# ****Pizza Time – 15 minutes****

**“Hello, everyone, thank you for joining us today. We invite you to enjoy some pizza at the tables located in the back. In 15 minutes, we will start the Teaching Together workshop, so you are more than welcome to have fun and learn with your family.”**

# ****Welcome – 1 minute****

“Welcome to Teaching Together STEM. My name is \_\_\_\_\_\_\_\_. Today's workshop is ‘What’s the Big Idea?’. This workshop has been developed in partnership with the Children's Learning Institute and The Children's Museum of Houston. It is the first of a series of workshops that will guide you and your children to exploring science and math ideas in a safe and fun environment.”

# Housekeeping ****–**** 30 seconds

“Please be sure to sign in and pick up a handout. Parents, please monitor your child’s behavior and tend to your child’s needs so that everyone can have a positive experience.”

# Introduction – 2 minutes

“How many of you have heard of the word *STEM*? STEM stands for Science, Technology, Engineering, and Math. STEM can refer to the subjects individually or two or more working together. STEM is about exploring the world around us, asking questions about how or why something works and solving problems. Did you know that we are all scientists? Every time you cook something for your family you are using STEM skills such as creativity, problem solving, collaboration, or critical thinking. What happens if you miss an ingredient? Or add too much? You can fix your food by developing one or more of these STEM skills right in the kitchen. The main purpose of STEM learning is to apply knowledge to real-life situations and find solutions to real-world problems.”

# Agenda – 30 seconds

“Today we will watch a video, sing a song together, read a story and then you'll have an opportunity to try out the activities. Also, you will have free passes for six people to enjoy the Children's Museum of Houston.” Pass out the handouts.

# Play Video – 4 minutes

# Objective/Strategies – 6 minutes

“As we just heard in the video, The objective of ‘What's the Big Idea?’ is to unlock your child's curiosity about the world by asking questions and teaching big words. This workshop is based on two important strategies:

* Strategy 1: **Ask Instead of Telling -** As parents or caregivers, our natural instinct is to answer every question children make. But if we want to stimulate their curiosity, we can answer these questions with other questions, like, ‘What do you think?’ Avoid explaining too much; instead, ask your child to describe what he or she is observing. Talk to your children about what they see, feel, smell, taste, or hear. Exploring the senses in a scientific way helps kids begin to build STEM skills of making observations and drawing a conclusion.
* Strategy 2: **Teach Big Words -** Children in early childhood are not too young to learn and understand big words. Don't be afraid to use science and math words with your child. You can teach your child new words with a simple explanation and by using them over and over. For example, try to say ‘investigate’ instead of ‘play.’ Use the word ‘experiment’ as you cook something new. When you have activities outside you can say ‘let's explore the natural world.’”

# Handout – 30 seconds

“In this handout, you can find more alternatives for developing STEM skills in different environments, like in the Children’s Museum, the library, in the park, and at home, and you can scan the QR (Quick Response) code to get online activities through the CIRCLE Activity Collection.”

# Song and Read Aloud – 8 minutes

“Are you ready to sing a song?” Sing “If You’re Happy and You Know It”

“In today's story, you will see me ask questions about what is happening on each page, as well as ask children what they think is going to happen next.” Read the story *Mouse Paint* by Ellen Walsh.

# Activity: Invent a Color – 1 minute

**“**Today you will have the opportunity of experimenting with color mixing, as we learned through the story, with the activity Invent a Color. So, you can create a new color and name it as you prefer. With color mixing activities children use mathematical concepts such as *more* and *less*, and they have a way to measure how much paint they use through tally marks. They can count how many drops of each color they need to make the new one. Also, they develop the same creativity, problem solving, and critical thinking skills that are used in the engineering and technology related fields.”

# Activities Intro – 1 minute

“Other ways to encourage your child to act like a scientist is through activities like the ones we bring you today. Each activity is based on a challenge to build something, and if the first try doesn't result as planned, you can try to improve your design or try out new ideas. Also, the activities are connected with books, where you can find stories about developing STEM skills and have fun with them.”

* Activity: “Water Drop Art - Children can learn about surface tension by creating a picture using drops of colored water. They will gently release color drops onto wax paper to create a shape or picture, then lay a sheet of construction paper directly on top. Wait about 20 seconds to allow the paper to absorb the colors and see what happens when the water hits the construction paper. This is a fun way to make art and science at the same time.”
* Activity: “Does Your Nose Know? - Children have to solve the mystery inside the shakers using their sense of smell. Exploring the senses in a scientific way helps kids begin to build skills of making observations and drawing conclusions. The main idea is to encourage your child to discover what is inside the Mystery Shakers by answering the questions of the game and stimulating their natural curiosity.”
* Activity: “What Is Magnetic? - Your child can wonder what objects can be picked up with a magnetic wand. First children need to classify the objects into 3 categories. Objects that you think will be picked up by the magnetic wand into one pile, objects you are not sure will be picked up by the magnetic wand in another pile, and objects you definitely don't think can be picked up by the magnetic wand in a third pile. Then you will use the magnetic wand to test which objects are magnetic and which are not.”
* Activity: “In this activity, children can pretend they are nature detectives. First, they need to make a magnifying glass to explore the natural world around them and then they can use the critter chart to record how many bugs they find. Children enjoy being outdoors and learn through exploring and observing nature.”

# Stations – 30 seconds

Invite parents to rotate to the stations: “Remember, you can take the crafts you make, but please leave the supplies at the table. I'll be around to guide you if you have any questions.”

# Closing & Survey – 5 minutes

“Thank you for joining us! We hope that you have learned useful strategies that will encourage more STEM in your everyday activities. Your feedback is important! Please help us by filling out a survey, we would love to get your input on today's workshop.”