Teacher Tips  An Alarming Idea

Lesson 4
Designing an Alarm Circuit

- Use the ASK page as a group discussion, then provide time for students to complete individually at their desks.

- It is difficult for students to understand that the trough is the switch. Reinforce this connection by emphasizing that the Trough = Switch. Use the large schematic diagrams (open and closed) for switch when showing the trough.
  - When the trough is full of “water” the circuit is ?? (open) and the alarm light (alarm does not necessarily mean sound) is off. When the trough is empty, the lever completes the ?? and closes the ? When the circuit is closed, what does the light look like?

- How do you make the trough complete the circuit? What do you need to add? Make connection to the “Part 2” sketch sections of IMAGINE and PLAN. Have students place the trough in the same orientation as the diagram, to be able to draw in additions to the trough that will make it work as a switch.

- Have students complete the IMAGINE pages at their own desk, before getting into their groups for PLAN.