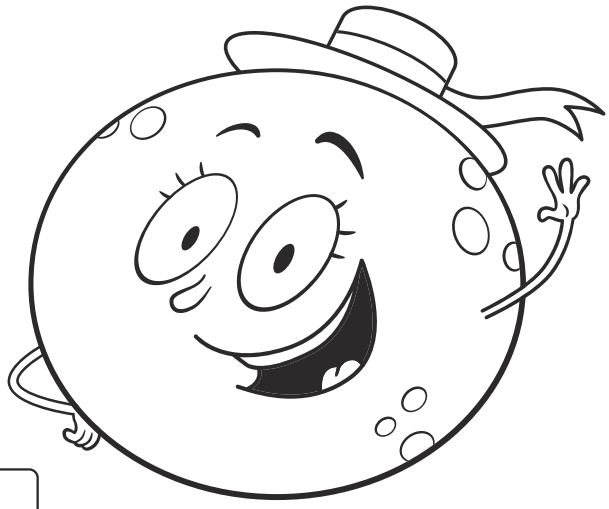
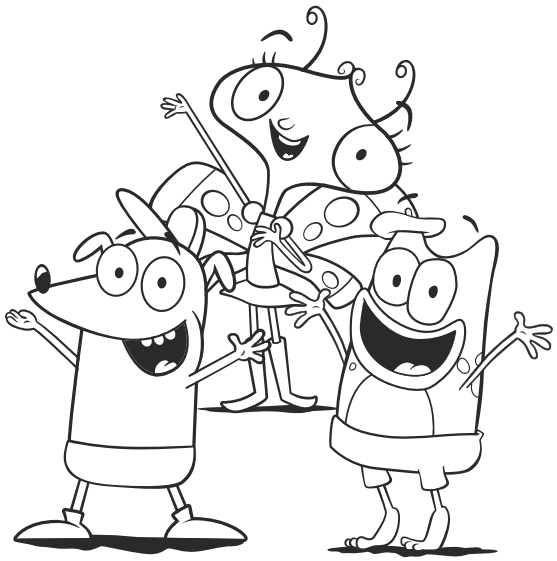
Word Find



Andy, Carmen, and Leo are traveling the world! Can you find all of these words?

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



WORLD LUNA FRIENDS
TRAVEL MOON GLOBE

Find more games and activities at pbskids.org/luna

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CyberChase Green It Up

Big Finale

BIG IDEA

There is a lot that we can do to impact the environment. What issues are important to you? Think about what you have learned and take the time to share things you can do to support and protect nature in our communities.

WATCH

Watch the clip from *Space Waste Odyssey* where the CyberSquad and Motherboard share what they've learned about creating less trash with the citizens of Cyberspace.

- Remember that the CyberSquad noticed a lot of trash was building up in "trash patches" in Cyberspace. They examined the trash to find out what was causing the problem.
- After watching, think about what environmental issue was important to the CyberSquad and what they did about it:
  - What was the problem that the CyberSquad saw?
  - What was one way that they thought people in Cyber-space could fix that problem?
  - How did they spread the word about making less trash to other people?
  - Why is it important for the CyberSquad to share what they've learned with other people?

EXPLORE: Use Your Voice

Materials:

- **Research materials to learn more about a topic**
- **Art materials for posters or digital materials** (like a cell phone camera or a blog post)

Instructions:

1. What is an environmental problem that exists in your school, neighborhood, or at home? Which issues are less well-known by your family, friends, or neighbors?
2. Decide on one (or a few) key issues for your community.
3. Brainstorm ways to share the information you've learned with as many people as possible. Examples include short video Public Service Announcements (you can use a cell phone camera), a page for the school website, articles for a school newspaper or blog, or posters for public spaces.
4. Create! Focus on including information about *why the issue matters* and *what people can do to help*. Then show off what you made!

it's Storytime CHALLENGE

Balloon Bagpipe

REUSE Toolbox

What other materials could you find and use?

- **Large Balloon**
- **Plastic Bottle Top**
- **Tape**
- **Plastic Tube**
- **Scissors**

My Design Ideas:

How could I improve on my design for next time?

DID YOU KNOW?

All musical instruments create sound through vibrations! Those vibrations create sound waves. Slower sound waves make a lower pitch, faster waves make a higher pitch!

POWER UP WORDS

- Vibration
- Pitch
- Waves

CAREER LIFTOFF

- Musician
- Sound Engineer
- Music Director
- Teacher
- DJ

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Learning Standards: 1st Grade

1-PS4-1 Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.

K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

K-2-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

ACTIVITY GUIDE

Episode 215: Closed, Open, and V-C-E Part 3
Book: *Greta and the Giants* by Zoe Tucker

Scan below to watch lesson

Think About It

When you are reading a story, think about the way the characters act. What patterns and behaviors do they display?

A character's behaviors and patterns help us make predictions and infer the kind of person they are using our schema (background information).

Foundational Skills

Character theory is the name of the character + your thoughts about the character + evidence in the book that provides support for your thoughts.

Try It

Use the graphic organizer below to create a **character theory** about a character in a book that you are reading.

Who is the character?

How does the character act? (patterns and behaviors)

_____ **is** _____ **because**

_____.

_____ **is** _____ **because**

_____.

_____ **is** _____ **because**

_____.

Interpret Data From a Line Plot

Directions: Select **ALL** of the statements that are true about the measurements in the line plot below.

length of paper airplanes (inches)

A. 5 paper airplanes had a length of $6\frac{1}{2}$ inches.

B. 6 paper airplanes had a length of $9\frac{1}{2}$ inches.

C. There were 12 paper airplanes measured.

D. There were 20 paper airplanes measured.

E. The shortest paper airplane was 5 inches.

F. The shortest paper airplane was $4\frac{1}{2}$ inches.

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WHAT IS MEET UP AND EAT UP?

Meet Up and Eat Up provides FREE nutritious meals for children and teens 18 years and younger.

HOW DO I SIGN UP?

No application or sign-up needed, just come and join us!

WHERE IS IT?

To find a location near you

Visit: www.michigan.gov/meetupeatup

Call: 211

Text: Food to 304-304

Mande por texto "Comida" al 304-304

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ELEMENTARY

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