

Today's Presenters



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WOMBATS TRIVIA!

1. **What do you call a group of wombats?**
2. **How fast can a wombat run?**
3. **Wombats are native to which country?**
4. **Wombat poop is a particular shape. What is that shape and what purpose does the shape serve?**





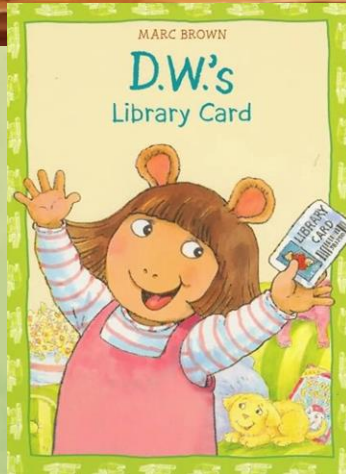
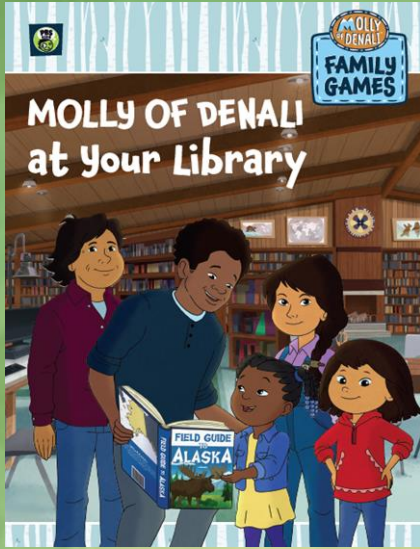
GBH enriches people's lives through programs and services that educate, inspire, and entertain, fostering citizenship and culture, the joy of learning, and the power of diverse perspectives.

Public media leader for 70+ years

Largest contributor to PBS



Libraries and Public Media: An Ideal Partnership





*Supporting early computational thinking
across rural home and library settings*

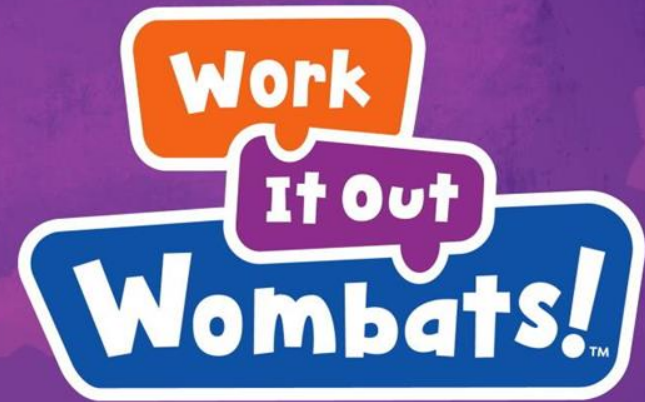
WORK IT OUT WOMBATS!

OVERVIEW

- Groundbreaking PBS KIDS multimedia initiative
- Targeting children ages 3-6 with foundational CT skills
- Show about community, family, and solving problems together
- Components:
 - Television episodes
 - Website with games
 - Podcast series
 - Resources for educators and caregivers
 - R&D initiatives



What Is Computational Thinking?



“WORK IT OUT @ YOUR LIBRARY”

- Funded by a grant from the National Science Foundation.
- Create a motivating pathway through CT resources in a way that makes it easy and fun for rural families to explore CT.
- Create a new library model that leverages librarian’s enthusiasm to support family learning.
- Generate and share research to inform the field.



Images provided by GBH

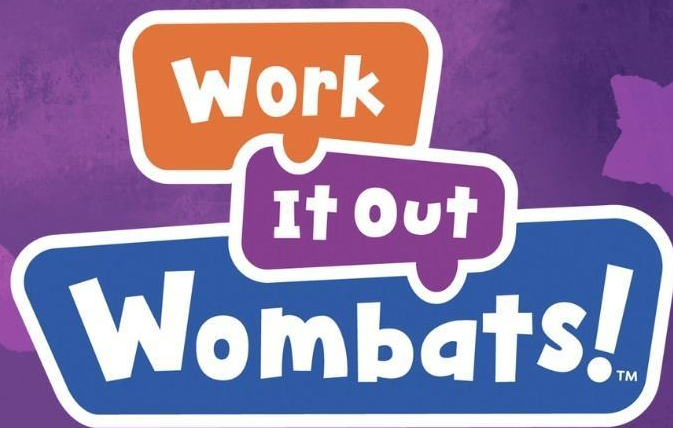
THE LIBRARY WORKING GROUP

- OCLC's WebJunction, Public Library Association (PLA), Libraries Ready to Code, Association of Rural and Small Libraries (ARSL), practicing librarians and library workers, Mississippi Public Broadcasting (MPB).
- Met throughout the pandemic to iteratively develop this family outreach model for libraries.
- Ideal for all libraries that serve families with young children.



For Librarians:

What Is Work It Out @ Your Library?



PRELIMINARY EVIDENCE OF IMPACT

- Caregivers' ratings of their child's use of CT skills and mindsets while solving a problem increased significantly.
- The majority of caregivers demonstrated an increased understanding of CT as being related to problem solving.
- Two-thirds of caregivers were able to provide a CT-related example when asked how their child used what they learned from Wombats! in everyday life.

WORK IT OUT @ YOUR LIBRARY

- Free collection of resources available on PBS LearningMedia
- Includes library facilitator guides, presentation decks, student handouts, take-home family guides, tons of videos, and more!

pbslearningmedia.org/collection/work-it-out-your-library/

The screenshot shows the PBS LearningMedia interface for the 'Work It Out @ Your Library' collection. At the top, there's a banner with the collection title and three images: a child, a group of children, and a person holding a sign. Below the banner, there are social sharing options (Share to Google Classroom, Social Share, Favorite) and a 'Funded by' section listing various partners like the Corporation for Public Broadcasting, PTLW, Target, Mead Johnson, and others. The main content area features a video player for an 'Overview' video, followed by a grid of resource cards. Each card includes a thumbnail, a title, a brief description, and a 'Download' icon. The cards include: 'Overview: What is Work It Out @ Your Library?', 'Unit 1: Create, Test, Improve | Work It Out @ Your Library', 'Unit 2: Step It Out! | Work It Out @ Your Library', 'Unit 3: Find What Matters! | Work It Out @ Your Library', 'Unit 4: Break It Down! | Work It Out @ Your Library', and 'Overview for Families: What is Work It Out @ Your Library?'. The interface is clean and user-friendly, with clear navigation and download options.

PROGRAM OVERVIEW

For Librarians: What Is Work It Out @ Your Library?

Media Gallery Grades: Pre-K-K Collection: Work It Out @ Your Library

Resource 1 of 2

For Librarians: What Is Work It Out @ Your Library?

Watch this video for an overview of the Work It Out @ Your Library program.

Transcript



Work It Out @ Your Library

Introduction

Everything you need to get started leading the preschool library program on computational thinking (CT), featuring the PBS KIDS TV show *Work It Out Wombats!*™

	Work It Out @ Your Library	Work It Out @ Home
Week 1	<p>Introductory Session (1 hour)</p> <p>Families learn about the <i>Wombats!</i> series and characters, get acquainted with CT, and practice using the <i>Work It Out Wombats!</i> Family App, which contains animated stories and songs, hands-on activities, and an interactive music video feature.</p>	<p>More Activities! (1+ hours)</p> <p>Equipped with the <i>Work It Out Wombats!</i> Family App and the <i>Work It Out @ Home Family Guide</i>, families watch <i>Wombats!</i> stories and songs and do more activities at home. They mark the activities they did on the <i>Wombats!</i> Activity Tracker.</p>
Week 2	<p>Story Time Session (30–45 min.)</p> <p>Families listen to two storybooks related to the CT skill they've been working on. They'll take a break between stories to dance with <i>Wombats!</i> puppets and for free play. They'll visit the CT Corner (which features <i>Wombats!</i> resources and take-home handouts) and check in with the librarian leading the program.</p>	<p>More Activities! (1+ hours)</p> <p>Families continue to watch <i>Wombats!</i> animated stories and songs and do more activities, preparing to share what they did at the final <i>Share and Celebrate</i> library session.</p>
Week 3	<p>Share and Celebrate Session (1 hour)</p> <p>Families return to share what they did at home and talk about their CT experiences. Then they'll do another CT activity together, receive a certificate, and finish with a celebration!</p>	

CREATE, TEST, IMPROVE!

Unit 1: Create, Test, Improve | Work It Out @ Your Library

Media Gallery Grades: PreK-K Collection: Work It Out @ Your Library



Resource 1 of 6

Unit 1 Library Guide: Create, Test, Improve!

This three-week unit focuses on the design process, or as the Wombats say, *Create, Test, Improve!* The Guide includes instructions for leading each of three sessions. (If you haven't already, read the *Work It Out @ Your Library* Introduction first).

Download



Unit 1 Library Guide: Create, Test, Improve!



What is Computational...



Design Process



Sandcastle Song



Wombats! Theme Song



About Standards

Introduce preschoolers and their families to the design process, or as the Wombats say, *Create, Test, Improve!* This resource includes a *Library Guide* and slideshows for leading the three library sessions, a *Work It Out @ Home Family Guide* for families, a *Recommended Booklist* of stories related to CT, links to *Wombats!* videos, and more! (If you haven't already, read the *Work It Out @ Your Library* Introduction first.)



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Support Materials for Teachers

USING THIS RESOURCE
[Introductory Slideshow | Unit 1](#)
[Share and Celebrate Slideshow | Unit 1](#)
[Work It Out @ Home Family Guide | Unit 1](#)
[Recommended Booklist | Unit 1](#)



STEP IT OUT!

Unit 2: Step It Out! | Work It Out @ Your Library

Media Gallery Grades: Pre-K-K Collection: [Work It Out @ Your Library](#)



Resource 1 of 6

Unit 2 Library Guide: Step It Out!

This three-week unit focuses on sequencing, or as the Wombats say, *Step It Out!* The Guide includes instructions for leading each of three sessions. (If you haven't already, read the *Work It Out @ Your Library* Introduction first).

Download



Unit 2 Library Guide: Step It Out!



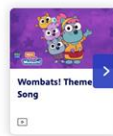
What is Computational...



Sequences and Algorithms



The Wombat Wiggle Song



Wombats! Theme Song

About Standards

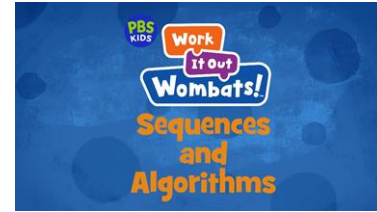
Introduce preschoolers and their families to the computational thinking (CT) skill of sequencing, or as the Wombats say, *Step It Out!* This resource includes a *Library Guide* and slideshows for leading the three library sessions, a *Work It Out @ Home Family Guide* for families, a *Recommended Booklist* of stories related to CT, links to *Wombats!* videos, and more! (If you haven't already, read the *Work It Out @ Your Library* Introduction first).



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USING THIS RESOURCE
[Introductory Slideshow | Unit 2](#)
[Share and Celebrate Slideshow | Unit 2](#)
[Work It Out @ Home Family Guide | Unit 2](#)
[Recommended Booklist | Unit 2](#)



FIND WHAT MATTERS!

Unit 3: Find What Matters! | Work It Out @ Your Library

Media Gallery Grades: Pre-K-K Collection: Work It Out @ Your Library



Resource 1 of 6

Unit 3 Library Guide: Find What Matters!

This three-week unit focuses on abstraction and representation, or as the Wombats say, Find What Matters! The Guide includes instructions for leading each of three sessions. (If you haven't already, read the Work It Out @ Your Library Introduction first).

Download



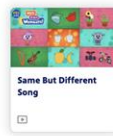
Unit 3 Library Guide: Find What...



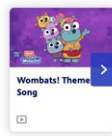
What is Computational...



Abstraction and Representation



Same But Different Song



Wombats! Theme Song

About Standards

Introduce preschoolers and their families to the computational thinking skill of abstraction and representation, or as the Wombats say, Find What Matters! This resource includes a Library Guide and slideshows for leading the three library sessions, a Work It Out @ Home Family Guide for families, a recommended booklet of stories related to CT, links to Wombats! Videos, and more! (If you haven't already, read the Work It Out @ Your Library Introduction first).



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Support Materials for Teachers

USING THIS RESOURCE

[Introductory Slideshow | Unit 3](#)

[Share and Celebrate Slideshow | Unit 3](#)

[Work It Out @ Home Family Guide | Unit 3](#)

[Recommended Booklist | Unit 3](#)



BREAK IT DOWN!

Unit 4: Break It Down! | Work It Out @ Your Library

Media Gallery Grades: Pre-K-K Collection: Work It Out @ Your Library



Resource 1 of 7

Unit 4 Library Guide: Break It Down!

This three-week unit focuses on problem decomposition, or as the Wombats say, *Break It Down!* The Guide includes instructions for leading each of three sessions. (If you haven't already, read the *Work It Out @ Your Library* Introduction first).

Download



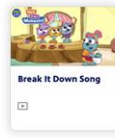
Unit 4 Library Guide: Break It...



What is Computational...



Problem Decomposition



Break It Down Song



Wombats! Theme Song

About Standards

Introduce preschoolers and their families to the computational thinking (CT) skill of problem decomposition, or as the Wombats say, *Break It Down!* This resource includes a *Library Guide* and slideshows for leading the three library sessions, a *Work It Out @ Home Family Guide* for families, a recommended booklet of stories related to CT, links to *Wombats!* videos, and more! (If you haven't already, read the *Work It Out @ Your Library* Introduction first).

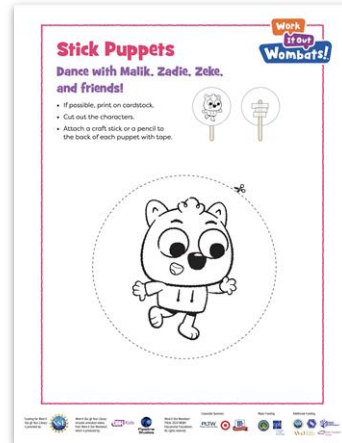


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USING THIS RESOURCE
[Introductory Slideshow | Unit 4](#)
[Share and Celebrate Slideshow | Unit 4](#)
[Work It Out @ Home Family Guide | Unit 4](#)
[Recommended Booklist | Unit 4](#)



Work It Out @ Home



Family Guide



- Watch *Wombats!* videos
- Or practice with the *Work It Out Wombats!* Family App
- Watch music videos starring your child
- Learn more about preschool computational thinking
- Get tips on doing activities with your child



OVERVIEW FOR FAMILIES

Overview for Families: What Is Work It Out @ Your Library?

Media Gallery Grades: Pre-K-K Collection: [Work It Out @ Your Library](#)



Resource 1 of 4

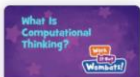
Overview for Families (Video)

Have fun exploring computational thinking (CT) with your children as a part of the Work It Out @ Your Library program. Watch animated videos, do hands-on activities, listen to story times, and play with the Work It Out Wombats! Family App.

Transcript



Overview for Families (Video)



What is CT? (Video)



Children's CT (Video)



Wombats! Family App (Video)

Preschool Computational Thinking (CT)

Computational thinking, or CT for short, doesn't teach children what to think but how to think.

CT is a creative way of thinking that helps children solve problems in more organized ways, using a toolkit of skills from computer science.



All of Us Use CT Every Day!

We may not realize it, but we use computational thinking (CT) skills all the time—and not just when we're on a computer.

- When you perfect a recipe, you probably use the three-step CT skill called the **design process**: create, test, improve.
- When you run errands, you're using the CT skill of **sequencing**—you think about the tasks you need to complete and decide on which order to do them in.
- When you have a big job to tackle, like putting together a birthday party, you use the CT skill of **problem decomposition** to break down this big job into smaller, more manageable jobs to make it easier to accomplish.

Young children are already using CT skills, too—when, for example, they build something out of blocks and test out how to make it work the way they want it to, or when they break down the big job of helping set the table for dinner into smaller tasks.

How CT Benefits Young Children

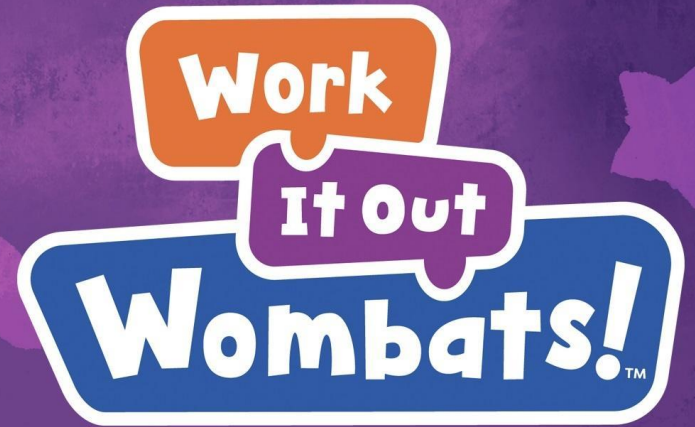
CT is something that can be nurtured at a young age, and it can be practiced without a computer. Just as children learn to sing the alphabet before they learn to read, preschoolers can learn basic CT skills, which sets the groundwork for more complex skills later on.

CT is important for math, science, and literacy, and it can help children learn coding or computer programming when they are older. It also prepares young children for school success right from the start!



For Families:

What Is Work It Out @ Your Library?



CT CORNER TOOLKIT



Treeorhood Standee



Tabletop Signs



Activity & Coloring Sheets

QUESTIONS?

Feel free to email us with questions!

Mary Haggerty: mary_haggerty@wgbh.org

Nicki Sirianni: nicki_sirianni@wgbh.org



LINKS TO RESOURCES

- To access to the entire *Work It Out @ Your Library* collection, visit: <http://pbslearningmedia.org/collection/work-it-out-your-library/>
- To access the digital CT Corner Kit, visit: bit.ly/CTCorner
- To access digital games, videos, and activities for kids, visit: <https://pbskids.org/wombats>
- To access the Wombats podcast series, visit: <https://pbskids.org/wombats/podcasts>



WOMBATS TRIVIA!

(ANSWERS)



1. What do you call a group of wombats? **A wisdom of wombats.**
2. How fast can a wombat run? **Wombats have been clocked at 40 km/h, but just for a 90 second period and only among males during mating season.**
3. Wombats are native to which country? **Australia.**
4. Wombat poop is a particular shape. What is that shape and what purpose does the shape serve? **Wombat poop is cube shaped. Apparently, this stops the poop from rolling off their marked territory of rocks or trees.**