



TESTING THE REACTION TIME WITH A RULER DROP TEST

Name: _____

Date: _____

Partner (optional): _____

Reaction time is the time it takes your brain to sense something and tell your body to act.
In this experiment, you will measure your reaction time using a ruler drop test.



QUESTION

How fast is your reaction time?



MATERIALS

- 1 ruler (30 cm / 12 inch)
- Partner
- Table (optional)



HYPOTHESIS

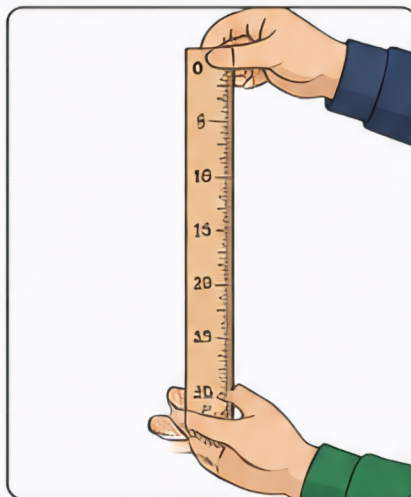
I think my average reaction time will be about _____ cm.

(Lower number = faster reaction time)



PROCEDURE

1. Partner holds the ruler vertically with the 0 cm mark at the top, letting the rest of the ruler hang down.
2. Place your thumb and index finger lightly around the bottom of the ruler, but do not squeeze.
3. Your partner says "Ready?" Wait for "Go!" Then, they release the ruler without warning.
4. Catch the ruler as quickly as you can.
5. Record the number (in cm) at the top of your fingers where the ruler was caught. This is your reaction distance.
6. Repeat 5 times.
7. Find your average reaction distance.



TIPS FOR FAIR RESULTS

- Keep your hand in the same position each time.
- Don't watch your partner's fingers.
- Do several trials and use the average.
- Try it again another day and compare!

DATA TABLE

Trial	Reaction Distance (cm) (where you caught the ruler)	Notes (any distractions, how you felt, etc.)
1		
2		
3		
4		
5		

Average Reaction Distance (cm): _____

ANALYSIS QUESTIONS

1. What was your average reaction distance? _____ cm
2. How would you describe your reaction time (fast, average, slow)? _____
3. What do you think could improve your reaction time? _____

4. Did anything affect your results today? If yes, what? _____



WHAT DOES IT MEAN?

A shorter distance means a faster reaction time.
Typical reaction distance for most people is around 10–20 cm.

Many things can affect reaction time, like tiredness, focus, age, and distractions.

CONCLUSION

Write a sentence summarizing what you learned from this experiment.
