



SUPER BRILLIANT

SUMMER ACTIVITY BOOK



*FOR
UPPER ELEMENTARY*
Featuring activities from MLC and PBS KIDS

On TV. Online. Statewide.
Visit MichiganLearning.org



WELCOME TO YOUR SUMMER ACTIVITY BOOK!



Here's how to use this book to have a summer full of learning and fun.



Use Grade Levels

This book spans multiple grade levels. Choose a few lessons each week and try new ones as needed. Try tougher lessons later in the summer or next year.



Go Week by Week

This book is designed to use over 8 weeks. We suggest spreading it out over a few days each week and finding a time that works for your students.



Watch Helpful Videos

Scan the QR codes in this book to watch videos with extra instructions and examples. Find all of our videos at MichiganLearning.org/summer.

FIND EVEN MORE SUMMER FUN ON YOUR TV AND ONLINE

Find us on your TV, on our 24/7 online livestream, or explore our huge on-demand content library.

Visit Michiganlearning.org/schedule to see what's on our broadcast TV channel, or tune-in to our free online livestream. We're **on TV, online, statewide, anytime.**



WEEKS AND THEMES

Each week of our summer program has a different theme. See what's in store below.

Week 1: Take Flight

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

Week 2: Under Water

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

Week 3: Heroes

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

Week 4: Creatures

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

Week 5: Engineering

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

Week 6: Great outdoors

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

Week 7: When I Grow Up

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

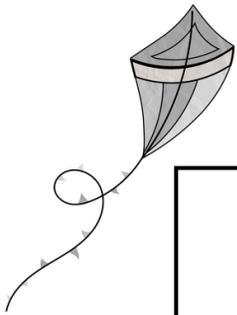
Week 8: Shoot for the Stars

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

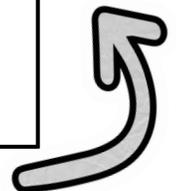
WEEK 1: TAKE FLIGHT

Complete activities and play BINGO!

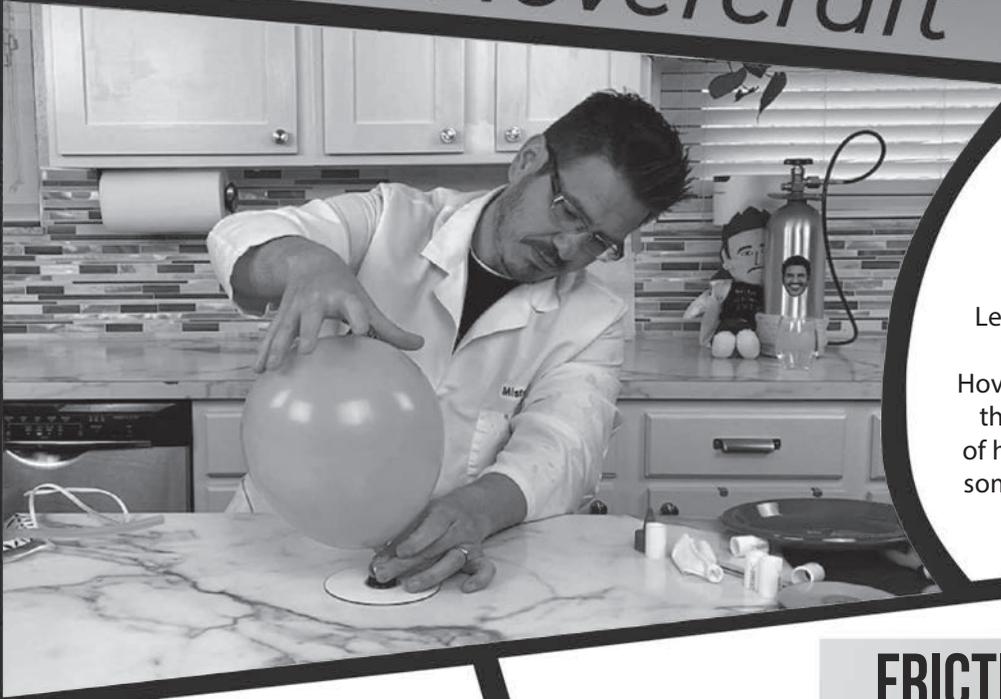
Scan the QR code or visit [Michiganlearning.org/summer](https://michiganlearning.org/summer) to see video lessons for this week's activities. Use the boxes below to check off activities as you complete them. See if you can get a BINGO!



Watch Curious About Careers	Create with DIY Science Time	Ride a bike, scooter, or skateboard	Watch Read, Write, ROAR!	Act out structures with ArchiTREKS
Do 60 minutes of activity	Build a character with Story Pirates	Make a paper airplane	Make a paper kite	Read for 20 minutes
Read for 20 minutes	Watch Story Pirates	Have Fun! (Free Space)	Do 60 minutes of activity	Spot a squirrel in a tree
Fly a Kite	Watch Extra Credit	Read for 20 minutes	Round numbers with Rise and Shine	Watch Read, Write, ROAR!
Look for birds	Watch Math Might	Do 60 minutes of activity	Spot a helicopter in the sky	Watch Rise and Shine



DIY Hovercraft



FUN FACT

Lee-on-the-Solent in England is where you can find the Hovercraft Museum which holds the world's largest collection of hovercraft designs, including some of the earliest and largest hovercrafts ever created!

FRICITION

Friction is the resistance that one surface or object encounters when moving over another surface or object. Different types of materials create varying amounts of friction. Friction can be found in our everyday lives and allows us to stand without falling, drive our cars safely down the road, and allows us to even grip a racket when playing tennis.

MATERIALS

- Blank CD
- Balloons
- Glue gun
- Bottle lid (push-up type)
- Adult helper



DIFFICULTY



Why are friction jokes hard to tell at school?

**Answer on the next page*

VISIT
DIYSCIENCE.ORG
FOR MORE SCIENCE FUN!



Copyright Alabama Public Television and Mister C, LLC 2021

DIY Hovercraft

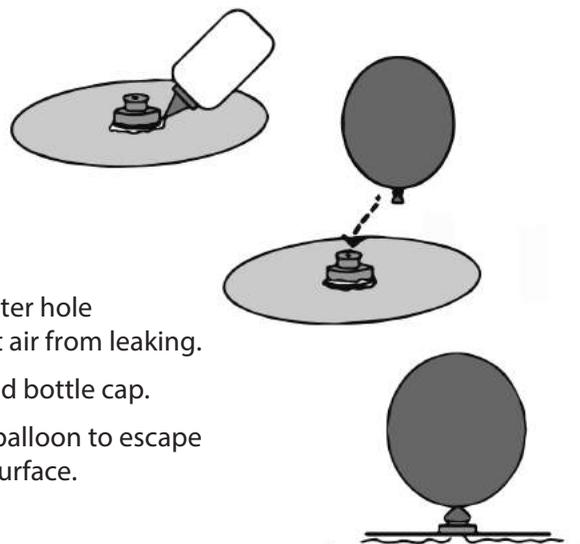
EXPERIMENT

Step 1: Gather materials.

Step 2: Use glue to fasten the bottle cap directly over the center hole of the CD. Be sure it is sealed completely to prevent air from leaking.

Step 3: Blow up and connect a balloon to the top of the closed bottle cap.

Step 4: Open the bottle cap, allowing the air from inside the balloon to escape and observe how the hovercraft behaves on a flat surface.



*Joke Answer -
Most teachers won't let them slide!

WHY IT WORKS

Hovercrafts work by using air to lift the craft off of the surface. As the balloon deflates, the air is pushed out through the bottom of the CD. Because of the weight, shape and texture of the CD, a thin layer of air is formed between the CD and the smooth table top surface. This layer of air reduces the friction between the CD and the surface allowing the CD to move easily and hover over the table.

EXTEND YOUR LEARNING

- What would happen if you used a different shaped balloon?
- Will it work with a heavy plastic plate, or cardboard instead of the CD?
- How far can you get your hovercraft to go? What adjustments can be made to make it move faster?
- Can your hovercraft glide across any other surfaces? Carpet? Tile? Cement?
- How much weight can your hovercraft carry?

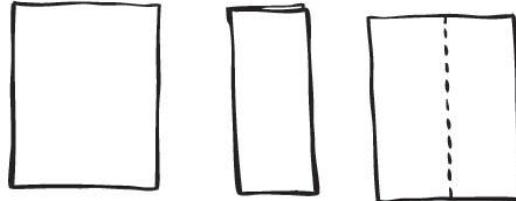
WORKFORCE CONNECTION

Fire-rescue workers use amphibious hovercraft to rescue people in flooded, muddy or icy areas. The hovercraft can easily go up to people's homes to rescue them right at their front door and works much better than a helicopter for this purpose. Fire and rescue workers also need to understand how to operate and maneuver the craft which means part of their job is to practice these rescue scenarios in the event a real situation arises.

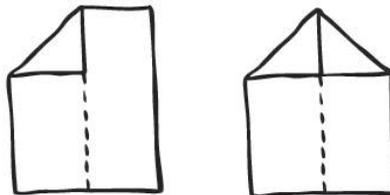


Paper Airplane

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



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



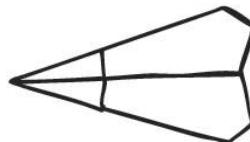
3. Refold lengthwise and rotate the paper to lay on the table like this:



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:
CPB
Corporation
for Public
Broadcasting

The contents of this document were developed under a cooperative agreement (PR/Award No. U295A150003, CFDA No. 84.295A) from the U.S. Department of Education. However, these contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government. © 2018 Jet Propulsion, LLC. Ready Jet Go! and the Ready Jet Go! logo are registered trademarks of Jet Propulsion, LLC. The PBS KIDS logo and PBS KIDS @ PBS. Used with permission. Corporate Funding of Ready Jet Go! is brought to you by ABCmouse.com. Made available by the Corporation for Public Broadcasting, a private corporation funded by the American people.

Sponsored by:
ABCMouse.com®



Rounding Whole Numbers

Directions: Round each number to the nearest **ten**.

1. $89 =$ _____

2. $154 =$ _____

3. $2,317 =$ _____

4. $3,591 =$ _____

5. $299 =$ _____

6. $312 =$ _____

Directions: Round each number to the nearest **hundred**.

1. $1,499 =$ _____

2. $634 =$ _____

3. $184 =$ _____

4. $3,451,981 =$ _____

5. $7,991 =$ _____

6. $900 =$ _____

Directions: Round each number to the nearest **thousand**.

1. $9,459 =$ _____

2. $17,999 =$ _____

3. $10,238,071 =$ _____

4. $892,099 =$ _____

5. $7,235 =$ _____

6. $19,961 =$ _____

SHOW **NOT TELL!**

THE STORY PIRATES
CREATOR CLUB



Character Traits

Who is your character?	Choose a character trait to describe them. There are some suggestions below!
SHOW the character trait to the reader! Write about what the character is DOING because of that trait.	

Other words for "kind"

considerate
generous
helpful
thoughtful

Other words for "energetic"

exuberant
lively
spirited
vivacious

Other words for "friendly"

affable
amiable
gregarious
welcoming

Other words for "funny"

amusing
comical
hilarious
silly

Other words for "wise"

knowledgable
perceptive
prudent
shrewd

Other words for "unfriendly"

antisocial
disagreeable
hostile
rude

Other words for "lazy"

lackadaisical
lethargic
passive
weary

Other words for "hard-working"

diligent
industrious
persevering



Acting Out Structures



COLUMN



ARCH



COLUMN AND BEAM



DOME



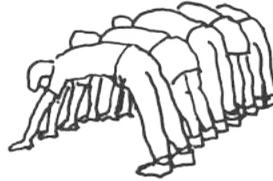
TENSION



CANTILEVER



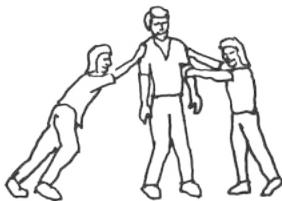
LOAD AND SUPPORT



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!