

# The Ready To Learn Initiative

2010-2015



## It All Adds Up!

Public media, quality educational content and community engagement add up to improving early learning outcomes across the United States



Corporation  
for Public  
Broadcasting



# The Mission

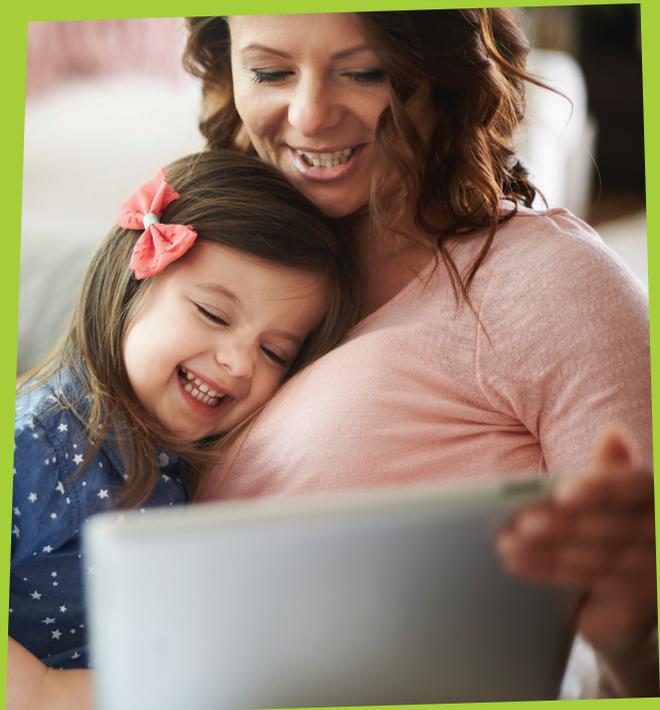
Since its inception more than 20 years ago, the Corporation for Public Broadcasting (CPB) and PBS Ready To Learn (RTL) Initiative has produced and disseminated a collection of evidence-based educational media and resources proven to advance the school readiness skills of young children, particularly those in low-income communities.

Over the course of the most recent five-year project, CPB and PBS worked with hundreds of local stations and their partners to distribute an innovative and effective set of multi-platform learning tools to children, parents and educators.

**Research showed that these materials:**

- **Increased children's math and literacy scores**
- **Improved their school readiness**
- **Fostered an interest in learning beyond the classroom**
- **Encouraged teacher and parent support of children's learning**

CPB and PBS' work combined the impact of quality content with local community engagement, family involvement and technological innovation – all backed by rigorous research – which added up to better early learning outcomes for America's children.



# How it All Began

In 1991, Ernest Boyer, then president of The Carnegie Foundation for the Advancement of Teaching, drew attention to a decline in children’s school readiness in his report, *Ready To Learn: A Mandate for the Nation*.

Boyer’s call for “ready to learn” television sparked the Ready To Learn Television Act. Through the support of Congress and the U.S. Department of Education, the legislation supported television programming and corresponding educational materials for preschool and elementary school children as a way to improve school readiness.

Ernest Boyer’s vision continues to inspire RTL, which has touched the lives of millions of children in low-income communities by helping to narrow the learning gap as they enter school. Each five-year grant cycle has supported innovations in using media to reinforce learning and RTL’s program offerings have adapted to support the developing needs of children, parents and educators. On July 11, 1994, PBS launched its first block of RTL programming with 62 stations as model sites.



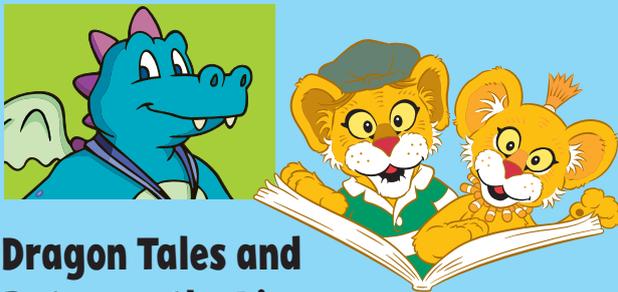
## RTL Focus Areas

	2005	2010	2015
Grant Focus	Accountability & Literacy	Transmedia	Access, Equity & Collaboration
Media & Technology Environment	Linear Format TV+	Proliferation of Media Platforms Multiple Platforms	Proliferation of Content Content Curation
Public Media Innovation	Partnerships Expand Reach Literacy 360	Connected Media Experiences Learning Analytics Platform	Adaptive, Personalized Content Playful Learning Experiences

# RTL Timeline

RTL has addressed the nation's most pressing educational needs in a constantly evolving media landscape. During the 2005-2010 grant, public media and its partners tackled early learning and literacy through television series such as Super WHY!, Martha Speaks, The Electric Company and WordWorld, along with the development and deployment of related educator and family resources. From 2010-2015, RTL focused on early literacy and math with new media properties including the Emmy Award-winning series Peg + Cat and Odd Squad. RTL's 2015-2020 grant is funding the development of science and literacy content with a focus on personalized and adaptive learning tools.

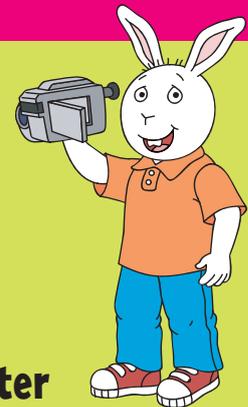
## 1995-2000



### Dragon Tales and Between the Lions

- Companion parent programs, online activities and outreach plans

## 2000-2005



### Maya & Miguel and Postcards from Buster

- Performance indicators on the effectiveness of training parents and teachers in diverse populations
- Emphasis on teaching young English-language learners
- Continued funding for Sesame Street, Reading Rainbow, Clifford the Big Red Dog, Dragon Tales, Between the Lions and Arthur
- Launch of the first PBS website for parents and the "From The Start" website for teachers



### Martha Speaks, Super WHY!, WordWorld and The Electric Company

## 2005-2010

- Extension of content beyond television screens to websites, computer games, books, magazines and outreach programs
- New outreach methods targeting low-income communities, such as summer camps and online courses for caregivers, were developed through the PBS KIDS Raising Readers campaign
- Independent researchers demonstrated that RTL content helps children from low-income families improve critical early literacy skills and helps close the achievement gap with their peers



### Peg + Cat and Odd Squad

## 2010-2015

- Independent research demonstrated that RTL content helps children from low-income families improve critical early math knowledge and enhances family engagement

**80 episodes**  
with a math-based curriculum

**135+**  
educational  
online games

**100+**  
educational  
activities

**New, innovative  
parent & teacher tools**

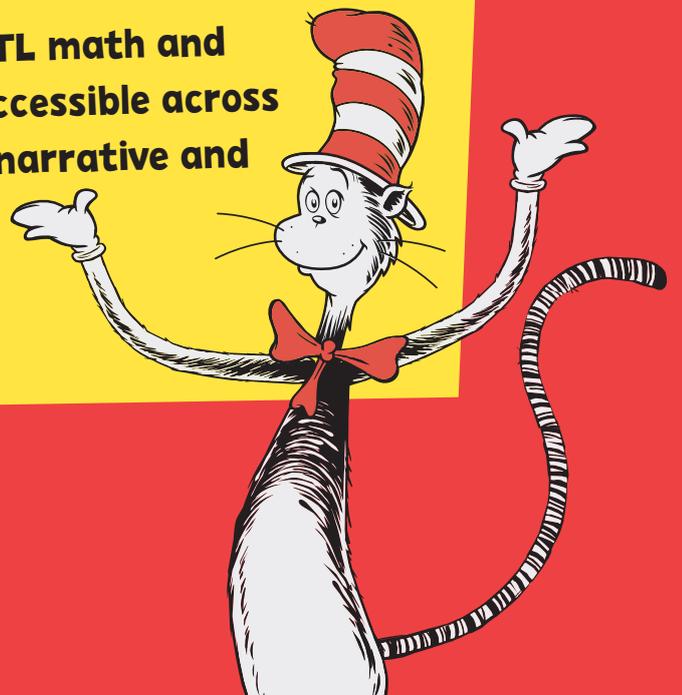
**RTL: 2010-2015**

# Moving the Needle on Math and Literacy

The CPB-PBS RTL Initiative was designed to connect high-quality television content with apps, games, real-world activities and supporting materials for parents and educators in communities across the country. RTL content aligned to math and literacy learning frameworks developed using Common Core State Standards and input from top educational advisors. CPB and PBS set out to ensure that these connected media experiences enhanced learning outcomes for children and increased family and educator engagement.

Independent evaluations affirmed the efficacy of the RTL strategy of creating connected content for children and their parents and educators that's accessible anywhere, anytime, especially for children from underserved communities. Rigorous independent evaluations showed significant improvement in children's math scores on standardized assessment after engaging with RTL content. Parents and educators also reported greater involvement with their children's learning after using these resources.

**The 2010-2015 grant affirmed that RTL math and literacy media experiences – freely accessible across multiple platforms and connected by narrative and curricular focus – advanced learning among children ages 2-8, especially in underserved communities.**





# Peg + Cat = Learning Gains

An EDC-SRI study of Peg + Cat found that children who used Peg + Cat media showed strong improvement in critical math areas involving ordinal numbers, spatial relationships and 3-D shapes.<sup>1</sup> Before using the Peg + Cat materials, none of the children were able to name the shape “cylinder.” After watching Peg + Cat episodes and playing Peg + Cat games, twenty-nine percent of children were able to name the shape at post-test, a significant increase.<sup>2</sup> Parents and caregivers reported increased confidence in helping their children learn math.<sup>1</sup>

Peg + Cat reached  
**11 million kids**  
on television and  
**12 million users**  
digitally in 2015<sup>3</sup>



# Odd Squad: On the Case for Math Learning

A WestEd study found that children who engaged with Odd Squad content showed significant increases in their overall knowledge of mathematics. On measures of knowledge of numbers and operations and algebraic thinking, children's average scores on post-tests were 14 percent higher than their average scores on pre-tests. Parents who were exposed to Odd Squad materials found learning through play to be an effective way to gain an understanding of new math concepts. Teachers also reported that RTL's connected learning approach made useful connections in helping reinforce math concepts.<sup>1</sup>

Odd Squad reached **10 million kids** on television<sup>2</sup> and **20 million users** digitally in 2015<sup>2</sup>

Children exposed to Odd Squad content had significantly **higher scores** in post-tests than in pre-tests.

**25% ↑**  
in skip counting

**7% ↑**  
in pattern recognition

**12% ↑**  
in addition and subtraction



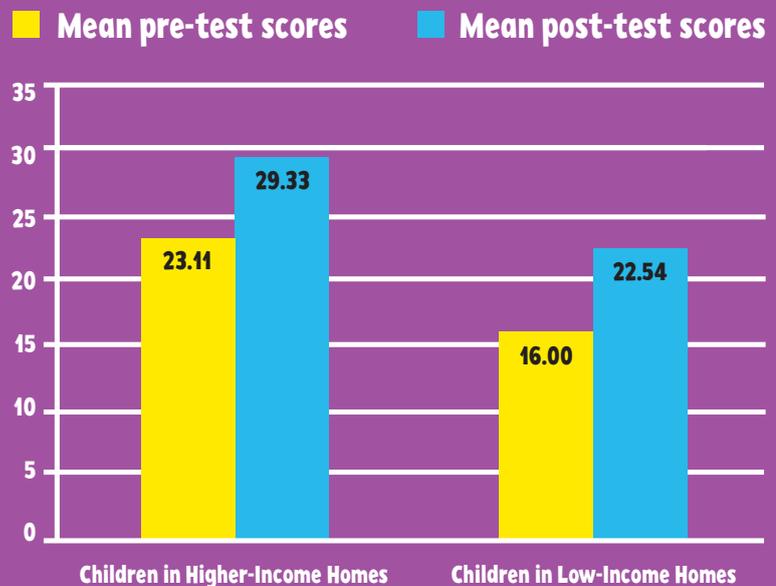
1. Source: Odd Squad: Learning Math with PBS KIDS Transmedia Content at School and at Home (WestEd, 2015)  
2. Source: Nielsen NPOWER, L+7, 10/27/2014 - 10/25/2015, includes series & specials, P2+, K2-11, 6+min., 50% unif. Google Analytics, Jan - Dec 2015.

# RTL Content Boosts Kids' Learning & Parent Engagement

Over the course of an eight-week WestEd study that aggregated content from Curious George, The Cat in the Hat Knows a Lot About That! and Sid the Science Kid, mathematics knowledge increased significantly for children in the RTL treatment group from both low-income and higher-income families.'

Children's math test scores increased **6 points**

**Post-test scores** of children from low-income families **rose to the level** of **pre-test scores** of children from higher-income families



Parents' awareness and involvement in their children's mathematics development **increased significantly**





# Connecting RTL Resources with Underserved Communities

**In many underserved communities, the lack of high-quality digital educational resources and technology contributes to the achievement gap between children from low-income families and their more affluent peers.**

**Over the course of the 2010-2015 grant, PBS stations connected children and families from low-income communities with cutting-edge content and resources. Local stations provided mobile tablets and other technology to preschool and community partners, trained educators and families in the use of digital media and collaborated with local partners to develop innovative models for educational media engagement.**



## PBS KIDS Lab

PBS KIDS Lab offered parents, educators and caregivers learning resources in both English and Spanish. The site provided educational games and activities, and shared the latest research on the impact of RTL content and engagement resources. PBS KIDS Lab had consistently high traffic, averaging more than 57,000 unique visitors to the site every month from 2010-2015.



## PBS Parents Play & Learn App

The free bilingual PBS Parents Play & Learn App provided a mobile option for families with children under the age of four to engage in math and literacy learning activities anytime, anywhere. The app encouraged parent-child engagement that built early math and reading skills by offering digital games and tips for activities to perform in everyday settings, while also empowering parents to support their children's learning with easy, effective resources. To date, the Play & Learn app has been downloaded more than two million times.



## PBS KIDS Mobile Learning Program

The PBS KIDS Mobile Learning Program, a collaboration between the CPB-PBS RTL Initiative, PBS member stations and their community partners, offered RTL mobile apps to parents and educators in low-income communities by providing free download codes and related offline activities in English and Spanish. In the last year of the grant alone, more than 250,000 free download codes and activity sheets were distributed nationwide.



# Impactful Local Station Community Engagement

Local public media stations provide vital services to their communities, supporting early learning through on-the-ground initiatives that reach kids, parents and educators. With funding from RTL, stations worked with a wide range of partners such as schools, Head Start centers, housing authorities and medical clinics to provide children opportunities to engage with high-quality educational content anytime, anywhere. In turn, community partners helped extend the reach of RTL content and resources to parents and educators.

Collaborating with partners allowed local PBS stations to identify gaps in services and work to address specific needs, such as camps during the summer to provide enrichment activities during school breaks. By targeting underserved populations and responding to authentic community needs, stations and their partners made a difference in the lives of families and positively impacted learning outcomes for children.



# PBS Stations' Initiatives Fostered Meaningful Connections with Families

Across the United States, local public media stations bring PBS KIDS' content to a diverse range of community partners to address the education needs of underserved children. In this innovative and collaborative model, public media stations serve as educational media experts and contribute early learning content to their partner organizations. In the 2010-2015 round of RTL, CPB and PBS worked with 30 Demonstration Stations to further the reach and impact of the Initiative.

**KBTC in Washington** partnered with the Tacoma Housing Authority and Tacoma Public Schools to serve children and parents from the low-income Hilltop and Salishan neighborhoods.

**WQED and WITF in Pennsylvania** worked with schools and community partners to provide educators and families with tablets and training on how to use RTL educational resources.

**WVIZ/PBS ideastream in Ohio** provided PBS KIDS content for the Cleveland MetroHealth Clinic, Boys and Girls Clubs, schools and community centers to support children in one of Cleveland's poorest neighborhoods.

**WCTE in Tennessee** partnered with the Putnam County School District, integrating PBS KIDS math and literacy content into school programs to support high-need children in rural areas.



## STATION PROFILE: **KBTC, Tacoma, WA**

### How RTL Ignited a Child's Love of Learning

A key local initiative for KBTC was the creation of PBS KIDS Spring Break and Summer Camps to serve kids during times when they would otherwise have no opportunities for academic enrichment. Students who attended the camp, hosted by local station KBTC, enjoyed educational learning experiences with PBS KIDS games and activities, along with two meals daily. One student was Tyler, then seven years old, whose parents had struggled with homelessness since he was born.



Tyler, KBTC in Tacoma, WA

Learning had always been difficult for Tyler. He was kicked out of kindergarten for disruptive behavior, and his parents became accustomed to receiving calls from the school every day with reports of their son's behavioral problems. When Tyler enrolled in KBTC's PBS KIDS Spring Break Camp, everyone worried that he would be distracting to the teachers and other students, and doubted that he would make any gains. However, Tyler took to the games and activities. "The writing activities kept him engaged," said Tyler's mother, Dawn. Tyler became interested in learning and found a way to connect this content to the lessons taught by his classroom teachers.

Monthly parent engagement meetings held before and after the Spring Break Camp provided additional opportunities for engagement with Tyler and his family. KBTC offered educational activities for children during these meetings, providing a diversion for kids while their parents participated in mandated training. Dawn agreed, "Having KBTC there kept the kids involved in the program and kept parents involved with each other."

Dawn recognized that many factors helped the family on their path to stability and success. The family's new attitude and approach to learning continued when regular classes resumed after the camp. **Soon after, Tyler received his first SOAR (Safe, On Task, Awesome Attitude, Respectful) Award from the school. By the end of the year, Tyler was named "Most Improved Student" at McCarver Elementary.**

## STATION PROFILE: MPB, Jackson, MS

### How RTL Empowered a Parent to Support Her Children's Learning at Home

**Mississippi Public Broadcasting (MPB) created the Parent Academy to show families how they can utilize technology and educational resources to support their children's learning at home.**

**One parent who participated in the program was Keshia. Keshia is a dedicated and loving parent; she was named "Mother of the Year" at her children's elementary school. Keshia signed up for the MPB Parent Academy, hoping to utilize technology to support her kids' learning at home. Keshia joined other parents in classes that focused on using technology in the home as an academic tool and practiced working with her children through interactive computer activities on the PBS KIDS Lab website.**



**Keshia and her children,  
MPB in Jackson, MS**

**Once Keshia gained new skills through MPB's trainings and workshops, her son, Aren, was able to benefit from her renewed ability to help her children learn at home. At the beginning of the year, Aren tested below grade level in reading and was at risk of being left behind in the third grade in Jackson public schools. Through the school's support and the new tools Keshia learned through the MPB's community outreach efforts, Keshia was able to help her son with vocabulary and reading comprehension.**

**Keshia proudly shared Aren's recent success on the state's STAR assessment, on which he scored at a 5th grade reading level.**

# Odd Squad “Be the Agent” Summer Camps

The Odd Squad Be the Agent Summer Camp was an impactful community engagement initiative led by local stations across the country. In the summer of 2015, 20 stations each hosted a week-long summer program. The goal of the camp was to use hands-on activities, digital games, television episodes and crafts to immerse children in a fun environment where they could take on the role of Odd Squad agents and use their math skills to solve problems. Odd Squad camps also supported parents by sending home letters with math activities and hosting a parent participation day on the final day of camp.

Children who participated in the Odd Squad camp showed gains in math learning, particularly in areas of shapes, patterns and symmetry. Post-camp surveys also demonstrated increases in children’s comfort and attitudes towards math. The hands-on nature of camp activities improved other skills such as creativity, writing, reading and teamwork. The experience made an impact on the 665 campers who participated, and many facilitators wrote that the children would take home with them new math skills and a positive attitude towards math that will remain for a long time. With the successful launch of the Odd Squad summer camps in 2015, the framework and resources developed will be made available to the larger network of PBS stations to make the camps available to more communities in 2016.



Campers from WJCT in Jacksonville, FL



WHUT camper with DC City Council member David Grosso in Washington, DC

“The way the math was presented was fun! This allowed the kids to see learning in a new way. The curriculum helped the kids find connections to math in their daily lives, which made the learning meaningful.”

– Camp Facilitator, Herrin, IL



Odd Squad Campers from WCNY in Syracuse, NY



“The campers were genuinely enthused by the materials they were learning. Skills like counting and differentiating objects were adopted, and the youth didn’t miss a beat. Odd Squad really made education cool and fun, and encouraged the children to have positive role models.”

– Camp Facilitator, Los Angeles, CA

# Technology Innovations to Empower Parents and Teachers

## **Innovation is a key component of RTL's success.**

As the media landscape evolved, RTL developed analytics-driven tools and supported the creation of multi-platform and immersive content for children, families and educators. Major priorities included open-source educational tools and resources, learning analytics and connected media experiences for use in diverse learning environments.



RTL developed a prototype learning analytics platform that uses data from children's gameplay and embedded assessments to help parents better engage with their children's learning. PBS KIDS used these robust analytics to provide insightful information to parents on their children's progress, as well as recommendations on how to support their children's learning needs.

The 2010-2015 Ready To Learn grant funded **PBS KIDS Measure Up!**, an app designed to build the measurement skills of children ages 3-5 through videos and games from public media's popular children's shows. The app was developed with integrated learning analytics, enabling parents to receive detailed progress reports and recommendations via the free **PBS KIDS Super Vision app**. The PBS KIDS Super Vision app also provides caregivers with activities and tips to further support the learning needs of each child.



Connecting learning across platforms is effective in helping kids who learn in different ways and helps guide them to what's next. **A 2013 study by EDC-SRI International found that children who used RTL multimedia math content had a nine percent increase on math assessment compared to the children in the control group.** Teachers also reported increased confidence in their math knowledge and noted that technology improves learning experiences for preschoolers.

Over the past five years, CPB and PBS partnered with Boston University's School of Education (BU-SED) to develop resources that help teachers integrate sound educational media into their regular literacy and mathematics classroom instruction. A collection of teaching tips provides detailed lesson plans featuring PBS KIDS RTL content, including Peg + Cat and Odd Squad. A series of video clips was created to show teachers implementing these teaching tips in urban elementary classrooms. BU-SED also developed a teacher education course to support the skillful use of educational media in teaching literacy. This course, **Teaching Literacy With and Through Technology (TLWT)**, is taught both as an on-campus required course in a Teacher Education program and also as a free, five-week online course available to pre-service and in-service teachers.

# It All Adds Up!

CPB, PBS and local stations used the power of a variety of media platforms, combined with new technologies, research analytics and multi-sector collaboration, to offer engaging, high-quality learning experiences to children, families and educators, especially those in low-income communities.



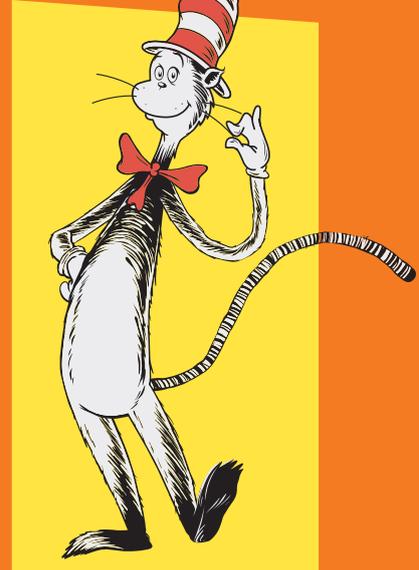
**Over the past five years, RTL-funded work has successfully increased performance in both math and literacy of children ages 2-8. In addition to raising test scores in these areas, RTL resources were shown to foster increased family engagement and empower both parents and educators to support their children's learning.**

In the new 2015-2020 RTL grant, CPB and PBS are building on the initiative's legacy by continuing the development of content and personalized learning experiences for children that help them learn best, and by offering tools to families and teachers that help them engage and support children most effectively. By leveraging the strengths of each media platform and the power of local community collaboration and engagement,

CPB and PBS will continue to help narrow the achievement gap for young children, while igniting a lifelong passion for learning.







The contents of this booklet 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 (PR/AWARD No. U295A100025, CFDA No. 84.295A) provided by the Department of Education to the Corporation for Public Broadcasting.

PBS KIDS and the PBS KIDS Logo are registered trademarks of Public Broadcasting Service. Used with permission. Between the Lions © 2016 WGBH/Sirius Thinking. BTL TMs WGBH. Curious George is a production of Imagine, WGBH and Universal. Curious George and related characters, created by Margret and H.A. Rey, are copyrighted and trademarked by Houghton Mifflin Harcourt and used under license. Licensed by Universal Studios Licensing LLC. Television Series: © 2016 Universal Studios. All Rights Reserved. FOR PROMOTIONAL USE ONLY.; Dinosaur Train: © 2016 The Jim Henson Company. JIM HENSON'S mark & logo, Dinosaur Train mark & logo, characters and elements are trademarks of The Jim Henson Company. All Rights Reserved.; Dragon Tales TM and all related characters, logos and design elements are owned and licensed by Sesame Workshop. © 2016 Sesame Workshop. All Rights Reserved.; Martha Speaks® and underlying artwork is a trademark & copyright of Susan Meddaugh and used under license. Television Series © 2016 WGBH Educational Foundation.; Maya & Miguel © & © 2016 Scholastic Entertainment Inc. All rights reserved.; Peg + Cat © 2016 Feline Features LLC. All rights reserved.; Postcards from Buster is produced by WGBH Boston in association with Marc Brown Studios.; Odd Squad © 2016 The Fred Rogers Company. All rights reserved.; Sid the Science Kid TM & © 2016 The Jim Henson Company. All Rights Reserved.; Super WHY! © 2016 Out of the Blue Enterprises LLC. All Rights Reserved.; The Cat in The Hat Knows A Lot About That! TM & © 2016 Dr. Seuss Enterprises, L.P. All rights reserved.; The Electric Company® and all related characters, logos and design elements are owned and licensed by Sesame Workshop. © 2016 Sesame Workshop. All Rights Reserved.; Wild Kratts® © 2016 Kratt Brothers Company Ltd./ 9 Story Media Group Inc. Wild Kratts® and Creature Power® are owned by Kratt Brothers Company Ltd.; WordWorld © 2016 General Word LP.