

At-Home Learning Guide

OCTOBER

Change Is All Around



KinderCare[®]
LEARNING CENTERS

Change Is All Around

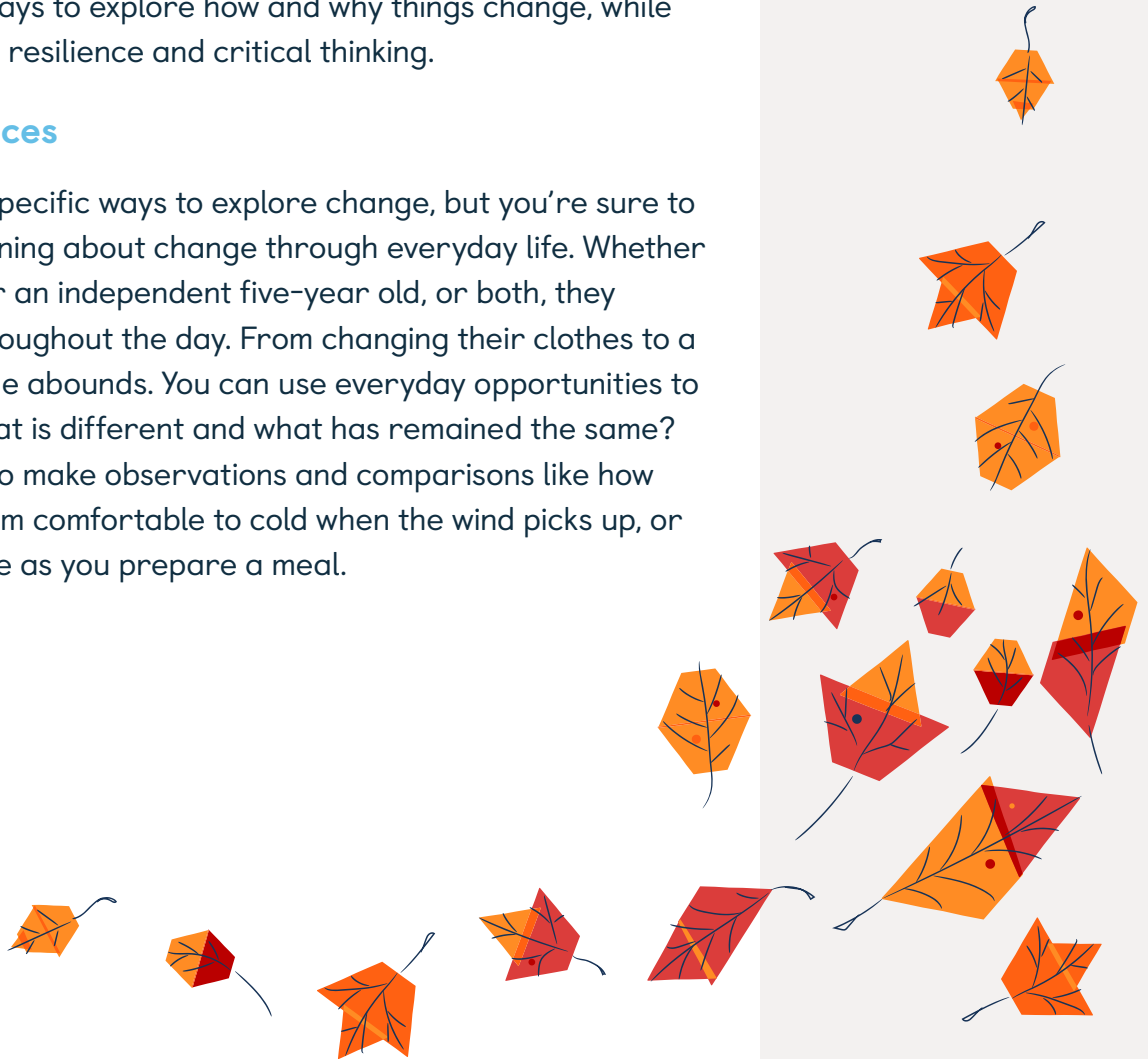
Change—life’s one constant! Tiny humans begin to navigate change the moment they enter the world, and the changes just keep coming from there.

Change is a natural part of life, but sometimes it can still feel uncomfortable or challenging. The good news is that challenges are also opportunities to learn! When children are guided through the process of **observing change, experiencing change**, and ultimately have the confidence for **creating change**, they’re learning skills that will help them thrive!

This month you and your family will have many opportunities to embrace change, whether it’s the changing of the seasons, a change within your family as you welcome a new baby, or changes within your community as we continue to adjust to our ever-changing world. You and your child will find plenty of fun ways to explore how and why things change, while practicing life skills like resilience and critical thinking.

Everyday Experiences

We’ve provided some specific ways to explore change, but you’re sure to find other ways of learning about change through everyday life. Whether you have a tiny baby or an independent five-year old, or both, they experience change throughout the day. From changing their clothes to a change of plans, change abounds. You can use everyday opportunities to talk about change- what is different and what has remained the same? Encourage your child to make observations and comparisons like how their body changes from comfortable to cold when the wind picks up, or how ingredients change as you prepare a meal.



What's Inside!

Click the titles below to see more. . .

Provocations are open-ended experiences designed to ignite your child's curiosity. Provocations invite them to explore however they like, for as long as they'd like.

Inspire Curiosity

The Art of Change

Projects are long-term explorations that you and your child can work on throughout the month. Projects are guided by your child's wonderings, theories, and decisions and give your child an opportunity to dig into what fascinates them in a new way!


Why Projects?

Project Suggestion - Picture Journal


Activities are experiences for you and your child to do together. These activities will typically take 20–30 minutes, but the actual time will depend on your child's interest.

Bringing Up Baby


Changes I Observe

- Tune in to Changes 
- Observing Apples
- Exploring Empathy through Stories

Changes I Experience

- Changing Emotions
- How I Change 

Changes I Create

- Kitchen Chemistry
- Making and Tinkering
- The Winds of Change 



Look for the Infant Connections throughout this guide for examples of ways to use serve and return.



Tap this "home" icon (at the bottom of each page) to come back to this page.



Look for this audio icon to listen to music.



PROVOCATIONS

Inspiring Curiosity

“Play is often talked about as if it were a relief from serious learning. But for children, play is serious learning.”

-Fred Rogers

Play is powerful. It’s a time for your child to express their emotions, explore, create, and push the boundaries of their skills and imagination. The Inspiring Curiosity section of our guide is all about encouraging exploration through play using **provocations**. Provocations are every day materials arranged in interesting and inviting ways that inspire children to **freely explore** their ideas and interests.

You might wonder how a provocation is different than a project. The answer to that has to do with the intended outcome. Projects are meant to have an end product, whereas provocations have no specific outcome. Nothing is “supposed” to happen, but your little one has the opportunity to explore in creative, open-ended ways, and you get to participate in their journey.

Your role in a provocation is to observe and support the unfolding of your child’s ideas and interests. If your child wants you to join in, follow their lead. Watch how your child interacts with the materials we’ve suggested, and add new materials based on your child’s interests. Allow **free exploration**. Ask **questions** that help your child share how they are using different materials, but don’t direct their play.

Just as a provocation should be open-ended, so should the time that your child has to explore the materials. A child’s interest may last a day, a week, or longer. Over time, it may morph into something new and completely different. Part of the fun is the discovery of what **inspires** your child and following where that inspiration leads.



Inspire Curiosity: The Art of Change

The Provocation

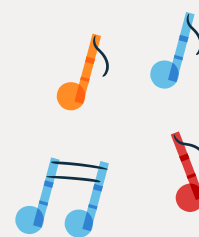
Set up the provocation by placing paint cups, paintbrushes, and paper out for your child. Watch how they interact with the materials and use your observations to add to their exploration. For example, if your child is frequently painting off the page, maybe a larger sheet of paper or the side of large box would interest them. If they want to finger paint instead of using a brush, see what happens when you put small amounts of paint on a plastic plate. If they show interest in adding details to their paintings using other craft materials, help them gather those materials and add them to the space. Over time you can even add different materials like salt or sand and see how your child uses it to change the texture of the paint or add to their painting.

While your child explores, verbally note when changes happen. Like commenting when they mix two colors together to make a new color or when they change colors in their painting. Ask questions about choices they make to learn more about their interests and to help guide the addition of new materials.



What you need:

- Finger paint or other non-toxic liquid paint
- Blank paper
- Paintbrushes
- Water



Make it musical by playing some of the songs from Tune in to Changes while your kiddo explores these materials. Does the volume or the tempo of the music change the way they interact with the art supplies?



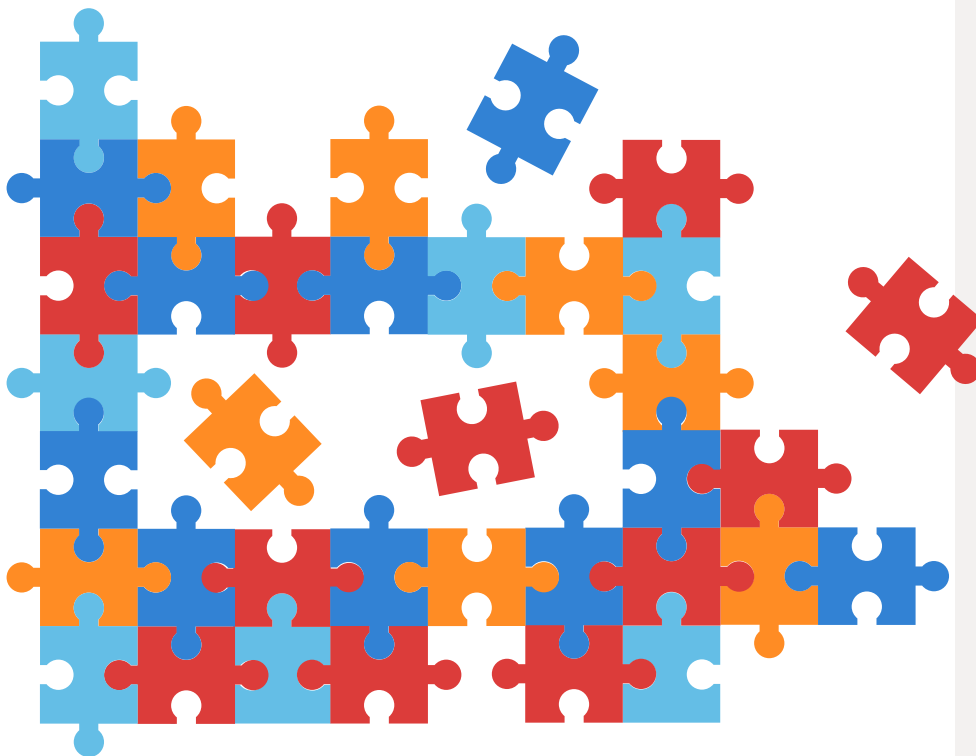
PROJECTS

Why Projects?

We've added projects to the At-Home Guides to enrich the variety of learning experiences your child has. Unlike activities, which are meant to be a short-term experience, projects are meant to be **long-term experiences** that begin at the start of the month and continue for as long as your child is interested.

Projects encourage learning by appealing to your child's knowledge, interests, skills, and abilities. They help increase their engagement in, and motivation for, learning. Working on projects can also change how your child sees themselves as a learner. It boosts their confidence as they see that their opinions and ideas are heard and valued, they can learn and do new things, and they can feel proud when they complete the project and share it with others.

Doing a project with your kiddo might seem like a big commitment, but don't worry, we've got you covered! We've suggested a project that goes along with this month's theme and offered some ways to complete it. As you work through the project, pay attention to what sparks your child's interests and use that to help shape the final product. And be sure that whatever the final product is, your child has an opportunity to showcase it and share what they've learned.

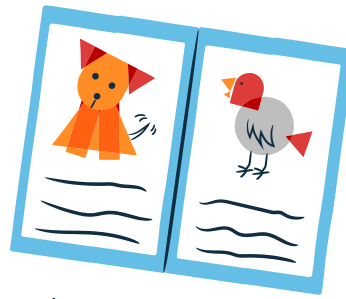


Projects are ongoing studies of topics that interest young children. Adults guide the project by encouraging children to explore their interests, but children lead by making choices and doing the fun stuff along the way. In addition to exploration, a project also has a final product that is decided on with input and direction from your child.



Project Suggestion: Picture Journal

A picture is worth a thousand words, but you can get the best of both worlds when you and your little one create a picture journal commemorating your exploration of change. Throughout the month, snap some pictures or shoot some videos of your kiddo exploring this month's activities or just living their everyday life. Add stories and captions in your own words and theirs, and look at the journal together and with others to celebrate this month's exploration of change and the many ways in which your child has changed along the way.



Toddlers

Do you ever feel like you can't keep track of how quickly your little one is learning new skills? Get those precious moments on camera. As your toddler takes on new challenges, take pictures and videos of the different techniques they're trying and the way their skills are growing and changing. Talk to them about what they're doing and capture them on camera telling or showing you what they can do!

Discovery Preschoolers

As your child explores and experiences changes, take videos of them telling you what happened when they mixed paint with salt or how the way they dance changes depending on the type of music. You can also write down your child's version of the story to include their words in the project.

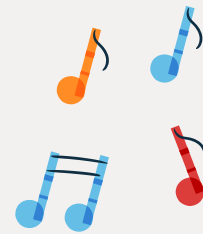
Preschoolers and Prekindergarteners

As your kiddo explores change, ask them to pick one or two types of change they'd like to focus on. Perhaps your little one is fascinated by the falling leaves and darkening sky as summer turns to fall. Or maybe there's a new building being constructed in your neighborhood or a plant growing in your living room. Whatever change your child is interested in, help them gather pictures, videos, and information throughout the month to keep track of the changes.

If your child is ready, help them compile the pictures into a time lapse video using iMovie or another similar movie-making app. Help your child add personal touches like voice overs or music, then share the video with family and other loved ones.

What you need:

- Any device with a camera and a voice recorder, like a phone or tablet (**all ages**)
- Paper and pen (**all ages**)



Give the story a soundtrack by letting your child choose some **music** to play while looking at this month's photos, videos, and stories. Try experimenting with different tracks and types of music and talking about how the different sounds change the way the stories in your journal feel.



ACTIVITIES

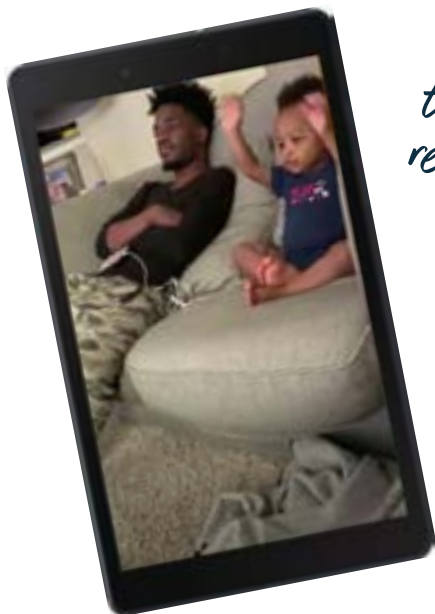
Activities are experiences for you and your child to do together. These activities will typically take 20–30 minutes, but the actual time will depend on your child’s interest.

Bringing Up Baby


Babies are learning from the world around them from the moment they’re born. Their brains are constantly forming new connections that are the foundation for learning. Everyday experiences strengthen those connections—even simple things like eye contact, conversation, and physical touch help your baby learn and develop in healthy ways.

This Month: Serve and Return

“Serve and return” describes the back-and-forth interactions you have with your child, even your newborn. Like a game of tennis, these interactions work best when your baby does something and you respond in a caring way: they cry, and you pick them up and talk to them in gentle, loving tones. They laugh, and you laugh back. That’s serve and return. As you go back and forth exchanging smiles and other facial expressions, responding to their cries, coos or gestures, and even giving gentle touches, your baby learns that the things they do make an impact and that their trusted caregiver will always respond to them. Not only does this build a healthy brain architecture, it also develops your baby’s sense of having a secure attachment. As your child grows up, continuing to use serve and return will strengthen their ability to make connections— both in their minds and out in the world!



*Check out this video
to see serve and
return in action.*



Changes I Observe

When we observe changes that others experience, we get a front row seat to what change looks like and how it affects others. We learn by using our senses to observe changes in sound, smell, taste, texture, and appearance. And when we compassionately observe how change affects the people around us, we strengthen our own social-emotional skills and build relationships with others.

Getting Ready: Things to Gather

Tune in to Changes

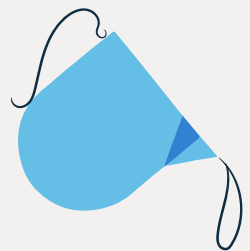
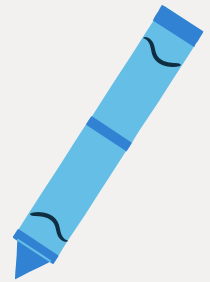
- ❑ Music-playing device like a phone, tablet, or stereo (**all ages**)
- ❑ Instruments or everyday objects that make sounds when touched or moved (**DPS, PS/PK**)
- ❑ Paper (**PS/PK** Optional)
- ❑ Markers (**PS/PK** Optional)

Observing Apples

- ❑ Apple (**all ages**)
- ❑ Lemon juice (**all ages**)
- ❑ Vinegar (**PS/PK**)
- ❑ Milk (**PS/PK**)
- ❑ Water (**PS/PK**)
- ❑ Sugar, salt, baking soda, cinnamon, or other dry ingredients (**PS/PK** Optional)
- ❑ Cutting board
- ❑ Knife (for adult use only)
- ❑ Small plates and bowls (**DPS, PS/PK**)

Exploring Empathy through Stories

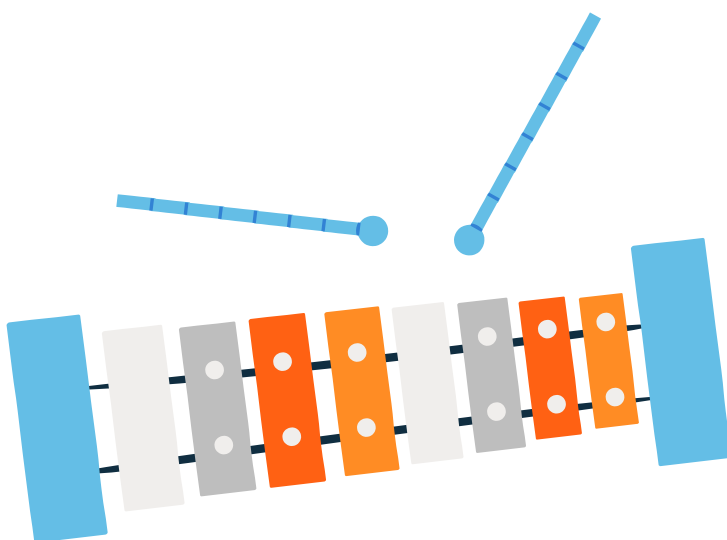
- ❑ Children's books (**all ages**)
- ❑ Paper (**PS/PK**)
- ❑ Pencil (**PS/PK**)
- ❑ Crayons or markers (**PS/PK**)
- ❑ [Emotions Pictures](#) (**DPS, PS/PK**)



Changes I Observe: Tune in to Changes

When it comes to observing changes, we often consider what something looks or feels like. This activity calls your child's attention to how sounds change. From tuning in to the difference between loud and soft or fast and slow, to listening for patterns in sound, songs are always a fun opportunity to sing and dance while using the senses to observe change. All of these skills help your child build an appreciation for diverse music!

Tap each age group to see the progression of skill development.



What you need:

- Music-playing device like a phone, tablet, or stereo (**all ages**)
- Instruments or everyday objects that make sounds when touched or moved (**DPS/PS/PK**)
- Paper (**PS/PK** Optional)
- Markers (**PS/PK** Optional)



Infant Connection: You can include your baby in experiences like these by doing serve and return as you listen to music together. When the music changes, do they react by widening their eyes or moving their hands and feet? Mirror their responses and show them your own moves through swaying, clapping, or bobbing your head. Talk with your baby about how the music changes or your observations of how they react. Keep the back-and-forth going for as long as your baby shows interest.



Tune in to Changes (continued)

Toddlers

Experiment with playing music at different volumes and watch how your little one responds to the music at each volume level. Does loud music inspire them to move their body in big ways, like rolling or jumping? Does quiet music inspire them to move more gently or sit still? Talk with your toddler about how loud or quiet the music is and be sure to use words that describe the ways you observed them responding to the music.

Discovery Preschoolers

Throw on some tunes that make your kiddo want to move and groove! Talk with them about how quiet or loud the music is and how fast or slow it sounds. What kind of body movements go with the music? Some songs inspire us to stomp our feet, and others make us want to wave our hands in the air. Help your little one connect the changes in the music they're noticing with the different ways they can move their bodies to match. Extend the experience by using a toy instrument to make your child's own joyful noise that varies in tempo and volume.

Preschoolers and Prekindergarteners

Play music that changes tempo. Have your child choose a movement, like patting their legs with their hands. Can they do it to the beat of the music? What does it feel like to move quickly during fast parts of the song and slowly during the slow parts? You can explore volume in a similar way, by adjusting the volume of the song and doing the movement quietly or loudly. Extend the experience by having your child look around your home for everyday objects they can use as musical instruments, like a container of paperclips to shake or an empty oatmeal container to drum on. Have them use their instruments to make their own joyful noise that varies in tempo and volume.

Want to take it up a level? Give your child paper and markers. Play the music again and invite your child to draw a picture showing how the music makes them feel. Then talk with them about their drawing, and how the music inspired it. This is a great opportunity to talk about how different music inspires different emotions in us, and how we can listen or create music to help cheer us up when we're sad or get us geared up for a big event.



Music + Math = Magic!

Is your little one learning to count? Add a knack for numbers to these musical experiences by counting out the beat! Try adding an exciting movement like jumping on the count of 4 or practicing waiting by counting to 3 before you blast the music again.



Sing-Along Song!

Looking for a song to use with these activities? Check out "Fast and Slow," a KinderCare original written and composed for our Learning Adventures Music Explorers program.



Changes I Observe: Observing Apples

How do the foods we eat change? Sure, an apple changes in one way when it's made into applesauce and changes in a different way when it's baked into a pie, but what happens when the change is as simple as just exposing it to the air? Slice up an apple and get ready to observe the phenomenon known as enzymatic browning. Talk with your child about how the apple slices look right after you slice them, and then observe them over time to see what happens. How do the slices change? Will these changes affect the taste of the apple slices? Try them and find out! Help your child learn to make observations using different senses and, as they get older, to make predictions and compare their results to those predictions.

Tap each age group to see the progression of skill development.



What you need:

- Apple (**all ages**)
- Lemon juice (**all ages**)
- Vinegar (**PS/PK**)
- Milk (**PS/PK**)
- Water (**PS/PK**)
- Sugar, salt, baking soda, cinnamon, or other dry ingredients (**PS/PK** Optional)
- Cutting board
- Knife (for adult use only)
- Small plates and bowls (**DPS, PS/PK**)



Observing Apples (continued)

Toddlers

Do a taste test with apple slices and lemon juice. First, give your toddler a slice of apple to hold and explore, encouraging them to smell and taste it and see what happens when they squeeze it. Then, put a drop or two of lemon juice on two apple slices and have them try it, and try it yourself so your child can see your reaction too. Chances are that the look on their face will be a great clue as to what they think of it! Talk to them about how the taste of the apple changed because of the lemon juice. Use lots of describing words and help your toddler tell you their preference!

Discovery Preschoolers

Cut two apple slices and place each slice on a different plate. Give your child a small amount of lemon juice to pour over one of the slices. Check on the slices to see how they change over the next 20 minutes or so. What does your child notice about the slice that has lemon juice on it? Why do they think the slices look different? Have them make observations of any other changes. What do the slices smell like? Are they still crisp? How do they taste? Don't forget to share your own observations and help your child build their vocabulary by using descriptive words.

Preschoolers and Prekindergarteners

Arrange five plates on the table and label them: Nothing, Water, Milk, Lemon Juice, and Vinegar. Cut an apple into slices and place a slice on each plate. Give your child a small amount of water, milk, lemon juice, and vinegar to pour over the apple slice with the corresponding label. What are your child's predictions about how each apple slice might change? Observe the apple slices over the next 20 minutes or so. How have the apple slices changed? Which apples appear to have stayed fresh and which ones have turned brown? How do they taste (if your child decides to taste any or all of them)?

Want to do some more apple experiments? Try seeing what happens when you put the slices in sugar water, or in the refrigerator, or when you cover them in dry ingredients like sugar, salt, baking soda, or cinnamon.

Try This!

Want to do some more experimentation with **enzymatic browning**? Apricots, pears, bananas, grapes, potatoes, mushrooms, and lettuce all experience the effects of enzymatic browning when sliced and left to sit. You can add more science and math to the experience by creating a chart and make observations at selected times, recording observations, making comparisons, and seeing which fruit or vegetable browns the fastest and which takes the longest!

The Science Behind It

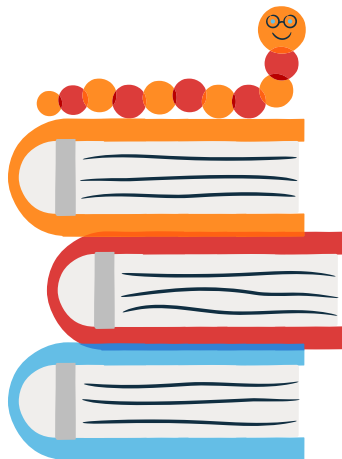
The sliced apples brown because an enzyme in the plant tissue **oxidizes**. This oxidization creates new chemicals within the apples flesh that react with amino acids and create the brown color. Want to know more about the science behind enzymatic browning? Check out [this article](#) from Britannica online.



Changes I Observe: Exploring Empathy through Stories

Snuggle up with a good book to practice some perspective-taking by observing changes other people experience in stories. Whether you examine people in a picture book with your toddler or create your own stories of change with your older kiddo, this activity explores how change can look and feel when it happens to people around us. Talking about the changes that characters in books experience and the emotions that come with those changes builds your child's listening and comprehension skills. It also helps them understand their emotions and develop empathy for others.

Tap each age group to see the progression of skill development.



What you need:

- Children's books (all ages)
- Paper (PS/PK)
- Pencil (PS/PK)
- Crayons or markers (PS/PK)
- [Emotions Pictures](#) (DPS, PS/PK)



Exploring Empathy through Stories (continued)

Toddlers

Read a book that tells a story and talk to your little one about things that change from page to page. Do the people in the story travel from one place to another? Does the story start in the morning and end at night? Point to pictures that show change and talk about what's happening. Maybe the characters meet a friend on their way to the park or something special happens before the baby in the story goes to sleep. Talk to your toddler about how they feel when those experiences happen to them. Model facial expressions and vocabulary that goes along with those feelings. Reading in these ways helps your child start to follow along with stories and pay attention to things that are changing, both in the books and all around them.

Discovery Preschoolers

Read a familiar book to your child that shows a character experiencing a change that reflects something in your child's life. Changes might include a new baby in the family, moving, changing schools, a new pet, or a change in seasons. After reading it, talk with them about the change that the character went through, taking time to revisit sections of the text and/or look at the illustrations for signs of how the character feels or reacts to the change. How do they think the main character feels about the changes? How would they feel about such a change? Use the emotions pictures to help your child express their emotions.

Preschoolers and Prekindergarteners

Read a familiar book to your child that shows a character experiencing change, ideally a change that reflects something in your child's life. Talk with your child about the change the character experienced. Reread the text where the change takes place and study the illustrations together. "How was the character feeling about the change?...Why?...If that change happened to you, how would you feel?" Bring out the emotions pictures to help your child identify how they might feel in the same situation.

Ask your child to imagine being in the story with the character. How could they help the character feel better about the change? For older children, ask your child to retell the story in their own words. What happened in the beginning? In the middle? At the end? How were the characters feeling at those different points of the story...how did their feelings change? What events in the story caused the characters to feel the way they did?

You can enhance the activity for an older child by having them reflect on what if something different had happened, like if the main character hadn't lost her favorite toy. How might the story have been different? Give your little storyteller paper, pencil, and crayons or markers. Have them draw a picture about and/or dictate their idea about how the story would have gone differently and how the character might have felt.



Changes I Experience

Change is all around, and, for young children, even happy or exciting changes can take some adjusting to. Knowing how to navigate change and adjust to new circumstances can mean the difference between surviving or thriving. Fortunately, we can develop the resilience skills we need to handle change when we are very young. As you talk with your child about the emotions that accompany change, you're planting seeds of optimism and empathy that will serve them well when they face challenges today and as they grow.

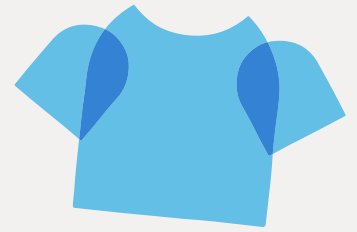
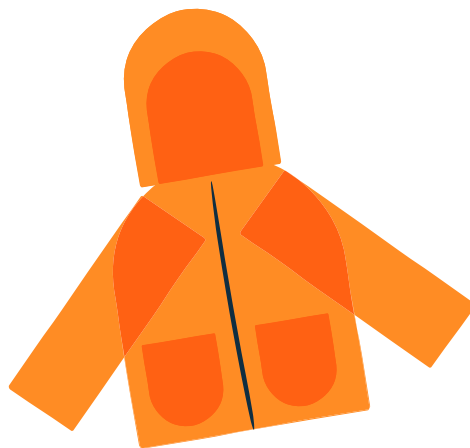
Getting Ready: Things to Gather

Changing Emotions

- Smartphone or other device with a camera (all ages)
- [Emotions Pictures](#) (DPS, PS/PK)
- Pictures and videos of your child (Toddler)
- Paper (PS/PK)
- Crayons or markers (PS/PK)

How I Change

- Memorabilia from when your child was younger, such as clothing, shoes, or hand/footprint art (if available) (all ages)
- Favorite baby doll or book with pictures of young babies (Toddler)
- Pictures of your child at younger ages (DPS, PS/PK)



Changes I Experience: Changing Emotions

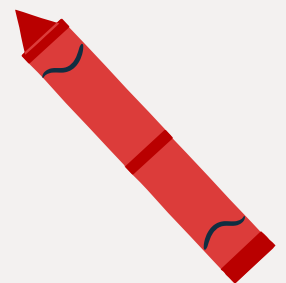
From trying new foods to moving from one neighborhood to another, children's lives are full of transitions and new experiences that can bring about a range of emotions before, during, and after the change. For this activity, use books, pictures, and videos to talk with your child about emotions. Show them pictures and talk about how people's facial expressions can help us to understand what they are feeling. By exploring the emotional side of experiencing change, you create opportunities for your child to build their emotional intelligence, flexible thinking, and empathy.

Tap each age group to see the progression of skill development.



What you need:

- Smartphone or other device with a camera (**all ages**)
- [Emotions Pictures](#) (**DPS – PS/PK**)
- Pictures and videos of your child (**Toddler**)
- Paper (**PS/PK**)
- Crayons or markers (**PS/PK**)



Changing Emotions (continued)

Toddlers

Toddlers' moods change a few dozen times a day, and those feelings are usually written all over their faces. Grab some of the pictures or videos you've taken of your little one and look at them together. Play a game by naming and modeling the emotions you see in the pictures. This is great practice for helping your toddler name and express their feelings.

Discovery Preschoolers

Show your child the [emotions pictures](#). Talk about basic emotions like happy, sad, and angry, and what we can learn about how someone is feeling by looking at their face. Ask your child to think about times when they have felt this way, and what happened to change how they were feeling. For example, you might talk with them about a time that they were sad and how they handled that or what happened to help them feel better. Give words to the strategies you've seen your child use to change how they are feeling, such as taking a break or asking for help.

Preschoolers and Prekindergarteners

Use the [emotions pictures](#) to find examples of children expressing each emotion and talk about why they might be feeling that way. Then ask your child to think of as many emotions as they can and work together to write them down. Take pictures of your child showing what each one looks like or ask them to draw the emotions on paper. Talk about how each emotion feels and what brings them on. What choices do people have for how they express each emotion? How can people manage their feelings? What can you do to feel better when you are sad or upset? How can you show you're excited about something? Are some choices better than others? Why or why not?

If your child is interested, encourage them to interview another family member, asking them to share the types of things that make them feel a certain way, and how they express those feelings.

Make Your Own Emotions Poster!

Looking for a fun way to help your child share how they feel? Take pictures of them showing different "in-the-moment" emotions. Attach the pictures to paper, cardboard, or a wall surface. Have your child name the emotions and help you to label them. Use the pictures regularly to check in with your little one about how they're feeling and talk with them about their different emotions.

Understanding How Change Can Affect Emotions

An unexpected change, large or small, can impact how your child is feeling. Whatever the change, it's important to help them **recognize** and **identify** their feelings, and to work with them to develop the skills to **manage** them. Over time, children will use these skills to cope with changes and the emotions that come with them.



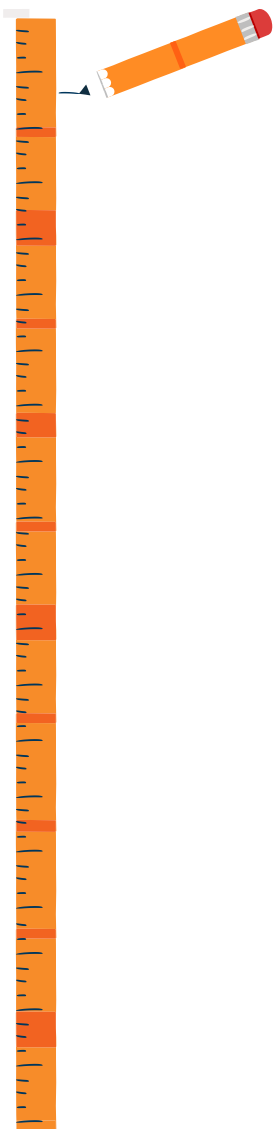
Emotions Pictures

Tap the thumbnails below to view each image.



Changes I Experience: How I Change

Children grow and change so quickly. One day they're a wobbly toddler, and the next they're sprinting across the grass on strong legs! Noticing and expressing the ways that they've changed can build mindfulness and communication skills. Even young babies can engage in self-awareness as they discover their hands and their feet and that they can control their movements. As children get older, they can build cognitive skills by comparing the past to the present and making predictions about the future. Talk with your child about how they've changed. What things can they do now that they couldn't do a few months ago? How have their bodies changed as they've grown?



Tap each age group to see the progression of skill development.



What you need:

- Memorabilia from when your child was younger, such as clothing, shoes, or hand/footprint art (if available) **(all ages)**
- Favorite baby doll or book with pictures of young babies **(Toddler)**
- Pictures of your child at younger ages **(DPS, PS/PK)**

Project Connection!

Take pictures during this activity and consider using them as a part of your child's Picture Journal Project.



Infant Connection:

From diaper changes to naptimes and all the transitions in between, your baby experiences changes on a daily basis. Keep them engaged in what's happening to them by talking about these changes and acknowledging their cues in the process. You can do this by pausing for their response when you tell them it's time for a diaper change, telling them how you know they're tired, or talking about what you're doing as you change their clothes.

How I Change (continued)

Toddlers

Grab your kiddo's favorite baby doll or a book with pictures of young babies. Talk with your toddler about what babies look like and what they do. As you talk about what babies look like, point out different features and ask your child to find the same feature on themselves. Act out things that babies do like crying, sleeping, or drinking a bottle—or show them pictures in the book that illustrate them. Talk with your toddler about what they did when they were a baby. Ask them what they can do now that they couldn't do then like walking or talking. Make it a game by naming "big kid" things your toddler can do and then do them together!

Discovery Preschoolers

Pull out some of your child's baby photos and memorabilia like old baby clothes or their first pair of shoes and look at them with your child. Look at their baby photos and have them share what they notice about themselves, like the color of their hair and eyes. Note how things have changed, like how they've grown, their hair length, how they move, or their favorite toys. Use questions to help them think about how they've changed. You might show them a onesie and share how old they were when they wore it. Hold it up to their body and ask them if they could still wear it. Talk about their answer and use comparison words like bigger and smaller. If you've kept a growth chart, show it to them and talk about the different marks and how they've grown over time. If you have a handprint or footprint from your child's early days, have them place their hand or foot over the print and compare.

Preschoolers and Prekindergarteners

Look through pictures and memorabilia from when your big kid was a wee little one. Talk about how they've changed as well as about what hasn't changed. How has their body changed? What has stayed the same? Help your child recognize characteristics about themselves that might have changed one way but stayed the same in others. For example, they may have had short, brown, curly hair when they were born, but now they have long, brown, straight hair. If you have a handprint or footprint from when your child was younger, pull it out, along with a new sheet of paper. Trace your child's hand or foot, then compare the two prints. Add some measurement concepts by helping your child use lengths of yarn or a ruler to measure the distance from their wrist to the tip of their middle finger, or from heel to toe. If you have kept a growth chart or know how long your child was at birth, help your child measure that length out against a wall and compare it to how tall they are now. You can also talk about how their abilities and preferences have changed or stayed the same. How did they get around then compared to now? What have they learned that they didn't know before? What do they know about their likes and dislikes?

Encourage your older child to think about how they will grow and change between now and their next birthday. How much taller do they think they will be or how much bigger will their hands or feet be? Or how long will it take for them to fit into an older sibling's t-shirt—or one of yours? As your child makes predictions, write them down and set a reminder on your calendar to see how close your child's predictions are!



Changes I Create

Change isn't just something that happens to children—it's something they can create! From small changes like how water in a container moves, to larger changes that impact their community or the environment, your child can be a powerful force in making change happen.

Getting Ready: Things to Gather

Kitchen Chemistry

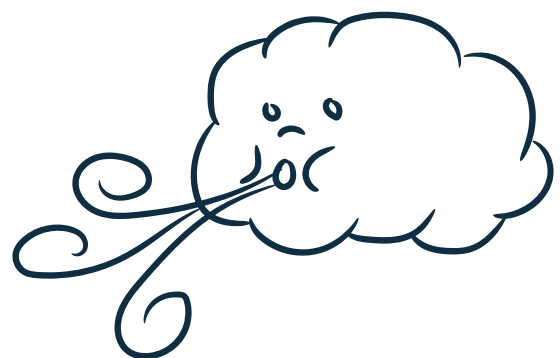
- ❑ Large bowl or shallow container (**all ages**)
- ❑ Spoon (**DPS, PS/PK**)
- ❑ Small bowl (**DPS, PS/PK**)
- ❑ Small pitcher (or bowl) (**all ages**)
- ❑ Measuring cups and spoons (**PS/PK**)
- ❑ Water (**all ages**)
- ❑ Food coloring (**all ages**)
- ❑ Cornstarch (**DPS, PS/PK**)
- ❑ Salt (**PS/PK**)
- ❑ Vegetable oil (any liquid cooking oil will work) (**PS/PK**)
- ❑ Flour (**PS/PK**)

Making and Tinkering

- ❑ Recycled materials, such as: paper-towel rolls, small boxes, clean lids, plastic containers or bottles, and tin cans (with tape around the open end to remove any sharp edges); newspaper (**all ages**)
- ❑ Craft materials, such as: scrap paper, crepe paper, tissue paper, stickers, toothpicks, twigs (from outdoors), fabric scraps, ribbon, yarn, and/or pipe cleaners (**PS/PK**)
- ❑ Aluminum foil, parchment paper, and/or waxed paper (**PS/PK**)
- ❑ Glue (**PS/PK**)
- ❑ Tape (**DPS, PS/PK**)
- ❑ Writing and drawing tools (**DPS**)
- ❑ Child-size scissors (**PS/PK**)

The Winds of Change

- ❑ Lightweight object, such as a small ball or crumpled piece of paper (**Toddler**)
- ❑ Sheet of paper (**DPS, PS/PK**)
- ❑ Recycled materials, such as: thin cardboard and/or newspaper (**DPS, PS/PK**)
- ❑ Craft materials, such as: scrap paper, crepe paper, tissue paper, toothpicks, twigs (from outdoors), fabric scraps, yarn, ribbon, and/or pipe cleaners (**DPS, PS/PK**)
- ❑ Washcloth or hand towel (**DPS**)
- ❑ Toy boat or car, or boat or car created in Making and Tinkering (**PS/PK**)
- ❑ Aluminum foil, parchment paper, and/or waxed paper (**PS/PK**)
- ❑ Glue (**PS/PK**)
- ❑ Tape (**DPS, PS/PK**)
- ❑ Child-size scissors (**PS/PK**)



Changes I Create: Kitchen Chemistry

Changing substances by mixing them together is a fun way to experience change in action! Activities like this might sound pretty simple, but they're actually helping your child develop foundational science skills like experimenting with cause and effect. From using descriptive language as you talk about the look or texture of something to making observations and predictions about how our actions might create change, your child will learn a lot about how things change and how they can create change on purpose!

Tap each age group to see the progression of skill development.



What you need:

- Large bowl or shallow container (**all ages**)
- Spoon (**DPS, PS/PK**)
- Small bowl (**DPS, PS/PK**)
- Small pitcher (or bowl) (**all ages**)
- Measuring cups and spoons (**PS/PK**)
- Water (**all ages**)
- Food coloring (**all ages**)
- Cornstarch (**DPS, PS/PK**)
- Salt (**PS/PK**)
- Vegetable oil (any liquid cooking oil will work) (**PS/PK**)
- Flour (**PS/PK**)



Kitchen Chemistry (continued)

Toddlers


Pour some water into a container with a lid so that your little one can shake it. Give them time to explore the water on their own, sharing your observations about how the water looks and sounds as it moves in the container. Then show them how to add a couple drops of food coloring. Talk about the changes they see happening when they shake it. If they're really into it, add more food coloring or mix in a new color. Remember that scientists experiment, so follow their lead and encourage their curiosity!

Discovery Preschoolers

Pour about $\frac{1}{2}$ cup of water into a shallow bowl. Have your child select a food color and show them how to add a drop or two to the water. As the food coloring moves through the water, ask your child to describe what they see. Then show your child the cornstarch and invite them to see how it feels. Ask them to add a couple of spoons of cornstarch to the water and mix it using the spoon or their hands. How does the mixture feel? How did adding the cornstarch to the water change the water and the cornstarch? Encourage them to add more water or more cornstarch to the mixture and see how the consistency changes.

Preschoolers and Prekindergarteners

Have your child pour some water into the container and add a few drops of food coloring. What happens as the food coloring flows into the water? Next have your child add some cornstarch and stir the two together with a spoon or their hands. How does the mixture change? Encourage your child to experiment with adding more cornstarch or water to see how the mixture continues to change. After some free exploration, have your child use the measuring cups, water, cornstarch, and food coloring to follow the recipe to make [Oobleck](#). As they work, talk about their observations and ask questions. How does the Oobleck feel? How is it similar to and different from the consistency they created while freely combining the ingredients? Extend this activity by adding salt, vegetable oil, and flour. Ask, "How much of each of these ingredients will you need to add to the Oobleck to make a doughy substance you can form and mold?" Exercise their math and writing skills by having your child use measuring tools and writing down the amount each time they add more of an ingredient. Have extra water available in case your child needs more liquid. As they experiment, talk about each ingredient and how it changes the Oobleck mixture. When your little chemist is satisfied with the doughy consistency of the mixture, help them write out the recipe they've created and share it with others.

Extend the Fun! Want the recipes for Oobleck and Cornstarch Dough for future playtime fun? Here you go! 



Changes I Create: Making and Tinkering

They say that one person's trash is another person's treasure, and there's definitely truth to that! The items you throw away or recycle can serve another purpose—they can be used to encourage imaginative play with your child! Those empty creamer containers could become snow people, or bowling pins, or hold the makings of a magic potion. That empty box is a rocket- no wait, a spaceship- or ZOOM! It's a race car! When your child is given the opportunity to explore open-ended or recycled materials, they're building skills like representational thought (one object symbolizing another), creativity, problem-solving, and imaginative play. They're also learning that one object can be used in multiple ways, an important part of sustainability and protecting the environment. These skills grow your child's ability to adapt to change and meet challenges with resilience, optimism, and confidence!

Tap each age group to see the progression of skill development.



What you need:

- Recycled materials, such as: paper-towel rolls, small boxes, clean lids, plastic containers or bottles, and tin cans (with tape around the open end to remove any sharp edges); newspaper **(all ages)**
- Craft materials, such as: scrap paper, crepe paper, tissue paper, stickers, toothpicks, twigs (from outdoors), fabric scraps, ribbon, yarn, and/or pipe cleaners **(PS/PK)**
- Aluminum foil, parchment paper, and/or waxed paper **(PS/PK)**
- Glue **(PS/PK)**
- Tape **(DPS, PS/PK)**
- Writing and drawing tools **(DPS)**
- Child-size scissors **(PS/PK)**



Making and Tinkering (continued)

Toddlers

Ever notice that some children prefer the box their toy comes in more than the toy itself? Give them both to play with and see what happens! Add things that you'd normally recycle like empty boxes, egg cartons, or plastic containers to your child's play area alongside the balls, blocks, or baby dolls they're used to. As they play, notice how your kiddo incorporates these items into what they're doing: open-ended materials like this go a long way toward kindling curiosity and creativity!

Discovery Preschoolers

Add some small boxes, paper-towel tubes, and plastic containers to their play area and see what they do. Use questions to spark their imagination. What are you using the box for? How could you use this tube in your building? See what materials they use and add to them- if boxes are hit, add some more. If they have fun stacking the plastic containers, add different shapes and sizes. If your child shows interest in decorating the materials, add writing and drawing tools or add tape if they want to attach materials together. When it comes to their imagination, the sky's the limit!

Preschoolers and Prekindergarteners

How do people invent new things? They tinker! The sky's the limit when you use recycled materials to create things! Encourage your child to explore the recycled items, craft materials, and other items you've gathered and think about how they might combine them to make something magnificent. Ask questions like, "What shape is this? What does it feel like? What can you do with it?" Encourage your child to cut, reshape, and connect things and help them if needed. Whether the outcome of this experience is an object that has a definite name and purpose or an object that is simply a spectacular creation, you will have bolstered your child's ability to wonder, think creatively, problem-solve, and test out ideas.

Add a challenge by asking your child to use the materials to build a boat or a car that they can later use in the activity The Winds of Change. When your little engineer is ready, test the boat in a tub of water or see if the wheels on the car roll.

Did You Know? More than 8 million tons of plastic is dumped into our oceans every year. When you find creative ways to use materials that might end up harming marine life and fundamentally changing an entire ecosystem, you're **making a difference** for the planet and teaching your child important lessons about **creativity** and **sustainability**.

Managing Frustration and Disappointment

Creating and tinkering can lead to frustration or disappointment. Maybe a couple pieces didn't stay together, something was cut too big or small, or the finished product didn't perform as intended. It's important to **recognize** these feelings and help your child to work through them. But it is also important to remind your child not to be discouraged and to make adjustments or try a new approach. **Iteration** through problem-solving is part of the engineering design cycle!



Changes I Create: The Winds of Change

A windy day can make the leaves in the trees rustle, a wind chime sing, and a kite soar through the air. These are all ways that we can observe how wind affects the world around us, wind that we can't control. But exploring how to create wind and how to use it to move objects encourages your child's scientific thinking as they wonder, test their ideas, and build an understanding of cause and effect. They're also exploring force and motion and how they impact the way things move. So, go outside and talk about the wind you can feel, whether it's a gentle breeze or a big gust. Then explore the wind they can create using their breath, by waving something in the air, or by turning on a fan.

Tap each age group to see the progression of skill development.



What you need:

- Lightweight object, such as a small ball or crumpled piece of paper (**Toddler**)
- Sheet of paper (**DPS, PS/PK**)
- Recycled materials, such as: thin cardboard and/or newspaper (**DPS, PS/PK**)
- Craft materials, such as: scrap paper, crepe paper, tissue paper, toothpicks, twigs (from outdoors), fabric scraps, yarn, ribbon, and/or pipe cleaners (**DPS, PS/PK**)
- Washcloth or hand towel (**DPS**)
- Toy boat or car, or boat or car created in Making and Tinkering (**PS/PK**)
- Aluminum foil, parchment paper, and/or waxed paper (**PS/PK**)
- Glue (**PS/PK**)
- Tape (**DPS, PS/PK**)
- Child-size scissors (**PS/PK**)



The Winds of Change (continued)

Toddlers

Can your kiddo use their breath to make something move from Point A to Point B? Find out by setting up a start line and a finish line, then grabbing any light object like a small ball or a crumpled-up piece of paper. Have your child blow on it really hard. How far does it go? Then ask them to try and get the object from start to finish using only their breath. You can even join in the fun or get siblings involved by making it a race.

Discovery Preschoolers

Tape some crepe-paper streamers or ribbons so they hang from the edge of a table. Have your child blow on them and talk about what happens. Have your child explore blowing on them from up close and far away, with big long breaths and short puffs. How does this change how the streamers or ribbons move? Give your child other materials they can use to create wind, like a sheet of paper, a piece of cardboard, a washcloth, or a hand towel. As they create wind using these materials, ask questions to encourage their thinking about the wind they're creating and how it changes the movement of the streamers or ribbons. Which materials cause the most movement? Which materials make a stronger wind? Which materials are easier to use to make wind? How does distance change the movement? Encourage your child to explain their "theories" about what makes things move.

Preschoolers and Prekindergarteners

Have your child select a toy car or boat (if they built a boat or car in the activity Making and Tinkering, they can use it instead). Have them select recycled items, craft materials, aluminum foil, and any other items they could use to create a sail. Talk about different ways the materials could be used or combined to make a sail, then ask your child to build a sail any way they'd like. Ask questions to get them thinking, such as, "How could you use pipe cleaners, aluminum foil, or tissue paper in your sail design?" or, "What could you use to attach the sail?" Have your child explore different materials to make wind, then test out how well their sail catches the wind and moves the boat or car.

Add another level of scientific inquiry by having them create two sails from different materials and experimenting with which one does a better job of catching the wind.



Infant Connection:

Model different types of breaths for your baby like slow and deep or fast and loud. Notice their reactions. Do they try to mimic your actions? Try holding your baby's hands and taking some deep breaths together as a way to calm big feelings and practice nonverbal communication.

