

Curriculum Embedded Performance Task

Elementary School Science

Content Standard 5.2



Catch It!

Connecticut State Department of Education
Bureau of Curriculum and Instruction

Student's Name _____

Date _____

Catch It - Investigation 1

Watch the dollar demonstration

1. What have we learned about reaction time?

- Hold the ruler for your partner
- Have your partner open their fingers near the bottom of the ruler, next to the 0 cm line. (Without touching the ruler)
- Drop the ruler and see how fast your partner catches it by pinching the fingers around the ruler.
- Write down the whole number of centimeters closest to where the ruler is caught
- Use the **Distance Chart** to find the reaction time.
- **Record** the **data** in your table
- **Calculate the average.**

Distance Ruler Dropped (in centimeters)	Reaction Time (in seconds)
1	.05
2	.07
3	.08
4	.09
5	0.10
10	0.14
15	0.18
20	0.20
25	0.23
30	0.25

2. Fill in the chart after each subject's catch. Calculate the average for each person.

Subject's Name:	Trial #	Distance (cm)	Time (s)
Average time: _____			

Subject's Name:	Trial #	Distance (cm)	Time (s)
Average time: _____			

3. Scientists document all research and share their results. Use your data to **create a bar graph** for each subject's **average** time. (You are sharing your results.)

(Title) _____



_____ _____ _____
Subjects

4. Look at the data you collected (time and distance). What did you notice about each subject's time? (Think about who had the fastest time, slowest time, fastest average time and slowest average time.)

- Fastest time

- Slowest time

- Fastest average time

- Slowest average time

5. If you were to do this experiment in a different way, how would you change about the variable? (The **variable** is the part which is changed in each test)

6. Write a testable **question** using the **variable** you chose to test.

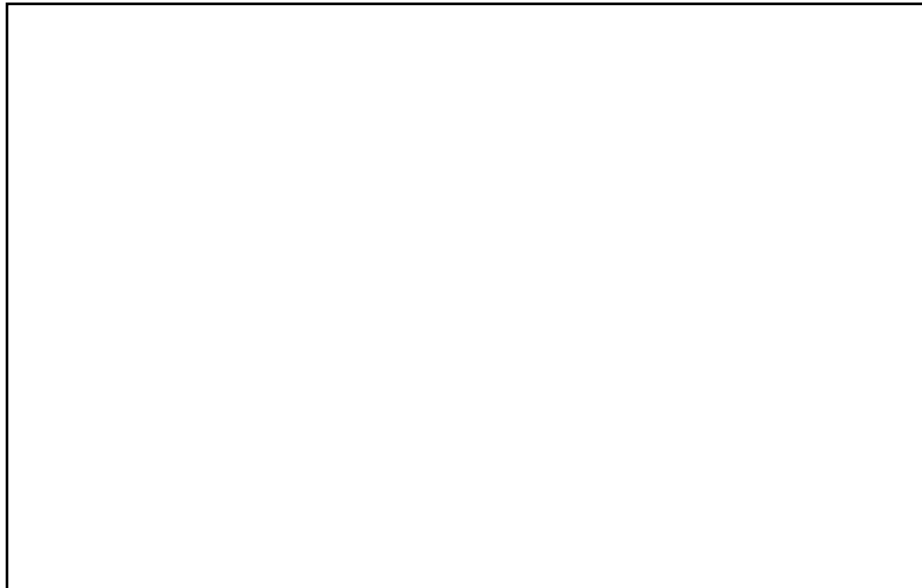
7. What could we do to make sure that this is a **fair experiment**? Each person doing the test the same way. (Think about variables!)

8. Read in your book. **Explain** how the brain and senses work together to help you catch the ruler.

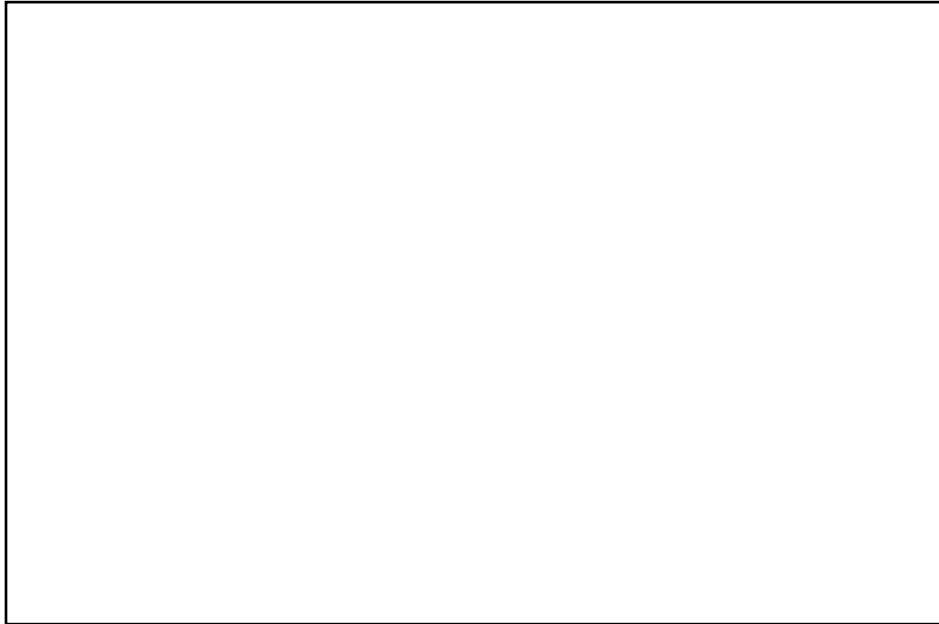
Catch It - Investigation 2

1. With your partner decide whose question is best to investigate. **Write** the question.

2. **Draw the steps of an experiment** for how you will create a fair test to answer your question. Label the materials you will use.



Before ruler is dropped



After you drop the ruler

Create a data table to record your information. **Calculate** the average times for each subject.

Subject's Name:			
	Average time: _____		

Subject's Name:			
	Average time: _____		

3. **Draw a bar graph** for the average reaction times of your subjects. Include a title, labels, and numbers.



