

Bang! Squish! Leap! Supporting the A in STEAM with Infants and Toddler: Baby Talks Webinar Series

Sarah Lytle: Good afternoon, everyone, and thank you for attending today's webinar, Bang! Squish! Leap! Supporting the A in STEAM with Infants and Toddlers, as part of the Baby Talks webinar series. Baby Talks is a series of webinars for teachers, providers, and home visitors working with infants and toddlers serving Early Head Start, Head Start and Child Care programs. These webinars will introduce you to some of the research behind the Head Start Early Learning Outcomes Framework, the ELOF.

My name is Sarah Lytle, and I will be helping to facilitate today's session along with my colleague Amelia Bachlada. We're from the National Center on Early Childhood Development, Teaching, and Learning, and we're based at the University of Washington's Institute for Learning and Brain Sciences or ILABS. ILABS is a partner organization in the NCECDTL consortium, and we're one of the leading research centers for infants in the country.

Before we begin, I'd like to go over a few housekeeping items as we'll be using some of the ON24 features during our webinar. At the bottom of your screen, there are multiple application widgets that you can use. I want to go over the different widgets that are available. As I'm talking through each one, we invite you to open the specific widgets to see what it looks like on your screen, and remember that you can click on the icon to have it appear or minimize. Throughout this session we'll be using the blue group chat widget to engage with each other. It's probably not open on your screen. We invite you to find the blue group chat widget located on the right side of the bar, open it and introduce yourselves, and I see that some of you have already been doing that, which is fantastic.

A copy of today's slide deck and additional resources are available in the resource list, which is the green widget. We encourage you to download any resources or links that you may find useful. If you have any questions during the webcast, you can submit them through the purple Q&A widget. We will try to answer these during the webcast. This is where all the technical questions and concerns should be entered, as well. You can also find additional answers to some common technical issues located in the yellow help widget at the bottom of your screen.

Each of these widgets are resizable and movable for a customized experience. Simply click on the widget and move it by dragging and dropping, and resize using the arrows at the top corners. For the best viewing experience, we recommend using a wired internet connection and closing any programs or browser sessions that are running in the background that could cause issues. Webinars are bandwidth intensive, so closing any unnecessary browser tabs will help conserve your bandwidth. The webcast is being streamed through your computer. There's no dial-in number. For the best audio quality, please make sure your computer speakers or headset are turned on and the volume is up so you can hear the presenters.

Some networks cause slides to advance more slowly than others, so logging off your VPN is recommended. If your slides are behind, pushing F5 on your keyboard will refresh the pages. An on-demand version of the webcast will be available 24 hours after the webinar and can be accessed using a link that will be sent by email. Please keep in mind that this webinar is also being transcribed, and the transcription will be posted on the ECLKC. Finally, if you have any trouble, try refreshing your browser by pressing F5. Be sure to log off your VPN and exit out of any other browsers. Okay. With that taken care of, we're going to introduce Amelia Bachlada, who will take us through Bang! Squish! Leap! Support the A in STEAM with Infants and Toddlers.

Amelia Bachlada: Hello, everyone. I'm so excited to talk about supporting the arts with infants and toddlers with you today. This is such a fun topic, so let's dive right in, and thank you to everybody who's hopped on the group chat and said hello. It's great to see you all. Okay. So, today we're going to talk

about a couple different things. We're going to talk about how integrating the arts into activities supports general school readiness across all of the ELOF domains. We're going to look at four key environmental elements that support learning through the arts, and we're going to look at some activities and strategies for scaffolding and supporting children's learning and development through the arts. And our agenda for today is going to look a little bit like this.

First, we're going to talk about how the arts supports STEAM learning. Then we're going to share some examples of how integrating the arts into learning activities supports general school readiness across ELOF domains. We're going to review activities and strategies for scaffolding and supporting children's learning and development through the arts. We're going to provide an overview of these four key environmental elements that support learning through the arts, and then we're going to close and share some resources with you.

Okay. So, let's get started. So, we're talking about art today, and when we think about art and art activities, at first glance, it may seem as though art doesn't really fit in so well with science, technology, engineering, math, those other subjects that make up the acronym STEAM. But art is an integral part of what STEAM is. STEAM is more than a subject or a collection of facts. It's a way of thinking that involves observing, questioning, testing ideas, creating, and art was added to this acronym for a reason. A creative mindset is critical for STEAM subjects.

Scientists, technology developers, engineers, mathematicians and artists all need to innovate and solve problems creatively. To explore the idea that art is just like the rest of the subjects in STEAM, a way of thinking, creating and problem solving, let's take a minute to think about what steps you might have to take if you wanted to draw a nature scene. I'll share some pictures of a Head Start class using the inquiry cycle to create a nature scene, so you can get a little bit more of a sense of what this looks like. Okay. So, first, you must carefully observe the world around you. Here some children are carefully observing nature and collecting some specimens: bark, bugs, leaves, things that interest them.

Then you have to make a plan about how you want to design your painting. In this photo, the children have brought their materials inside, and they're deciding how to lay them out on the table. As you work, you might have to edit your design as you go solving these little design problems, and once you're done, you might have to think critically about your work and choose to make some revisions. And here we see the children are gluing and arranging their specimens. And finally, we have a finished piece of art. The process of creating a work of art is much like science or engineering. Not only do you have to think creatively, but you have to plan. You have to design. You have to solve problems and adjust just like scientists and engineers do. Science, technology, engineering and math, and art – their whole way of thinking, creating, understanding, and communicating.

Okay. So, we've talked a little bit about what and how children build skills using art experiences, and now it's your turn. I'd like you to take a moment and look at these two pictures that are on your screen. In the first picture, we see a young child exploring finger paint.

In the second picture, we see the child has expanded their artwork and is exploring movement with their hands, and I'd like you to take a minute and share your thoughts in the group chat box. What kind of skills is this child building, and how do you think they're using scientific thinking to explore and learn during this art activity? I'll give you a few moments to look at these pictures and think about what this child is thinking, learning, and skills that they're building.

Sarah: Lots of fine motor, cognition, textures, cause and effect. A lot of great answers coming up in this group chat window.

Amelia: Yeah, social-emotional – all sorts of different skills. Self discovery, I love it. Discovering who you are and how your body moves and works and what you want to create on a page. Developing – So, many amazing thoughts. Yes. And you're making this beautiful point that during these early art experiences, children are learning so many different skills across developmental domains.

Okay, so we've been talking about art so far, and that often brings to mind drawing and painting, but the arts are so much more than that, and I wanted to make sure that we made this point. They include music, dance, drama, poetry, sculpture and on and on. And, of course, exploring the arts is more than problem solving and creativity. Right? The arts allow us to communicate and importantly to connect, to express ourselves, to explore our identities and to engage and delight more deeply with our own cultures and to share and better understand other cultures. Enjoying, engaging with, and expressing ourselves through the arts is one of the fundamental aspects of humanity. The arts help us celebrate our best moments and console us during our worst.

Providing children with opportunities to explore and enjoy the arts is a fundamental part of supporting a child's development, and, importantly, the arts support an inclusive setting. For infants and toddlers, creating art is all about self expression and exploration. There's no right or wrong answer, no correct way to express and explore, which means that the arts provide an environment where all children are successful, and research suggests that even very young children are learning a lot just from being exposed to the arts. In one study, researchers looked at how infant brains responded to different types of music. Four-month-old babies listened to either guitar or marimba sounds for about 20 minutes a day for a week.

At the end of the week, they came into the research lab, and researchers used a special, noninvasive equipment to measure how the babies' brains responded to guitar and marimba sounds. Babies who had listened to guitar music before their lab visit showed larger brain responses to guitar sounds, and those babies who listened to marimba sounds, they showed larger responses to marimba sounds. These findings show that the brain is learning about music as children listen to it in their environment, and researchers haven't found any evidence that one type of music is better than another. Music is a wonderful way to share and learn about culture, so play music for babies from their own culture and from your culture. What different melodies, rhythms, beats, can you find and explore together? And consider asking parents to share music that they like to listen to at home. See if you can incorporate it into the classroom, or during a home visit, consider talk – asking about what music they enjoy and working on activities that complement that music like dancing or singing. Providing children with opportunities to explore and enjoy the arts is a fundamental part of supporting a child's development, and, likewise, engaging with the arts supports child – children's development across learning domains.

And this is important to take some time to explore more deeply because even though the arts are a fundamental part of what it means to be human, adults, particularly parents, can sometimes worry that children aren't learning when they engage with the arts. They may worry that spending time drawing, painting, dancing, singing – That might be taking time away from learning to count or the letters of the alphabet. However, skills children learn and build through the arts really do support school readiness. In this next part of the webinar, we're going to spend some time going through the different developmental domains outlined – outlined in the ELOF, or the Early Learning Outcomes Framework, and talk about how the arts help children build skills in all of these areas. The domains are broad areas of learning and development from birth to 5 that are essential for school and long-term success.

The five central domains for infants and toddlers are: perceptual, motor and physical development; social and emotional development; language and communication; cognition; and approaches to learning. I'm also going to share some specific examples of activities that can be used to support school-readiness goals across the domains of the ELOF for infants and toddlers, and as I do, we invite you to

think about how you are already using art activities to support children's development. At the end of this section, we'll have some time to share and learn from one another. Okay. So, let's start with perceptual, motor, and physical development. The connection to this developmental domain is fairly straightforward.

For infants and toddlers, art experiences help them build fundamental physical skills. Let's look at a few of the goals outlined in this domain of the ELOF and see just how the arts can be used to support them. So, in this first image on the left, we see a young girl carefully concentrating as she works to string a bead onto a thread. In this activity, she's building fine motor skills. She's working so hard to coordinate hand and eye movements to do this tricky task, and she's so engaged in trying to get that bead onto the string. In this second middle image, we see a group of young children dancing, holding colorful streamers, and not only are they working on gross motor skills as moving their bodies as they dance to music, but they are learning to be aware of their bodies and their streamers and where they are in space, and how they relate to their environment. They're learning to move their bodies and to keep other bodies safe, too, which is so important.

And in this third image, we see a child looking through the viewfinder of a camera, and he's moving his fingers back and forth across the lens. He's learning how he can interact with the camera and the lens, and how that changes what he sees or is captured through the camera. Through arts experiences in infancy, babies build sensory and perception skills exploring textures, colors, smells and sounds. Consider adding a new perceptual element to a common activity and giving young children plenty of time to explore that.

So, for example, remember this picture that we talked about at the beginning? This little one started with just a little bit of finger paint, and then the teacher added more colors to give the child a new sensory element to explore. You can imagine playing and exploring alongside the child. What does that feel like? What does that sound like? Songs and dances that use many different parts of the body, like "Head, Shoulders, Knees, and Toes," for example, help to build muscle coordination as well as building executive functioning skills like working memory and attention and focus. And while "Head, Shoulders, Knees and Toes" is a really great one, almost any activity can be turned into a song or a dance. So, consider, for example, making up a dance about a skill that you are learning together. So, how could you use music or song to support this little girl as she moves around on her walker? Just pick your favorite tune and add some words or motions, even just moving your feet, and you've got a song that not only helps build motor development but is also meaningful and helps children learn an important skill.

Home visitors and teachers can help parents and families think about what regular routines can be turned into a song or a dance, and, of course, providing opportunities for young children to practice moving and dancing to a beat helps build coordination and muscle control, as well. Okay. So, now we're going to watch a clip of a young child in Alaska. As he experiments with balance, he also appears to create a little dance. So, as you watch, be thinking about what skills this child is building across domains.

[Video clip begins]

Woman: A few more minutes and we'll go inside. Go, go, boys, go. Oh, good walking, Leon. You got it. Yeah, to the end. Jump.

[End video clip]

Amelia: Okay, so in the group chat box, I invite you to answer this question. What are some of the other skills that you saw this child build during this short clip?

Sarah: A couple of immediate answers of balancing, and the balancing explores different ways of moving. Focus. Somebody says focus. That's a great idea.

Amelia: Yeah, I saw confidence. Absolutely. Listening skills. Exploring the environment.

Sarah: Mm-hmm. Really thinking about gross motor skills, rhyme.

Amelia: Mm-hmm.

Sarah: I like it.

Amelia: Yeah.

Sarah: Spatial awareness: where your body is in space.

Amelia: Yup, yup, and that ties into some cognition skills, and I think I've seen people provide answers about how this child is really engaging in this task that is building development across these developmental domains. Right? So, even in this one activity that looks like he's building a lot of motor skills, he's also working to build all of these other skills, as well. And so, while it can be useful to separate out different skills and developmental indicators for young children into different domains, such as the ELOF, we wanted to note that it's also important to think about how children's development is occurring across many domains or all domains at the same time. Learning doesn't happen in a single domain in isolation. Right? But it can be helpful to think about these different areas individually, to really dive into thinking about how we are supporting these specific different skills. So, as we continue to move through the ELOF domains, we invite you to continue to think about what other skills and domains are supported by the specific examples that we talk about?

[Video clip begins]

[Traffic passing]

Woman: A few more minutes and we'll go inside. Go, go, boys, go. Oh, good walking, Leon. You got it. Yeah, to the end. Jump.

[End video clip]

Amelia: Okay. So, in watching the clip again, maybe you caught a few more new skills that you didn't see the first time.

Okay. So, now we're going to talk about social and emotional development. This is another domain with an easy connection to the arts. Expressing emotions and creating shared understanding and experiences is one of the most common ways that we as humans come together and relate, so let's take a moment to look at how infant and toddler experiences with the arts support specific goals within this developmental domain. So, look at this first picture on the left, one of the most powerful aspects of the arts are the opportunities they provide for shared experiences, and we see an example of this in this photo.

Two young boys are delighting in their shared experience of making music together. Music is this wonderful space to engage in a shared experience whether you are creating a song together or dancing to the same beat or just sharing the joy of enjoying a favorite song, which is such a fun thing to do. For young children, shared musical experiences can provide a nice framework, some guiding structure, as they learn to play and engage. The arts also provide many opportunities for children to help explore their growing range of emotions. In this middle picture, we see a little one dancing along to a song explaining emotions and facial expressions. These types of songs paired with dance and movements can really help children learn about how to express a variety of different emotions. For example, how does my body look and feel when I'm sad versus when I'm mad? Or how does this music make me feel? Does it make me feel happy, sad, maybe even scared? The arts also provide a space for children to build a sense of identity and belonging.

Larger-scale art projects, like this one pictured on the right, can offer a great opportunity for very young children to work on something together. We see two children are working on a painting in this picture. They're each adding their own specific contribution as well as learning how to share both physical and intellectual space, negotiating which part of the painting they're working on independently and which parts they're working on together. The arts provides a rich environment to explore cultural identity, as well. For children who are dual language learners, engaging in art experiences that are culturally relevant as well as art experiences that allow the child to visually describe their experiences can be particularly meaningful.

I wanted to share with you this really lovely example of using art experiences as a way to help children build awareness of themselves and others. This center-based program, Children's Place, had children in their program work together on a painting. Then they posted these buddy pictures alongside pictures of the children playing together. They used this art experience as a way to talk about sharing, cooperating and creating together. The shared experience and the visual reminder of it provides such a nice structure for the social and emotional skills that this class is working on. Home visitors could consider using this type of activity to help with sibling relationships or developing cooperation and teamwork between child and parent, as you can see in this set of photos from a home visit in Maryland, or even consider setting up a buddy art as a socialization experience for young children. Teachers and home visitors can also help children express and explore their emotions through the arts.

Consider this little boy on the left, for example. He's having a hard time. Think about how this teacher might help him better understand his emotions using this activity. What might she ask him? What behavior might she model herself? As adults are working on art projects with young children, they might consider modeling, expressing their own emotions through art. For example, this adult might model using the paint as an outlet for their emotions. They describe what they are making, what they are feeling and how they are expressing it through art.

This teacher might say, "I'm feeling tired today, so I am moving my hand in big, slow circles. I'm moving my body and creating a pattern in a way that expresses how I'm feeling." Dance and music are other fantastic opportunities for expressing emotions, too. How can we move our bodies to express what we're feeling? How might this little boy move his body and his scarf in a way that suggests he's feeling happy or create music that reflects our mood? Are we feeling energetic? Are we feeling tired? Are we feeling calm? So, just like we use the arts to express our emotions, the arts are also a wonderful way to support children's developing language and communication skills, so let's look at a few examples of those, as well.

We know that children love to sing and dance and imitate, and before children have a really large, productive vocabulary, they can enjoy expressing what they understand – that they understand what adults are saying by joining in familiar songs and dances. By joining in and moving their bodies, children are demonstrating that they understand and that they want to participate, just like we see in this picture on the left of a parent-child group. Songs and dances are particularly helpful for dual language learners, as well. Songs help children remember new words, and movements help children connect meaning to the words that they are learning. Written language is built on the basis of recognizing visual symbols, and there's a reason that children's books are full of bright, beautiful artwork. Seeing and understanding that pictures and books represent real things in the world is an important step in children's emergent literacy skills.

For young children, picture books without words can be a wonderful way to begin to connect spoken words with imagery. Picture books without words can be particularly helpful for adults to facilitate this learning, so without worrying about reading the exact words on the page, the adult is free to describe the picture, the image, or the symbol on the page in more detail, and this can help the child make those

crucial connections. In our last example here, another important emergent literacy skill is learning to make marks on a page and beginning to understand that these marks can represent something else. Early art experiences, like drawing or scribbling, and finger painting, are absolutely fundamental to help children build these skills.

And for something like scribbling on a page, it can be easy for parents or other adults to miss that these scribbles are actually foundational skills that are helping children build the motor and cognitive skills that will later allow them to read and write. And so, I really love this idea that's pictured here of posting developmental standards on a board along with children's artwork for families to see, and the one – The examples that are pictured here are state standards, but you could imagine doing this same thing with the goals from the ELOF if you wanted. Okay. So, now we're going to watch another video of a family child care - from a family child care provider, and as you watch this video, I want you to think about these following questions and maybe start answering some of them in the chat box. So, how is the adult supporting the child's language learning? What is the child learning, and how might these techniques support dual language learners? Go ahead and play the video.

[Video clip begins]

Woman: This one.

♪ The wheels on the bus go ♪

♪ round, round, round, ♪

♪ round, round, round, ♪

♪ round, round, round. ♪

♪ The wheels on the bus go ♪

♪ round, round, round. ♪

♪ All through the town. ♪

♪ Driver of the bus says, ♪

♪ "Move on, please." ♪

♪ "Move on, please. ♪

♪ Move on, please." ♪

♪ Driver of the bus says, ♪

♪ "Move on, please." ♪

♪ All through the town. ♪

♪ Babies on the bus says, ♪

♪ "Wah, wah, wah." ♪

♪ "wah, wah, wah. ♪

♪ Wah, wah, wah." ♪

♪ Babies on the bus says, Wah ♪

♪ wah, wah." all through the town. ♪
♪ Mamas on the bus says, ♪
♪ "Shh, shh, shh!" ♪ ♪ "Shh, shh, shh! ♪
♪ Shh, shh, shh!" ♪
♪ Mamas on the bus says, "Shh, ♪
♪ shh, shh!" All through the town. ♪
♪ The horn on the bus says, ♪
♪ "Beep, beep, beep!" ♪
♪ "Beep, beep, beep! ♪
♪ Beep, beep, beep!" ♪
♪ Horn on the bus says, ♪
♪ "Beep, beep, beep!" ♪
♪ All through the town. ♪

[End video clip]

Amelia, are you there?

Amelia: All right. So, how is this song supporting language learning? I'm seeing a lot of answers coming in – in the chat boxes already here: communication, mimicking of hand movements. Working on expanding the child's vocabulary, memory.

And so, with this one activity, this family child care provider is able to provide this really rich experience where the child is able to interact, participate, work on language skills, engage, have this really fun and meaningful experience. Music also provides a rich environment for language learning, but the visual arts can also be a wonderful space for building these skills. Just like the arts provide opportunities for adults to model emotional expression, the arts also offer a wonderful context for modeling language.

Encouraging young children to talk about their artwork supports language and communication skills in a variety of ways. Talking about their artwork helps children connect what they are drawing, the symbol that they have created on the page, to things, feelings, or experiences in their life. And when we're talking to young children about arts, it's important to think about our own language, as well. What kinds of questions encourage children to share their own unique thoughts? For example, even if an adult thinks that they know what a child is drawing or creating, asking a question about it like, "Tell me what you're working on?" or, "What is happening in this picture?" is often a better tactic than commenting on the picture. "That's a nice tree. You drew four apples," for example. This first approach gives children space to explain that they are creating exactly how they want to explain it, and of course, what we think is a tree may not actually be a tree at all. For children who are dual language learners, encouraging and welcoming responses to questions in both languages, and at times expect the continued drawing or gestures may be how the child chooses to answer the question.

So far, we've talked about the arts support physical development, social and emotional development, and language development. Cognitive development, which includes reasoning, memory, problem-solving and thinking skills that help children understand and organization their world, is not often

associated with the arts, but open-ended art experiences provide a wonderful environment to build these skills. As we have been doing, let's look at a few examples.

Art, for adults and children alike, can often be an immersive experience, and the textures, colors, sounds, designs, and rhythms of art experiences encourage children to explore and engage in order to understand better. In the picture on the left, we see an image of a young boy who is immersed in creative exploration. He started using his fingers to paint, but has moved on to other ways to explore creating art. We can imagine him thinking, "What does the paint feel like on my arm? What happens if I put paint there? Can I use my arm to paint? How does painting look like when I use my arm versus when I use my hands?" And perhaps finally, "I'm covered in paint. What should I do now?" Infants and toddlers aren't exactly multiplying and dividing yet, but they are building foundational mathematical skills. One of the important prerequisites is spatial awareness – understanding objects and how they move in space. In this photo, we see a group of toddlers working on holding and using musical instruments. They're learning about how to shake the maraca and tap out a rhythm.

To do this, they need to understand how their bodies relate to each other as well as the musical instruments that they're holding. And in this last picture, we can – As we've been talking about, the arts provide many opportunities to solve problems. "How can I get paint onto this piece of paper?" for example. "How can I create something that I really like that pleases me? How do I make this sound with the instrument? How do I move my body?"

You can imagine that this little girl is thinking about how she wants to add more color to the painting that she was already working so hard to create. The arts, particularly music, can also help build another foundational cog – cognitive skill: using and understanding patterns. Patterns aren't only visual, like stripes on a shirt, but they can also represent regular, predictable happenings, like the changing of the seasons or even that nap time always happens after story time. Being able to recognize patterns helps us to better understand and organize our life experiences. Music, with its regular rhythms and beats, is a wonderful medium to use to help children build this skill. In fact, one study found that infants who participated in 12 musical play sessions were better at detecting changes not only in musical patterns but also language patterns than children who participated in non-musical play sessions. During these musical play sessions, children listened and moved to music with a regular, predictable beat.

Music has rhythm, and so does language. Helping infants understand the rhythm of music by listening and moving together may help infants build skills in recognizing patterns, a skill that will help them not only with math but language, problem-solving, and more. In addition to learning about rhythm and pattern, music also provides excellent opportunities for exploration, inquiry, and creativity. In these pictures, you can see how one classroom created space for musical exploration. They collected and cleaned out tin cans of different sizes and put them out for the children to play with. There was a prompt on the wall for children to explore. Which can has the lowest sound? Which has the highest? For infants and toddlers, their teachers might demonstrate the different tones these cans make and then give the children the chance to experiment themselves on the floor or the rug. Just be sure as you clean out the cans that there aren't any sharp edges, or use full cans of expired foods.

Another idea I love: creating a pretend piano. You don't have to have fancy musical instruments for children to play and learn about music. Cans, homemade shakers filled with rice or beans, paper pianos, these are all wonderful ways to support musical play and exploration. Okay, so we have one more developmental domain to cover, and that is approaches to learning, a domain that is all about how children learn. It refers to the skills and behaviors that children use to engage in learning, including emotional, behavioral and cognitive self-regulation, as well as initiative, curiosity and creativity. And, of course, the arts are a wonderful way to build these skills, so let's look at these last three examples together. In the first picture on the left, we'll start there. One of the key skills we develop over the

course of childhood is persistence. Sticking with those tricky problems or activity is a skill we use throughout our lives.

And learning to draw and hold a crayon or a marker can be one of those tricky challenges for children, but making the marks you want to make with the colors that are pleasing to you can also be incredibly rewarding to learners young and old. This child, pictured on the left, demonstrating great persistence as he holds markers in both hands. He's making squiggly purple marks all over the paper. This child has also been diagnosed with Down Syndrome, and this art activity is perfectly tailored to help this child succeed, as he persists in this task, to explore self-regulation and expression. Providing children with engaging, open-ended activities like these creates the perfect environment for children to stretch their ability to show persistence. Being able to make sounds, rhythms, and beats is also very rewarding for learners of all ages.

Providing opportunities for children to explore with musical experiences, like the one pictured in the center allows children the opportunity to show initiative as they explore and create. And of course, the arts, perhaps more than any other subject, lends itself to creativity.

The challenge for adults: how to support children and nurture their amazing creativity without creating too many limits. In the photo on the right – right, we see a little boy flexing his creativity. He has yellow paint in one hand and blue on the other, and he seems poised to explore his creative ideas. Perhaps by interfering with the creativity of his neighbor, you can see how messy, both physically and perhaps emotionally, this creative expression is.

The trick for teachers: figuring out just the right balance of creating spaces where children can safely and freely express their creativity without too much constraint, while also providing appropriate guidelines to ensure the safety of those around them. More so than many other subjects, the arts can get messy. But that in and of itself can provide an excellent learning opportunity. This trio of three photos is a really nice example. In the first, the teacher helps the child explore and supervises him, as he experiments with how paint feels on his arm, and how he can create new patterns. Then after creating and experimenting, it's time to clean up, and the teacher provides the tools and guidance this child needs to learn about how to clean up after creating.

Staying with a task and cleaning up after you're done is an important aspect of self-regulation, and an important life skill. You can even use the arts to help support cleanup time or other transitions. Consider putting on music when it's time to clean up, or putting on soft music just before nap time to help the children wind down, and we'd love to hear from you in the chat box. What are some of your tips and tricks for when things get messy? How do you facilitate and support those experiences in your own classroom? We also wanted to make a quick note about supporting the creative process. So, for all children, but particularly for children with a disability or suspected delay, consider adding visual sequence reminders. This can be a visual representation of the steps children need in order to clean up, or you may even consider using one to help children who may be struggling with the creative process.

Even adults can easily become overwhelmed when there are too many options or materials to choose from. This has certainly happened to me before. Providing some guidance, like using these cute visual cue cards that are available for download on the ECLKC, can help young children break down the creative process into more manageable steps. Okay. We'd also love to hear more from you; so we talked a lot about how the arts supports development across domains, and now we'd love to hear your thoughts. As you've been thinking about all of these different examples, how do you use the arts in your own work? What are some of your favorite activities, and how do they support school readiness? I'll give you a few moments to think about that and respond in the chat box, and then we'll discuss some of them together.

I see so many great responses coming in. Lots of – Lots of ideas about how the arts can support choice, which is lovely. Creativity, exploring the seasons, introducing sensory tables. There's so much rich things here: cleaning up; singing a song at circle time; helping them with those transitions throughout the days. Developing arts activities that are based on what the children are interested in, creating family books, sensory boxes, talking about – talking with the parents about what music to use for transitions and routines. I love that, making connections between home and classroom. Teaching children how to independently work CD and music players. I love it. Being able – so that they can go and access and engage with the music when they want. Thinking about different rhythms, and pitches, and patterns, giving children lots of choices, so much richness here. I love it. Please do continue to share.

I think this is such a fabulous opportunity to share and learn from each other, as well. Someone talking about using some yoga, other activities, using paint sticks, singing a daily good morning song, welcoming everybody in, forming a musical band, just a lot of lovely activities. Thank you so much for sharing and engaging. Okay, so for this last little bit of the webinar, we're going to talk about environments that support the arts. And I wanted to talk about some key factors in creating these types of environments where the arts can really thrive.

So, for young children, it's unrealistic, of course, that everyone is going to sit down together and paint a picture of a tree, or even sing a song together. But we can create environments that encourage children's creativity and support learning across domains. So, we're going to talk about four elements that are a really good place to start in guiding your thinking, so making environments that are accessible, environments that are open-ended, meaningful, and, of course, developmentally appropriate.

We're going to take a look at each one of these components individually, so it's really important for any activity that the environment is accessible for children, but especially for supporting children's creative endeavors. Making the materials that they will use to express themselves easy to access, use and explore is key, so think about shelves and cubbies that have musical instruments or puppets, where even young children can crawl up and explore whenever they want to. Consider providing scarves or other accessories that children can use to express themselves as they dance and as they move, and when you're thinking about art supplies, what kind of materials can be accessible all the time? A chalkboard with water and brushes, perhaps? For materials that are messy and definitely need some supervision, think about putting them in a place where children can see them and express interest in them.

Also, what types of materials are you providing? Are the materials easy for small hands to manipulate and explore? For children with a disability or suspected delay, what modification might you need to provide in order to make arts experiences accessible to everyone? Okay. I wanted to share another video with you of a teacher, and as you watch, think about how she makes art materials accessible for her preschool class. Now, this is a preschool class. So, how might you modify the types of things that she's talking about for an infant and toddler? I'll go ahead and play the clip.

[Video clip begins]

Myra O' Leary: The children come over in the morning. They can take any and all. We have – And everybody said, "Why do you collect so many?" When you have little guys in your classroom, it is so hard sometimes to put things, to carry. They put – These are just old ice cream cups we had. We set them in here. You put your water; you put your paint. And it's easier. It's ease – And then if you need something in the middle, you stick it in there, and you take your stuff because sometimes you lose children's interest when it's too much work. "Oh, you can go do that." Well, how can we make this easier? Get your carrier."

[End video clip]

Amelia: All right. So, how is this teacher working to facilitate access for all the children in her class, and how might you modify this for infants and toddlers? Go ahead and share your thoughts in the chat box. We're talking about wider spaces, and lower cubbies for children to access.

Someone mentioned using spray bottles filled with water on the playground for children to spray on the bricks. I love that idea. It's safe and no mess, and you can explore with how the water makes patterns outside. Making fewer choices. Absolutely. Not overwhelming really young children with all of the different types of choices that you might provide for a preschooler. Smaller containers, cups that fit their small hands with just a few supplies, having paper on a low shelf, all sorts of fantastic ideas. Eye level, yes, so important, where children are able to actually see the objects, and providing really large crayons that are easy for kids to grab and use. Small utility totes, a shopping basket; that's a great idea.

So, many lovely ideas, and please do continue to share in the group chat. This is a fantastic place, as I mentioned before, to get fabulous ideas from everybody. Okay, so open-ended. One of the things that's really beautiful about the arts is that they are by their very nature open-ended, and even so, there are a lot of art activities out there that are more constrained, and I wanted to take a moment to talk about the difference between an art project and a craft project. So, I invite you to look at the two pictures on the screen. Which one do you think is an art project, and which one do you think is a craft project? In both of these pictures, children have made a representation of a butterfly. Now, the picture on the left, that is a craft project.

The children have followed instructions to make a butterfly out of some tissue paper, a plastic bag, pipe cleaners. All of these butterflies look pretty much the same. The picture on the right, that's an art project.

The child decided what they wanted to draw, and they wanted to draw a butterfly, and created a representation of what a butterfly looks like to them. If it wasn't labeled, we probably wouldn't know that this is a butterfly. The child has had the choice to express themselves and their idea of a butterfly in their own unique way. Now, this is not to say that crafts projects are bad, not at all. The children who created these learned really important motor skills. They likely practiced some spatial reasoning. They worked on following instructions.

These are all very important skills, and they need to be practiced, but they didn't have the opportunity to be creative, to make something truly unique on their own to represent their own ideas in the same way the child did that was the one that drew the butterfly. So, when choosing art activities, it's always a good idea to think about if the child will have an opportunity for artistic expression and creativity. It's totally okay to pick a craft where creative expression isn't the focus, but it's good to keep in mind the difference and provide children with a balance of both of these kinds of activities. As we already chatted about, having materials accessible to children helps a lot, and this way, children can always create something that is really uniquely them.

Meaningful. Children and adults are more likely to learn when the topic or subject is meaningful to them, and I think this can resonate with all of us. Often, the act of creating something new is meaningful to learners of all ages. And so, connecting the arts with other classroom activities can be particularly effective in creating meaningful learning experiences for children. Consider, as the picture on the left shows, aligning arts activities to a broader area of study. This classroom was focused on nature exploration, and the children created works of art that represented what they were learning about. They crafted these colorful butterfly prints, and they also had access to dress-up clothes that allowed them to create stories and games that helped to expand their learning. The arts also provide an important way for children to connect and engage with their cultures.

The photos on the right are from a Head Start classroom in Cook Inlet in Alaska, which is home to a large tribal population. This Head Start classroom incorporates the arts into their curriculum to help the children connect and learn about their way of life. Here, you can see brightly painted salmon and the children playing on a traditional drum together. Filling a space with meaningful artwork is another way that the arts can be used to enrich a child's learning environment.

This classroom in Washington State used artwork to create meaningful spaces in two different ways: First, I love this idea of printing large black-and-white photos of the children in the class and posting them along with their names and personalities. This not only helps the adults in the classroom know the children better, but it also provides meaning to the children. Seeing themselves up on the wall can make them feel special and like they belong. Second, many classrooms post children's art, but often it's sort of up and on a bulletin board. This classroom chose to post these young children's artwork right at eye level. Along with their artwork, the teachers also included a picture of that child making the artwork. This helps the child recognize that they created something, and that it's meaningful, and it's beautiful, not to mention it's at the height where they can really admire their own handiwork as they're going up the stairs and sliding down the slide. Okay. Our last category, developmentally appropriate. Especially with little ones, it's important to think about what experiences with the arts look like at a young age.

How can we create environments that support their learning, stretch their thinking while also being appropriate for their age and ability? For example, if you're working with infants who often want to put everything in their mouths, consider ways to allow them to use materials safely, like using brushes or pots filled with water and then painting on the chalkboard or outside wall.

I love how this center-based program created a creative painting experience for these toddlers. The children are all in their art smocks because we know the paint is going to be messy. The teachers have prepared paint on these easy-to-hold trays, and the children are using some of their favorite puzzle pieces with large, easy-to-grab wooden handles as stampers. The easels are at a great height for these little ones, and the teacher has also allowed the children to grab other toys that they're interested in and to use with the paint, as well.

When we're thinking about what is developmentally appropriate, it's particularly important to keep in mind children with a disability or suspected delay. Art experiences may be overwhelming, too loud, too sticky, too many choices, or the materials may be a challenge to manipulate and move. Before creating an activity, think about what modifications may have to be made in order for the child to still get the benefit of exploration and creativity. Music experience for infants and toddlers will also look a little different than for preschool-age children, of course. For infants, developmentally appropriate may mean chewing on a drum as a way to explore and understand this new tool that they can use to make sounds and rhythms on as they get older. For toddlers, providing some guidance while also allowing children to play along and explore musical beats and patterns on their own allows children to stretch their thinking in new and creative ways. Thank you so much for joining us today. We really covered a lot, and as we've discussed, the arts are part of what it means to be human and a fundamental part of child development. We hope you've come away with some new ideas and knowledge about how engaging with the arts supports school readiness across development domains, and thank you so much for sharing all of the fabulous ideas in the chat box, as well.

As you develop or adapt activities and create spaces for the arts, keep these four key components in mind: Accessible: Are the materials children use to create easy to access and use? Open-ended. Do the children have the opportunity to express their own unique thoughts, feelings and ideas? Are they meaningful? Are the art experiences connected with what the child is learning about, or do they help the child explore deep and meaningful aspects of their lives, cultures, and identities? And

developmentally appropriate. Are the art experiences and our expect – and our expectations developmentally appropriate for infants and toddlers?

Thank you, all, so much for listening. We hope this information will be valuable to you as you help programs develop rich art experiences for children and the families they serve. If you have any thoughts you'd like to share about how this relates to your work, questions about any of the content we covered today, please do leave some questions in the chat box or in the question box. I'll show a link, an evaluation link, for today's webinar in just a moment. We would love if you'd complete the evaluation. We use this information for improving our webinar presentations and planning future webinars.

And upon completion of evaluation, you can download a certificate of completion for your participant in this webinar. And if you're viewing this webinar with colleagues on one computer, and only one person is registered for the webinar, please forward the link to your colleagues who also viewed the webinar, so that they can complete the evaluation and receive the certificate of completion, as well. I wanted to mention, too, that there are many different resources that we've provided in the resource widget, so please take a moment to look at those as well to support your work, and here is the evaluation link.

Thank you so much for joining us today.

[Silence]