STEAM in the Public Library: Programs and Services for Children

STEAM in the Public Library: Programs & Services for Children

Amy Koester | St. Charles City-County Library District

Infopeople helping libraries think differently

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Hello!

- Amy Koester
- Children's Librarian with St. Charles City-County Library District, Missouri
- The Show Me Librarian
- Youth programs, services, and outreach

In today's webinar…

- What is STEAM, and why does it belong in my public library's youth services?
- Programs for preschoolers
- Programs for school-age children
- STEAM services
- What you need to do STEAM, and where to find it

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STEAM in the Public Library: Programs and Services for Children

What is STEAM?

Why STEAM instead of STEM?

- Arts in STEAM is NOT crafts
- Arts in STEAM means creativity
- Makes STEAM more accessible, more meaningful

Why STEAM Matters

- American children are lagging
- School & life success isn't just about reading
- Creativity is a top work skill

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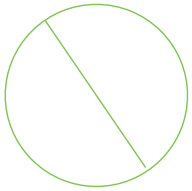
STEAM at the Library

- What's your mission?
- Literacy
- School success
- Lifelong learning

Anyone can STEAM

You don't need to be a content expert to use STEAM with library kids.



Programs for Preschoolers

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Why STEAM with preschoolers?

- Natural curiosity
- Introduce concepts
- Reinforce concept knowledge
- Vocabulary
- Hands-on learning

STEAM Stories

- Be intentional about your books
- Include non-fiction
- Tap the STEAM concepts in fiction
- Talk!

STEAM Activities

- Hands-on is integral
- Add an experiment
- Use tools
- Make something
- Provide options

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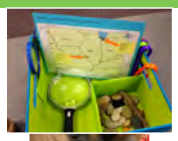
Observation Stations

- Exploring things close-up
- Sensory experiences
- Things that grow & change
- Tie to books



STEAM Programs

STEAM Preschool Storytime

- Start with a book
- Talk about the STEAM concepts
- Ask (and answer) questions
- Hands-on activities
- Supply at-home options

Take-Home Kits

- Build around a topic
- Pack a few books
- Add some songs
- Include activity instructions

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POLL

Can you think of one of your existing preschool programs that you could modify to include a STEAM element?

Please type your answers into the Chat Box.

Programs for School-Age Children

Why STEAM with school-age children?

- Curiosity
- Reinforce basic concepts
- Multiple literacies
- Creative problem-solving
- Developing personal interests

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Science Programs

- Introduce your concept
  - Books!
  - Images & videos!
- Take questions
- Pose a challenge
- Time to build
- Test & observe

Technology Programs

- Meet kids where they are
- Introduce new tech
- Tablets & media creation
- Circuits & electricity
- Programming & gaming

photo from MaKey MaKey: An Invention Kit for Everyone

Engineering Programs

- Build something
- Give direction, but leave room for creativity
- Variety of materials
- Share examples
- Test & compare structures

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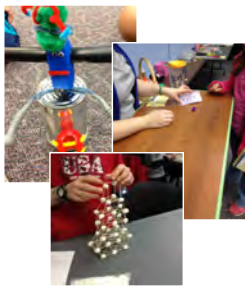
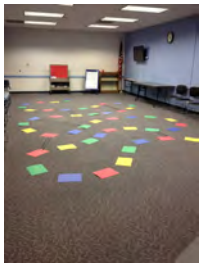
STEAM Programs

- Find the STEM potential in arts & crafts
- Create with atypical materials
- Provide context for activities



Math Programs

- Don't call it a "math program"
- Find the math in games
  - Puzzles!
  - Board games!
- Spatial thinking
  - Origami
  - Simple weaving



POLL

Can you think of one of your existing school-age craft programs that you could turn into a STEAM program?

Please type your answers into the Chat Box.

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STEAM Services

Displays

- Make them attention-grabbing!
- Fiction and non-fiction
- Range of reading levels
- Visual interest
- Realia

Databases & Apps

- Highlight what you've got!
- Shelf talkers
- Tablet time
- Handouts
- Demo in programs

photo from Digi-tots Playtime, by Stephen Tahya

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STEAM Readers' Advisory

Things to keep in mind:

- Non-fiction isn't just for homework
- Different ways of reading
- Stories with STEAM themes
- Pairing materials

POLL

Do you venture into the non-fiction stacks when doing readers' advisory with children?

Please type your answers into the Chat Box.

What you need, and where to find it.

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Resources: Books

Activity Ideas

- Janice Van Cleave
- Kids Can Press

Great Publishers

- Pebble Plus
- Jump! from Bullfrog Books

Authors/Illustrators

- Gail Gibbons
- Steve Jenkins

Resources: Blogs

Library Blogs

- The Show Me Librarian
- Library Makers
- Little eLit
- Abby the Librarian

Other Blogs

- Teach Preschool
- PreKinders

Resources: Websites

- Science Sparks
- Fun Science from National Geographic Kids
- Bedtime Math
- Mixing in Math
- Wonderopolis
- Pinterest (lots of STEAM boards!)

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Supplies to Start

- Consider your STEAM service goals
- Gather recyclables
- Procure the basics

Funding, Grants, & Partnerships

- Budget
  - No amount is too small
  - Don't be too modest
- Grants
  - LSTA Grants
  - Friends of the Library
  - Private Grants
- Partnerships
  - Local Businesses
  - Local Schools

Wrapping Up

- STEAM has a place in public library youth services
- Existing programs can be modified with STEAM aspects
- STEAM services means more than just programs
- Lots of resources are available to help

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Questions?

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