

# HOW TO GET STARTED WITH STEAM TODAY

*in your Preschool Classroom*



[www.preschoolsteam.com](http://www.preschoolsteam.com)

*Science | Technology | Engineering | Art | Math*

# WHAT WILL YOU LEARN BY THE END OF THIS VIDEO

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- Understand what is STEAM
- What STEAM looks like in an Early Childhood classroom.
- How to get started with STEAM today!

# INTRODUCTION

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## Jamie Hand

- Creator of Handmade Kids Art and Preschool STEAM
- Co-author of Best Selling Amazon Book, STEAM Kids
- Certified Art Teacher
- Taught ages 3 through Adult
- Taught students in the classroom and online



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# WHAT IS STEAM?

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*Science | Technology | Engineering | Art | Math*

# WHAT IS STEAM?

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- STEM vs. STEAM
- It doesn't matter what you call it.
- STEM/STEAM is about encouraging students to build knowledge about the world around them by observing, asking questions and investigating.

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# WHY ADD STEAM TO YOUR CLASSROOM?

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By the time today's preschooler enters the workforce, 65 % of the jobs that will be available don't even exist today.

*Cathy N. Davidson, professor at Duke University*

# WHY IS STEAM IMPORTANT?

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- ▶ We are preparing our children to not only live in a unknown world but we are preparing **our children to build that future world.**
- ▶ How do you prepare your students for an unknown future world?
- ▶ By incorporating STEAM strategies you help engage your students in learning.
- ▶ STEM, STEAM... it's what hooks your students into learning and what keeps them curious and asking questions.
- ▶ Children are naturally curious and ask questions about how things work and why things happen.

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Encourage children to be curious, to wonder, think, play and connect with the world around them, so they will become innovators able to make great contributions to society.

*-Collections Curriculum, Heritage Museum and Gardens*



# SCIENCE

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- Science is the process of learning about and understanding the natural world.
- Experiments help develop science skills like observing, describing what they notice and comparing results.

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# TECHNOLOGY

- .....
- Technology refers to the use of tools, not just electronics.
  - Tools are used to make jobs easier.
  - Simple machines like scissors, gears, wheels, and pulleys along with digital cameras and tablets are hands on ways to experience technology.

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# ENGINEERING

- .....
- Engineering is the process of building and designing to solve a problem.
  - Engineering activities regularly happens with playing with blocks as children learn and discover about gravity, balance, shapes and problem solving.

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# ART

- .....
- Art makes learning visible and helps communicate ideas.
  - Open ended process art activities allow for new ways experiment.
  - Music and Drama are also part of the “A”.

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# MATH

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- Math is the process of understanding relationships among patterns, numbers, and shapes.
- Mathematical thinking can be incorporated into block play, dramatic play, sensory play (sand and water) and outdoor play.

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# SENSORY

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- Sensory exploration helps children build a foundation of observing and describing what they sense.
  - The five senses are the most basic way children explore, process and understand new information.

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STEAM is exploring and working together with your students to answer questions.

*-Jamie Hand*

[www.preschoolsteam.com](http://www.preschoolsteam.com)

# HOW TO GET STARTED WITH STEAM TODAY

# WHAT IS A DISCOVERY CENTER?

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- A place for scientific inquiry.
- A place where children can ask questions and discuss about provided or collected materials.
- A place where children observe, question and problem solve in a hands-on way.

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# DISCOVERY CENTER

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➤ Step 1: Decide on your space

➤ Table

➤ Shelf

➤ Container  
(Tub, Bin, Box, Basket)

➤ Tray

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# DISCOVERY CENTER

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➤ Step 2: Provide Workspace

- At an empty table
- On the floor
- On a certain rug
- A plastic tray

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# DISCOVERY CENTER

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➤ Step 3: Fill your center

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# MATERIALS FOR DISCOVERY CENTER

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- balance scales
- prisms
- cookie sheets
- muffin tins
- measuring cups
- measuring spoons
- plastic bottles of different sizes
- dirt/soil
- rocks
- sand
- sea shells
- water
- magnets
- magnet wands
- magnifying glasses
- timer
- craft sticks
- paper cups
- tweezers
- tongs
- pipettes
- cloths
- funnels

# WHERE TO FIND IDEAS:

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- Use your students' interests
- Get ideas from your current science curriculum
- Relate to your current learning theme
- Upcoming holidays
- Picture Books
- Pinterest/Google
- [www.preschoolsteam.com](http://www.preschoolsteam.com)









# REVIEW

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- STEM or STEAM (they both have the same goal)
- STEAM activities help students wonder, think, ask questions, play and be problem solvers.
- Get started with STEAM by creating a discovery center.
- Use the materials and space you already have in the classroom.

## COMING UP IN VIDEO 2

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- In our next video, we will discuss as the teacher how you can facilitate STEAM play in your Preschool Classroom.

## WHAT TO DO NOW:

- Share with me in the comments below the video, your biggest challenge or struggle, or fear of integrating STEAM into your classroom.