



HELLO VOLUNTEERS!

Thank you for volunteering for our COSI On Wheels program! **The Incredible Human Machine** is one of five traveling assemblies / hands-on experiences for students in grades K-6. During this program, students will learn about the complex systems within the human body, and explore how healthy choices today can keep their own “incredible machines” in working order. Here are some things you can look forward to on the day of the event.

The students’ day begins with a 45-minute assembly during which the COSI Educator will introduce the concepts of the human body’s systems, nutrition, and fitness. With the COSI Educator, students will use what they know about the incredible “machine” of the human body to “fix” the broken COSI engine. During the assembly the students will explore how the brain functions, explore well-balanced meals, and examine the difference between resistance and cardiovascular exercise. The assembly is followed by hands-on activity sessions during which the students can further enhance their knowledge of the human body with your help!

The COSI On Wheels experience is designed to encourage children to ask questions and explore science. Your role during the day will be to help guide students during the hands-on sessions. You do not have to be a science expert to be a COSI On Wheels volunteer! We would like everyone to have fun and learn on the day of the program, including you! Be sure to dress comfortably because you may be on your feet for the better part of the day!

Prior to the assembly, you will be given an orientation so that you can become familiar with the program’s hands-on activities, which are listed on the back of this letter. It is important to be on time for this orientation because we have only 45 minutes to get to know each other and learn all of the activities and the scientific concepts behind them. COSI On Wheels has five different traveling programs, so we rarely bring the same program to a school two years in a row. Even if you have volunteered for us in the past it is important to attend the orientation to learn the new information about the all-new stations for **The Incredible Human Machine**.

Above all, you should know that you are a vital part of this COSI On Wheels experience. It is impossible for **The Incredible Human Machine** to be a success without you! We at COSI, as well as the students and faculty at your school, appreciate your time, energy, and support. Be prepared for a day filled with science, learning, and FUN!

Sincerely,

The COSI On Wheels Team

## Top 10 Things Every COSI On Wheels Volunteer Should Know

- 10) Get excited! The students get out of the experience what the volunteer puts into it. Your energy is contagious, as is theirs!
- 9) Wear comfortable shoes! You may be standing, stooping, bending, or leaning for long periods of time.
- 8) Layer, layer, layer! Sometimes the gym feels like you've just stepped off an airplane at the equator, while other times your lips turn blue from the frosty air. You can never tell what the temperature in the gym will be!
- 7) Bring water. You will be talking with the students all day, and it is quite refreshing to have something to wet your whistle throughout the day.
- 6) Ask questions! To the students, yourself, and the Educator. You are not expected to know all of the answers. In fact, it is a much more rewarding experience to have the students discover the answers through experimentation. You will be surprised at how a student will jump right into something to try to answer their own question.
- 5) Keep your hands clean. This can be a tough one, but make sure it is the students that are doing the experimenting, and the clean up!
- 4) Don't underestimate the abilities of the students. It's okay for them to try and fail, then try again.
- 3) Have fun! This is an informal setting with very active experiments. The kids love trying things for themselves while learning at the same time!
- 2) Learn! Regardless of your experience, there are plenty of opportunities to learn new things. This is a very fun way to expand your brain.

**And the #1 thing you should know is.....**

- 1) Thank you, thank you, thank you! We could not do this without you. Your time and effort is very much appreciated and you have really made a difference in a child's life!

## THE INCREDIBLE HUMAN MACHINE HANDS-ON ACTIVITIES

<b>Brain Games:</b>	Exploring the limits of their processing power, students will interact with a series of illusions designed to trick their minds!
<b>Build a Meal:</b>	Choosing healthy components from the five food groups, students will find what it means to design their own “well-balanced” plates.
<b>Extreme Humans:</b>	Students will calculate and record their body measurements compared to the most “extreme” humans who have ever lived.
<b>The Great Heartrate Race:</b>	After learning how to find and measure their pulse, students engage in cardiovascular activity to find their active heart rate.
<b>Humans Are Gross:</b>	Using tools from the “body shop,” students will explore the “gross” statistics behind their snot, spit, blood, organ sizes, and more.
<b>Just Dance*:</b>	Students will explore how cardiovascular exercise can take many forms – including dance and play! – using interactive games.
<b>Mr. Bones:</b>	Students will assemble a life-sized puzzle of the human skeletal system while learning how our 206 bones give us our structure.
<b>Sticks and Stones:</b>	Using real X-rays, students will compare healthy and broken bones, learn how to read X-ray images, and tell stories of their own.
<b>Sugars and Fats:</b>	Sorting vials of sugar and vials of fat, students will explore how common foods contain surprising amounts of these nutrients.
<b>Take A Closer Look:</b>	Using a high-powered handheld microscope, students will explore the textures and functions of the human body’s surface structures.

\* The *Just Dance* activity is done at the start of each hands-on session with students together as a large group before they begin their hands-on station explorations.