

## Activity 3

# Signs for Life

Teacher-led Classroom/Field Activity  
Science, Math, Engineering Design

*What goes in to designing an outdoor sign that conveys important information?*

### Objective:

Students design and build signs warning about the dangers fishing line and fishhooks pose for birds that live near water.

### Students will need:

- Art materials (for designing signs)
- Tools and materials to create the signs (list to be generated based on students' designs)

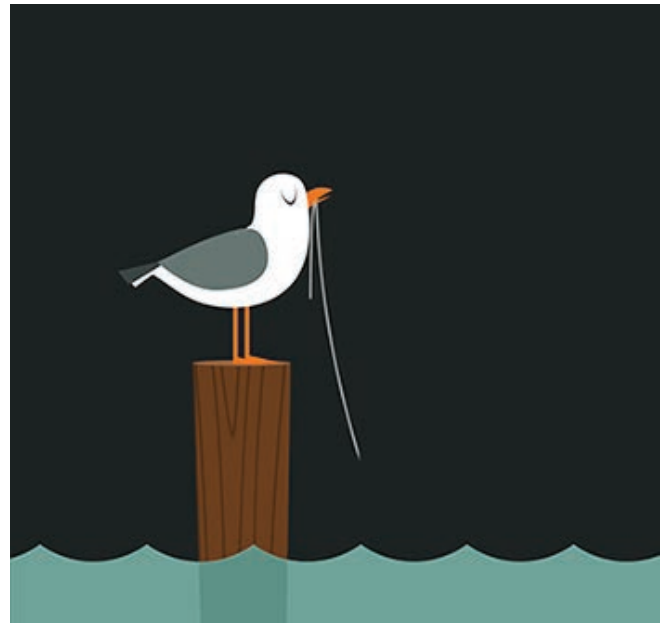
### Suggested time:

One class period to design the signs; one class period to create manufacturing “specs”; several class periods or afterschool time to build the signs

**Note:** If possible, make arrangements ahead of time to work with officials at a local park or other public area where people fish to install or display the signs that students design/create in this activity

### What to do:

1. Have students re-read the feature “Danger: Fishing Line and Fishhooks” on page 3 of the “The Watery World of Wading Birds.”
2. Show students samples of monofilament fishing line, fishhooks, and fishing lures. (Of course, don't let students handle hooks or lures.)
3. Have students work individually or in pairs to design signs to be posted at a local fishing venue warning about the dangers of leaving fishing line and fishhooks and lures in and near water where birds (and other animals) can become entangled.
4. Once students have designed their signs on paper, challenge them to think about the process of creating real signs that would be placed outdoors. Have them create “specs” for making the sign—that is, specifying the components, the materials, the



dimensions, and other factors that must be taken into account if their signs were going to be made and used under real conditions. Here are some questions for students to consider:

- What are the parts of the sign?
- Will it be attached to a structure, or will it have its own stand?
- What are the dimensions of each component?
- What will the sign be made of? What materials do we need? How much of each kind of material do we need?
- How do we make sure the sign can withstand all weather conditions?
- What equipment and tools do we need to make the sign?

The “specs” should include organized materials lists, diagrams, instructions, and notes.

5. Compile a list of the materials needed to make the signs. Work with the class to write a letter describing the project and asking parents and local businesses to contribute materials, tools, and expertise needed to construct students' signs.
6. Set aside time over a number of class periods for students to “manufacture” their signs.
7. If you've been able to make arrangements for the signs to be used at a fishing spot, organize a field trip to install them. Otherwise, create a display of the signs on the school grounds to share this important information with the school community.