town ⊞ square

on your own. but not alone.

Using Technology as a Tool to Support Learning and Development

Marco, a four–year-old boy notices an insect on the ground while playing in the outside at his family child care provider Dana's home. He calls Dana over to take a look. "I don't know what kind of bug that is Marco", says Dana, "why don't we ask Sonja to take a picture and we can look it up when we head inside". Dana hands Sonja her phone to use the camera to snap a picture. Later in the day, the three of them do a search on the Internet to find out what type of insect it is. They also search the local library online for some books about insects that they place on hold to pick up next week.

## Guidelines and Recommendations:

Technology is a reality in our modern lives and children are surrounded by it daily. Adults play an important role in helping children to see the ways that technology can be used as a tool to help solve problems and enhance learning and communication. Guidelines and recommendations around children's technology use have changed to reflect this potential. The AAP and NAEYC/Fred Rogers Center Position Statement on Technology in early childhood recommend:

- Children under two should not engage in any passive screen time, but children 18-24 months can benefit from engaging in screen-to-screen communication.
- For children over age two, screen-time should be limited to one hour per day. Active, engaging use of technology and media can enhance learning and development when used intentionally.
- Cautions should be taken to prevent children at any age from exposure to violent or sexualized images via media, and technology should never be used in ways that are exploitative or dangerous.

Technology as the "T" in STEM:

STEM includes Science, Technology, Engineering, and Math, and these can be viewed as areas that overlap and interact. Technology is different from other STEM areas as it is not a content area that children study, but rather the tools children can use for exploration, discovery, documentation, research, communication, and collaboration. Some considerations for technology:

- Technology offers different ways to create representations of concepts and ideas.
- Technology can be a tool for communicating about learning.
- Adults can support children's understanding and positive use of technology and media by modeling, facilitating, and questioning.
- Adults' attitudes about technology influence the attitudes that children have about technology.
- Adaptive technology can offer support for children with different skills and abilities to fully participate.
- Technology is most powerful when it is part of a meaningful social interaction.

town □ square
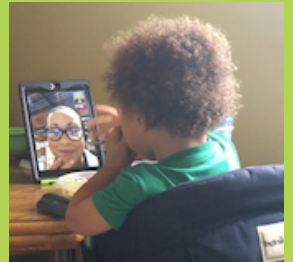
on your own. but not alone.

Using Technology and Media in Ways that Make Sense: Some questions to ask yourself:

- **Is the use of technology or media enhancing this activity in some way that is different from engaging in this same activity without the use of technology?**
  If the technology is not adding any value to the activity then it probably isn't necessary.
  For example: The hotspots in an e-book serve to extend the story by adding interesting sound effects and prompting conversation among children rather than not being relevant to the story.

- **Have I explored this technology before using it with children so I am aware of how to use it and steps I need to take to manage this experience?**
  If you aren't aware of the potential management and safety concerns it will be frustrating to you and children.
  For example: You have tried out the projector for light and shadow exploration and know that you need to place it far enough from the wall to work but also such that the cord is not stretched across a walkway. You will need to let children know that the bulb can get hot.

- **Have I introduced the technology to children to help them understand any special responsibilities they might have when using this tool?**
  Just like any other tools you introduce to children, the boundaries and expectations should be discussed.
  For example: After sharing an e-book on a tablet, you demonstrate for the children how to sign in using the kids' log in so they can find the e-book during choice. You model how to carry the tablet cradling it in both arms in front of your body when walking with it.

- **Can children use the technology in a collaborative, engaging way, rather than passively or in isolation?**
  If the activity involves an individual child engaging only with a screen for an extended time it is likely not beneficial.
  For example: The computer area has three chairs so three children sit together to select photos from a field trip to add to a slide show to be displayed for parents.

What is digital citizenship?

Digital Citizenship refers to respectful, appropriate, responsible, and safe practices of technology. Some important responsibilities and considerations as technology becomes integrated in practice include:

Digital Security/Internet Safety:
Help children protect their own and others' identities by:

- *Helping them understand how to use a password and that they shouldn't share identifying information,*
- *Model for parents and children how to share images respectfully by asking for permission and respecting requests for privacy. Ask children before you share images of them or their work.*
- *Understand and use privacy settings and discuss these with school age children.*

Cyberbullying:
Help children identify, avoid, and report cyberbullying. With school age children have conversations about:

- *What words or phrases indicate cyberbullying may be happening?*
- *How can children report cyberbullying? To who?*

Culture:
Help children learn how to respect others' ideas and opinions online by modeling and talking about:

- *Appropriate words and phrases on social media and in emails that show respect for others (digital etiquette).*

Resources:
AAP policy statement on media and young minds:
http://pediatrics.aappublications.org/content/138/5/e20162591
NAEYC/Fred Rogers technology position statement:
http://www.naeyc.org/content/technology-and-young-children
Early Childhood STEM Working Group Policy Report:
http://ecstem.uchicago.edu/
Erikson TEC Center: http://teccenter.erikson.edu/
Common Sense Media: https://www.commonsensemedia.org/
Edutopia: https://www.edutopia.org/