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# TEACHER GUIDE

## CLASSIFICATION OF MATERIALS GRADES K-2

### COMMON MISCONCEPTIONS

When young students first learn about properties of matter, they often get confused by the word property, since they most likely have heard this word used differently. Most likely they have heard the word property used to mean something that belongs to them. To bridge the new definition of property as it pertains to qualities of matter, try choosing an object and letting students come up with words describing the object. These are properties of the object. They are words that “belong” to the object.

Being consistent with this new vocabulary is important. Referring to objects as materials with properties will help develop this vocabulary in your young scientists.

### CLASSIFICATION

Young students have already had experiences with classifying objects in their everyday lives. From sorting out their Halloween candy, to sorting coins, this concept most likely has been introduced to young students. Color is an easy first type of classification for young students since they learn about different colors in preschool and kindergarten. To move toward more scientific classifications, providing students with more ways to sort objects is a good first step. After color, a natural progression would be size, followed by texture. Hardness is a little more challenging since there are varying degrees of hardness from soft to semi-soft to hard.

### PROPERTIES OF MATTER

All matter has unique properties. To introduce this idea to young students, keeping the list of properties simple is important. Limiting properties to color, texture, hardness and flexibility is a good start.

It's important for young students to make connections between specific properties of matter, and how these properties help people create effective and useful products. Keeping properties in mind is important for engineers in order to create effective and useful products.

## TIPS FOR TEACHERS

Young students need many opportunities to sort objects based on properties. Consider creating “sorting boxes” using pencil boxes or shoe boxes where you can put a variety of random objects for students to sort.



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