



## POWER THE FUTURE

### KDT! FIELD TRIP

In this standards-aligned, hands-on program for second grade classes, students learn about renewable energy and use the engineering process to design, build, and test wind turbine models.

#### **Part 1: Interactive Presentation**

Students will be introduced to the engineering design process as a systematic, iterative, and collaborative way to help solve big problems. They will be presented with the “big problem” of needing a renewable source of energy that does not generate air pollution. They will then be tasked with collaborating to engineer a model wind turbine.

#### **Part 2: Engineering Workshop**

Following the interactive presentation, students will work in pairs to create their own model wind turbines. This portion of the program generally takes 30-40 minutes and will be held in the Classroom on the second floor of the Sciencenter.

#### **Part 3: Museum Exploration in Chaperone Groups**

In addition to the programmatic component of your field trip (the interactive presentation & engineering workshop), your trip also includes ample time to explore the Sciencenter’s 250+ hands-on exhibits. Outside of scheduled program times, students and chaperones can explore exhibit galleries at their own pace. Please remind chaperones that Curiosity Corner, our early learning play space, is off-limits during field trips.

#### **Follow-up Activity**

Instructions for a follow-up engineering activity will be included in the flyer accompanying the KDT book. Building on the themes and skills explored while creating wind turbines, students will design and build puff mobiles -- miniature wind-powered vehicles. Puff mobiles can be made with household materials and teachers can give students specific supplies and directions, or let them be creative and use whatever they find around the house or classroom.

## Logistics

### Arrival

Please plan to arrive at the Sciencenter at 10am. Field trip groups should enter the museum via the Franklin Street entrance. Please direct bus drivers to pull up to the Franklin Street entrance via Alice Miller Way.



### Schedule

The Sciencenter team will create and share a schedule of lunch and workshop times for your group based on the number of classes and participants attending the field trip. This schedule, as well as additional information about getting to the museum, will be shared with you one week in advance of your trip. Here's a *sample* schedule to give you an idea of what to expect. If you have any questions or concerns about your group's schedule, please reach out to [fieldtrips@sciencenter.org](mailto:fieldtrips@sciencenter.org)!

| GROUP 1                                                               | GROUP 2                             |
|-----------------------------------------------------------------------|-------------------------------------|
| <b>10:00 Welcome &amp; Interactive Presentation</b> (Connection Zone) |                                     |
| <b>10:30 Workshop</b> (Classroom)                                     | <b>11:15 Workshop</b> (Classroom)   |
| <b>11:15 Lunch</b> (Community Room)                                   | <b>12:00 Lunch</b> (Community Room) |
| <b>12:55 Reconvene for departure</b> (Franklin Street Entrance)       |                                     |

\*Schedule subject to change. A schedule will be shared 1 week in advance, and will be adjusted if needed on the day of the trip. Orientation will NOT take 30 minutes, but is scheduled to run long to minimize disruptions in the event of a late arrival.

**Chaperones** should be pre-assigned to groups of children and remain with their group for the whole trip. Please share the schedule with chaperones in advance and remind them that children should be supervised at all times.

### How to Schedule a Trip

KDT! Field Trips are generally available Tuesday-Friday from January to March. Teachers in eligible districts will receive communications from the Sciencenter's education team with instructions on signing up for a field trip date.

Whenever possible, we recommend buddying up with at least one other class so that students can observe a variety of engineering solutions.

If you have any questions, please reach out to [fieldtrips@sciencenter.org](mailto:fieldtrips@sciencenter.org).