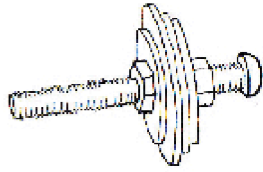


Science at Home



Make a spinning top out of nuts and bolts!

The *Toys: The Inside Story* exhibition only touches on a tiny fraction of the toys that are out there. Use these directions to make your own toy top.

Materials needed: Assorted bolts, nuts, washers, and junk CDs.

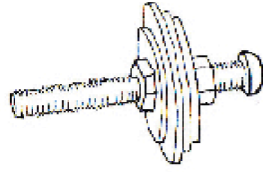
To do:

1. Select a bolt for your top and start by screwing on a nut. Then add a washer - or several.
2. If you like you can add a CD before finishing with another washer and then adding a second nut.
3. Make sure the two nuts are holding everything tight.
4. Give it a spin!

Things to ask:

- How long can I get a top to spin?
- What happens if I make my top heavier? Lighter?
- Does the length of the bolt make a difference in how my top spins?
- Does the diameter of the top change how well it spins?

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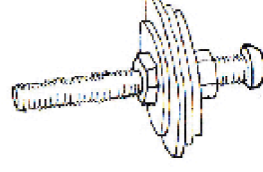
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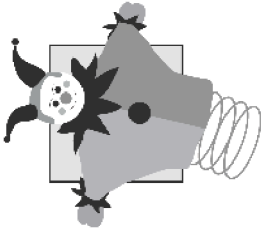
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Make even more toys!

Want to build more of your own toys? All it takes is a little imagination and the willingness to try. Not every homemade toy works perfectly on its first attempt, but with some experimenting and problem solving you can create something pretty interesting. Check out these websites for ideas.

www.arvindguptatoys.com/toys.html

The motto of this site is “The best thing a child can do with a toy is break it!” Find lots of toys to make with things that may ordinarily go to waste.

en.wikipedia.org/wiki/Toy

Learn a little bit more about the history of toys and the role they play in our culture.

inventors.about.com/od/tstartinventions/a/Toy_Inventions.htm

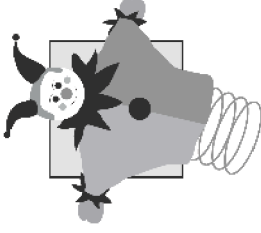
Find out the inside story about how various popular toys were invented.

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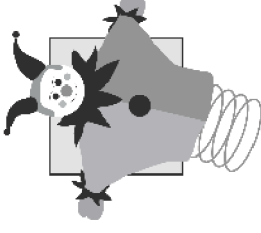
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