

## **HOT DOG!**

### **Teaching Guidelines**

**Subject:** Mathematics

**Topics:** Statistics (Charts and Graphs)

**Grades:** 4 – 5

**Knowledge and Skills:**

- Knows the purpose of the subject of statistics
- Can represent numerical data in chart and graph form

**Materials:** None

Procedure: Distribute the handout. Students can do this activity individually or in teams of two.

The primary objective is that students make the graph properly and observe the change in the second week of sales as compared to the first week, and that they can relate the diary entries to the corresponding data on the graph.

Based on the data, a likely cause of Gus’s slump in hot dog sales is that he changed his brand of ketchup. However, there is not a “right answer” to this question, since there might be other factors not mentioned in the diary, or the slump in sales might not immediately follow the change. Whatever answer students come up with, ask them to propose a method of testing their answer (such as switching back to the previous brand of ketchup to see if that causes a recovery in sales).

# Hot Dog!

Gus keeps track of how many hot dogs he sells each. Here is the information Gus has collected in the last two weeks:

Day	# of hot dogs sold	Notes
Monday	78	Rainy today
Tuesday	85	Switched to another brand of buns
Wednesday	81	Offered three flavors of mustard
Thursday	89	Sunny day
Friday	90	Yankees won!
Monday	80	Switched to new brand of ketchup
Tuesday	65	Rainy day
Wednesday	68	Sunny day
Thursday	62	Yankees won!
Friday	58	Gave free potato chips with hot dogs

Make a graph that shows Gus's hot dog statistics for these two weeks. Then look at Gus's notes.

What advice would you give Gus to help him sell more hot dogs? Explain your answer.