# NARRATIVE FOR STEM CAREER PRESENTATION (**Grades K-2**)

**Slide 1 – STEM & Your Future**
Welcome to a presentation on STEM and your future.

**Slide 2 – What is STEM?**
What is STEM? STEM is an acronym. That means that each letter in S.T.E.M. stands for a word. STEM stands for Science, Technology, Engineering and Math. It's important you learn this now, as you will hear STEM for the rest of your life, so let's go through it.

**Slide 3 – Science**
"S" stands for science.

**Slide 4 – Technology**
"T" stands for technology.

**Slide 5 – Engineering**
"E" stands for engineering.

**Slide 6 – Mathematics**
And "M" stands for math or mathematics. Math and mathematics mean the same thing.

**Slide 7 – Why is STEM Important?**
Why should you care about STEM? Well, for starters, it creates high paying jobs. We all want to have jobs in the future that provide us with lots of money, right? That way you can buy whatever you want. Want a nice car? A big house? A Jacuzzi? A career in STEM is the way to go. Having a STEM-related job is lots of fun. You get to discover things before anyone else, you receive special recognition for your accomplishments, and of course, can make lots of money. You get to use the most advanced technologies to discover and make new things possible. It's a great life.

STEM also solves problems. We have cleaner air and water, better medicines & medical technologies that have extended our lives, etc. It was not too long ago that the average person would live to be about 50 years old. Today, your life expectancy is almost 100 years old. This is because of STEM.

Solving so many of our problems improves our quality of life, and that in turn creates a better world for everyone. Everybody gets to benefit from STEM.

**Slide 8 – We can make the world a better place with STEM**
If you choose to work in a STEM career, you will be able to accomplish amazing things.

**Slide 9 – Aerogel**
Aerogel is the least dense solid known. It's 99.8% air, and can support up to 1000 times its own weight. This material holds numerous records, including the highest insulation properties known to exist. What this means is that if you had a home in Alaska, and it was the middle of winter, if

you had this material lined into your home, you could turn your heat on to whatever temperature you'd like, and once it reached that temperature, you could turn your heat off, and it would stay that temperature the entire day. (PASS OUT AEROGEL SAMPLES TO STUDENTS)

**Slide 10 – 3D Printers**
3D printers. These are printers that can produce 3D objects. With a 3D printer, we can already print food, organs, medicine, rocket parts, and prosthetic limbs. There's so much potential here. How cool would it be to be able to print out a pizza? Or some new toys? What if you need a new organ? You won't have to wait for one in the future. We can just print one out. (DEMO)

**Slide 11 – Robots**
Robots are making the world a much better place. There are so many beneficial things that can be accomplished with robots. Robots are already used for search & rescue, but they can also be found in hospitals; robots are assisting doctors in surgery. Robots also have a bright future in space exploration. NASA has a robot called Robonaut, which helps astronauts do work in space.

By being part of this future, you will have the opportunity to either build the robots, program them, or run experiments with them…all the while making lots of money. In the future, many people will work alongside robots. This is already happening at an Amazon center in Tracy, California. (SHOW VIDEO)

**Slide 12 – We can do lots of fun stuff with STEM.**
Because of STEM, the future is going to be a lot of fun. There will be incredible things that you can do, all because of STEM.

**Slide 13 – Balloon Ride to Space**
How does riding a balloon to space sound? In the near future, you will have the opportunity to do so. You would get to spend two hours above the Earth, and then float back down to the ground. This will available in the near future. (SHOW VIDEO)

**Slide 14 – Space Jumping**
Ever wanted to jump back to Earth from the edge of space? Soon you will have that opportunity. This was successfully attempted in 2012 by Felix Baumgartner. As a result of that effort, three new companies have formed. They are developing spacesuits that you and I would use when jumping from the edge of space. This activity will be available in the near future. The video you're going to see is the body-cam footage from the 2012 jump. (SHOW VIDEO)

**Slide 15 – Space Elevator**
The space elevator is what it sounds like…an elevator that can take you into space. This would be the greatest construction project in human history. Building a space elevator will make access to space much more affordable. Right now, it costs about $10,000 per pound to send something into space. With a space elevator, the cost could come down to $100 per pound…a huge cost difference. It would also allow for daily trips to space. (SHOW VIDEO)

**Slide 16 – Spaceship Building**
A career in spaceship building is now possible. This is happening right now in Mojave, California. Trips to space are planned in the near future, and eventually trips to the moon and Mars will be possible. (SHOW VIDEO)

**Slide 17 – Underwater Buildings**
If you've ever wondered what it would be like to live underwater, then you're going to have the opportunity to find out. There are plans for the development of large underwater hotels, and also permanent residences. Some people want to permanently live beneath the ocean's surface. It is very likely that, in your lifetime, you can choose to live on land, underwater, or for a limited time, in space. (SHOW VIDEO)

**Slide 18 – Questions**
**(**Take questions from your students.)