

.04	.06	.08	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22
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Time
(seconds)



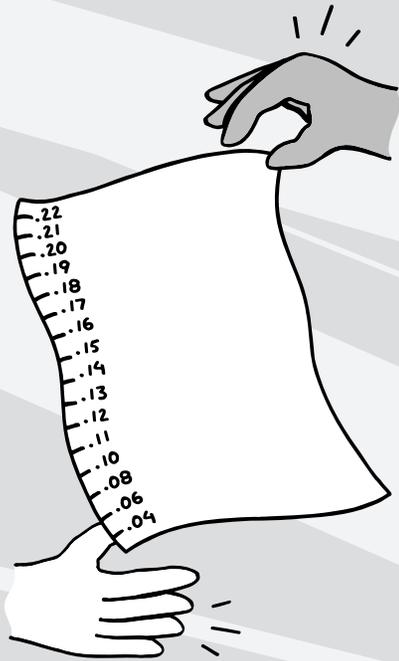
What You Need

- a friend



Reaction Time

How fast can *you* react?



- 1 Ask** your friend to hold out one arm.
- 2 Hold** this sheet so it hangs just above your friend's hand. Make sure the bottom edge is between your friend's thumb and finger.
- 3 Drop** the sheet and let your friend **catch** it as quickly as possible.
- 4 Look** at the number nearest to where your friend caught the sheet. This is how many seconds passed before your friend caught it. **Record** the time on the back of this sheet. Then **repeat** the test two more times.
- 5 Switch** roles and test your own reaction time.
- 6 Then test** other people, like family members and friends. Who has the fastest reaction time?



Now it's time to **experiment**. What happens if you **close your eyes** and your friend says "Catch!" as the paper drops? What happens if you try to catch the paper with your **other hand**? What happens if you test people of **different ages**? Choose **one thing** to change (that's the variable) and **predict** what you think will happen. Then **test it** and **send** your results to ZOOM at pbskids.org/zoom

Sent in by Kelsey of Incline Village, NV



The Arthur Vining Davis Foundations



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Illustrations by Stephen Schudlich.

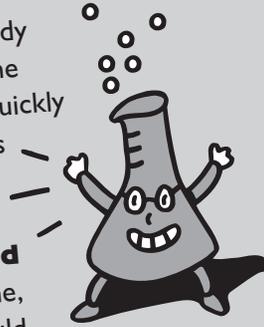
pbskids.org/zoom



Reaction Time

Science Scoop

Reaction time is the time it takes your body to **respond** to a signal, like when you saw the paper drop. Reaction time depends on how quickly a **signal** travels. In this case the signal travels from the eye to the brain, and from the brain to the muscles that need to respond. When you see the paper drop, you **respond** by catching it. The **faster** your reaction time, the sooner you catch the paper. A signal could also travel from your **ear**. If you close your eyes, and your friend says, "Catch!" when she drops the paper, you are testing how long it takes to react to a signal you **hear**.



Visit the ZOOM Web Site!

- Keep experimenting with your body by trying **Drinking Straw Pulse Measurer** and **Penny Cup Game** at pbskids.org/zoom
- Send an idea for a new science activity about the human body to ZOOM at pbskids.org/zoom



Reaction Time Results

Name	Age	Trial 1	Trial 2	Trial 3	Best Time