

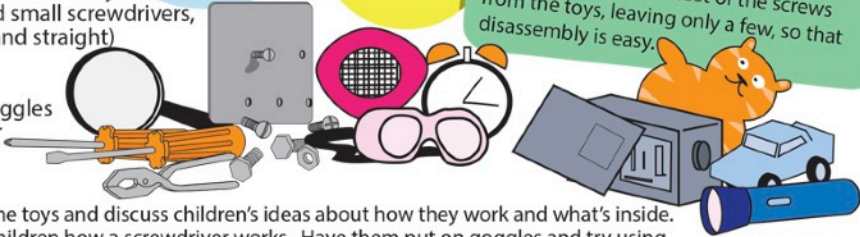
**Experiment of the Month:**

**Take it Apart**

**Before the Activity:** Gather toys with moving parts and simple electronics from thrift stores and yard sales. Examples might be a child's cash register, toys that light up or play music, remote controls, flashlights, or radios. Disassemble each toy and ensure that there are no sharp edges and points inside, or springs that may become projectiles. Remove plugs and cords. Remove most of the screws from the toys, leaving only a few, so that disassembly is easy.

**You will need:**

- Reassembled children's toys
- Practice boards to try tools
- Large and small screwdrivers, (Phillips and straight)
- Pliers
- Screws
- Safety goggles
- Magnifier



1. Study the toys and discuss children's ideas about how they work and what's inside.
2. Show children how a screwdriver works. Have them put on goggles and try using screwdrivers on their practice boards.
3. Give each child a toy to take apart. Make sure they wear goggles when using the tools.
4. Study the inside of the toys with the magnifiers.

**Ask Questions:**

Do all toys need batteries to work?  
What makes the toy's parts move?

What do you think the different parts of the toy do?  
What do you think would happen if we pressed the "on" button now?

**Read a Story:**

**If I Built a Car**  
by Chris Van Dusen.  
Dutton, 2005.

**Play At Home:**

Wearing safety goggles, and with a grownup's help, preschoolers can learn to use hammers with large-headed nails on scrap pieces of soft wood.

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You can download all of our Experiments of the Month at the Preschool Page at [sciencebeyondtheboundaries.com](http://sciencebeyondtheboundaries.com).



**The Marvelous Toy**  
by Tom Paxton



When I was just a wee little lad,  
Full of health and joy,  
My father homeward came  
one night  
And gave to me a toy.  
A wonder to behold it was  
With many colors bright  
And the moment I laid  
eyes on it,  
It became my heart's delight.

**Chorus:**  
It went "Zip" when it moved, and  
"Bop" when it stopped,  
And "Whirrr" when it stood still.  
I never knew just what it was and I  
guess I never will.

The first time that I picked it up  
I had a big surprise  
'Cause right on the bottom were  
two big buttons  
That looked like big green eyes  
I first pushed one and then the  
other,  
Then I twisted its lid  
And when I set it down again, here  
is what it did:

(Repeat Chorus)

For the tune and other verses, search for "Marvelous Toy" on youtube.com.

