



BREAKING THE SILENCE

Kids' media can step up on climate change

EXECUTIVE SUMMARY



A review of children's TV shows and popular family movies finds only a handful of references to climate—across hundreds of hours of content.

The 48 million children under the age of 12 in the United States are increasingly experiencing extreme weather, from heat waves to flooding, intensified by climate breakdown. More than four in five Americans agreed children will be essential in fighting climate change and that we must give them the knowledge and skills to build a sustainable world.

Yet children currently receive little guidance in understanding climate change: its causes, impacts, or solutions. Although some states, districts, and individual teachers are making great efforts, many schools are still not required to tackle the topic and only half of parents say they've talked to their kids about it. Silence reigns because of guilt, fear, anxiety, and perceptions that climate change is too complex or depressing.

Media could be one important way to reach children, no matter where they live, with developmentally appropriate, scientifically-based, and emotionally literate climate messages, inclusive of causes, impacts, and solutions.

In this report, we surveyed popular current educational TV shows and movies for children, looking for references to climate change. Like previous studies, we found very few. However, the successful references to climate change that do exist highlight a massive untapped opportunity.

KEY FINDINGS

- **There is demand.** Nearly 70% of parents and caregivers surveyed in 2022 believed children's media should include age-appropriate information about climate, and 74% agreed that children's media should include climate solutions.
- **Currently, children's media is largely silent on climate change.**
 - Only 1.4% (9 episodes) of the 664 episodes from 31 children's educational and nature-themed TV series we reviewed contained climate change content.
 - 20 more episodes covered related themes or concepts (e.g. composting, floods, droughts, caring for the planet) but did not directly mention climate.
 - In total, just 4.4% (29 episodes) of the educational and nature-themed shows reviewed, on the most recognized video streaming networks by children, take on any aspect related to climate change: causes, impacts, or solutions.
 - Out of 20 of the most popular family films of 2021, none (0) contained themes or content related to climate change.



CALL TO ACTION:

- **Children's media has a massive untapped opportunity to meet parent demand, help children navigate the world we live in, and build a more sustainable, resilient, and equitable tomorrow.**

With Climate Media for Kids, we will work with children's media to understand how to best integrate developmentally appropriate, climate-related content and commit to taking action.

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Introduction

Climate change is no longer a future threat. It is here, now, and getting worse. The youngest members of society are already experiencing its effects on their physical health, education, and mental health. The risks are rising. So is the likelihood that a child growing up today will build a career and make life decisions based on the imperative for climate solutions, mitigation, and adaptation.

Children and youth today are already extremely preoccupied and concerned about the climate. In 2022, a nationwide survey of Gen Z Americans ages 14 through 24 found three of four said they have experienced a mental health-related issue, such as anxiety, stress, and/or feelings of being overwhelmed, as a result of consuming news about climate change.

THIS IS WHERE THE MEDIA CAN PLAY A CRITICAL ROLE.

Developmental psychologist Susan Engel observes that stories are a key way that children solve “emotional, cognitive, and social puzzles” and “sort out problems or concerns.” For five decades, quality children’s TV and movies, including *Mr. Rogers’ Neighborhood*, *Sesame Street*, *Moana*, and *Dora the Explorer*, have proven that no topic is too advanced or serious to be handled sensitively and appropriately—from diversity and inclusion, to major news events. This kind of programming can become an enduring and essential resource for parents and educators alike.

Children also form emotional bonds—what researchers call “parasocial relationships”—starting at young ages with their favorite media characters. Those relationships have been shown to influence children’s behaviors and preferences in everyday life. They also help them build knowledge, including science concepts and health behaviors. When Elmo eats carrots or brushes his teeth, children are moved to do the same—and the same can be true of disaster safety or actions to care for the earth, such as composting.

Implicit messages can be as powerful as explicit messages when considering the world portrayed in children’s media. Rudine Sims Bishop, a scholar of multiculturalism, famously argued that children’s books can serve as “mirrors” reflecting back positive images of identity and “windows” and “sliding glass doors” into worlds of possibility. In the same way, shows and movies, even if intended purely as entertainment, can also depict regenerative farming, solar panels, or fast electric trains as part of a desirable and sustainable world.

The past few years have seen increasing demand from parents for media that includes diverse perspectives to promote positive self-identity and acceptance of others. Advocates campaign for kids’ films and TV shows that “look like America” and reflect the reality of our tapestry of identity—race, ethnicity, disability, and other types of difference.

Similarly, our recent companion report found parents demanding that children’s media “look like the planet” – that it encompasses threats to the ecosystem and human flourishing and the myriad ways communities around the world are rising to those challenges.

According to Common Sense Media, children under 8 are already spending an average of two hours and 24 minutes a day with media, three-quarters of which is TV or video viewing. For 8 to 12 year olds, it’s five and a half hours a day.

That gives children’s media a vast reach. No matter where children live, what their home environment is like, or what their school is teaching, creators have an opportunity to empower children in understanding climate change and how to take positive action.

Right now, they are largely missing that opportunity.

In this report, we examine the current landscape of how climate change and solutions are included in children’s programming for both TV and movies, outline the ways it is being included, and highlight opportunities for further action.

We’re drawing inspiration from a recent series of conversations held by the National Science Foundation—starting with the *Design & Discover Forum on Climate Science, Children, & the Media* and followed by two research roundtables – where children’s media leaders, researchers, scientists, content creators, and more gathered to discuss the opportunities for the field of media to take action on this issue.



PARENTS WANT MORE KIDS' CLIMATE MEDIA

This Is Planet Ed and Capita commissioned a [2022 national survey and report, "Think of the Children](#), as a companion to this report. The Siena College Research Institute contacted 2,042 participants between August 18-22, 2022.

The survey established a high level of interest in media that helps teach children about climate change, and particularly about solutions.

- 82% of all respondents agreed that children will be essential in fighting climate change and that we must give them the knowledge and skills to build a sustainable world.
- Nearly seven in ten parents and caregivers believed children's media should include age-appropriate information about climate change, and 74% agree that children's media should include climate solutions.
- 41% of those with children said that their children have asked them to explain things about climate change, pollution, or the environment.
- When it came to media for adults, 60% had seen stories about climate change, and 48% had seen media that addressed solutions.
- But when asked specifically about media for children, there was a gap. Just 32% had seen climate change themes in children's media, and 31% had seen references to solutions.

Some of the participants in the survey had further thoughts about the kind of media that would be most useful for their family.

Colleen in Oregon said, "It needs to be positive because they don't need to be depressed. They need to feel empowered to do something."

Lisa in Virginia said she'd like to see less "political" messages in climate programming aimed at children. "I think being a good steward of where you live, your planet, your belongings. Not being wasteful."

Parul in California is actively looking for media for her 11-year-old son to help build his knowledge and awareness of climate change causes and solutions. "My sense right now is there is a lot of content I don't even know about," she says. Some of what she's found has been "boring" or over his head.

RESEARCH METHODS

In this analysis, we established a baseline of how often climate change is currently included in children's media. We reviewed 20 of the most popular family movies of 2021 to better understand exposure through entertainment. We also reviewed a broad sample of 31 educational, nature, and wildlife-themed

TV shows available on kids' most-recognized streaming networks, for children ages 4 through 11. In each case, we looked for 1) direct references to climate change and 2) references to climate impacts, causes, or solutions, and environmental practices.



KEY DEFINITIONS

- 1. Climate Change:** We examined movie descriptions, episode titles, and episode overview texts to see if they contained the words “climate change” or “global warming”.
- 2. Climate-Related Themes and Concepts:** We examined movie descriptions, episode titles, and episode overview texts to see if they referenced climate-related concepts, impacts, or solutions (e.g. energy, fossil fuels, greenhouse gas, heat wave, glaciers, polar species, permafrost, sea level rise, coral reefs, extreme weather, flooding, droughts, wildfires, sustainability, clean energy, composting, water conservation, energy conservation, recycling, caring for the planet).

Movies: We reviewed the plot descriptions of 20 of the most popular family films of 2021, looking for climate change-related content and themes. These ranged from Disney musicals to comedy, sports and adventure movies.



MOVIES INCLUDED

- Encanto
- My Little Pony: A New Generation
- Luca
- Vivo
- The Mitchells vs the Machines
- Raya and the Last Dragon
- Wish Dragon
- Sing 2
- Space Jam: A New Legacy
- The Boss Baby: Family Business
- The Addams Family 2
- Clifford the Big Red Dog
- Tom and Jerry
- PAW Patrol: The Movie
- The Croods: A New Age
- Ron's Gone Wrong
- Spirit Untamed
- Scoob!
- Pinocchio
- Un Rescate de Huevitos

NOTE: In 2021, many films were released directly to streaming platforms due to the COVID-19 pandemic. This report includes movies that were top earners at the theaters as well as those recognized in Common Sense Media's list of best children's movies of the year.

Television: We reviewed shows most likely to feature nature or environmental themes from the ten most popular children's networks and streaming video providers. In total, 31 series met the educational and viewership criteria. These shows ranged from Octonauts Above and Beyond on Netflix to Arthur on PBS KIDS (see appendix for full list). We focused on episodes released between 2019-2022, reviewing 664 individual show episodes.



TELEVISION CRITERIA

- Available on kids' 10 most-recognized networks, ranked according to brand recognition among children
 1. Netflix
 2. Nickelodeon
 3. Disney Channel
 4. Disney+
 5. Nicktoons
 6. Cartoon Network
 7. Amazon* Prime Video
 8. Hulu
 9. Disney XD
 10. PBS Kids
- Aimed at children ages 4-11
- Educational as defined by FCC guidelines, OR: had strong themes or settings associated with ocean/nature/wildlife

Where we identified episodes with climate change content, we analyzed episodes to look at narrative elements, information, and messaging about climate change and solutions.

LIMITATIONS:

In considering the results of this report, it is important to acknowledge limitations, which are also indications for future research. In particular, we relied on movie and episode plot descriptions to find climate change and climate-related themes that were integral to the plot. Therefore, there may be additional films and episodes that have briefer references to climate change but did not appear in this analysis. We also focused on the most popular movies and the most popular children's streaming video providers and networks. Content from other media platforms and types of providers (e.g. interactive games, YouTube) was not examined in this report, but can also play a key role in supporting children's understanding of climate change. We intend to include these forms of media in future reports.



Climate-Related Content in Children's Media is Hard to Find

Overall, we found very limited coverage of climate change and climate solutions in widely viewed children's programs. Specifically:

- None of the movie plot descriptions mentioned climate change or related themes or concepts.
- Only nine individual TV episodes contained a direct reference to climate change or global warming. This represents 1% of the total episodes reviewed. Again, this is from a survey of contemporary shows specifically selected to have a higher likelihood of featuring climate-related content.
- 20 additional episodes contained climate-related themes and concepts (e.g. caring for the planet, droughts, wildfires, clean energy) but did not associate them with climate change.
- Only two episodes (0.3% of the total episodes reviewed) discussed the role of humans in producing heat-trapping gases that warm the planet. In other words, children's media is essentially silent on the central cause of the climate crisis.

Our analysis found climate change references are rarely present in children's television or movies. The ratio of educational, wildlife, and nature-themed stories in our analysis with climate change content is just one percent.

Despite the widespread concern among both youth and parents of young children, and the measurable impacts of climate change on young children's healthy development and on teens' and youths' mental health, children's media has not yet leveraged its strengths to help children understand the issue and feel empowered and hopeful about their future.



Climate-Related Content in Children’s Educational Media, When it Exists, Uses Recommended Approaches

We found nine episodes out of 664 total episodes that did include information about climate change. These episodes highlighted diverse approaches, showcased recommendations from research on communicating about climate with youth, responded to parent concerns, and indicated opportunities going forward for media creators who want to integrate climate themes.

According to our research, which included conversations with writers and producers at the 2022 Kidscreen Summit, some content creators expressed concern that the topic of climate is too complex, depressing, or controversial to address in children’s programming. However, the episodes we examined suggest otherwise.

Content creators are applying many research-based approaches for communicating climate change with youth. They use a positive tone, employ trusted messengers, make it visual, frame it around things they care about, and avoid technical terms and jargon. These are combined with best practices in educational television (e.g. appealing characters, content on the plotline), suggesting that the genre is well positioned to deliver climate content to children.

INTEGRATED WITH NARRATIVE

In the nine episodes featuring climate change, the concept of climate change was central to seven of the storylines. When educational content is central to the plot, it supports comprehension. The plots of these episodes included characters helping animals impacted by climate change (*Octonauts and the Siberian Salamander*, *Octonauts and the Stubborn Albatross*), young people investigating the effects of climate and problem solving (*Not-So-Permafrost*, *Sassy Ladies on Ice*, *Heat Wave*), and taking action on the issue (*Muffy’s Car Campaign*, *Kids and the Impact of Climate Change*). The creators of these episodes effectively wove climate change into their storylines, creating entertaining and developmentally appropriate narratives to support understanding.



Additionally, the 20 episodes without specific mentions of climate change, but with climate-related themes and concepts, highlight potential additional opportunities to address these topics in an informative and empowering way.



DIVERSE PROVIDERS AND SUBJECTS

Importantly, content with climate change and climate-related themes, while very rare, is present on different types of providers and across different types of shows: a public broadcast network (PBS Kids), a children’s entertainment network (Nickelodeon), and a subscription provider (Netflix). With children and families accessing media from different sources, ensuring many media outlets offer opportunities for children to process climate, rather than a single show on a single network, can help reach more families. Additionally, multiple points of entry can help support comprehension of the diverse dimensions of the issue.

It is also important to recognize that climate impacts and solutions are not limited to the realm of science or nature, but rather exist across our society broadly, from our health to our economy to our social systems. In our analysis, we found the shows mentioning climate weren’t just nature or wildlife-focused. They included cultural representation, social studies, social-emotional learning, and current events. While most of the episodes were cartoons with a linear narrative, the sample also included a live-action documentary and a news-style program.



BRIGHT SPOT

In the Molly of Denali story *Sassy Ladies on Ice*, Molly joins a group of elder women on an adventure to see a glacier they last saw 30 years ago and find that it's changed.



Credit: Molly of Denali®/© 2022 WGBH Educational Foundation. All rights reserved.

Another dimension of diversity is in the imagery used to depict a topic. Most of the episodes reviewed avoided stereotypical climate images of polar bears on melting ice caps, glaciers, smoke stacks, and deforestation. Examples of more personally relevant climate images found in the sample include car exhaust, wildfires, flooding, drought, students protesting, and people trying to cool off during a heat wave.

DEFINING KEY TERMS

Children come to content with different levels of background knowledge. Providing multiple means of representation is essential to maximize comprehension. One strategy to support various levels of background knowledge is defining key terms. In our analysis, we found the shows that included climate change content explicitly defined key terms.



BRIGHT SPOT

Nick News Jr. Episode 1 Season 1, *Kids and the Impacts of Climate Change*, was one of just two episodes that mentioned humans causing climate change. This 45-minute special, targeted to the older end of our age range, was also the only one to directly define many relevant terms: Greenhouse Gases, The Paris Climate Agreement, Net-Zero Emissions, Carbon Footprint, the Environmental Protection Agency, and Environmental Racism.



Credit: Nickelodeon

In addition to offering explicit definitions, explaining concepts through dialogue and narrative can support children in understanding key terms in context. The episode *The Octonauts and the Siberian Salamander* does not use the term “global warming”, but introduces the concept to explain the melting that the characters observe. For instance, a character Dashi says: “Temperatures have been rising all over the world. It might not be cold enough for the ground to stay frozen.”



BRIGHT SPOT

In *The Octonauts and the Stubborn Albatross*, the foundation for climate change is described in the first scene when Pearl states: “Warmer temperatures are causing more ice to melt in the Arctic and the Antarctic which means more water in the oceans.” The term “climate change” is then introduced later in the episode. Pearl tries to convince albatrosses not to nest on an atoll. She notes, “Because of rising sea levels from climate change, this one [the atoll] is going to be completely under water soon.”



Credit: Netflix

DISCUSSING SOLUTIONS

Witnessing the impacts of climate change with limited support can take a toll on mental health. Yet, supportive relationships, connections to nature, and developing agency to act can all help to reduce eco-anxiety and build mental resilience. A hopeful vision tied to action may also be why 74% of parents and caregivers in our recent companion report indicated they believed children’s media should include content on solutions. In line with these preferences, most of the nine episodes discussed solutions through both climate mitigation and adaptation.

Mitigation: Climate change mitigation addresses the key question: how can we reduce our impact on our climate by reducing our emissions?

To understand mitigation solutions, children need to understand the main factors driving our greenhouse gas emissions and alternative solutions. Only a few of the episodes with climate change content specifically included narratives with solutions about how we can mitigate our impact on the climate. These episodes included information about reducing the emissions from transportation (*Muffy’s Car Campaign*), using renewable energy (*Heat Wave*); and planting trees, conserving energy, and composting (*Kids and the Impacts of Climate Change*).

Adaptation: Climate change adaptation addresses the key question: how can we adapt and build resilience to live in a changing climate?

To understand adaptation solutions, children need to understand the impacts climate change will have and strategies to reduce the effects of those impacts on communities. Several of the episodes we reviewed integrated narratives about climate adaptation, including the impact of rising sea levels (*The Octonauts and the Stubborn Albatross*) and the impacts of heat on our environment (*The Octonauts and the Quest for Cocoa*; *Not-So-Permafrost*; and *Heat Wave*).

Framing narratives around solutions kept the general tone of episodes positive and informative, rather than alarmist or sensationalist.

Many showed characters being proactive: trying to prepare for, intervene in, or control an unexpected occurrence or situation.

Taken as a whole, our analysis demonstrates how climate change content can be communicated across a range of networks—to younger and older children, through a variety of subject areas and formats—apply recommended approaches, and include positive responses and actions to take.



BRIGHT SPOT

In the *Arthur* story, *Muffy's Car Campaign*, the young characters see the tailpipe emissions of vehicles by their school. The characters draw connections between transportation and carbon emissions in the atmosphere, learn about alternative solutions, and advance a campaign for cleaner transportation at their school. It also grapples with how seeking solutions may impact jobs. In this case, Muffy raises concerns that her father, a car salesman, might have his job impacted. He learns about the benefits of electric vehicles and helps the school acquire electric school buses.



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BRIGHT SPOT

In the *Molly of Denali* story, *Not-So-Permafrost*, the characters discover their clubhouse is half sunken into the ground. They learn about permafrost and why the permafrost is melting, including through conversations with Elders. They work with community members to solve the problem by putting the clubhouse up on pilings that are driven deep into the frozen layer below.



Credit: Molly of Denali®/© 2022 WGBH Educational Foundation. All rights reserved.

Future Opportunities for Climate Content in Children’s Media

Although we did see successful integrations of climate change in children’s programming, there were critical missed opportunities. First and foremost, children’s media can increase the total number of shows that address climate change. Furthermore, children’s media should seek to reach a broader and older audience, to support implicit inclusion of climate themes, and to further integrate themes of humor and hope.

OPPORTUNITY FOR FURTHER INTEGRATION OF CLIMATE CHANGE

Climate change will increasingly impact all aspects of society, from the economy to agriculture to health. It will affect the decisions of children today—where they live and what they do. Yet, only 1% of the episodes we reviewed included direct connections to climate change and none of the movies we reviewed referenced climate change.

In addition to the nine episodes where climate change was mentioned, 20 episodes covered climate-related themes and concepts but without direct mention of climate change. This highlights ample opportunities in the storylines of existing children’s TV shows to cover climate change. Content creators on these shows might benefit from guidance on the best approaches to communicating climate change with younger audiences.

Implicitly including climate solutions in entertainment can also be an important part of building climate literacy. Whether a hero drives an electric vehicle or a family has solar panels on their roof, these references can help children see solutions in action. Melting glaciers and permafrost are important climate concepts, but are removed from most children’s everyday experiences. Instead, narratives based on more personally relevant impacts and solutions (e.g. backyard wildlife, water shortages, heat waves, composting, energy conservation, ocean cleanups, food choices) are more likely to help them navigate the issue.

Reframing climate change as a human issue, rather than solely an environmental issue, could allow many entertainment shows to incorporate climate themes in diverse plotlines. For example, an episode of *Arthur*, *When Rivals Came to Roost*, highlights the importance of compassion after students are displaced by flooding at their school. This story didn’t appear in our sample because it was missing any climate references, but if the flooding had been caused by a storm rather than a burst pipe, the episode could have included a climate dimension.





OPPORTUNITY TO TIE THE CAUSES OF CLIMATE CHANGE TO SOLUTIONS

Children today need a clear understanding of the drivers of human-caused climate change and solutions to reduce our emissions and adapt to the increasing impacts. The near-total silence on the causes of climate change and our societal need to reduce our reliance on fossil fuels across the content we reviewed supports a misconception about the consequences we face and the urgent need to advance meaningful solutions.

Content creators should ensure information about climate change is grounded in science. For instance, the inclusion of unrelated environmental issues (e.g. water pollution from animal waste, breakdown time of plastics) could lead to misunderstandings that prevent audiences from identifying climate change solutions to effectively reduce emissions and adapt. Understanding these issues can help to promote a sustainable planet; however, it can be confusing to group general environmentalist ideas together with those that directly impact our greenhouse gas emissions.

Additionally, without climate awareness in the writer's room, hypothetical scenarios could promote misconceptions. In *PAW Patrol: The Movie*, a villain built a Cloud Catcher to control the weather. A scenario like this might support misconceptions about future climate solutions (e.g. weather control/geoengineering), even if the creators' intention had nothing to do with environmental messages. This illustrates how important it is to consider implicit as well as explicit climate messages in children's media.

When showing solutions, it is important to strike a balance between featuring solutions that are personally relevant and actionable and those that can match the scale of the problem. Examples of community-level solutions (e.g. adopting electric buses in *Muffy's Car Campaign*) can help inspire real hope and foster engagement. This is Planet Ed, in partnership with National PTA and Mothers Out Front, released a [Parent Advocacy Toolkit](#) full of ideas to support parents in taking this kind of action.

OPPORTUNITY TO BROADEN AUDIENCE

A surprising finding from our analysis is that most shows with climate content target audiences on the younger end of the range. All but one of the nine episodes target children aged 4 through 8. On the one hand, these episodes serve as evidence that there are appropriate ways to cover the topic even with younger audiences. They use approaches like distancing the impacts, framing the issue around things kids care about (such as animals), and avoiding complex scientific concepts.

On the other hand, the limited age range represents a missed opportunity to educate and empower older school-aged children who are ready for more complex content on climate impacts and especially solutions. For example, many of these episodes address disaster risk, which is personally relevant and understandable for young children. However, including more complex topics, like biodiversity, populations, and food systems, would encourage a systems-thinking approach that is vital to both understanding and, crucially, addressing climate change.

In [our companion survey](#) and in [other research](#), parents have observed that there is a gap for educational media falling exactly in this 8 through 12 age range. In particular, a gap in media that addresses climate issues in an engaging way, without being either too dry or too alarmist. A similar gap exists in the educational app space, with far more offerings in the preschool-age category. Perhaps for the same reason, creators need access to more advanced subject matter expertise in order to collaborate and present programming that is age-appropriate and factually accurate.



OPPORTUNITY FOR HUMOR AND HOPE

The tone of climate communication can be as important as the content. Overall, the tone of the episodes in the sample was positive and proactive, reflecting best practices in educational media. However, there was little inclusion of humor, and no episodes fully leaned into establishing hope; both of which [research](#) has highlighted as important strategies for communicating climate change with young people.

Humor, like in the “[Save Florida Man](#)” campaign, keeps viewers engaged. It also helps to lighten the tone to avoid overwhelming audiences with feelings of fear and helplessness which might discourage them from taking action on climate change. The effective use of humor in climate communication doesn’t oversimplify concepts or create misconceptions. Instead, [it creates pathways for awareness and understanding](#).

Hope is the ability to come up with ways to reach a shared goal, such as a future with clean air and clean energy. It’s not only a powerful antidote to feelings of powerlessness around climate change, but [research](#) also shows it can motivate environmental engagement in young people and increase their capacity for constructive thinking. Hopeful stories about climate are happening everywhere around the world, right now. Stories of communities coming together and taking actions that reflect the scale of the problem. Stories of actions that not only help the planet, but also offer co-benefits that improve quality of life and advance societies—like improving human health, saving money, strengthening community relationships, or freeing up time. These are the climate goals that we need to strive for. The stories are out there. They’re just waiting to be told.





Call To Action

In This Is Planet Ed's first initiative, the collaboratively developed [K12 Climate Action Plan](#) outlined opportunities for us to unlock the power of education to advance climate solutions. In the plan, the K12 Climate Action Commission calls on media to lead a coordinated campaign across outlets and platforms to help young people and families better understand climate change and climate solutions. A campaign can be modeled after successful targeted youth media campaigns of the past which have led to a measurable change in social indicators, such as those on tobacco use and teen pregnancy, as well as broader paradigm shifts like the push for diversity, equity, and representation in children's media.

To accelerate this work, with Climate Media for Kids, we will work with media partners to:

- Further establish the baseline of climate presence in online video, social media, and games;
- Strengthen alliances between media makers, research scientists, and curriculum and learning experts;
- Create resources and training for creators who want to integrate climate into their work; and
- Support industry-wide commitments for meaningful change.

We hope that those reading this—researchers, content creators, and the interested public—will want to join in the effort to make kids' media “look like the planet,” by putting developmentally appropriate, empowering climate information in front of every child.

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About Us

Climate Media for Kids, part of This Is Planet Ed at the Aspen Institute, is focused on empowering media makers to support children and their families in building scientifically-grounded awareness and understanding of climate science, impacts, and solutions, and ultimately empower families to take action.

This Is Planet Ed is an initiative of the Aspen Institute's Energy and Environment Program that intends to unlock the power of education as a force for climate action, climate solutions, and environmental justice to empower the rising generation to lead a sustainable, resilient, and equitable future. www.thisisplaneted.org/.

The Aspen Institute is an educational and policy studies organization based in Washington, D.C. Its mission is to foster leadership based on enduring values and to provide a nonpartisan venue for dealing with critical issues. www.aspeninstitute.org.

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Appendix

TABLE I: SERIES REVIEWED

SERIES REVIEWED	PROVIDER	# EPISODES REVIEWED
Ask the Story Bots	Netflix	8
Izzy's Koala World	Netflix	16
Octonauts Above and Beyond	Netflix	26
Wild Babies	Netflix	8
Tiny Creatures	Netflix	8
Ada Twist, Scientist	Netflix	12
Emily and the Wonder Lab	Netflix	10
Chico Bon Bon	Netflix	38
Kamp Koral: SpongeBob's Under Years	Nickelodeon	13
Nick News	Nickelodeon	6
The Patrick Star Show	Nickelodeon	19
SpongeBob Squarepants	Nickelodeon	48
	Disney Channel	0
Forky Asks a Question	Disney+	10
	Nick Toons	0
We Bare Bears	Cartoon Network	44
Mecha Builders	Cartoon Network	15
Club Mundo Kids	Amazon Prime Network	14
Groovy the Martian	Amazon Prime Network	24
Madagascar: A Little Wild	Hulu	6
The Mighty Ones	Hulu	4
	Disney XD	0
Alma's Way	PBS KIDS	26
Arthur	PBS KIDS	18
Cyberchase	PBS KIDS	22
Elinor Wonders Why	PBS KIDS	40
Hero Elementary	PBS KIDS	40
Molly of Denali	PBS KIDS	53
Nature Cat	PBS KIDS	20
Odd Squad	PBS KIDS	33
Ready Jet Go!	PBS KIDS	23
Sci Girls	PBS KIDS	5
Wild Kratts	PBS KIDS	18
Xavier Riddle and the Secret Museum	PBS KIDS	37

TABLE IIA: CHILDREN’S SHOWS WITH CLIMATE CHANGE

EPISODE	SERIES REVIEWED	PROVIDER	STORY WITH CLIMATE
Flame’s Rescue	Izzy’s Koala World	Netflix	Smelling like smoke and covered in charcoal, Flame got her name because she was rescued from a fire. Izzy builds a safe space to help her recover.
The Octonauts and the Siberian Salamander	Octonauts Above and Beyond	Netflix	Paani loses his soil sampling pole while doing research in Siberia with Professor Inkleing. When Dashi and Peso arrive, the group discovers a Siberian Salamander frozen in ice, and after she wakes up, all present are in danger, with underground methane deposits beginning to blow.
The Octonauts and the Stubborn Albatross	Octonauts Above and Beyond	Netflix	While doing research in the Pacific Ocean, Pearl discovers that an atoll is on the verge of sinking. Unfortunately, said atoll is an Albatross nesting ground, and the resilient birds refuse to move until it’s too late.
The Octonauts and the Quest for Cocoa	Octonauts Above and Beyond	Netflix	The Vegimals set off for the Amazon Rainforest when the Octopod runs out of hot cocoa. However, the cocoa trees have been suffering in the heat, and their attempts to give it shade are less than successful.
Kids and the Impact of Climate Change	Nick News	Nickelodeon	CBS News correspondent Jamie Yuccas takes a look at the history of Earth Day and the global reach it’s taken since its inception in 1970. She also meets a number of kids who share how they’re taking action in their communities.
Muffy’s Car Campaign	Arthur	PBS KIDS	Muffy is worried that a petition to help protect the environment may put Crosswire Motors out of business.
Not-So-Permafrost	Molly of Denali	PBS KIDS	When Molly and her friends arrive at their old clubhouse, they are surprised to find it half sunk into the ground! Molly is determined to save the structure, but first she must solve the mystery of why it’s sinking in the first place.
Sassy Ladies on Ice	Molly of Denali	PBS KIDS	The Sassy Ladies of Saskatoon are back-this time in search of a glacier they saw 30 years ago. Molly is excited to join them, but after a long plane ride and hike, Molly and the Sassy Ladies are surprised to discover that the glacier has disappeared. What happened to it?
Heat Wave	Molly of Denali	PBS KIDS	A heat wave hits Qyah, and Molly is determined to find out the highest temperature on record.

TABLE IIB: CHILDREN’S SHOWS WITH CLIMATE-RELATED THEMES

EPISODE	SERIES REVIEWED	PROVIDER	CLIMATE THEME
The Octonauts and the Hurricane Hunter Adventure	Octonauts Above and Beyond	Netflix	Hurricanes, Everglades
The Octonauts and the Flying Foxes	Octonauts Above and Beyond	Netflix	Heatwaves in Australia
The Octonauts and the Pink Glacier	Octonauts Above and Beyond	Netflix	Melting glaciers (attributed to pink algae)
The Octonauts and the Rainforest Rescue	Octonauts Above and Beyond	Netflix	Severe drought in a rainforest
Danger Gnomes	Chico Bon Bon	Netflix	Air pollution from fossil fuels
Construction, Conservation, Composition	Nick News	Nickelodeon	The new infrastructure bill: Modernizing roads, bridges, railways, internet, etc. Climate change is mentioned briefly, but not a focus.
Energy	Club Mundo Kids	Amazon Prime Network	Forms of energy, including renewable energy
When Rivals Came to Roost	Arthur	PBS KIDS	Displaced communities from flooding (not caused by climate). Focuses on the need for compassion when others are impacted by disasters.
Journey of a Thousand Food Miles	Cyberchase	PBS KIDS	The energy involved in processing and transportation of food
Coral Grief	Cyberchase	PBS KIDS	Oceans are warming and bleaching coral (not tied to carbon dioxide)

