STEM starts now

Cleaning Pennies

Recommended Age: 31-36 Months

STEM concepts: Science (chemistry, observations), Technology (taking pictures)

Materials: Water, vinegar, soda, lemonade, 4 glass cups, 12-16 pennies

What to do: Before setting up, ask your child which liquid he thinks would get the dirty coins clean. You can use a variety of liquids, but it is recommended to use at least water and vinegar. Then, let your child help you pour the different liquids into separate glass cups. You only need to fill the cups up about half way. Hand him dirty pennies and ask him to describe what they look like. Encourage him to take photos of the pennies before they get cleaned. Then, have him count out four pennies for each cup and place them in. Have the pennies soak overnight.
The next day, pick the coins out of the cups and place them on a paper towel. Keep them grouped based on which liquid they were soaking in. Ask your child to observe them. Which pennies look the cleanest? Which look the same? Pull up the photos of the pennies before to help make comparing easier. Was her guess as to which liquid would clean the pennies best right?

Language and Communication: This activity walks your child through a simple scientific process. Be sure to refer to this activity as a science experiment and call him a scientist as the two of you observe the pennies. Ask questions relating to his senses, such as "What do you see?" or "What do you smell?". This will encourage development in his observation skills, which is fundamental in science.

Expand the Activity: To expand this activity, you can have your child draw what they think is going to happen and what ended up happening. You can also try all different kinds of liquids. Does adding soap to water help clean the pennies better? Experiment to find out! You can also record a video of your child talking about the experiment. This will help reinforce what she's learned in this simple experiment and she can send it to other family members or show her friends.