



What will students  
be using the online  
responses for?



# TEACHER INSTRUCTIONS: Walk Through

*The Teacher Instruction sheet is always your starting point!*

Each Teacher Instruction sheet is organized in the same way, with four easy steps.

The student response section is always listed as “Step 3”

**Teacher Instructions:**

**Problem Scenario: “Emergency System”**

**The Main Problem:** The school is considering a new “Emergency System” to alert students and people in the surrounding areas in case of an emergency. Students must decide what sort of Emergency System works best. What are the issues to consider, and what system will be most effective?

Your students will be viewing this problem from a **math** perspective.

**Which alarm is best?**  
*Students must consider the factors to make an Emergency System effective, such as purpose and cost.*

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**Step 1**  
Review Stimulus Items

**Stimulus Item #1 — Various alarm system infographic**  
(students will compare the details of various alarm systems... this includes the purpose of each system, and the percentage of the budget that the system would require)

**Stimulus Item #2 — Map of the school grounds**  
(students will review the size and shape of the area that would need to be notified during an emergency)

**Stimulus Item #2b— Grid Paper (to draw your own map)**  
*\*\*\*Students should take notes as they review the Stimulus Items. If time allows, students are encouraged to conduct their own research!*

**Step 2**  
Classroom Discussion

Lead a class discussion about issues related to the topic. You are being provided a sheet to help you guide the classroom discussion.

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**Step 3**  
Student Response

**Product Option:** Divide your students into small groups. A couple of members of each group take on the role of “Alarm System Salesmen.” The others become potential customers. The salesmen must try to sell different alarm systems (using the infographic provided) giving their opinion of which system will be best for the school. The potential customers must ask key questions regarding the price, purpose, and coverage area of each system.

**Extended Response:** Have students answer the following questions using the online assessment system. Remind students to use information from the Stimulus Items to support their response.

1) Based on the details and cost of the different alarm systems, what is the best way to notify everyone at your school during an emergency? Support your answer with details regarding cost and placement and arrangement of your school

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**Step 4**  
Analysis

Rubrics to grade student entries have been provided, and all questions have been mapped to the content standards. Results can be analyzed through the online system.

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## Step 3 – Student Response:

For each problem-based scenario, teachers are provided multiple options for how the students can respond.

### Step ③ Student Response

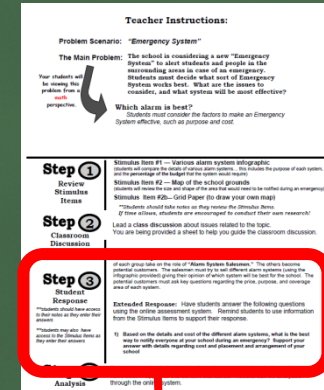
*\*\*\*students should have access to their notes as they enter their answers*

*\*\*\*students may also have access to the Stimulus Items as they enter their answers*

**Product Option:** Divide your students into small groups. A couple of members of each group take on the role of “**Alarm System Salesmen.**” The others become potential customers. The salesmen must try to sell different alarm systems (using the infographic provided) giving their opinion of which system will be best for the school. The potential customers must ask key questions regarding the price, purpose, and coverage area of each system.

**Extended Response:** Have students answer the following questions using the online assessment system. Remind students to use information from the Stimulus Items to support their response.

- 1) Based on the details and cost of the different alarm systems, what is the best way to notify everyone at your school during an emergency? Support your answer with details regarding cost and placement and arrangement of your school



The Extended Response Questions can be answered online

**Product Option:** This is an involved response that requires students to immerse themselves in the details of the problem and often collaborate with other students.

**Extended Response:** This is a written response to an open-ended question. It is most similar to what students may see on an end-of-year assessment.