

# Welcome to Siemens Science Day!

## Guide to a Successful Siemens Science Day Experience

### Dear Siemens Science Day Leader:

Thank you for volunteering your time, energy, and creativity to help inspire the next generation of scientists! You'll be able to download easy-to-use core activity plans containing the instructions and worksheets you need to lead a Siemens Science Day effectively. The activities are flexible enough to be conducted for classroom groups of any size, from two to 200 students. Each core activity is explained step-by-step, and though they are designed to fit a one-to-three-hour time slot, extensions are included for longer periods of time. Have fun and good luck!

### Planning for Your Siemens Science Day Event

As a Siemens Science Day Leader, you have a tremendous opportunity to present interactive, hands-on science to students! You are a special visitor to the class, so students will be naturally motivated and ready to hear what you have to say. Have fun and enjoy the day; students and teachers will be glad you came!

You have the option to demonstrate one or more real-world science activities. The following activities are explained in detail:

- (1) Eggs Away!;
- (2) Mag-neato!; and
- (3) Bag O' Circuits.

<b>TWO WEEKS BEFORE YOUR VISIT:</b>	• Confirm with the teacher the Siemens Science Day schedule, number of students, classroom arrangements, and directions to the school.
	• If the teacher has taught a lesson or presented material prior to your visit, you may wish to review these materials in preparation.
	• Recruit additional Siemens volunteers.
	• Place an order for Siemens Science Day promotional items.
<b>ONE WEEK BEFORE YOUR VISIT:</b>	• Conduct an inventory of your Siemens Science Day materials for the activity you will be leading.
	• Choose the activity version that best fits the time allotted for your visit.
	• Conduct a practice run of your demonstration, making adjustments to the activity as necessary.
<b>ONE OR TWO DAYS BEFORE YOUR VISIT:</b>	• Photocopy student reproducibles as necessary.

## During Your Visit

Arrive at least half an hour before your scheduled class to begin setting up, and to complete any advance preparation. When you walk through the classroom door, the students will have plenty of questions about who you are and why you are visiting.

1. Introduce yourself and colleagues to the class and describe the purpose of your visit.
2. Tell the students about Siemens and yourself. Answer the students' questions. Use the following pointers to help you prepare for what students might ask!
  - Why are you here today? *Explain to students that you are a visitor to the class, and that they will be experiencing a science field trip without leaving the school!*
  - What is your job? *Provide a brief overview of who you are and what you do.*
  - What will we be doing today? *Let students know that they will be involved in an exciting science activity. Provide some information about the topic, and answer any questions they might have.*
3. Present the activity goals clearly (e.g., "Today we are going to do...").
4. Ask the students a few questions to get them engaged and to determine the extent of their knowledge:
  - Do you know what science is? What about technology? *Science is the study of nature and our physical world by testing, experimenting, and measuring. Technology uses science (and engineering) to achieve practical things.*
  - How many different kinds of science and technology can you name? What are the examples of science or technology that you can see right in this room?
  - Why do you think it's important to know about science?
5. As a visitor to the classroom, you will want the students to warm up to what you say. An easy way to accomplish this is to perform the following icebreaker, which will involve

students in the activity you are leading. This should be SHORT—it's designed to be completed in less than five minutes, and is meant to progress naturally to the activity topics below.

**Icebreaker Activity:** Tell students that you need a volunteer. Ask that student to pick a number between 1 and 5. Announce the number to the class, and tell students that each of them will need to think of and write down that many science facts related to the activity topic you will be leading. Collect all the papers when students are done, and read the more humorous/interesting facts aloud.

## Presentation Tips

- Remember to make eye contact and have fun; you are a special visitor. The students will appreciate having you there.
- At the beginning of your visit, outline what you will be doing with students so they know what to expect.
- Vary your tone of voice to keep students interested.
- Move throughout the room as you teach.
- Allow for a short break if students get restless.
- Demonstrate that you are patient, organized, and in control.

## Activity Overviews for Siemens Science Day Leaders

You'll be able to download turnkey instructions for conducting the activities.

- Activity 1: **Eggs Away!** (Gravity)
- Activity 2: **Mag-neato!** (Electromagnets)
- Activity 3: **Bag O' Circuits** (Electricity & Circuits)