



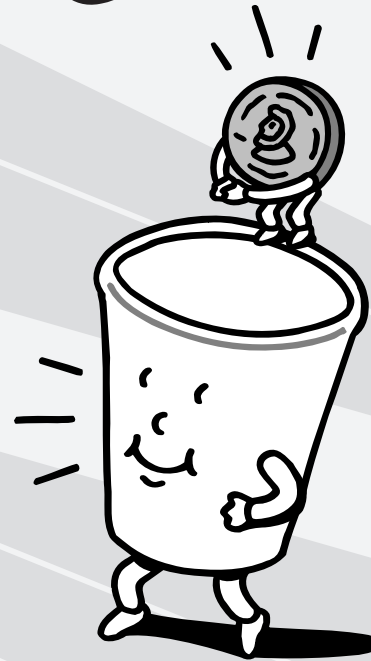
What You Need

- a friend
- paper cup
- 8 pennies

Penny Cup Game

Two eyes are better than one!

- 1 Have a friend **sit** at a table.
- 2 **Put** a paper cup about three feet in front of your friend.
- 3 **Hold** a penny about six inches above the cup. **Move** your arm slowly toward your friend and then back.
- 4 Tell your friend to say, "**Drop!**" when he or she thinks the penny is over the cup. Does it fall in the cup? **Record** your results on the back of this sheet.
- 5 **Repeat** with the other seven pennies.
- 6 Now ask your friend to **cover** one eye. Repeat the steps above and see how many pennies land in the cup.
- 7 How many pennies fell in the cup when your friend had **both eyes** open? What happened when your friend had **one eye** open?
- 8 Now **switch** roles and experiment with your own vision.



Now it's time to **experiment**. What happens if you keep your **other eye** closed? What happens if you move the cup **farther** away from your friend? 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 Kim S. of Deltona, FL



The Arthur Vining Davis Foundations



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Illustrations by Stephen Schudlich.

pbskids.org/zoom

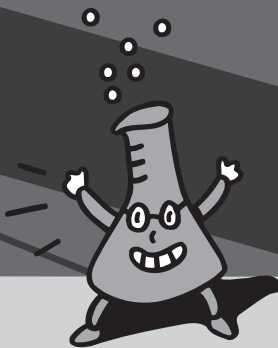


Penny Cup Game

Number of Pennies: One Eye vs. Two Eyes

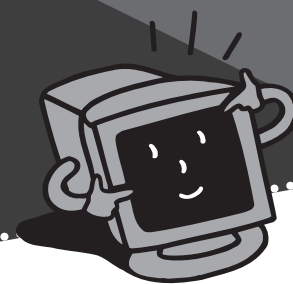
Make a check mark in one of the columns each time a penny is dropped.

Eyes	Pennies in Cup	Pennies Not in Cup
Both open		
Left closed		
Right closed		



Science Scoop

You probably found that more pennies fell in the cup when you had **both eyes open**. This is because the information your brain gets from each of your eyes is a little **different**. (You can see this for yourself by **holding** up two fingers, one in front of the other, and looking at them with your right eye and then your left eye.) Your brain **compares** what you see from both eyes and **combines** them to form one image. This allows you to judge distance better than if you just used one eye.



Visit the ZOOM Web Site!

- Keep experimenting with vision by trying **Peripheral Vision** and **Blind Spot** at pbskids.org/zoom
- Send an idea for a new way to experiment with vision to ZOOM at pbskids.org/zoom