HOW TO GET STARTED WITH STEAM TODAY

in your Preschool Classroom



WHAT WILL YOU LEARN BY THE END OF THIS VIDEO

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

INTRODUCTION

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



WHAT IS STEAM?

Science | Technology | Engineering | Art | Math

WHAT IS STEAM?

>	STEM vs. STEAM	
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- ➤ 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.

WHY ADD STEAM TO YOUR CLASSROOM?



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.	



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

WHAT DOES EARLY CHILDHOOD STEAM LOOK LIKE?

- ➤ STEAM activities are inquiry based, open-ended activities that allow the child to explore and ask questions.
- > STEAM activities have more than one right answer or outcome.
- ➤ The importance is on the creative process and asking questions rather than the final outcome.
- ➤ As the teacher, you are a guide or facilitator to help your students further their thinking and problem solving skills.

SCIENCE

- ➤ 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.

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.

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.

- ➤ 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".

MATH

- ➤ 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.

SENSORY

- 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.

66

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

-Jamie Hand
www.preschoolsteam.com

HOW TO GET STARTED WITH STEAM TODAY

WHAT IS A DISCOVERY CENTER?

>	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.

> Step 1: Decide on your space			
	>	Table	
	>	Shelf	
	>	Container (Tub, Bin, Box, Basket)	
	>	Tray	
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➤ Step 2: Provide Workspace ➤ At an empty table ➤ On the floor ➤ On a certain rug ➤ A plastic tray

Step 3: Fill your center					

MATERIALS FOR DISCOVERY CENTER

- ➤ 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:

- ➤ 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

>	Observe your students			
>	Record what conversations you hear and what questions they ask.			
>	Use these observations to plan further inquiry and STEAM activities to scaffold student learning.			

ALLOW STUDENTS TO SHARE THEIR DISCOVERIES

• • •		
>	Peer to peer share	
>	Share photos and quotes with parents, administrators or other classrooms	
>	Create a dedicated space for share discoveries.	
	Digital photographs	
	➤ Student Drawings	
	 Collaborative Murals 	
	Child curated museum or display	
	➤ Journals	
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START SIMPLE.

• • •		
>	Go outside.	
>	Collect found objects from nature that look interesting.	
>	Back in the classroom, place the found nature objects on a table.	
>	Add a hand lens and drawing materials.	
>	Let students observe and ask questions about what they see.	
>	Use these observations and questions to lead to your next STEAM investigation.	
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REVIEW

- 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

➤ 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.