



INFANT AND TODDLER EXPLORERS: BUILDING STEAM SKILLS FROM THE START

CHAT BOX DISCUSSION

LOBBY QUESTION: Think of a STEAM skill that you used this morning and share it in the chat box.

- This morning, with a class of young toddlers (just over 1 year old), we explored with a tray of water outside. The children collected natural materials to experiment with what floats and what sinks.
- In a 4-year-old class, we took sticks and play dough and let the children explore how they can connect them and build a project.
- Doing activities that involve luau: pineapples, flowers, fire sticks, Hawaiian skirts. The children's ages range from 2 months to 3 yrs.
- I am preparing a lesson plan on the theme "day " and "night". I would like to plan for activities on shadows.
- In a transition class of 2 year olds, we experimented with magnets and objects in a tube to get the items to move
- We have been working in our garden watering and watching the plants grow. We harvested 4 peppers and a bunch of lettuce.
- I am a mom of a toddler and we play "I Spy" on the way to preschool in the morning instead of having screen time.
- I am a lead in Early Head Start and today we went number fishing, exploring with magnets and matching numbers.
- In the infant classroom today we were listening to music.
- Making a new spreadsheet
- Boiling the water and pouring it over my coffee in the French press
- Navigated traveling to get to my destination in time for the webinar
- Planning our pre-service schedule
- I played a fishing game using large magnets and colored fish. My toddler decided to see what the magnets would stick to in the house.
- Data Entry
- Problem-Solving
- This morning a child found a worm. He ran and asked for an insect box. He then ran to get a leaf for it to eat. He then took it to show all the other children.

CHAT BOX PROMPT: I'd like for you to take a moment to think of specific ways you already support young children's STEAM learning. Use the chat box to share your ideas.

- Creating an environment that invites exploration and discovery
- Presenting materials with "I wonder" questions.
- Asking open-ended questions
- Asking what do you think would happen if...
- Blocks
- Creating things like play dough and goop
- Painting
- Listening to music
- Singing
- Using musical instruments while moving with music
- Use a bucket for drums
- Engaging parents at home with STEAM materials
- Sensory tables with scooping, measuring and pouring tools.
- Changing out sensory table fillers: e.g., sand, water, pine needles, pine cones, beans.
- Putting together magnetic tiles
- Simple cooking activities
- Mud kitchen outside pots, pans, measuring cups and ladles
- Using uncommon materials at home visits - Oobleck, slime
- Gardening and planting. We have a garden inside the classrooms and outside as well so that they can see things grow as well as experience where we get our food
- Nature walks
- Offering new materials weekly to explore
- Open-ended materials
- Mobiles
- We use ramps and toy vehicles
- Our children have access to water and sand and we allow them to explore this freely.
- During the summer months we have a weekly water explore day where we experiment with different types of water; do things float or sink, playing with bubbles...why do they float? If the wind is going do they move faster?
- Sensory items, like sand paper
- Art activities: painting, mixing colors to examine what happens when they get mixed, painting with food like blueberries and beets
- We have a sound wall outside on the fence
- Allow time for experimenting and reasoning
- Sensory bottles
- Use of natural materials in conjunction with other activities such as block building, playdough, kitchen, etc.
- The magic of handsoap

- Dump trucks and shovels
- Spray painting
- Counting with colorful toys
- Learn about insects
- Brushing teeth
- Explore with children and model possibilities
- Counting with colorful toys
- Math language moving through obstacle course
- Puzzles
- Make homemade bubbles
- I used food coloring in bubbles yesterday. Kids watched the bubbles in the wind and the color spreading
- Routines
- Color changing flowers with food coloring in their water
- Homemade toys for homes: feely box, chips in the can, formula cans for drums, homemade finger paint, homemade playdough
- Guessing an object based on touch
- Allowing and supporting flexible thinking when they are investigating something.
- Charting ideas
- Allowing them to play without their shoes on

CHAT BOX PROMPT: I invite you to think of ways you can support different types of STEAM learning as infants and toddlers explore avocados and bananas. Either by work that you do directly with children, or how you help support families on home visits.

- Explore and discuss textures, sizes, shapes, and colors
- Paint with the fruit
- Test whether they float or sink in water
- Smell them
- Taste them
- Talk about how different they may feel
- Mash them or squish them in your hands
- observing children with disability stemming is helpful too
- Weigh them – which do you think would be heavier?
- Compare and contrast!
- Creating a fruit stand with the children.
- Design a cooking activity or make a shake
- Covering eyes and exploring only tactile
- Avocados have a very neat seed in the middle, so there are three different experiences within an avocado.
- Predict what's inside each one

- Peel them. Both have an outer layer that can be removed to explore the inside.
- Talk about what other foods can be peeled
- Compare texture before and after cut open
- Explore through mouthing
- Compare them to fake ones and pictures of them
- Plant seeds of avocados
- Count them
- Paint the skins.
- Test what will stick to each skin
- Talk about what tools you need to open up the fruits
- Singing a song about fruits
- How they change colors over time
- Let them build with them as a tool and let them use them in their own way.
- Talk about single and bunch
- Graphing for older children
- Talk about the way they roll
- Taste testing and voting
- Do they have seeds
- Exploring the process of ripening on both fruits
- What can you make with these
- Who eats them at home and in what ways. Graph responses
- Where did these come from; having books available to support the ideas
- If you have an avocado tree and/or banana plant exploring the plant and using language to explain where fruit came from, how it grows.
- Parents can talk to their child when going to the supermarket, extending learning

CHAT BOX PROMPT: How are you going to take what we've learned today and apply it to your work with children and their families? What additional tools or information might you need to support your work?

- I hope that from attending this webinar I am able to assist my co-workers and educate them on some areas where we can improve with our STEAM skill building.
- Share the ideas I have learned with Home Visitors
- I am going to focus on not manufacturing STEAM opportunities, but rather letting them happen naturally.
- More open ended questions while children are exploring
- Documenting STEAM activities to show families
- Share with teaching staff that they are already do this and how they can do more by using open-ended materials and anything they have already.
- I will use it in my home visits and I will explain what STEAM is to the parents. I will let them know STEAM is everywhere and they can apply it anytime.

- Asking open ended questions
- I want to use this as a professional development training with EHS staff
- The specific Research citations mentioned to show evidence of how it can be applied
- Support my teaching team in implementing STEAM activities in the classroom.
- We are bringing more science into our lesson plans. You gave me some great ideas about lids and magnets and how to use open-ended questions with the visit.
- Documentation boards - pictures and simple language - short and concise to share the details of the what and why of the doing:)
- I am going to encourage teachers and parents to think of ways to incorporate STEAM activities.
- I am planning to share the information with the families. I would like to model activities that build STEAM skills
- Use more everyday materials and tools to build on STEAM
- I am going to give parents handouts about STEM activities at home by using the materials that they already have at home
- CROWD= C=Completion, R=Recall O=Open-Ended questions Wh=questions D=Distancing
- Taking this information back to partner providers
- Inventory of materials :)
- Using everyday objects to help students explore and learn
- Science and technology can be learned through fun activities such as using food, animals, encouraging parents to attend socialization events, using musical toys and singing songs to help with children development
- I will introduce it to families in small pieces and have them to build with their children at home and bring it back. I will also encourage parents to be in the classroom with their children and do things.
- Share ideas with parents on how to observe their children using more open ended questions
- Understanding that it does not take manufactured materials to create learning experiences but rather letting the learning occur naturally
- Use the info for a parent workshop.
- Remember STEAM is everywhere and you do not need “materials” to get the party started
- I will have in mind STEM when doing my lesson plans
- Provide them with materials and handouts on what STEAM is and how it helps their children
- Bring more natural materials in the classroom
- I am going to point out to my colleagues on what we are already doing and give a high five for all our efforts... with that said I am going to work on some ideas to encourage parents to understand how they are can help when building inquiry
- Scaffold children’s learning while exploring with STEAM
- Be more mindful of STEAM
- I’m going to set up a STEAM station for teachers to experiment
- Science is a natural process
- Share among peers when dealing with children when the presence of Wonder is at hand
- I’ve learned to use some of my resources I already have to do different activities with my infants and toddlers...lots of good advice

- Share ideas and concepts learned in today's webinar to the teachers I supervise. I will also help them create activities and experiences that can be done at home as well at school.
- It will keep my eyes wide open for opportunities to connect these ideas to families - handouts, family nights, supporting exploration in the classroom and outside. Providing parents with information on the importance of exploration
- Provide parents with the materials to promote family involvement
- If I can focus on supplying the opportunity then I can watch the STEAM in action and actually realize they are doing it instead of thinking infants and toddlers are too young for it.
- Child directed activity
- Use some of the ideas to be more messy with things. We are not allowed to use food during activities but I want to try to use them and make it as a snack also.
- Articulate to parents how they can easily extend learning at home using STEAM
- Also providing materials available in the office
- I liked the fruit basket idea I think I may use more food activities to incorporate math and science into my planned lessons.
- Use a lot of communication throughout the day with the children and model for the parents that through language and communication children can learn through play.
- What a great webinar to get our brains working on bigger ideas but to use items we already have in our center
- Now that I have a better understanding of STEAM I will definitely use it more, including at home.
- Encourage eds to use more STEAM language
- Share with parents how to observe STEAM skills using products at home for developmental stages. If they need additional resources suggest some kits they could purchase at low cost.
- This was helpful to realize all the things we are already doing that support STEAM in the classroom