**Step 1: Define the Objectives of your Outreach Event - Students**

SWE’s mission is to stimulate women to achieve full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, and demonstrate the value of diversity.

Your Outreach event can address all of these.

***Decide the specific objectives for your event,*** *using this list of possible Outreach objectives.*

Select 3 to 5 objectives from the list. Circle them. Move to step 2.

**Outreach Objectives for Students**

|  |  |
| --- | --- |
| Outreach Objectives – What | Outreach Objectives - How |
| * Develop students’ understanding of what engineers do. * Change negative attitudes about engineering careers. * Help students draw connections between their interests/passions and engineering. * Build students’ self-confidence skills as they relate to engineering. * Build students’ critical thinking skills as they relate to engineering. * Enable students to meet and network with engineering role models. * Help students see that engineering is a viable career for women. * Enable students to identify what the next steps to becoming an engineer are. | We do this by:   * Engaging students in hands-on activities * Exposing students to different ways of thinking about engineering * Sharing personal stories and celebrating the accomplishments of women engineers * Having women engineers interact with the students * Having local STEM organizations interact with the students |

**Step 2: Select Assessment Questions based on the Outreach Objectives - Students**

*Under each objective is a list of questions you can ask to address the objective.*

***Objective: Develop students’ understanding of what engineers do.***

|  | **Strongly Disagree** | **Disagree** | **Not Sure** | **Agree** | **Strongly Agree** |
| --- | --- | --- | --- | --- | --- |
| **Before** this event, I knew what an engineer did. |  |  |  |  |  |
| **After** this event, I know what an engineer does. |  |  |  |  |  |

|  | **Strongly Disagree** | **Disagree** | **Not Sure** | **Agree** | **Strongly Agree** |
| --- | --- | --- | --- | --- | --- |
| Engineers are innovative.  (They come up with new ideas and inventions.) |  |  |  |  |  |
| Engineers are creative. |  |  |  |  |  |
| Engineers do work that is hands-on. |  |  |  |  |  |
| Engineers work in many different kinds of career fields. |  |  |  |  |  |

***Objective: Change negative attitudes about engineering careers.***

|  | **Strongly Disagree** | **Disagree** | **Not Sure** | **Agree** | **Strongly Agree** |
| --- | --- | --- | --- | --- | --- |
| **Before** this event, I was interested in becoming an engineer. |  |  |  |  |  |
| **After** this event, I am interested in becoming an engineer. |  |  |  |  |  |
| I know my friends would support my interest in engineering. |  |  |  |  |  |

|  | **Strongly Disagree** | **Disagree** | **Not Sure** | **Agree** | **Strongly Agree** |
| --- | --- | --- | --- | --- | --- |
| Engineers do work that is fun. |  |  |  |  |  |
| Engineers do work that allows them to help their community and/or society. |  |  |  |  |  |
| Engineers work in many different kinds of career fields. |  |  |  |  |  |

***Objective: Help students draw connections between their interests/passions and engineering.***

|  | **Strongly Disagree** | **Disagree** | **Not Sure** | **Agree** | **Strongly Agree** |
| --- | --- | --- | --- | --- | --- |
| I see a connection between my interests/ passions and engineering. |  |  |  |  |  |

***Objective: Build students’ self-confidence skills as they relate to engineering.***

Think back on your day, look at the following items, and check the box that best completes the sentence.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Improved** | **Stayed the Same** | **Got Worse** | **I Don’t Know** |
| My confidence in problem-solving... |  |  |  |  |
| My confidence in building and designing things… |  |  |  |  |

***Objective: Build students’ critical thinking skills as they relate to engineering.***

Think back on your day, look at the following items, and check the box that best completes the sentence.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Improved** | **Stayed the Same** | **Got Worse** | **I Don’t Know** |
| My ability to brainstorm solutions to problems... |  |  |  |  |
| My ability to think of many different possible ways to solve a problem… |  |  |  |  |
| My ability to use the design process (brainstorm, design, build, test, redesign)… |  |  |  |  |

***Objective: Enable students to meet and network with engineering role models.***

|  | **Strongly Disagree** | **Disagree** | **Not Sure** | **Agree** | **Strongly Agree** |
| --- | --- | --- | --- | --- | --- |
| I worked with a mentor/role model who was helpful and easy to talk to. |  |  |  |  |  |

***Objective: Help students see that engineering is a viable career for women.***

|  | **Strongly Disagree** | **Disagree** | **Not Sure** | **Agree** | **Strongly Agree** |
| --- | --- | --- | --- | --- | --- |
| Engineering is a good career choice for women. |  |  |  |  |  |

***Objective: Enable students to identify what the next steps to becoming an engineer are.***

|  | **Strongly Disagree** | **Disagree** | **Not Sure** | **Agree** | **Strongly Agree** |
| --- | --- | --- | --- | --- | --- |
| I know how to find out more about engineering if I want to. |  |  |  |  |  |

**Step 3: Add in Overall Questions and Open-Ended Questions - Students**

*In addition to the questions asked based on specific objectives, there are a few more questions you should ask to judge the success of your Outreach event.*

**Ask an overall question to get a snapshot of how successful the event was.**

- What grade would you give today’s event? Please circle the letter to show your answer.

| **A** | **B** | **C** | **D** | **F** |
| --- | --- | --- | --- | --- |

**Ask open-ended questions to determine what the participants liked and what they didn’t like.**

- What did you like most about the event today?

*(Leave enough room for the participants to write out their answers.)*

- If you were in charge, how would you change this event?

*(Leave enough room for the participants to write out their answers.)*

**A key measure of satisfaction is whether the participants would recommend the event to others.**

- Would you recommend that other kids participate in events like this?

* 1. Yes
  2. Maybe
  3. No (please explain): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Step 4: Add Demographics Questions- Students**

*Demographic questions are added so that you can analyze your survey data based on sub-groups, vs. just looking at the aggregate data. For example, did boys like the event better than girls? Did 8th graders understand what engineers do better than 6th graders?*

*Choosing the proper demographics questions will give you actionable and meaningful results to assist you in making the event even better next time.*

- How old are you? \_\_\_\_\_\_\_\_

- What grade are you going into? (*Modify this question with the grade range you invited.)*

\_\_\_ 3rd grade \_\_\_ 4th grade \_\_\_ 5th grade \_\_\_\_ 6th grade

- I am: (*Drop this question if you invited only girls.)*

a. female

b. male

- With what races or ethnicities do you most identify? Choose all that apply. This question is optional.

1. White or European American (Sometimes sponsors like to know how diverse the event was.)
2. Hispanic, Latino, or Spanish
3. Black or African-American
   1. Asian American
   2. Native Hawaiian or Pacific Islander
   3. Native American or Alaskan Native
   4. Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Step 5: Construct Your Survey- Students**

Open the document “2A – Core Student Survey”. Customize the survey by deleting any questions that do not align with your Outreach objectives and by modifying questions based on your audience (e.g. all girls, or a mix of girls and boys).