

SPECIAL THANKS TO OUR MICHIGAN LEARNING CHANNEL PORTNERSHIPS:

Content Partners:

SciGirls

826Michgian

Career Girls

Signing Time

American Chemical Society

SIS4Teachers

Ann Arbor District Library

Speak It Forward

Battle Creek Symphoy Orchestra

Square One Education Network STEM Greenhouse

Chris Anderson Science Around Cincy

Story Pirates

Storycorps

City Opera House CODE.org

The Diatribe

Colorado Springs Conservatory

Traverse City Area Public Schools

Detroit Institute of Arts

United States Air Force

Detroit Public Television

WCMU - Mount Pleasant

WGVU - Grand Rapids

WNIT - South Bend

WNMU - Marquette

Partner PBS Stations

APT (Alabama Public Television)

LPB (Louisiana Public Broadcasting)

Detroit Zoo

WORLD Channel

WDCQ - Saginaw

YouCubed

Grand Rapids Ballet

Huron-Clinton Metroparks

Illustrative Mathematics

Local PBS Stations WKAR - East Lansing

INPACT at Home

Kinetic Affect

LearningSciencelsFun

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

TPT (Twin Cities PBS)

PBSNC

PBS

PBS Books

PBS Kids

PBS SoCal

WCMU North Carolina

Department of Public Instruction

WHRO

Positive Impact for Life

WIMAGE

SchoolKit

WNET (New York Public Media)

Roadtrip Nation

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.



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-any-where 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.



Learn more about the Michigan Learning Channel at Facebook Live at fb.me/michlearning www.michiganlearning.org/summer

On TV. Online. Statewide.





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



Learn more about the Michigan Learning Channel at Facebook Live at fb.me/michlearning www.michiganlearning.org/summer

On TV. Online. Statewide.



f Follow @MichLearning on social media to find out more.



Serving Schools Statewide Through Your Local PBS Stations

Watch On-Demand at MichiganLearning.org

f 💆 🔟 @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
 Shelby Shawl
 Shelby.shawl@cmich.edu



Delta College Public Media Channel 19.5 Lauren Saj laurensaj@delta.edu (989) 686-9346



WGVU Grand Rapids Channel 35.6

Kalamazoo Channel 52.6 Rachel Cain cainra@gvsu.edu



WKAR
WKAR Public Media
Channel 23.5
Summer Godette, M.Ed,
summer@wkar.org
(517) 884-4700



WNMU-TV Channel 13.4 Ellen Doan WNMU Public Media edoan@nmu.edu (906) 227-6765



WTVS
Detroit Public TV
Channel 56.5
Olivia Misterovich
omisterovich@dptv.org



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

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.



WEEKDAY SUMMER SCHEDULE

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

Details at MichiganLearning.org/schedule

rev 02/22

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



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.

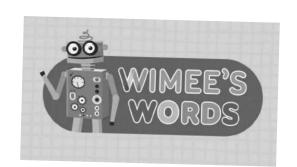
Live virtual events will be hosted on the Michigan Learning Channel Facebook page.

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

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 Aguarium 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







On TV. Online. Statewide.

Learn more about the Michigan Learning Channel at Facebook Live at fb.me/michlearning www.michiganlearning.org/summer





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

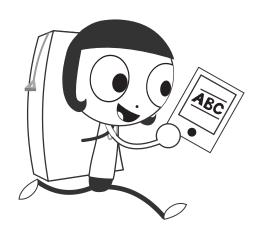
Play and learn anytime and anywhere with free apps from PBS KIDS! Use the chart below to find the app that aligns to your child's grade, learning goal, and favorite PBS KIDS show - then download it on your on your mobile or tablet device to play online, offline, or anytime.

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

orogy, Engineering & math				
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









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

+- ×÷ Watch Math Park	60 mins. of activity	Read 20 minutes	Make a paper airplane (pg. 13)	Go swimming
Read 20 minutes	Watch Story Pirates	Look for birds	Spot a plane in the sky	60 mins. of activity
60 mins. of activity	Create a new bird (pg. 14)	HAVE FUN! (Free Space)	Watch InPACT at Home	Read 20 minutes
Watch DIY Science Time	Spot a helicopter in the sky	Ride a bike	Watch Story Pirates	Build a hovercraft (pg. 11)
Watch InPACT at Home	Read 20 minutes	Watch Extra Credit	60 mins. of activity	+- ×÷ Watch Math Park





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!

FRICTION

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.

VISIT DIYSCIENCETIME.ORG





Copyright Alabama Public Television and Mister C, LLC 2021

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



"Science is wherever YOU are!"



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

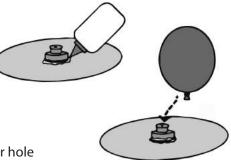
DIY

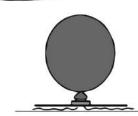
Hovercraft

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.





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?

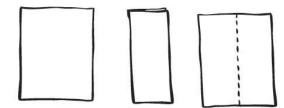
WORKFORCE CONNECTION

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.

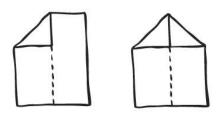


Paper Airplane

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



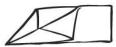
2. Fold the top two corners into the center spine of the paper.



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

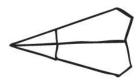


4. Fold the top left corner down to lay parallel to the bottom spine. Repeat this step on the other side.





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



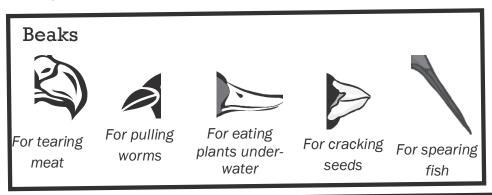




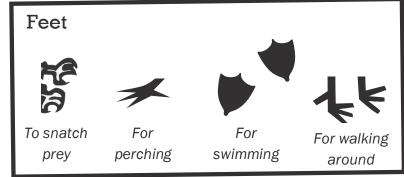
Sponsored by:

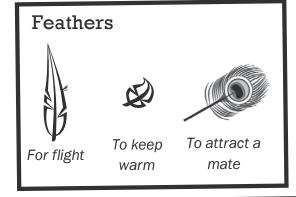


Birds have many adaptations for the type of lives they have. Species look different from one another depending upon their diet & habitat. Use the ideas below to design your own bird on the next page. Write a few sentences describing the adaptations of your "Frankenbird". Don't forget to draw your bird's habitat too!









Body Shape & Wings

Streamlined for flying fast

Small and fat for staying warm

Midsize with strong muscles for migration

Coloring

Brightly colored to attract a mate (often the male is more brightly colored)

Neutral colors to blend in with its habitat

Describe your bird's adaptations here:	

MATE

Multiplying by 10

Directions: Scan the QR code to watch the video, and then solve the multiplication problems.



$$3 \times 10 =$$

$$10 \times 8 =$$

$$10 \times 2 =$$

$$5 \times 10 =$$

$$0 \times 10 =$$

$$12 \times 10 =$$







Character Traits

passive

weary

Who is your character?			er trait to describe them. uggestions below!
SHOW the character trait to DOING because of that trait.		ite about what the ch	aracter is
Other words for "kind" considerate	Other word exuberant	ls for "energetic"	Other words for "friendly" affable
generous	lively		amiable
helpful	spirited		gregarious
thoughtful	vivacious		welcoming
Other words for "funny" amusing comical hilarious silly	Other word knowledgab perceptive prudent shrewd	ls for "wise" le	Other words for "unfriendly" antisocial disagreeable hostile rude
Other words for "lazy" lackadaisical lethargic	Other work working" diligent	ls for "hard-	

industrious

persevering

SPECIAL THANKS TO OUR MICHIGAN LEARNING CHANNEL FUNDERS:













The State of Michigan

Elaine and Leo Stern Foundation

The Donald and Mary Kosch Foundation



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



On TV. Online. Statewide.

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







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