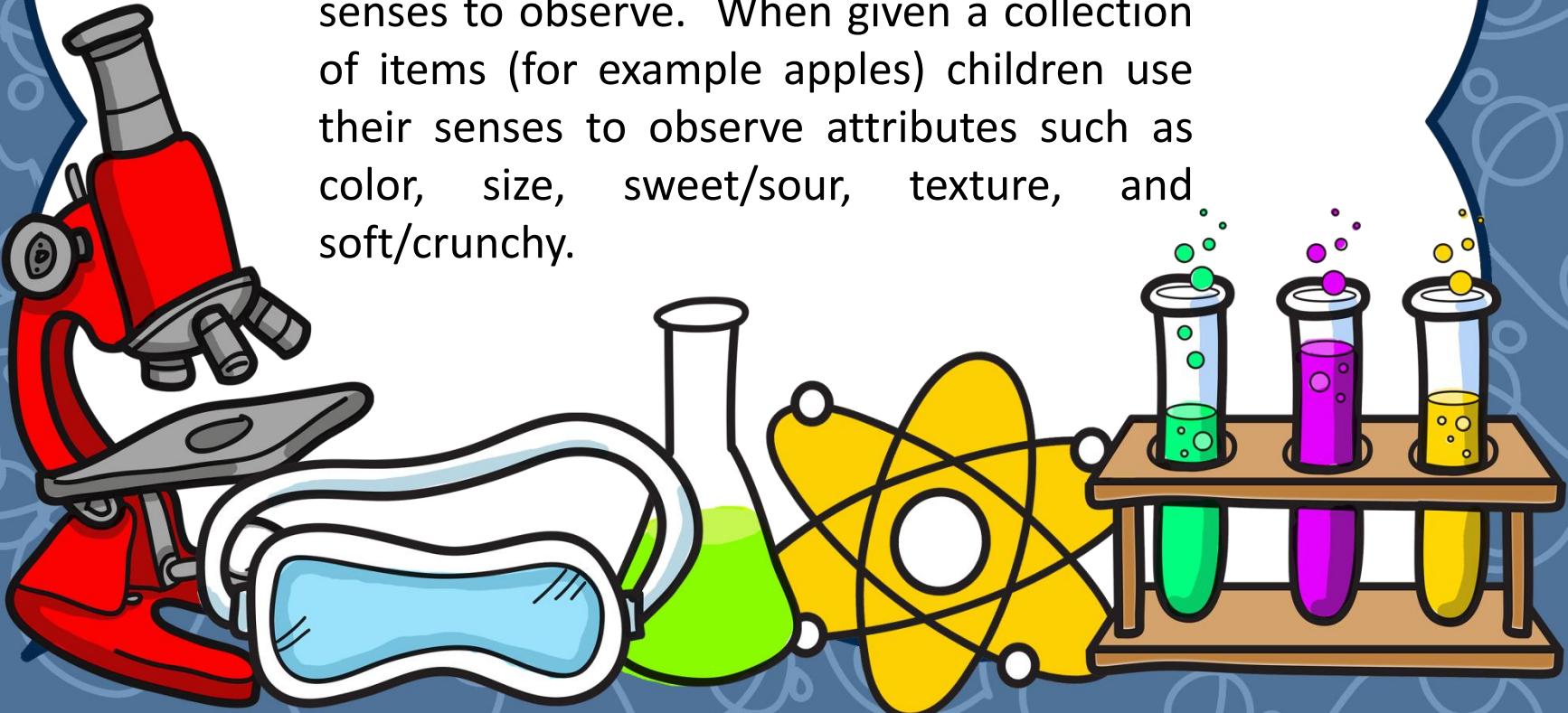


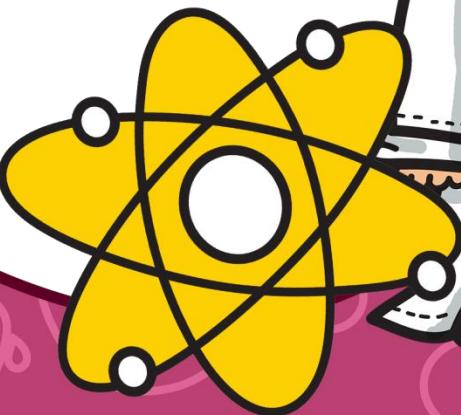
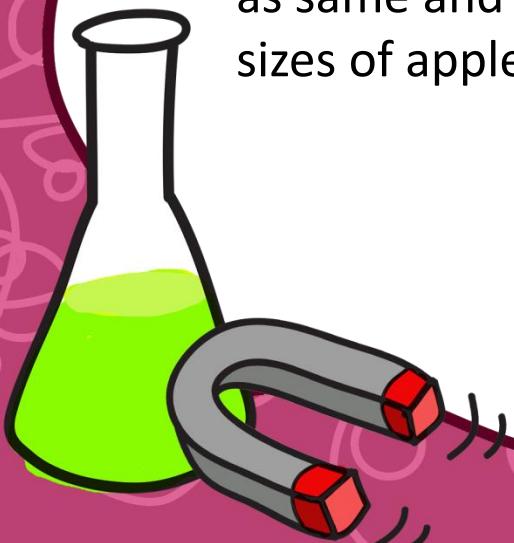
## I. Observing: Using the senses

Observing is the first step in gathering and organizing information. Children use their senses to observe. When given a collection of items (for example apples) children use their senses to observe attributes such as color, size, sweet/sour, texture, and soft/crunchy.



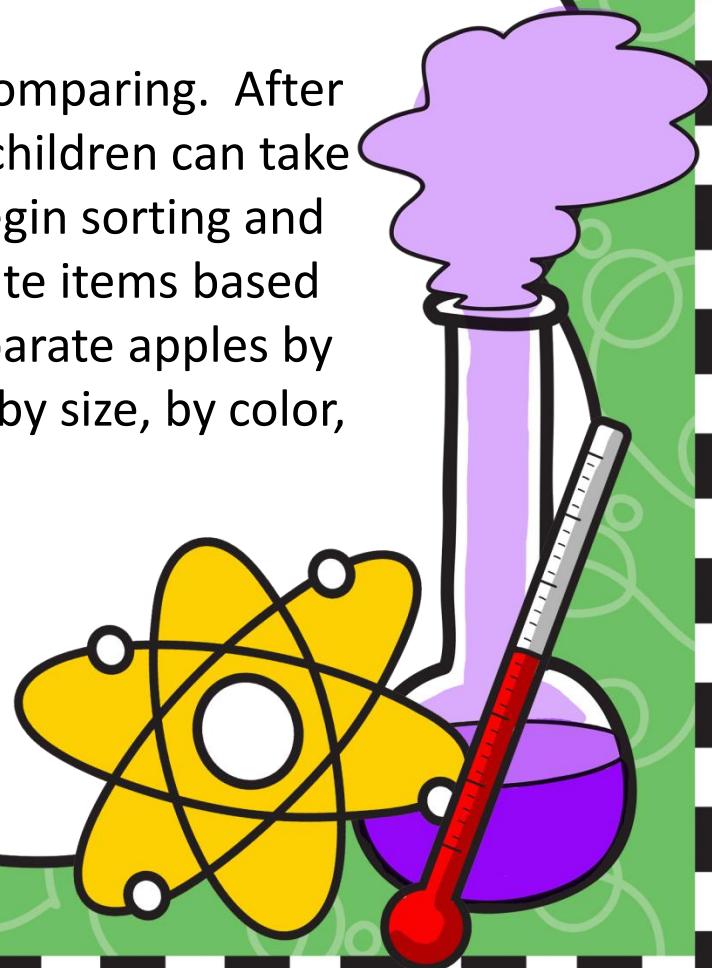
## 2. Comparing: Looking at similarities & differences

Once children have had time to explore items, they begin to compare. They begin to notice similarities as well as differences such as same and different colors, weights and sizes of apples.



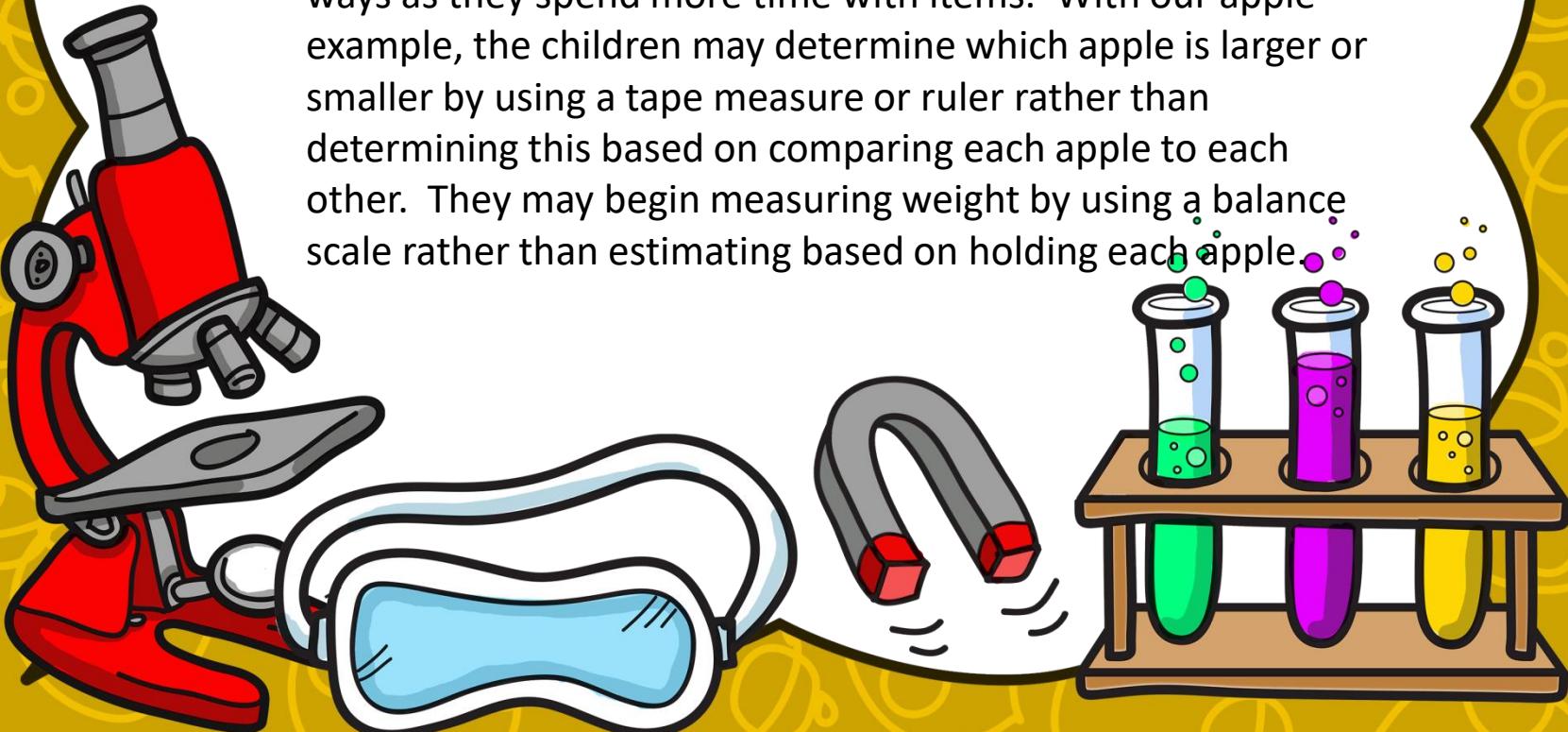
### 3. Classifying: Grouping and sorting

Classifying is a higher level of comparing. After observing and comparing, the children can take the information learned and begin sorting and grouping. They begin to separate items based on observations. They may separate apples by those with and without stems, by size, by color, etc.



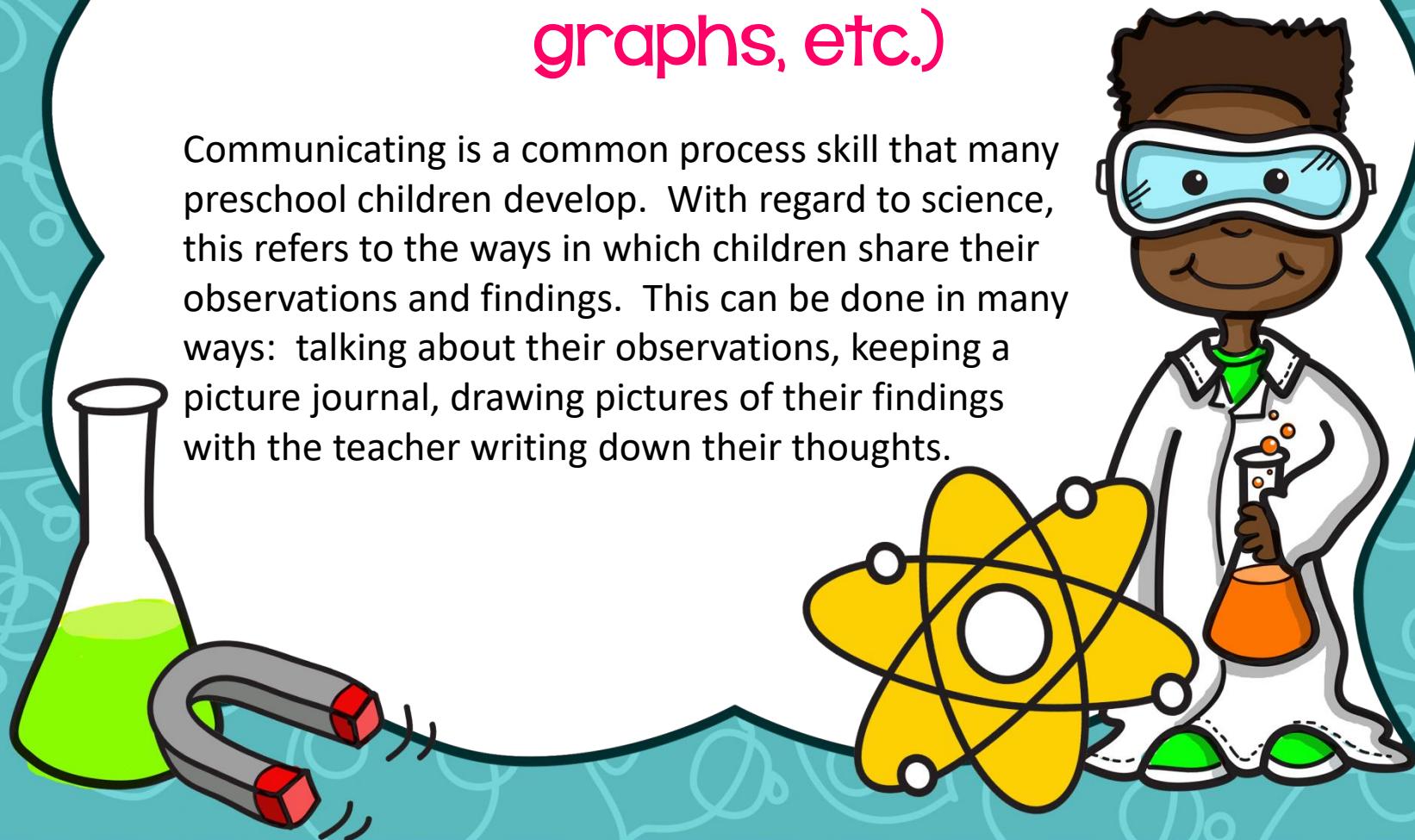
## 4. Measuring: Working with or describing quantities

The next skill is measuring. Children can measure in many ways as they spend more time with items. With our apple example, the children may determine which apple is larger or smaller by using a tape measure or ruler rather than determining this based on comparing each apple to each other. They may begin measuring weight by using a balance scale rather than estimating based on holding each apple.



## 5. Communicating: Describing ideas (in journals, with pictures, writing, graphs, etc.)

Communicating is a common process skill that many preschool children develop. With regard to science, this refers to the ways in which children share their observations and findings. This can be done in many ways: talking about their observations, keeping a picture journal, drawing pictures of their findings with the teacher writing down their thoughts.



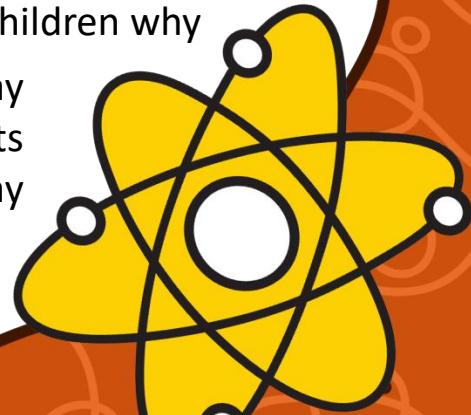
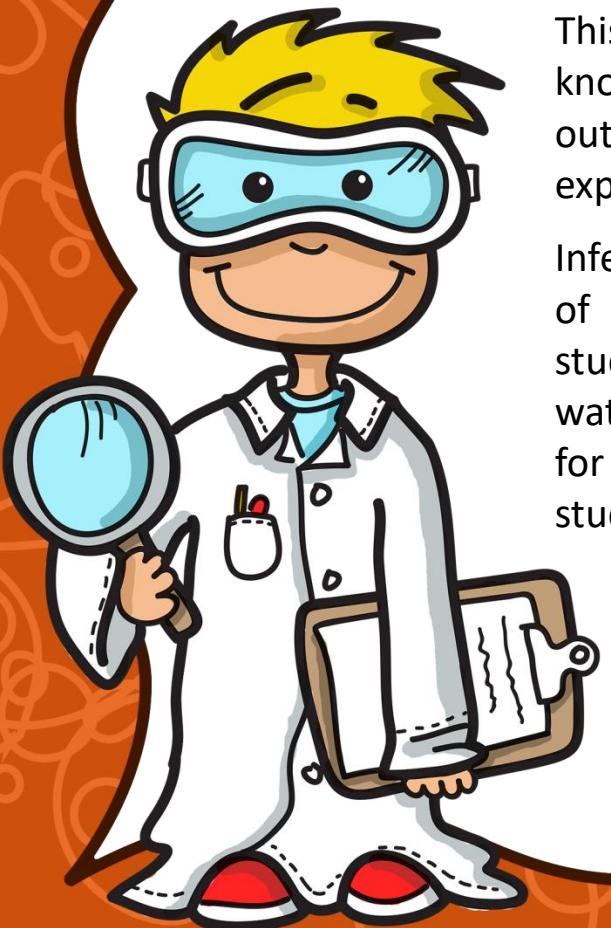
These 5 skills - *Observing, Comparing, Classifying, Measuring and Communicating* - provide the skills needed to further develop the Intermediate (or higher level) preschool science concepts which are:

## 6. Inferring: Using gathered and organized information

This is where children use information they have or know from one experience and base their expected outcome of new experiences on patterns from previous experiences.

Inferring is when children make sense or meaning out of the previous process skills. For example, your students have been helping to take care of a plant by watering it every other day. Your classroom is closed for a week. When you return, the plant is wilting. Your students notice that it is dry. You ask the children why

they think the plant now looks the way it does. They may recall that plants need soil, water and sun. They may suggest the plant needs water.



## 7. Predicting: Making reasonable guesses or estimations based on observations and prior knowledge and experiences.

Predicting is when the child states what they expect will happen. For young children, this may at first be a guess based on two choices (will the apple sink or float). As children have more exposure to the previous science skills, they will develop higher level predicting skills that are based on previous experience and therefore not random guesses.

