

REACTION TIME

This super easy experiment can help kids understand the science behind reflexes and reaction time.

INSTRUCTIONS:

STEP 1: Find a flat surface with ample space to drop and catch the ruler without any obstructions.

STEP 2: Stand or sit comfortably at a table or counter with your arm extended and your hand hanging over the edge.

STEP 3: Have your partner hold the ruler vertically, with the zero mark at the top, between your thumb and forefinger.

Materials

A partner
Ruler
Observation sheet
Notebook



STEP 4: Without any warning, your partner will release the ruler.

STEP 5: Your goal is to catch the ruler between your thumb and forefinger as quickly as possible after it is released.

STEP 6: On the observation sheet, note the measurement on the ruler where you caught it. This is your reaction time.

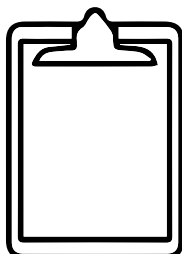
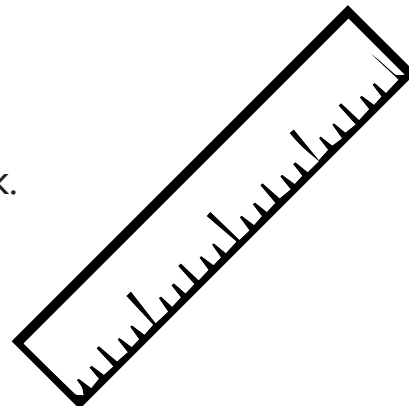
THE SCIENCE

When you see the ruler start to fall, your eyes send signals to your brain to process the visual information. The brain then sends signals to the muscles in your hand and arm to initiate the catching response.

The brain needs time to process the visual information and send signals to initiate the motor response. This processing time is influenced by the efficiency of your neural pathways and can vary among individuals.

Reaction Time Test

Use this worksheet to process and evaluate your work.



RECORD

Record how much of the ruler is above the hand with each catch.

	DID YOU CATCH IT?	MEASUREMENT IN INCHES
DROP 1		
DROP 2		
DROP 3		
DROP 4		
DROP 5		
DROP 6		

What did you observe?

What did you learn?

