

Stack-o-Pennies Shop

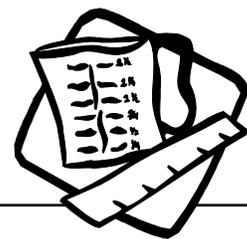


Figure out how much an item costs using a penny to measure.

What you need

Small toys
At least 100 pennies
Rulers

What to do

1. Pretend there is a special store that lets you pay for toys by their height in pennies. For instance if the object is 10 pennies high, it costs 10 cents.
2. Choose a toy and estimate how many pennies tall it is (and how much it costs).
3. Then, stack up the pennies to find out how close you were.
4. Repeat with other toys.

What to ask

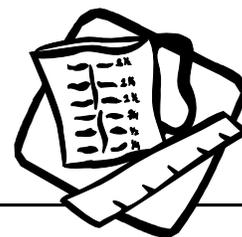
- How many stacked pennies did your favorite item measure?
- Can you find a fast way to count the pennies?
- What if you used a different coin? How would that change the measurement?
- How many pennies does it take to be 1 centimeter tall? What about two centimeters?
- What happens if your item doesn't exactly measure a whole penny?



Did you know?

Understanding the relationship between common objects' heights and actual heights is a common way to make close estimates. Often adults estimate the height of something based on their own height. Many people know that one story is about 10 feet and can be used to estimate the height of a skyscraper.





What's next?

- If someone told you they bought a toy for 20 pennies what toy do you think they bought?
- How can you find out?
- How is this way of measuring different?
- Is there a way you can figure out the cost of objects without having to stack pennies next to it?

To learn more

Picking Peas for a Penny

by Angela Shelf Medearis

Angelina and John pick peas for a penny and imagine what they can buy.

The Penny Pot

by Stuart Murphy

Fran wants to buy things at the county fair and must borrow pennies from the penny pot.

How it helps with school

Texas PreKindergarten Curriculum Guidelines

Number and Operations, Measurement

Texas Essential Knowledge and Skills (TEKS) Standards

Measurement: K- 10A,B; 1-7A,B; 2-9A,B

Number, Operation and Quantitative Reasoning: K.1A-C, K.4; 1.1A,C, 1.3A; 2.1, 2.3C

Underlying Processes and Mathematical Tools: K.13A,D; 1.11A,D; 2.12A,D

National Council of Teachers of Mathematics (NCTM) Standards

Measurement, Problem Solving, Communication, Representation