

# Using PBS KIDS Media to Unlock Early Science Learning with *Elinor Wonders Why*

September 8, 2020

The Campaign for  
**GRADE-LEVEL  
READING**

# Moderator



**Pam Johnson, Ph.D.**  
Executive Director  
Ready to Learn Initiative  
Corporation for Public Broadcasting

***Grade Level Reading & Ready To Learn Webinar***

**PBS KIDS Media Unlocks  
Early Science Learning with  
*Elinor Wonders Why***

**September 8, 2020**



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**Ready To Learn**  
Initiative

# Welcome and Context-Setting

Pam Johnson, CPB  
Tania Ghee, PBS



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# Webinar Agenda

- Welcome & Context-Setting
- About *Elinor Wonders Why*
- Overview of Early Science Resources for Educators & Families
- Community Uses & Opportunities for Collaboration
- Plans for Remote Evaluation with Children and Parents
- Q & A / Discussion
- Wrap-up & Thanks



# CPB-PBS Ready To Learn Initiative

- Cooperative agreement with the U.S. Department of Education
- Promotes early learning and school readiness
- Strives to reach low-income children
- Currently in its fifth 5-year round
- Innovations build upon best practices and research findings



# Ready To Learn 2015-2020

## ➤ Content

- Science and literacy content with new and existing PBS KIDS properties
- Adaptive & personalized learning

## ➤ Community

- Local public media stations form partnerships to support children, families, and educators in low-income communities

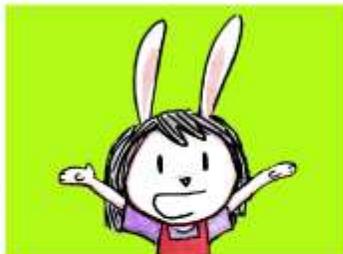
## ➤ Collaboration & Research

- Guides content and community work & studies impact of content on learning





**The Cat in the Hat Knows a Lot About That!**  
Random House



**Elinor Wonders Why**  
SHOE Ink



**Ready Jet Go!**  
Wind Dancer Films



**The Ruff Ruffman Show**  
WGBH



**Molly of Denali**  
WGBH

AGE

3-5

3-5

4-8

4-8

4-8

CURRICULUM

Scientific Inquiry

Scientific Inquiry

Scientific Inquiry

Scientific inquiry

Literacy

Physical Science and Engineering & Technology

Life Science, Earth Science and Engineering & Technology (Natural Design)

Earth & Space Science and Engineering & Technology

Physical Science and Engineering & Technology

Reading, Writing & Comprehending Informational Text

CONTENT FEATURES

New episodes, Playful Learning Experience (PLE), and additional transmedia content

New broadcast series: episodes, Playful Learning Experience (PLE) & additional cross-platform content

New episodes, Playful Learning Experience (PLE), & additional cross-platform content

New short-form series: streaming videos, Playful Learning Experience (PLE) and additional cross-platform content

New broadcast series: episodes, Playful Learning Experience (PLE), & additional cross-platform content



The Ready To Learn Initiative



Corporation for Public Broadcasting



**Jorge Cham**

**Daniel Whiteson**



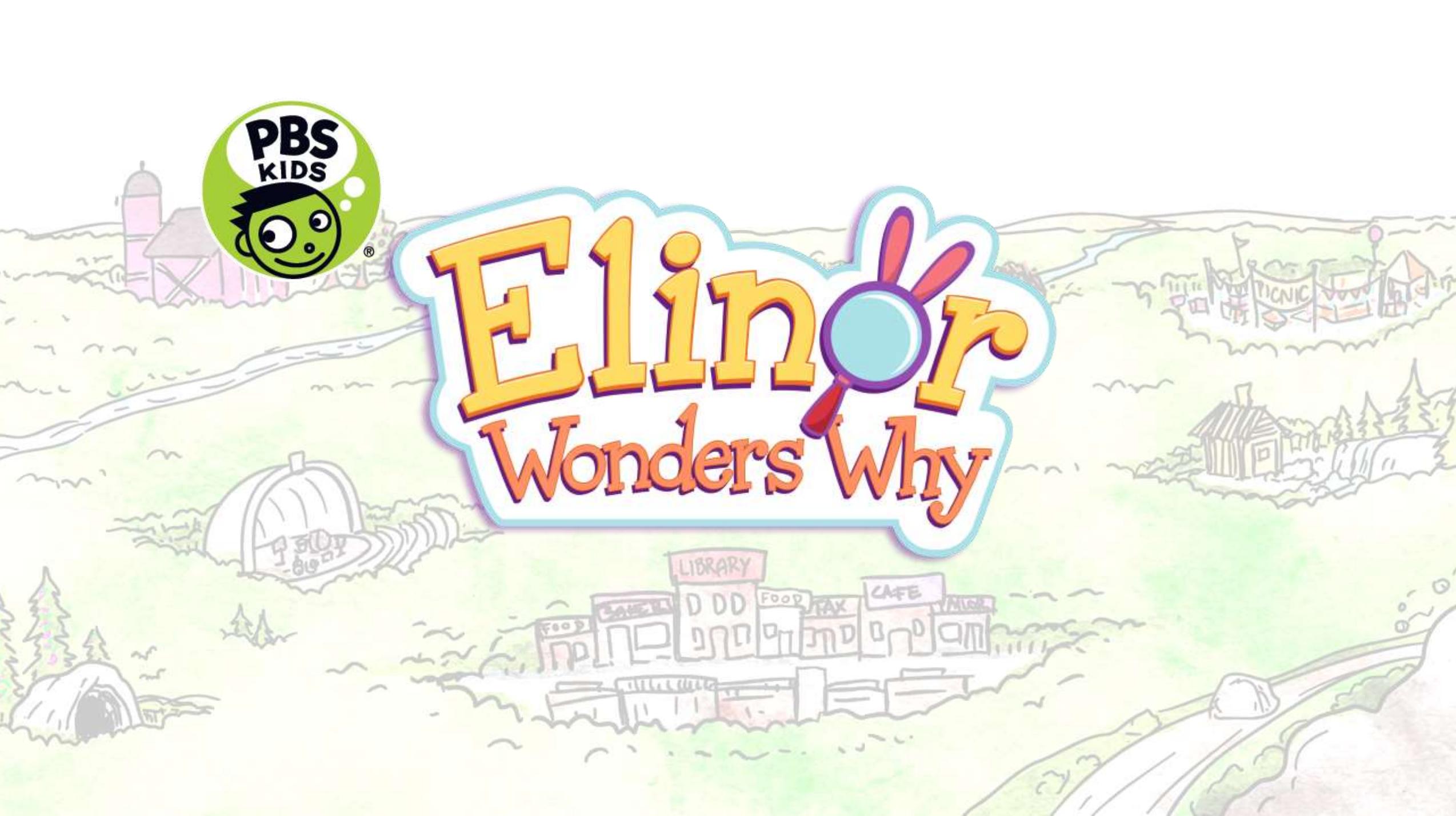
**Co-Creators and  
Executive Producers  
SHOE Ink**





# Elinor

Wonders Why



# Who Is Elinor?



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**an adventure**  
the first time in  
Pinesburg.

**Bonus!**  
Can you find a  
secret message in  
this story?

**I have a secret**  
and I'm going to  
tell you all about it  
in my story. You  
know I was writing the  
story and I can't  
wait to tell you  
what happens next.

**an adventure**  
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wait to tell you  
what happens next.

# Elinor

(the rabbit)



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# Elinor is very curious



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# Elinor's Friends



Ari



Olive



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# Life Science Learning Goals



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# Creating Little Scientists



Science is **more than a list of facts.**

Science is a **way of answering questions.**



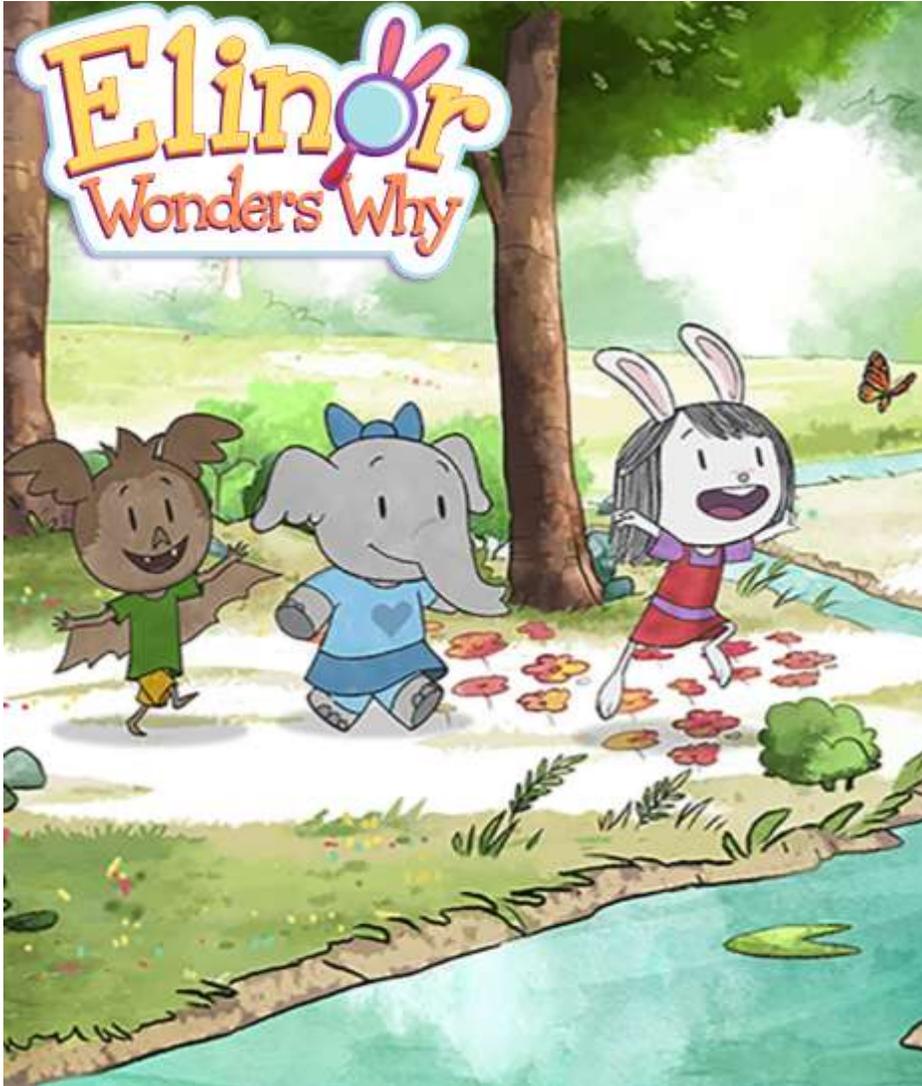
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# Episodes



- Launch: 9/7/2020
- Target Age: 3-5 Years
- 37 half-hours + a special
- Curriculum: STEM – Life Science, Earth Science & Engineering through Natural Design
- A Story, Interstitial, B Story



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# Interstitial Structure

Ms. Mole -

- MM reads them a story about an amazing fact from nature.

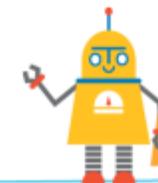


Señor Tapir –

- Señor Tapir sings a song about a scientist who was curious and explored



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# Interstitial Clip



# *Elinor Wonders Why* Digital Content

Shannon Bishop, PBS KIDS Digital



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# Elinor Digital Includes:

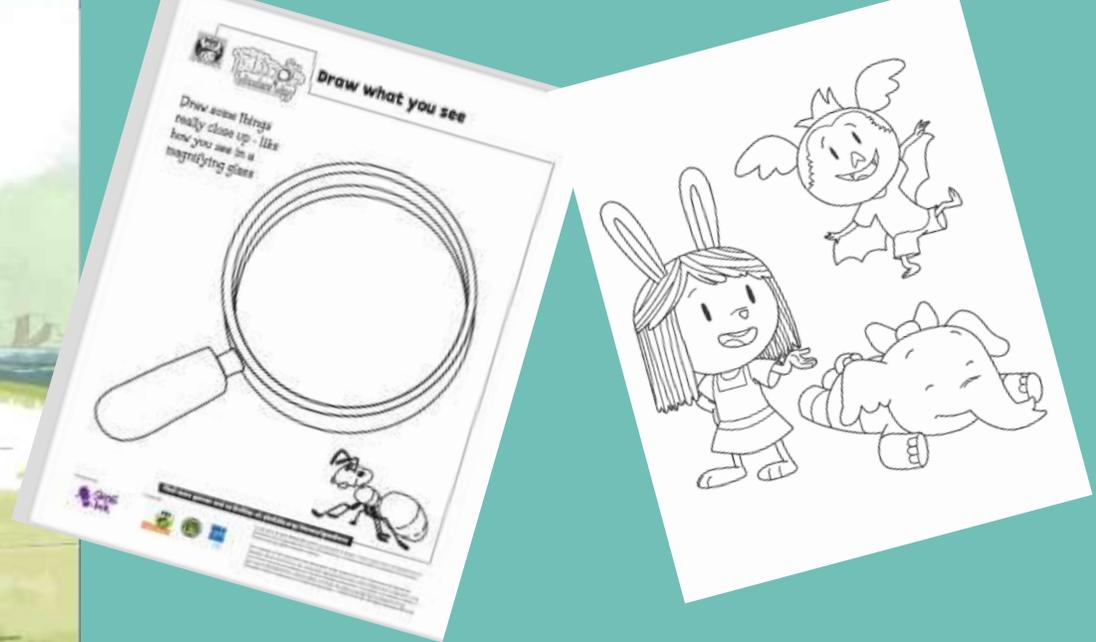
- 7 games + game updates
- 5 coloring pages
- 5 printables
- Video player



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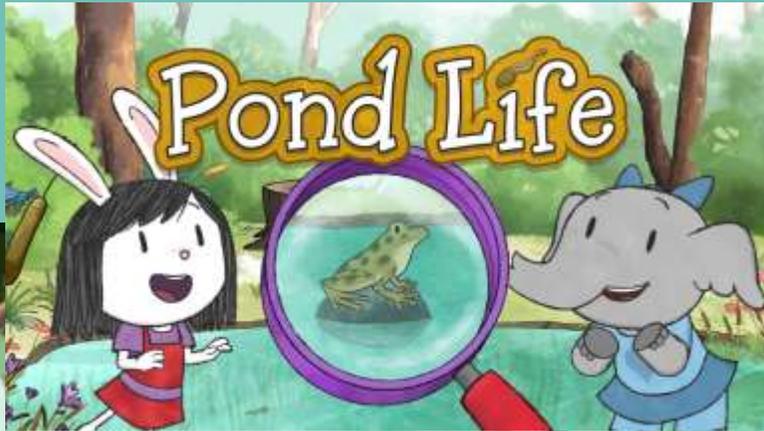
## For Premiere:

- Elinor's Nature Adventure Game
- Hide & Seek Game
- All coloring pages & printables
- Launching 8/31



# Playing the Show

- Mirroring Elinor's Curiosity



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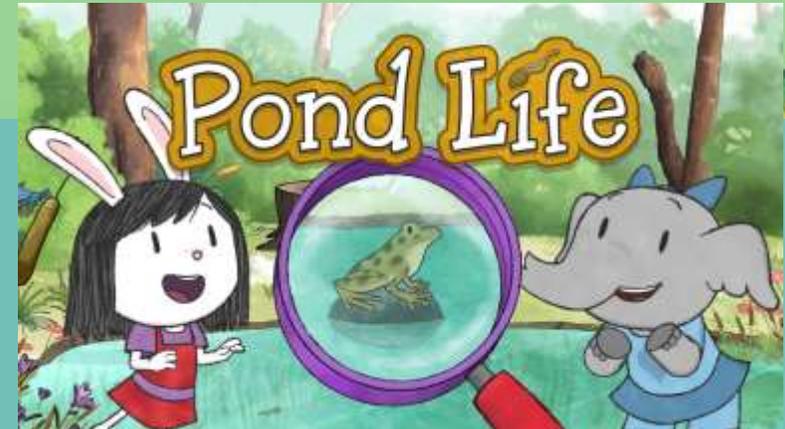


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# Playing the Show

- Mirroring Elinor's Curiosity
- Power of Tools & Observation Prompts

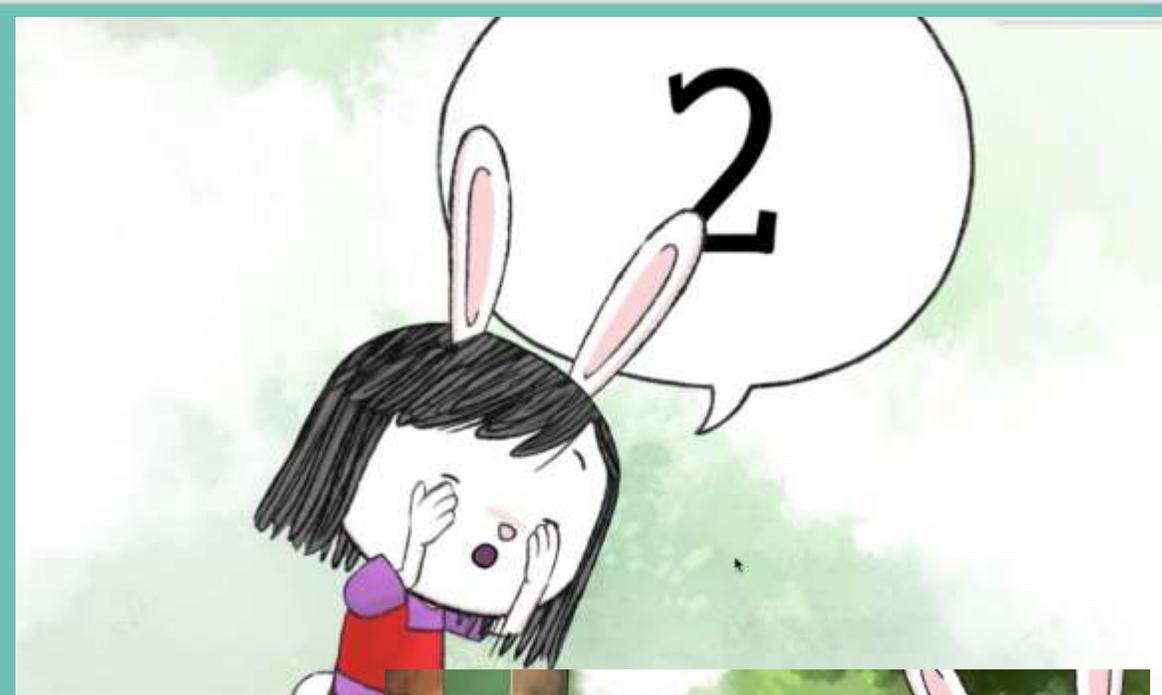


I notice this scavenger beetle larvae has three pairs of legs. What do you notice?



# Elinor Digital Approach

- Mirroring Elinor's Curiosity
- Power of Tools & Observation Prompts
- Investigations through **Preschool Play**



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# Early Science Learning with *Elinor Wonders Why*

Sara Sweetman, URI & Science Advisor  
Anne Lund, PBS KIDS



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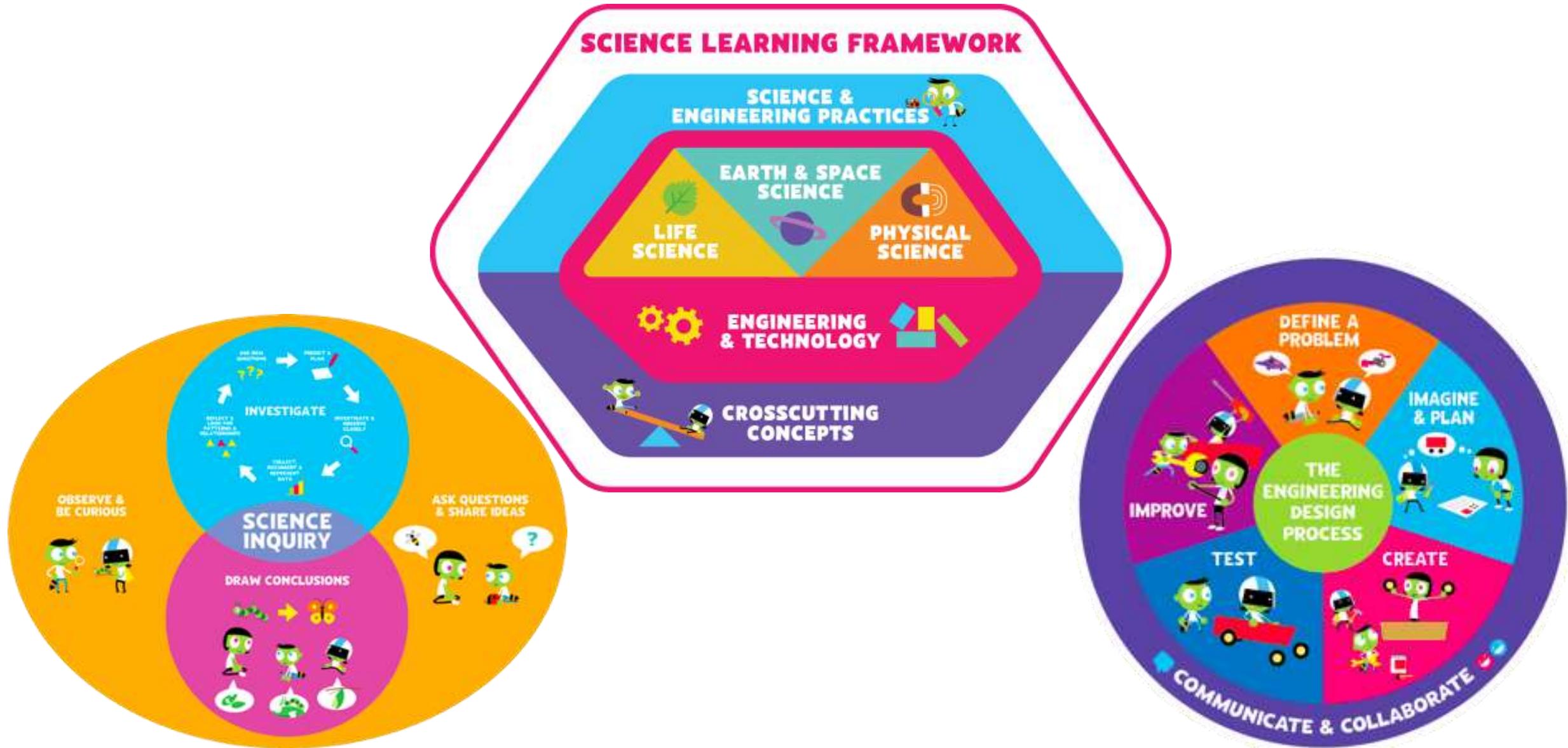




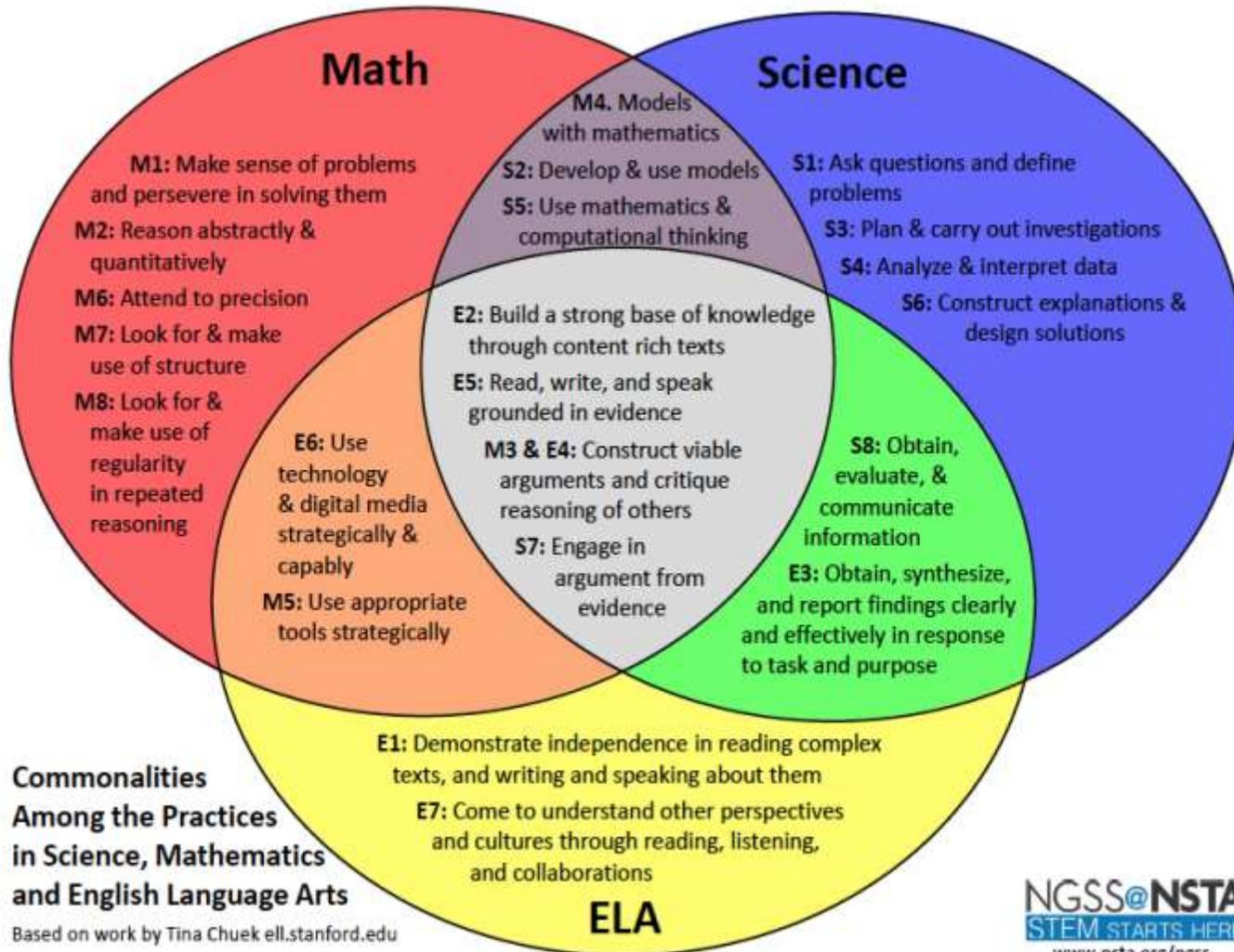
Young children & scientists view and engage in the world in similar ways.



# PBS KIDS Science Learning Framework



# Intersections - Science and Literacy



**Commonalities  
Among the Practices  
in Science, Mathematics  
and English Language Arts**

Based on work by Tina Chuek ell.stanford.edu

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**NGSS@NSTA**  
STEM STARTS HERE  
www.nsta.org/ngss



# *Elinor Wonders Why* - Learning Goals

Science Inquiry  
and Engineering  
Design



Life Science  
and Earth  
Science

Engineering &  
Technology  
through Natural  
Design



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# Science Themes

Using and understanding our **senses** to **make observations**

Wonder

Comparing and contrasting individual similarities and differences

Engineering design/  
biomimicry

Mindfulness

Structure and function

Cycles - From nature to us and back



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# A Closer Look: Making Observations with Our Senses

Sara Sweetman, URI

Jean Crawford, PBS

Alicia Narvaez, PBS Education

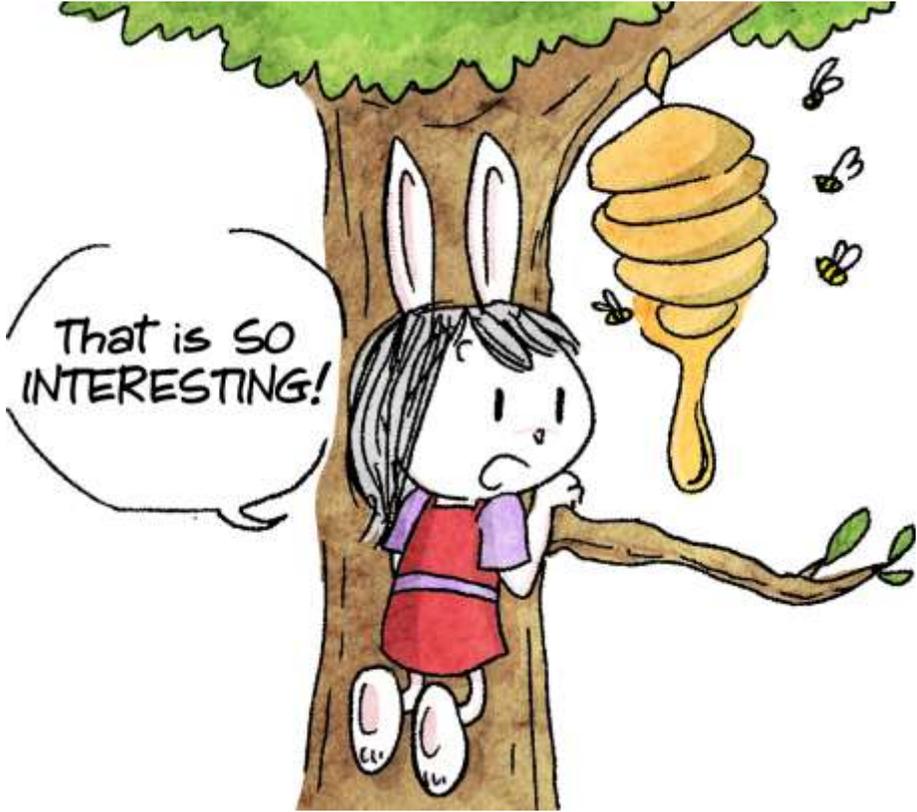


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# Making Observations with Our Senses

raposa's\_kinders @pryors\_kinders · Oct 1, 2019  
Our science unit about trees has started. Today we circled a tree to learn about tree structures. Then we used our senses to talk about trees.  
[@gemsnet10](#) [@jenpooreri](#)



for Public Broadcasting



# Making Observations with Our Senses



“Make Music Naturally”  
“Ms. Mole’s Glasses”  
Elinor’s Nature Adventure Game



Family & Community Learning  
Ready to Learn Activity Guide



- Outdoor Learning: “I Hear with My Own Ear”
- Science Notebook
- Transition Songs



Senses Discovery Game  
Elinor’s Insect Guide  
Article: “Ways to Explore Nature with Preschoolers”

# Our Target Audiences



**Formal:** School-based/center-based PreK



**Informal:** Family Child Care



**Community:** Local Station, Library, Nature Center, Community Center, etc.

# Our Co-design Team =



**Academic/Research Partner**

THE  
UNIVERSITY  
OF RHODE ISLAND

- Grounds process in latest research and best practice
- Identifies and documents learning and teaching outcomes

+

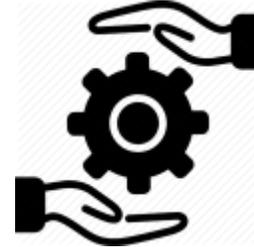


**Ideators**

Master Teachers:

- Experienced
- Experts in target content
- Exemplars of implementation

+



**Field Testers**

Target Audience:

- Authentic educator review and testing
- School-based teachers and family child care providers

+

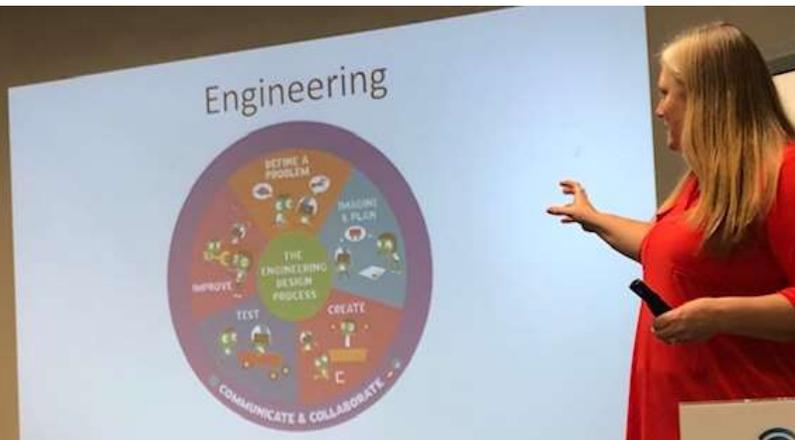
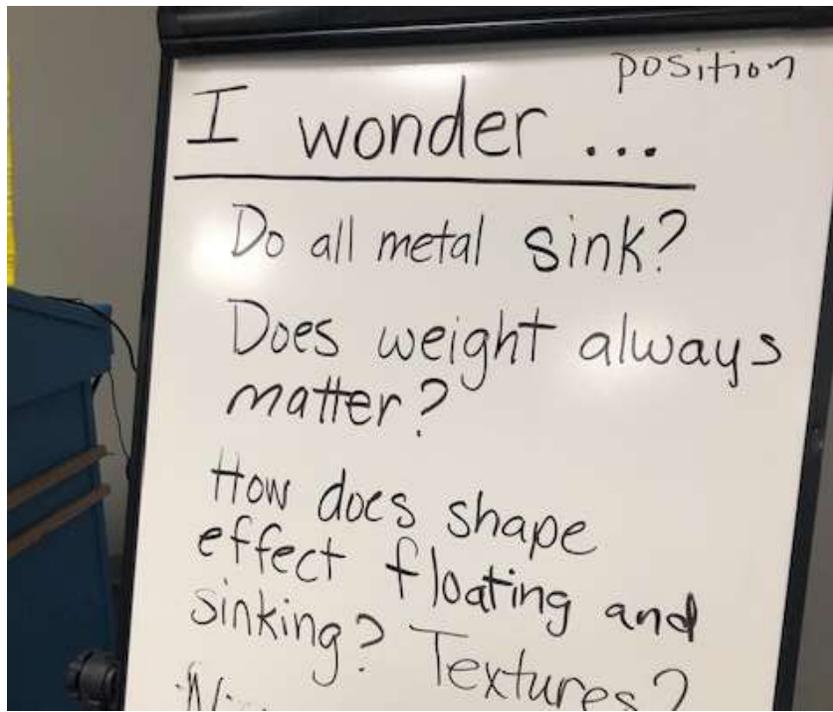


**Station Partner**

  
**Rhode Island PBS** 

- Local station POV to ensure responsive, localized applications
- Engages local audiences for additional input and testing

# Co-design in Action!



# Let's Be Curious

Being curious means you want to find out about new things.

Today, Elinor and her friends are curious about sounds.

Let's watch clips from the *Make Music Naturally* episode. Then we will explore sounds in our community.



Let's get ready to learn with Elinor and her friends.

We are  
ready to  
learn.



We have calm  
bodies,



watching  
eyes,



And listening  
ears

Elinor and her friends are curious about sounds.



Let's  
find out:

How do they play  
"I hear with my own ear"?



# Time to Investigate!

Now let's play "I hear with my own ear" to discover some sounds we hear indoors.

1. **Close your eyes and cup your ears.**
2. **Listen carefully for 30 seconds.**
3. **Share one sound you hear.**



30 seconds



Start timer here



- ? What words could you use to describe the sound? (loud, soft, high, low).
- ? What do you think is making that sound?

# I Wonder...

## **I wonder...**

How can we use our sense of hearing to learn about the world outdoors?

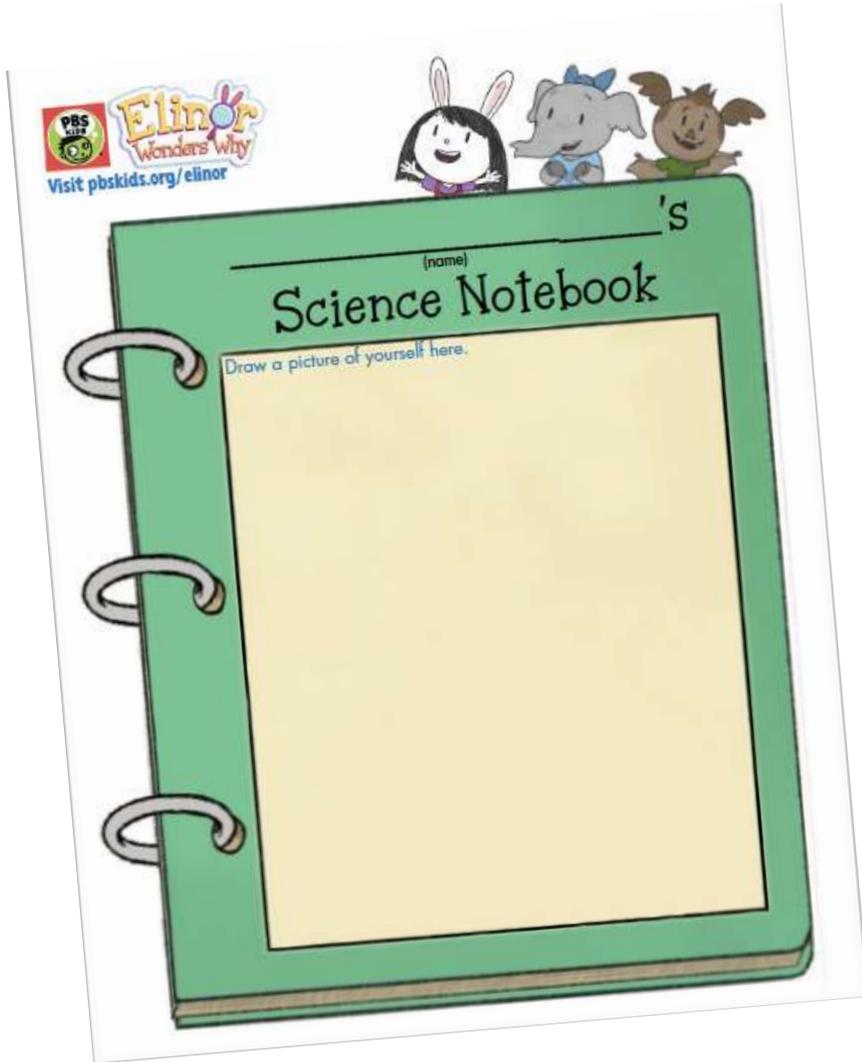
## **Let's investigate....**



We need more observations!



# Making Observations in the Science Notebook

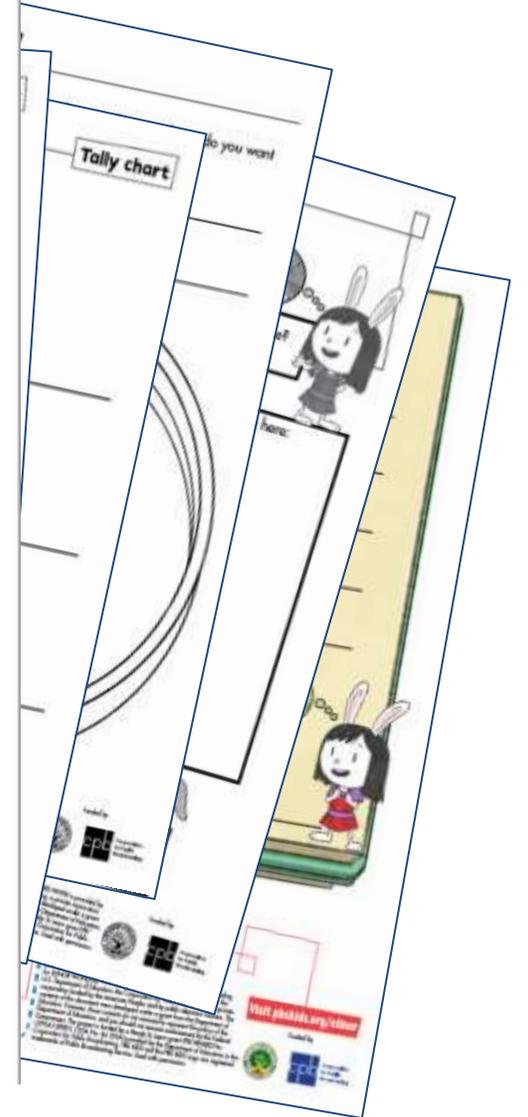
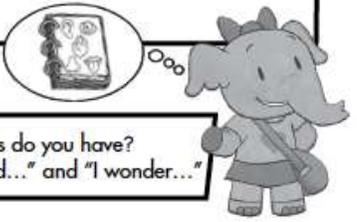


**Let's Explore** \_\_\_\_\_ (name)

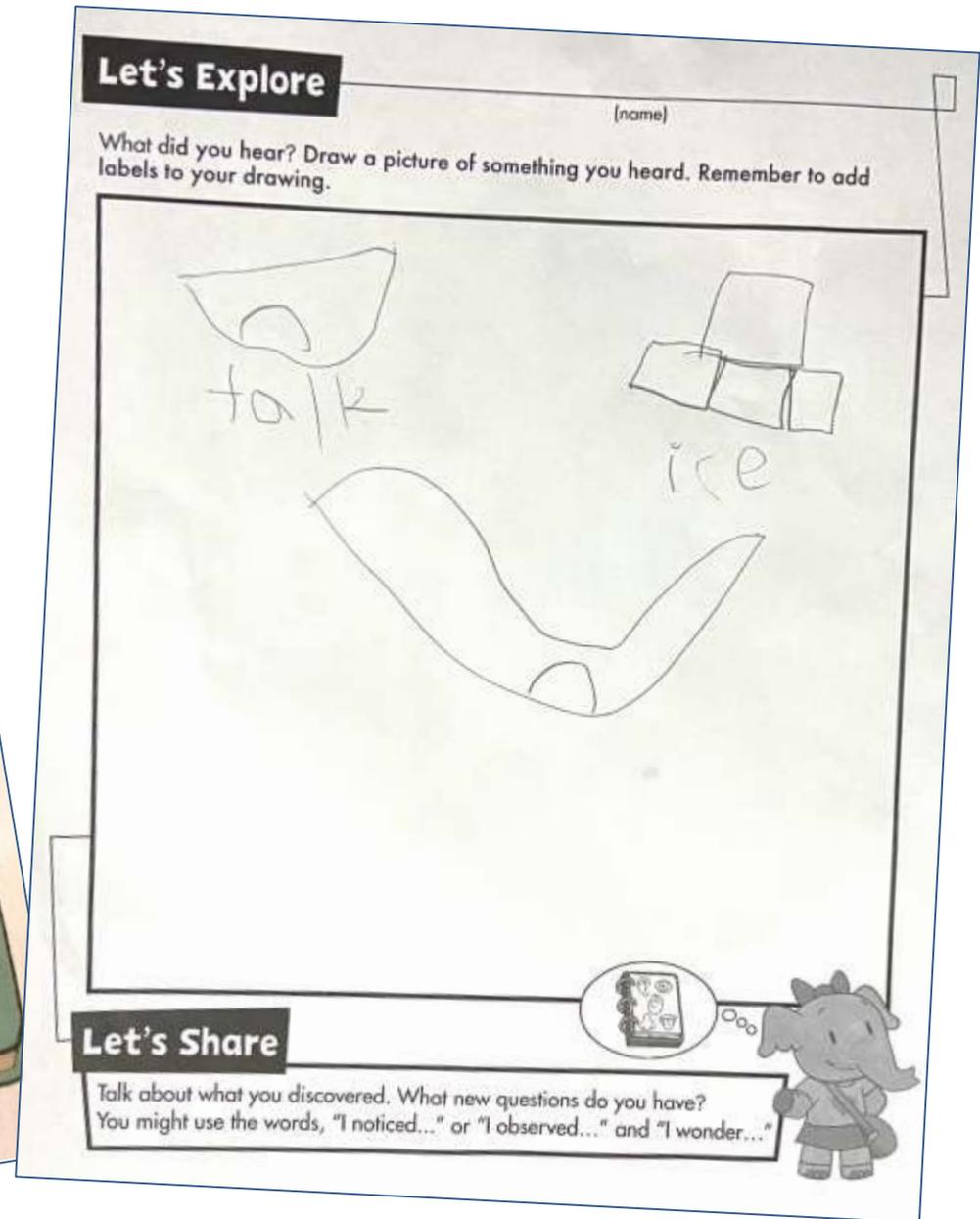
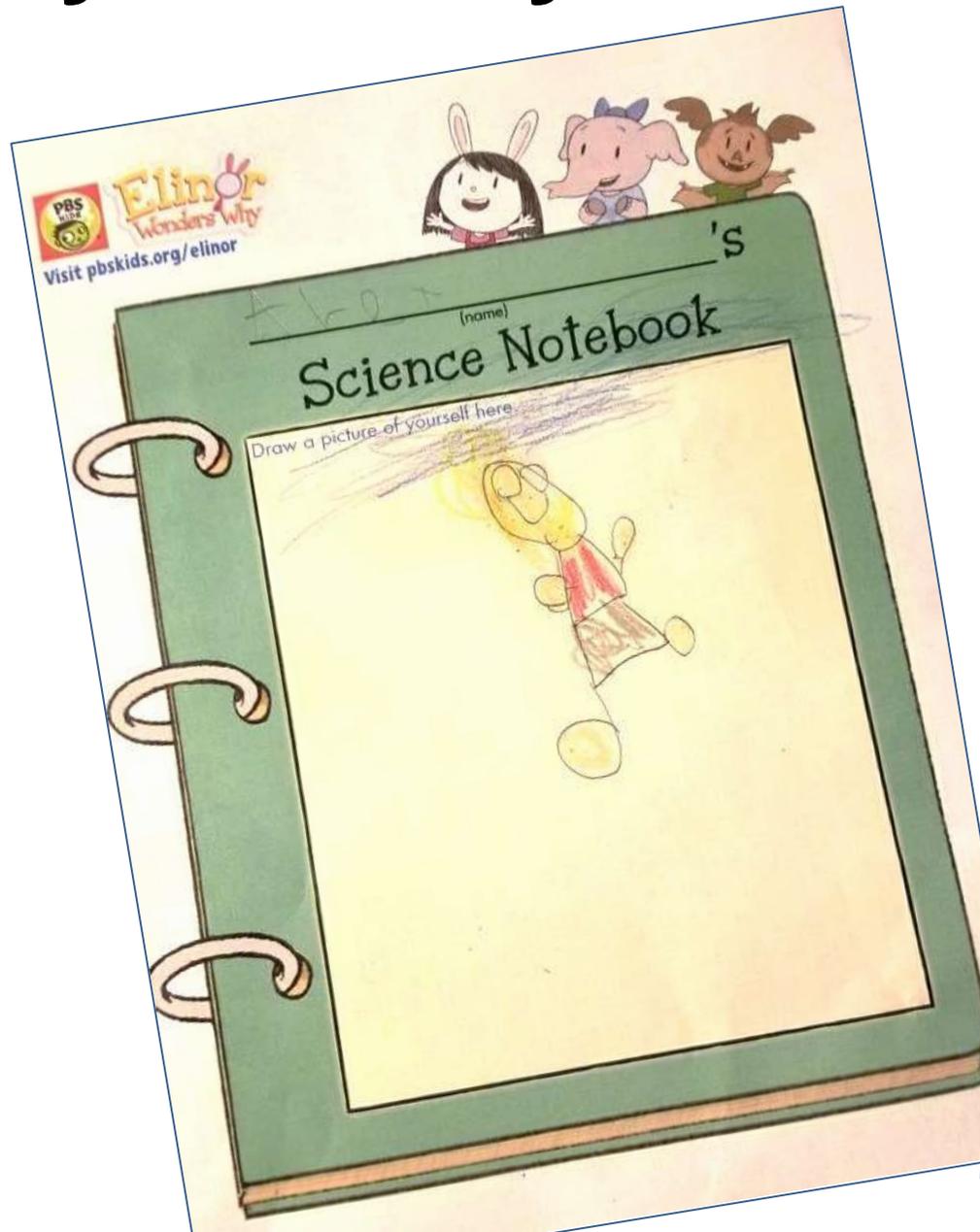
What did you hear? Draw a picture of something you heard. Remember to add labels to your drawing.

**Let's Share**

Talk about what you discovered. What new questions do you have? You might use the words, "I noticed..." or "I observed..." and "I wonder..."



# Early Literacy in the Science Notebook!



# Family Resources



**Let's Explore**

Close your eyes. Reach into the box and pick up an object. Use your senses to identify it. Describe how it feels, smells, or sounds.

**T-Chart**

What object did you find?	What did your senses tell you?

Illustration of a girl thinking about a box with a small elephant icon.

## Insect Field Guide

**Elinor Wonders Why**

**A Field Guide to Insects**  
By Elinor and [unintelligible]

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### DICHOTOMOUS KEY: IDENTIFY AN INSECT

- 1) Does it have 6 legs?
  - a. Yes (go to next question)
  - b. No (STOP: it isn't an insect.)
- 2) Does it have 3 body parts?
  - a. Yes (go to next question)
  - b. No (STOP: it isn't an insect)
- 3) Does it have 2 antennae?
  - a. Yes (It is an insect.)
  - b. No (It isn't an insect.)

So, what's an insect? A bug that has 6 legs, 3 body parts, and 2 antennae.

**My Insects**

Number of legs .....

Number of body parts .....

Number of antennae .....

Is it an insect?  
Yes  No

pbskids.org/elinor



## Senses Discovery Game



# Family Resources



## Activities



### Hide and Seek With Camouflaged Animals

Create paper animals and hide them in your environment.



### Make a Butterfly Costume

Learn about butterflies by creating your own butterfly costume.

## Articles



### Encouraging Curiosity With Elinor Wonders Why

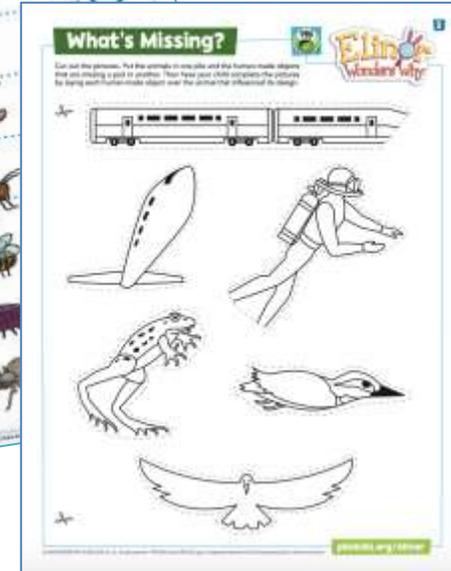
Play hide-and-seek with children as they explore the world.



### 6 Ways to Explore Nature With Preschoolers

Getting outside with preschoolers and exploring nature is a perfect way to learn about the world.

## Printables



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The Ready To Learn Initiative

# PBS Learning Media for Educators

The screenshot shows the PBS Learning Media interface for the 'The Five Senses' collection. At the top, there are navigation tabs for 'Subjects', 'Grades', 'Standards', and 'For Students'. Below this is a banner for 'Elinor Wonders Why' featuring the show's characters. A sub-header indicates 'In This Collection: Audio (2), Interactive (2), Document (2), Video (2), Media Gallery (2) for Grades PreK-1'. The main content area is titled 'The Five Senses' and includes a 'Share' button, a 'Favorite' button, and a 'Google Classroom' button. A sidebar on the left lists 'Explore Collection' items: 'Elinor Wonders Why', 'Being Curious', 'The Five Senses' (selected), 'Indoor Lesson', 'Outdoor Lesson', 'Finding Animals', 'Comparing and Contrasting Plants', and 'Caring for the Environment'. Below the sidebar, it says 'Funded by' and shows logos for 'cpb Corporation for Public Broadcasting' and the 'Department of Education'. A disclaimer states: 'The contents of this collection were developed under a grant from the Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government. The project is funded by a Ready To Learn grant (PRKWARD No. U295AD0003, CFDA No. 84.295A) provided by the Department of Education to the Corporation for Public Broadcasting.' The main content area features three cards under the 'Indoor Lesson' section: 'Using Our Senses' (Interactive), 'Episode | Ms. Mole's Glasses & Elinor Stops the Squish' (Video, 26:33), and 'Playlist | Transitions and Routines' (Media Gallery, 2:15). A 'Go to Indoor Lesson (4)' link is also present. Below this is the 'Outdoor Lesson' section with a card titled 'I Hear with My'.



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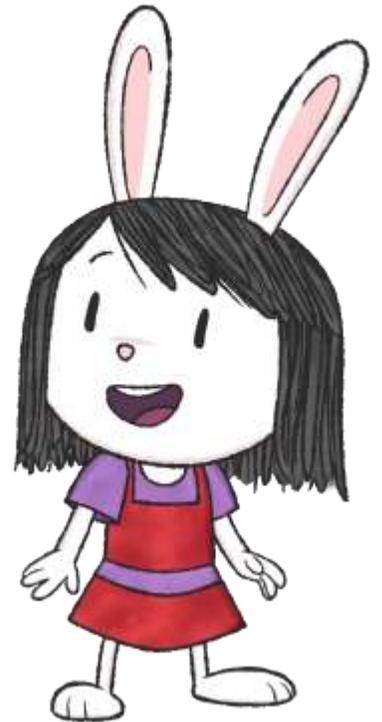


# The Elinor Wonders Why Collection on PBS Learning Media



5 Units – 20 Bilingual PreK Resources

1. Being Curious
2. The Five Senses
3. Comparing Plants
4. Finding Animals
5. Caring for the Environment



# Teaching Resources

## LESSON PLANS

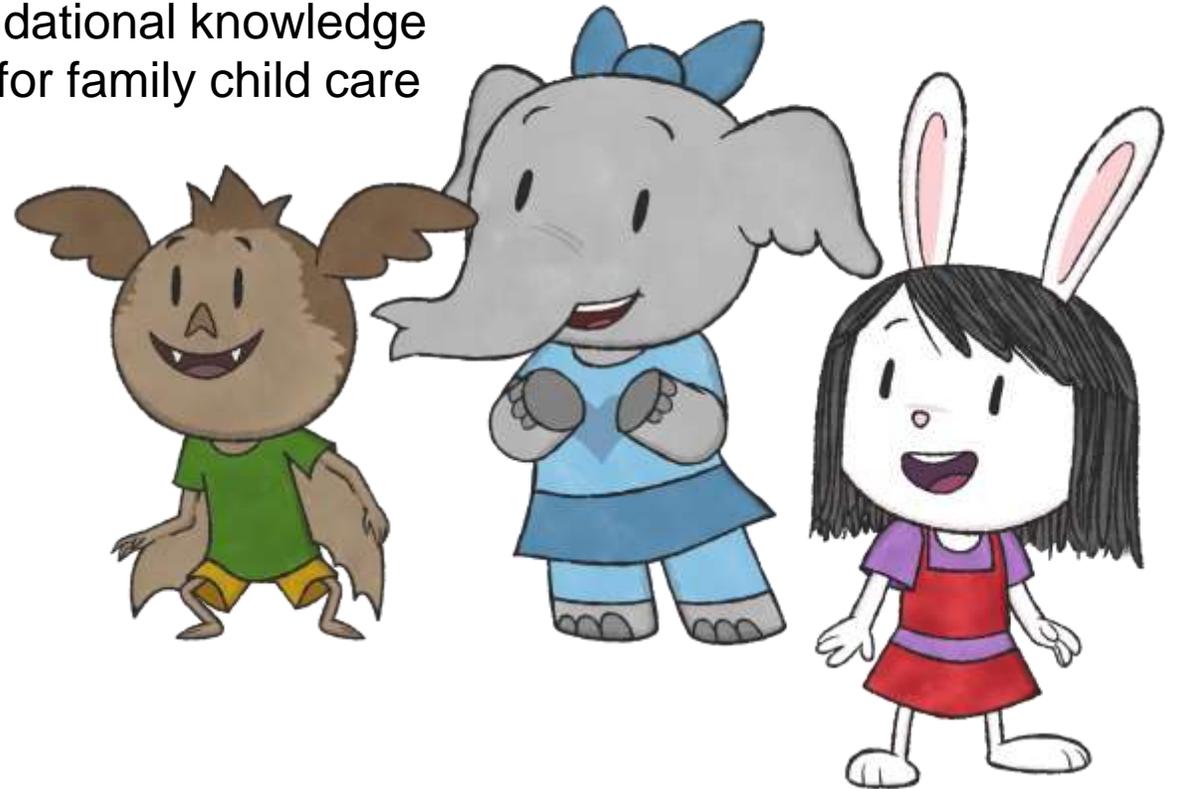
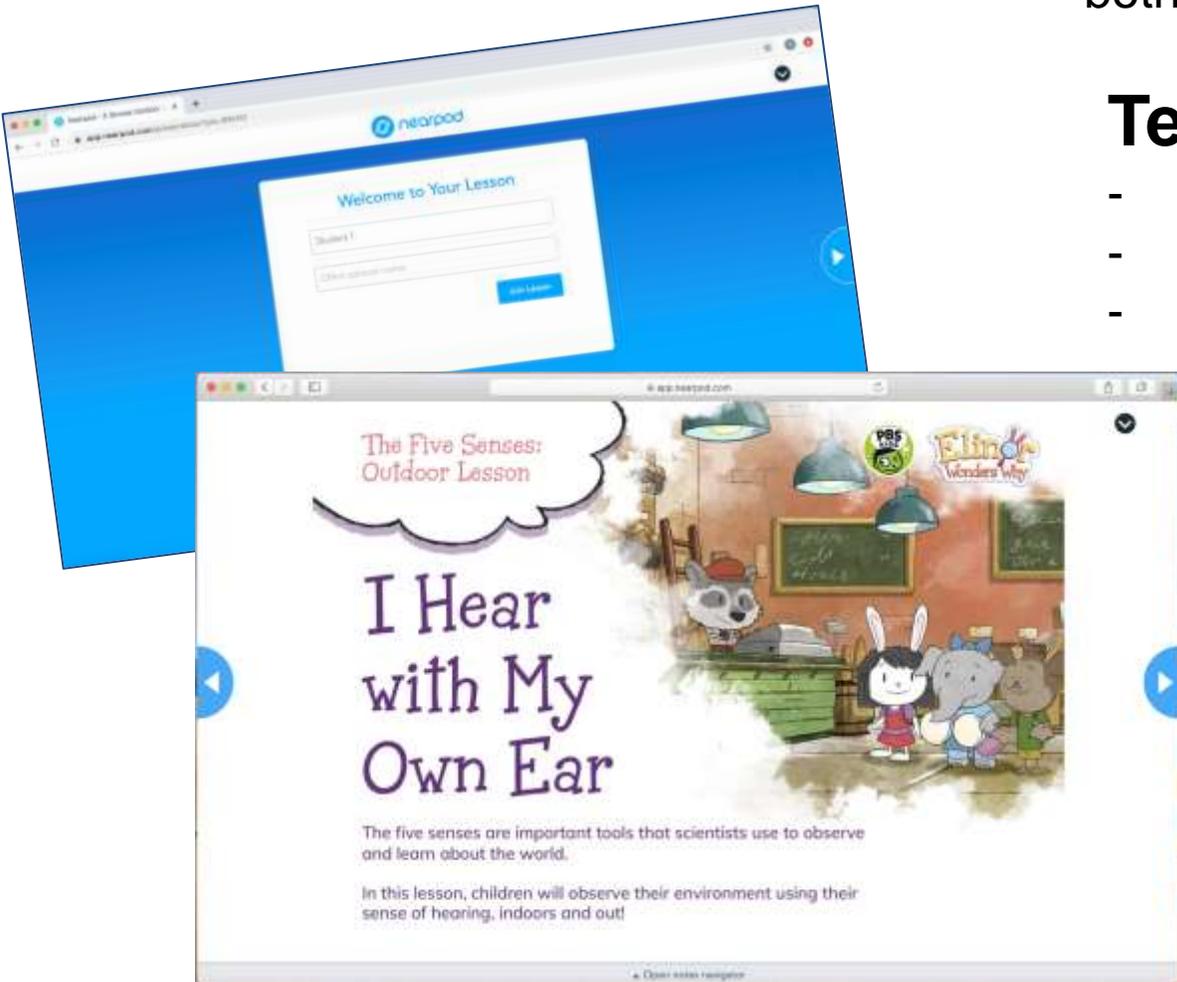
- Digital and printable
- Classroom-ready: virtual, in-person, or both!

## LEARNING MEDIA

- Video clips
- Songs
- Supports for digital games

## Teaching Guide

- Implementation support
- Foundational knowledge
- Tips for family child care



# Student Printables



Let's Observe Placemat



Science Notebook



## The Show

80 stories, 40 interstitials

## 7 Games

Elinor's Hide-and-Seek, Pond Life, Elinor's Nature Adventure (PLE), Soup's Up, Curious Campout & more

## Printables

Finger Puppets, Pond Life, Soup Recipe Cards, Seed Helicopter, Coloring pages

## Teaching Resources

### **5 Units/20 resources:**

Being Curious, The 5 Senses, Comparing Plants, Finding Animals, Caring for the Environment

- Lesson Plans, Media Clips, Student Printables, Supports for Teachers and FCC Providers

## TeachersLounge Blogs



## Family & Community Learning

Ready to Learn Activity Guide

## Family Resources

**6 Activities:** Butterfly Costume, DIY Magnifying Glass, Hide and Seek w/ Camouflage, Nighttime Observation Kit, Neighborhood Animal Bingo, Observe How Objects Fall

**3 Printables:** Collection Box, Elinor's Insect Guide, Natural Design Activity

**4 Parent Articles:** Curiosity, Natural Design, Observation, Ways to Explore Nature w/Preschoolers



# Community Uses & Opportunities for Collaboration

Lavanya Mohan, PBS Education



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# Community and Family Engagement with Member Stations and Local Partners



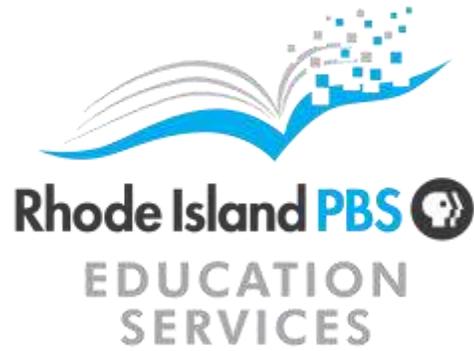
# Rhode Island PBS

Mayra Monterroso, Rhode Island PBS

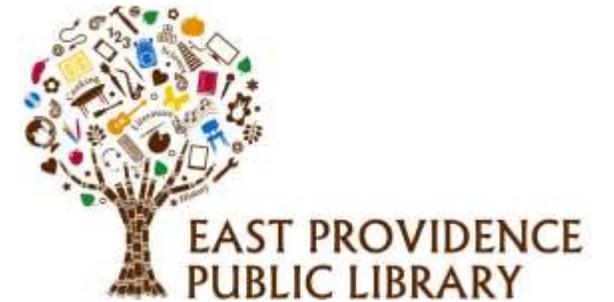


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- Workshops for children and families with community partners
- Professional development workshop approval by CELP
- Collaboration with the SEIU Education and Support Fund to highlight major initiatives around professional learning
  - Empowering Family Childcare (FCC) providers as educators
- Professional development workshops for FCC community
  - Workshops and resources in Spanish
- *Elinor Wonders Why*
  - FCC provider collaboration efforts





"Being recognized as an educator is not common in our community of family childcare providers, so I am truly thankful for the opportunity."

-Mrs. Najarro,  
Virginia Family Childcare



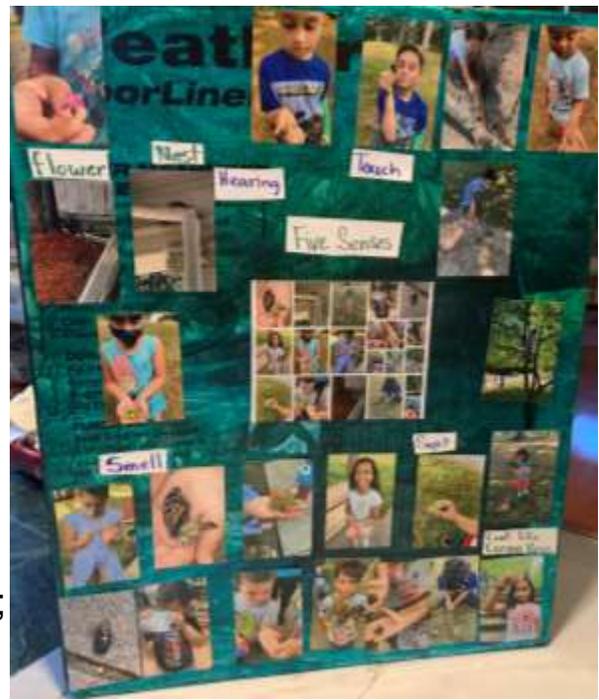
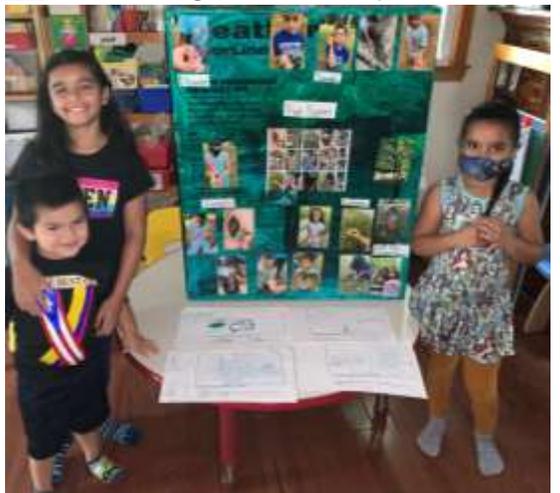
"It has been a pleasure to take part in this project. I know that many Family Childcare providers like me will benefit from these resources."

-Mrs. Ynoa  
Nuris Home Daycare



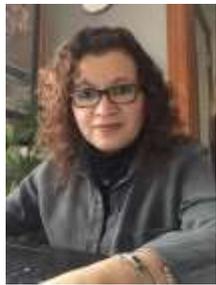
"It has been an amazing experience to be able to take part in this project; to create resources needed to make an impact on our children's learning."

-Ms. Serrano, Little Angels Home Daycare



"Through this project I was able to provide children in my program the support they need, while appropriately integrating media and technology into my practice."

-Ms. Maldonado  
Nery Home Daycare



"This project has meant a lot to me; as educators we need to highlight the important role that science learning plays on children's development."

-Mrs. Flores, Happy Kids Home Childcare



The Ready To Learn Initiative

# Perspectives & Priorities from NAEYC

Tony Durborow, NAEYC



# Advancing Equity & Establishing Reciprocal Relationships with Families

1. Embrace the primary role of families in children's development and learning.
2. Uphold every family's right to make decisions for and with their children.
3. Be curious, making time to learn about the families with whom you work.
4. Maintain consistently high expectations for family involvement, being open to multiple and varied forms of engagement and providing intentional and responsive supports.
5. Communicate the value of multilingualism to all families.

Source: NAEYC's Advancing Equity Position Statement 2019



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# Plans for Remote Evaluation with Children and Parents

Shelley Pasnik, EDC



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# Research Questions

- To what extent do child outcomes related to curiosity, scientific practices, including tool use, and science-related language improve after providing families with access to *Elinor* materials?
- What happens when families use *Elinor* materials? What science concepts and practices do they engage in and what resources do they use and value? What opportunities and challenges do they face?
- To what extent does providing families with access to *Elinor* materials relate to changes in parent attitudes and knowledge about early science, and use of strategies that support children's science learning?



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# Study Parameters

- January – March 2020
- 100 families (~60 intervention; ~40 control)
- Children: English-speaking, ages 3-4 years
- Parents: English-speaking
- Families: low-income
- Mix of rural, suburban and urban locations
- Duration: ~8 weeks



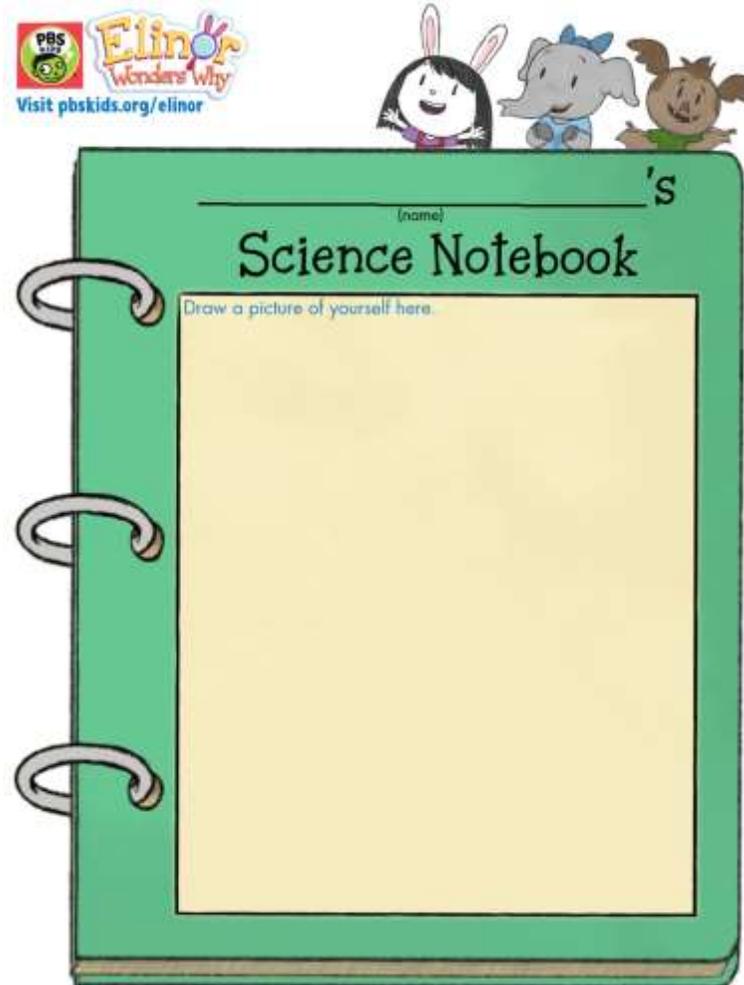
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# Intervention

- Videos
- Interstitials
- Games
- Online and printable activities to support parent-child engagement in science



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# Example: Science Practices

1. *Planning and carrying out investigations*
  - Asking questions
  - Observing
  - Recording / organizing data
2. *Analyzing and interpreting data*
  - Making Comparisons
  - Sorting/categorizing
  - Analyzing data to identify relationships and patterns
3. *Obtaining, evaluating, and communicating information*
  - Getting information from books/informational texts and adults



# Accessing *Elinor Wonders Why*

Pam Johnson, CPB



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# Elinor Wonders Why



- The Show
- Digital Games
- Printables



- Family & Community Learning Activity Guide



- Lesson Plans
- Student Printables
- Blogs



- Hands-on Activities
- Printables
- Parent Articles

# Broadcast TV & Free Video on Demand

## Broadcast Schedule

- Check your local listings for episode air time
- PBS KIDS 24/7 Channel - airs at 3:30 PM daily



## Free Video on Demand

- PBS KIDS media player - [pbskids.org](https://pbskids.org)
- PBS KIDS Video app - <https://pbskids.org/apps/play-pbs-kids-games.html>
  - Available on Roku, Apple TV, Amazon FireTV, Google Chromecast, Samsung TV and on iOS and Android devices
- PBS KIDS YouTube channel: [www.youtube.com/pbskids](https://www.youtube.com/pbskids)



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# Free Digital Games and Resources

## For Kids:



### Free Digital Games

- PBS KIDS Games app – [pbskids.org/apps/play-pbs-kids-games.html](https://pbskids.org/apps/play-pbs-kids-games.html) (available for iOS and Android devices)
- PBS KIDS website - [pbskids.org/elinor](https://pbskids.org/elinor)

## For Educators:



Lesson Plans, Student Printables, Blogs  
[pbslearningmedia.org/collection/elinor](https://pbslearningmedia.org/collection/elinor)

## For Families:



Activities, Articles, Printables  
[pbsparents.org/shows/elinor](https://pbsparents.org/shows/elinor)



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# Questions?



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# Upcoming GLR Learning Tuesdays Webinars:

## LEARNING LOSS RECOVERY WEBINAR

Ask the Teacher(s): What Could Success Look Like?

Tuesday, September 15, 3 p.m. ET/12 p.m. PT

Please join us!

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