

GRADE 4—PRACTICE TEST SCIENCE INQUIRY TASK

Organizing and Presenting Your Data

Directions:

Copy your data from your Student Task Booklet to the boxes below.

A. What number best describes the measurement on the ruler where you stopped the **one** magnet?

_____ cm

B. What number best describes the measurement on the ruler where you stopped the **three** magnets?

_____ cm

C. What number best describes the measurement on the ruler where you stopped the **five** magnets?

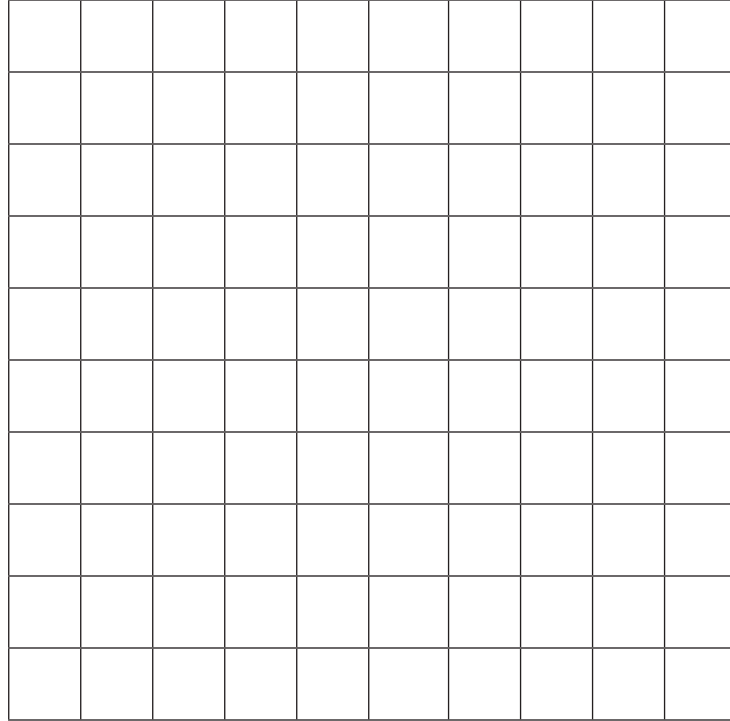
_____ cm

GRADE 4—PRACTICE TEST SCIENCE INQUIRY TASK

1. Use the data you recorded in the boxes on page 2 to make a bar graph below. Make sure your graph includes a title.

Title: _____

Ruler Measurement (cm)



Number of Magnets

GRADE 4—PRACTICE TEST SCIENCE INQUIRY TASK

Developing Explanations

Will putting magnets together make a difference in the distance needed to attract objects?

- 2.** Look at your data. What did you discover about the relationship between the number of magnets and the distance needed to attract objects? Use **your data** to support your answer.

- 3a.** Look back at your prediction on page 2 in your Student Task Booklet. Look at your data. Does your data support your prediction?

Yes

No

- 3b.** Use your data to explain your thinking.

GRADE 4—PRACTICE TEST SCIENCE INQUIRY TASK

Critiquing an Investigation

4a. In your investigation, why was it important to hold the magnets the same way for each trial?

4b. What might have happened if the magnets were held differently in one of the trials?

Making a Prediction

The students observed that the construction worker used the magnet to pick up some objects that were larger than the objects you used in your investigation. The students were surprised when the construction worker's magnet picked up a large hammer.

5. Predict how many magnets you would need to pick up a large hammer and explain your thinking.

GRADE 4—PRACTICE TEST SCIENCE INQUIRY TASK

- 6.** Think of an experimental question (cause and effect) about magnets that the students at Lincoln School might investigate. Write your new question below.

- 7.** What information would need to be collected to answer your new question?

- 8.** The students are confused when they see a construction worker use a magnet both to pick up a small, closed cardboard box off the ground and to drag a large cardboard box along the ground. What is a possible explanation for what the students saw?

