



**AT-HOME
LEARNING**

DIGITAL BACKPACK

SCIENCE



**PBS
SOCAL**



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PUBLIC MEDIA



AT-HOME LEARNING



Dear Parents and Caregivers,

For the last few months, your kids have been at home from school, giving you the added responsibility of creating educational experiences at home. We applaud you for finding creative ways to make sure learning is always fun and exciting.

Running out of ideas? We're here to help! We've expanded our **At-Home Learning** service to keep your children learning all summer long with a new digital backpack designed to help students have fun while learning at home.

The resources inside this digital backpack include:

- **State standards guide for families**
- **Family reading list**
- **Printable hands-on activities**
- **Tips for balancing screen time**
- **PBS KIDS programming learning goals and reflection guide**
- **PBS KIDS apps and associated learning goals**

Want more resources? Sign up for our e-newsletter at **wfsu.org/education/**. To get free bilingual resources sent directly to your phone, text **WFSU** to **27448***.

Feel free to reach out to us with questions. We would love to see photos of families learning with the digital backpack! E-mail us at **education@wfsu.org**.

Your WFSU Public Media Education Team

**Standard message and data rates apply.*

You may opt-out of these messages at any time by texting STOP to 27448.

Family Science Guide

TIPS AND ACTIVITIES



To help families understand Next Generation Science Standards for Kindergarten, we have prepared this Family Science Guide with explanations and activities you can do at home with your kids. These activities can help prepare your children for school while making science fun and exciting.

Physical Science

- Describe what material objects are made out of, such as clay, paper, cloth, glass, etc.
- Describe physical properties of objects such as size, weight, height, color, texture, and flexibility
- Explain attraction to magnets
- Know that water can be a liquid or solid and that it has the ability to change between these states
- Explain how water in an open container evaporates but in a closed container does not evaporate
- Understand floating or sinking and make predictions

Family Tips for At-Home Learning

- Ask your children to describe everyday items around the house. What is a pillow made of? What is a fork made out of?
- Ask your child to make predictions about whether objects like spoons, sponges, or paper towels will sink or float
- Observe how water freezes into ice and melts into water and discuss why this happens
- Create a water evaporation experiment by putting a wet paper towel into a plastic bag and tape it to a window. Observe what happens inside the bag at different times of the day.

Life Science

- Expand their knowledge on different types of plants and animals that inhabit the earth
- Observe and describe similarities and differences in the appearance and behavior of plants and animals
- Identify several types of seed-bearing plants, birds, fish and insects
- Distinguish between factual stories and fictional stories to understand that plants and animals are sometimes given magical powers in fictional stories that are not true of real plants and animals
- Identify common plant structures such as stems, leaves, roots, flowers, etc.
- Identify common characteristics of animals such as arms, wings, legs, head, etc.

Family Tips for At-Home Learning

- Build an understanding of life science by pointing out animals and plants that you see outside, on TV, or in books. Talk about the unique features of the animals—whether it has fur, feathers, scales, or skin; the number of legs or arms it has; the way it gets around by flying, walking, swimming, or crawling
- Talk about vegetables and fruits that you are eating at home. Do they have seeds or leaves? What kind of tree or bush did it come from?
- Draw pictures of plants and help your child label different parts of the plants such as stems, leaves, roots, and flowers

Family Science Guide

TIPS AND ACTIVITIES



Earth Science

- Know that the Earth is made up of land, water, and air
- Discover characteristics of mountains, rivers, oceans, valleys, deserts and local landforms
- Understand that changes in weather occur on a daily basis and when seasons change
- Explore how the changing weather affects Earth and people on Earth
- Identify resources from Earth that are used in everyday life
- Understand resource conservation

Family Tips for At-Home Learning

- Point out different landforms such as oceans, rivers, lakes, mountains, valleys and deserts in books, movies, photographs, and on TV
- Have discussions about the weather as your children are getting ready for the day. Ask them about the different clothes they wear in various weather conditions. Talk about what activities can or cannot be done in different types of weather. If it is raining outside, what should you wear?

Investigation and Experiment

- Investigate answers to questions
- Observe using their five senses
- Describe objects according to their materials, size and properties
- Use descriptive language such as 'above,' 'below,' 'under,' 'next to,' etc.
- Sort, compare, and contrast two or more objects using categories such as color, shape, texture, size, weight, etc.
- Share observations by speaking and writing using pictures and words

Family Tips for At-Home Learning

Conduct simple science explications together at home:

- Using a stick of butter, show children how it can go from solid to liquid when it is heated up and melted
- Plant some seeds in the shade and some in the sun and observe how the two plants grow over time. Compare the plants in the shade to the plants in the sun. How and why are they different?
- Freeze water to make ice and take it outside and watch it melt back into a liquid. Talk about how hot and cold temperatures can change water into different states
- Have children sort clothing by color, size, and fabric when they are helping you with laundry
- Throw balls of different sizes at the same time. Make a prediction about which one will go further. How did the size of the ball make a difference in how far the ball traveled?
- Keep a weather journal by drawing and writing weather patterns every day. Have discussions about what types of clothes and outdoor activities would be best for each day based on the weather

Family Reading List

SCIENCE

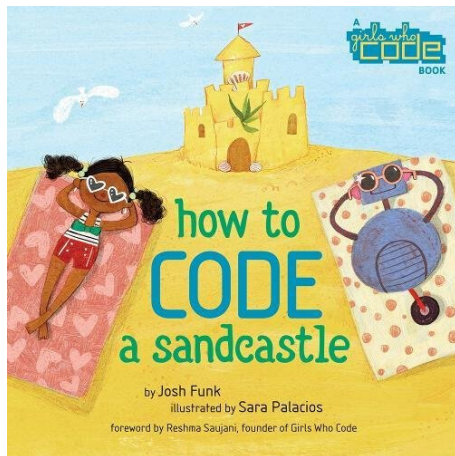


How to Code a Sandcastle

By Josh Funk

Illustrated by Sarah Palacios

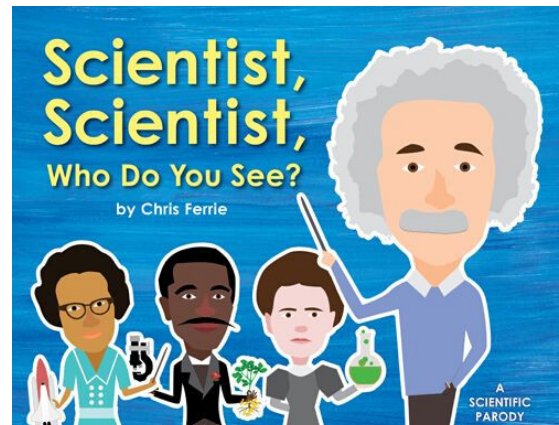
Ages: 4 to 8



Scientist, Scientist, Who Do You See?

By Christ Ferrie

Ages: 4 to 8

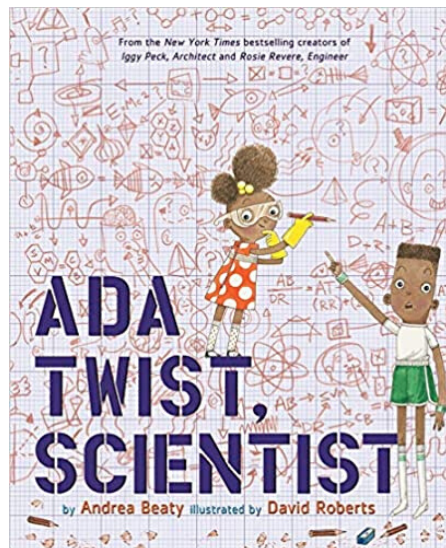


Ada Twist, Scientist

By Andrea Beaty

Illustrated by David Roberts

Ages: 4 to 8



The World is Not a Rectangle: A Portrait of Architect Zaha Hadid

By Jeanette Winter

Ages: 5 to 10



Check with your local public library to access these books online.



Animal Tracks Matching Game

pbskids.org



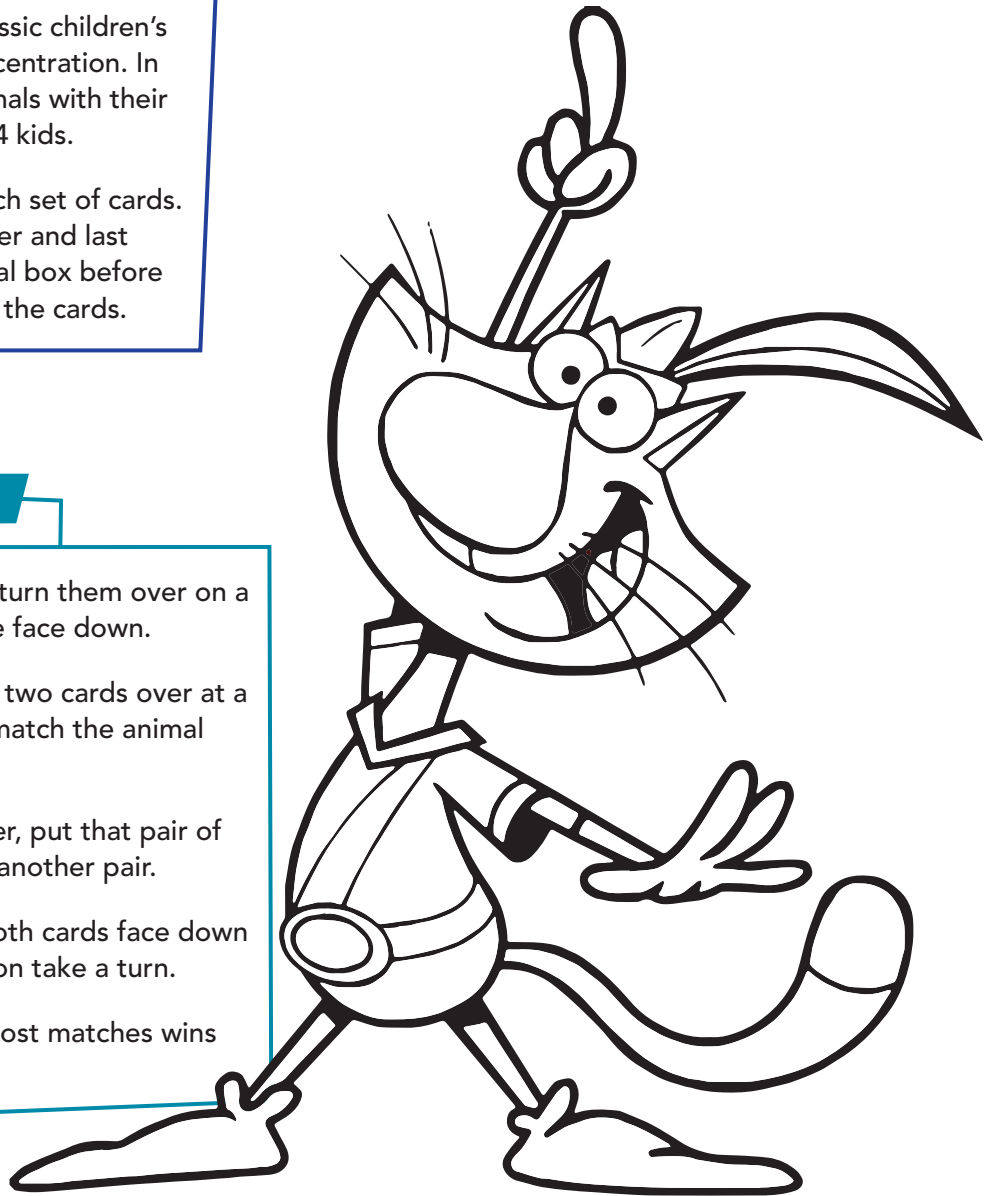
GET READY

This game is a version of the classic children's game known as memory or concentration. In this version, kids will match animals with their tracks. It can be played by 1 to 4 kids.

Print and cut the squares for each set of cards. To make the game pieces sturdier and last longer, glue the paper to a cereal box before cutting. You could also laminate the cards.

TALLY HO! LET'S PLAY!

1. Shuffle the cards and then turn them over on a flat surface so that they are face down.
2. Begin the game by turning two cards over at a time to see if you can match the animal with its footprints.
3. If the two cards go together, put that pair of cards aside and try to find another pair.
4. If they don't match, turn both cards face down again and let another person take a turn.
5. The player that finds the most matches wins the game!



(continued)



For more printables, go to pbskidsforparents.org



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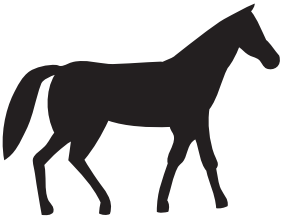

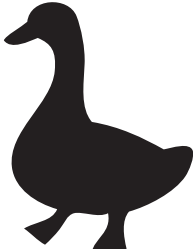

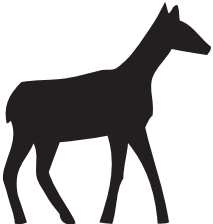

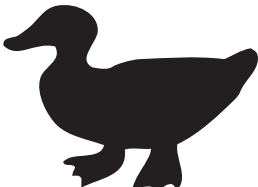









Game Cards

pbskids.org



 Horse	 Horse	 Goose	 Goose
 Deer	 Deer	 Duck	 Duck
 Eagle	 Eagle	 Lion	 Lion



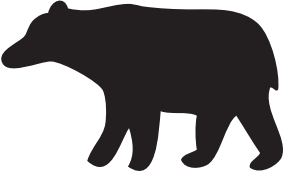



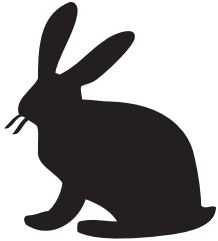



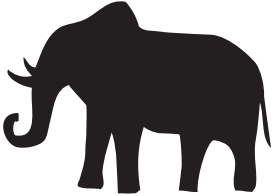





Game Cards

pbskids.org



 Wolf	 Wolf	 Bear	 Bear
 Fox	 Fox	 Rabbit	 Rabbit
 Frog	 Frog	 Elephant	 Elephant





AT-HOME LEARNING

NAME _____

PBS KIDS Episode Reflection Guide Grades Pre-K–2

Directions:

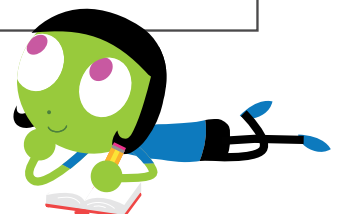
Take a moment to reflect on your learning from the PBS KIDS episode you just watched.
Then answer the questions below.

What did you learn from this episode? Discuss with your child key ideas and details.
Briefly explain why these details are important to you, the community, and the world.

How can you connect the learning in this episode to everyday learning at home?

For example, if you watched an episode about counting, you and your child can expand this learning at home by counting items during daily routines like doing laundry or washing dishes.

After watching this episode, what do you want to learn more about?



We don't replace reading, we complement reading

Reading is a skill and left untouched for several months, that skill will get weaker! The best part of free time reading is that you get to choose what you want to read!

SORRY!
text messages
and social
media are
typically too
short to call
reading

Screen zombies are real

Screen zombies are in a halfway state between being awake and being asleep. When you see a zombie, there are two main recommendations: if it's not bedtime, tell the zombie to turn off the screen and do something active. And if it is bedtime, go to bed!

Mom? Mom...?
MOM?!

Find your balance

Screens can be used for things that are BOTH entertaining and informative. Find your balance: watch your movies, but also write a short story. Watch an episode of Nature about cute animals. Design a game. WhatsApp your grandparents.

Enjoy the game
AND discuss
strategy.

Adjust your screens at night

We know that bright screens keep people awake—even if the brain and body are tired, bright lights send a strong wake-up signal. After the sun goes down, turn down the intensity of screens.

People with
screens in their
bedrooms sleep
on avg 15 min less
per night. **That's
almost 2 hrs less
sleep per week!**

OUTDOOR EXPLORATION APPS



Nature Cat's Great Outdoors Go on a new adventure every day with the Nature Cat crew as they explore, discover and observe nature in their own backyard and beyond! Kids can observe the daily weather and use a compass, camera, sound recorder and journal to record each nature adventure. **FREE**



Ready Jet Go! Space Explorer Kids can explore the solar system and visit planets, stars and constellations with Jet and his friends. Go on a galactic journey with Jet, Sydney, Sean, Mindy and Sunspot from their backyard in Boxwood Terrace through space! **FREE**



Wild Kratts Baby Buddies Join Martin, Chris, and the Wild Kratts team on an African Savannah creature sitting adventure. These baby animals need a lot of attention and care, and with Wild Kratts Baby Buddies app, kids are in charge of feeding, washing, protecting and playing with each one.



Splash and Bubbles Ocean Adventure Join Splash, Bubbles, Dunk, and Ripple on a journey to the world's undersea habitats. Kids will discover the creatures that live there, learn about many different plants and animals, and build and decorate their very own ocean!



Wild Kratts World Adventure Kids can tilt and tap their way through six multi-level games that encourage exploration of habitats around the world. Focusing on science, each game lets kids observe, explore and use creature power suits to complete missions and help the Kratt Brothers.



Outdoor Family Fun with Plum Get ready for some Outdoor Family Fun with Plum! This app offers daily activities that get families outside, exploring their neighborhood and learning about nature. Spending time outdoors has many benefits and nature is all around – you just have to look! **FREE**



Photo Stuff with Ruff In this camera-based experience, children learn about science by taking pictures of different materials to complete silly scenes. Play it together and record and share your observations in fun, creative ways! **FREE**

Look for more APPS
for iOS and Android
at pbskids.org/apps



PBS KIDS Learning Goals

SOCIAL & EMOTIONAL LEARNING

Daniel Tiger's Neighborhood	2-4	Social & Emotional Learning
Sesame Street	2-5	Social & Emotional Learning, Literacy, Math, Spanish
Caillou	2-5	Social & Emotional Learning 24/7 Channel
Esme & Roy	2-5	Social & Emotional Learning 24/7 Channel
Clifford the Big Red Dog	3-5	Social & Emotional Learning
Mister Rogers' Neighborhood	3-6	Social & Emotional Learning
Arthur	4-8	Social & Emotional Learning, Social Studies
Xavier Riddle and the Secret Museum	5-8	Social & Emotional Learning

LITERACY

Super WHY!	2-5	Literacy 24/7 Channel
WordWorld	2-5	Literacy 24/7 Channel
Martha Speaks	4-8	Literacy (Vocabulary Acquisition) 24/7 Channel
Molly of Denali	4-8	Literacy (Informational Text)
WordGirl	5-8	Literacy (Vocabulary Acquisition) 24/7 Channel

SOCIAL STUDIES, THE ARTS & MORE

Pinkalicious & Peterrific	3-6	The Arts, Creative Expression
Let's Go Luna!	4-7	Social Studies (World Cultures and Geography)

Digital-Only

Kart Kingdom	3-6	Systems Thinking
Oh Noah!	4-8	Spanish, Cultural Awareness

STEM (Science, Technology, Engineering & Math)

Peep and the Big Wide World	2-5	Science Inquiry, Life/Physical Science, Math 24/7 Channel
Splash and Bubbles	2-5	Scientific Inquiry, Life Science
Peg + Cat	3-5	Math
Curious George	3-5	Scientific Inquiry, Engineering, Math
The Cat in the Hat Knows a Lot About That!	3-6	Scientific Inquiry, Life/Earth/Physical Science, Engineering & Technology
Dinosaur Train	3-6	Scientific Inquiry, Life/Earth Science
Sid the Science Kid	3-6	Scientific Inquiry, Life/Earth/Physical Science, Math 24/7 Channel
Nature Cat	3-7	Life/Earth Science
Wild Kratts	4-8	Scientific Inquiry, Life Science
Cyberchase	4-8	Math
Odd Squad	5-8	Math
Ready Jet Go!	5-8	Scientific Inquiry, Earth & Space/Life/Physical Science, Engineering & Technology

Digital-Only

The Ruff Ruffman Show	4-8	Scientific Inquiry, Physical Science, Engineering & Technology
Design Squad Nation	4-8	Scientific Inquiry, Physical Science, Engineering
PBS KIDS ScratchJr	5-8	Computational Thinking
SciGirls	6-8	Scientific Inquiry, Life/Physical/Earth Science, Engineering & Technology, Math



APP LEARNING GOALS



FREE APPS
at pbskids.org/apps



MULTIPLE LEARNING GOALS FOR KIDS 2-8



Free learning games
with your favorite
PBS KIDS characters
anytime, anywhere!



Thousands of free videos
from PBS KIDS, the #1
educational media brand
for kids.

SOCIAL EMOTIONAL DEVELOPMENT

Daniel Tiger's For Parents	2-5	Social Emotional Development
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LITERACY

Dinosaur Train A to Z	3-6	Literacy
Molly of Denali	4-8	Informational Text

ARTS, CREATIVITY AND MORE

PBS KIDS Kart Kingdom	4-8	Creativity
PBS KIDS Party	4-8	Healthy Habits
PBS KIDS Stickers	4-8	Creativity iOS Only
Plum's Creaturizer	6-9	Creativity

STEM (Science, Technology, Engineering & Math)

Cyberchase 3D Builder	6-9	Math	
Cyberchase Shape Quest	6-9	Math — Geometry	
Dinosaur Train Classic in the Jurassic Jr.	3-6	Math	
Fetch! Lunch Rush	4-8	Math	iOS Only
Jet's Bot Builder: Robot Games	4-8	Space Science	
Nature Cat's Great Outdoors	6-8	Earth Science	
Outdoor Family Fun with Plum	6-9	Nature, Life Science	
PBS KIDS Measure Up!	2-5	Math	
PBS KIDS ScratchJr	5-8	Coding	
PBS Parents Play & Learn	2-5	Math, Literacy	
Photo Stuff with Ruff	4-8	Material Science	
Play & Learn Science	2-5	Weather	
Plum's Photo Hunt	6-9	Life Science, Nature	iOS Only
Plum's Creaturizer	6-9	Life Science	iOS Only
Ready Jet Go! Space Explorer	4-8	Space Science	
Ready Jet Go! Space Scouts	4-8	Space Science	
The Cat in the Hat Builds That!	3-5	Science Inquiry, Engineering	



APP LEARNING GOALS



PAID APPS at pbskids.org/apps



SOCIAL EMOTIONAL DEVELOPMENT

Daniel Tiger's Day & Night	2-5	Social Emotional Development — Routines
Daniel Tiger's Grr-ific Feelings	2-5	Social Emotional Development — Feelings
Daniel Tiger's Stop & Go Potty	2-5	Social Emotional Development — Potty Training
Daniel Tiger's Neighborhood: Play at Home with Daniel	3-5	Social Emotional Development
Daniel Tiger's Storybooks	2-5	Social Emotional Development

LITERACY

SUPER WHY! ABC Adventures	3-6	Literacy
Super Why! Phonics Fair	3-6	Literacy
Super Why! Power to Read	3-6	Literacy

ARTS, CREATIVITY & MORE

Pinkalicious Party	4-6	Creative Process, Art, Design, Creativity, Roleplaying, Music
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STEM (Science, Technology, Engineering & Math)

Odd Squad: Blob Chase	6-8	Math	
Peg + Cat: The Tree Problem	3-6	Math	
Splash and Bubbles Ocean Adventure	4-7	Ocean Science	
Wild Kratts Baby Buddies	4-8	Social Emotional Learning, Animal Science	
Wild Kratts Creature Math	4-8	Math	iOS Only
Wild Kratts Rescue Run	4-8	Animal Science	
Wild Kratts World Adventure	4-8	Animal Science	



All apps are available
for all devices unless
otherwise indicated



Bright
by

Text

Text: WFSU

To: 274448

To Sign Up!

Standard message and data rates apply.
Text STOP to 274448 to stop.
Text HELP to 274448 for help.

Sign up for Bright by Text to receive text messages directly to your phone with resources targeted to your child's age (birth-8) and research-based content from WFSU, PBS KIDS, and other partners.



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