

Issue No. 10 | March 2023



















Throughout the day, your child has a lot of opportunity to participate in guided science experiences. These experiences help build curiosity, engagement, relationships, complex thinking skills and more.

A World of Wonder: Science in Early Childhood

How many times has your child bombarded you with questions about some of the most obscure things?

Children are born as investigators of the world around them- naturally curious. From infancy, they wonder as they explore cause and effect. As language builds, they quickly learn the power of why.

When children are asking questions about their world, they are seeking to resolve a gap in knowledge or mend an innaccurate understanding. Scientific inquiry and exploration provides children a structured opportunity to answer their own questions and in turn, reinforce curiosity. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7419578/

The National Science Teaching Association provides the following key principles to guide learning in early childhood:

Children have the capacity to engage in scientific practices and develop understanding at a conceptual level.

Adults who engage children in science inquiry through the process of asking questions, investigating, and constructing explanations can provide developmentally appropriate environments that take advantage of what children do as part of their everyday life prior to entering formal school settings (NAEYC 2013, p. 17; NRC 2007). These skills and abilities can provide helpful starting points for developing scientific reasoning (NRC 2007, p. 82).

Adults play a central and important role in helping young children learn science.

Everyday life is rich with science experiences, but these experiences can best contribute to science learning when an adult prepares the environment for science exploration, focuses children's observations, and provides time to talk about what was done and seen (NAEYC 2013, p. 18). It is important that adults support children's play and also direct their attention, structure their experiences, support their learning attempts, and regulate the complexity and difficulty of levels of information (NRC 2007, p. 3).

Young children need multiple and varied opportunities to engage in science exploration and discovery (NAEYC 2013).

Young children develop science understanding best when given multiple opportunities to engage in science exploration and experiences through inquiry (Bosse, Jacobs, and Anderson 2009; Gelman, Brenneman, Macdonald, and Roman 2010). The range of experiences gives them the basis for seeing potterns, forming theories, considering alternate explanations, and building their knowledge.

Young children develop science skills and knowledge in both formal and informal settings.

Opportunities to explore, inquire, discover, and construct within the natural environment and with materials that are there need to be provided in formal education settings, such as preschool and early care and education programs through intentional lessons planned by knowledgeable adults. In addition, children need to have opportunities to engage in science learning in informal settings, such as at home with cooking activities and outdoor play or in the community exploring and observing the environment.

Young children develop science skills and knowledge over time.

To effectively build science understanding, young children need opportunities for sustained engagement with materials and conversations that focus on the same set of ideas over weeks, months, and years (NRC 2007, p. 3).

Young children develop science skills and learning by engaging in experiential learning.

Young children engage in science activities when an adult intentionally prepares the environment and the experiences to allow children to fully engage with materials. The activities allow children to question, explore, investigate, make meaning, and construct explanations and organize knowledge by manipulating materials.

"The important thing is not to stop questioning. Curiosity has its own reason for existing." -Albert Einstein

Important Information

Coming Up...



March 10th: No School- PD Day for teachers March 16th: Spring Make It Take It 6pm @North

March 27-31: No School- Spring Break

April 8th: District Art Fair (More information to come)



Stay Safe: Reminders for School

- Hold your child's hand as you enter and exit our facilities.
- Please do NOT use cell phones on school property.
- Please close and lock gates (chains) when entering and exiting.
- Use caution when you enter and exit the parking lot.
- Enter the parking lot at the south end and exit the other side.
- If you are parking in the street, please be aware of traffic around you and do not block driveways or the bus pull-through.
- Please keep pets off of school grounds.
- The safest place for Preschoolers to ride in the car is in the backseat in a car seat or booster.

Universal Preschool is Here!

Changes are coming for preschool! Last April, Colorado House Bill 22-1295 passed-establishing the Colorado Department of Early Childhood (CDEC) and the Colorado Universal Preschool Program. Beginning in the 2023-24 school year, the Department of Early Childhood will support funding for high-quality, voluntary preschool for every Colorado child in their year before entering kindergarten. This Universal Preschool Program (UPK) allows families to choose the right setting for their child, whether it is in a licensed community-based, school-based or home-based preschool setting.

All children (including those that are currently enrolled in WSD3 Preschool) will need to register through a state central application system. This system is scheduled to go live on January 17th. If you want to return to WSD3 Preschool, you will need to choose it as your top priority.

Please watch for more information. You can also find more about Universal Preschool at the following websites:

- https://www.jointinitiatives.org/lco-universal-pre-k/
- https://cdec.colorado.gov/for-families/universal-preschool

Science Learning at Home





The National Association for the Education of Yound Children suggests these <u>10 ways to support science learning</u> at home:

1. Value your child's questions.

"Mommy/Daddy, why is the moon following us?" With this question, a child lets us know she is thinking about how the world works. We can respond in ways that encourage her scientific thinking.

2. Explore and find the answers together.

You don't have to be your child's encyclopedia and quickly try to answer all your child's questions. Responding with "What do you think?" or "I don't know but we can find out together" can stimulate more thought and additional questions.

3. Give children time and space to explore.

Children learn science through trial and error. They need time to experiment, try things out, and think on their own. Wait before jumping in with "correct" answers.

4. Accept that explorations are often messy.

Whether it's outdoor exploration with mud and sticks or indoors with water, children are likely to get dirty when they explore materials. Dress children in old clothing and tell them it's ok to get dirty.

5. Learn from mistakes together.

If an experiment goes wrong, take advantage and investigate with your child to see what went wrong. A mistake can lead to all kinds of possibilities and it provides opportunities for you and your child to refine your ideas, understanding, and hypotheses.

6. Invite curiosity.

Science learning begins with curiosity. Observations and questions can create a climate of discovery – key to scientific learning.

7. Support further exploration.

Intentional adult interactions with children can extend their learning. When the moment is right – maybe when she's done exploring on her own, offer a suggestion to extend her exploration. Guide your child by asking questions like, "What might happen if we try this?"

8. Encourage children to record their observations.

Writing, drawing, or taking photographs are all ways to record observations - an important scientific skill. Such records allow children to keep track of what they saw, heard, questioned, or discovered.

9. Make good use of your electronic devices.

Take pictures of a stunning butterfly, record frog sounds, use a website or app to learn more about a specific phenomenon or creature.

10. Use items you have at home to experiment and explore

You don't need to spend money buying science supplies. Here are some science questions your child can consider using materials you might have at home.