

# Reaction Time Science: How Fast Are You?

Does your child think he has good reflexes? Now's his chance to prove it! Here's a quick and simple experiment that gauges your child's reaction time. All you need is a yardstick, a friend, and some paper. Not only will your child be making some personal revelations about the way his body works, but he'll also be using math and the scientific method while he's at it!

## What You Need:

- Yardstick
- At least two willing participants
- Paper and pen for recording results
- Markers and graph paper (optional)



## What You Do:

1. Before you start, be sure your child knows the purpose of this experiment is to measure how long it takes his brain to process and act on a verbal command.
2. Start by holding the yardstick upright a few feet off the ground.
3. Have your child place his fingers and thumb around the sides of the yardstick. Ask him to close his eyes so that he relies purely by command and not by visual cues.
4. Say 'Go!' as you drop the yard stick. Your child should react by closing his fingers on the yardstick at the same time to catch it. To get an accurate measurement, make sure his fingers always start at the bottom of the yardstick.
5. After he catches the yard stick, encourage him to measure how many inches it fell before he caught it. Use the conversion chart below to get his reaction time. Remember to record the results.
6. To ensure the accuracy of your scientific trial, be sure to perform this test more than once. Afterward, look at the results and discuss with your child why his reaction times might vary from trial to trial.

You can extend this activity by changing different variables. For instance: is your child's reaction time better when his eyes are open? Why or why not? You can also use graph paper and markers to record the reaction times of other family members and friends. Make it a contest and compare who has the best reflexes!

### Inches to Seconds Conversion Table

INCHES	SECONDS
6	0.18
9	0.22
12	0.25
15	0.28
18	0.31
21	0.33
24	0.35

