



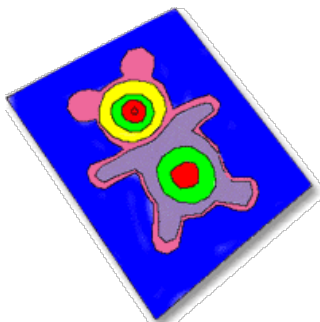
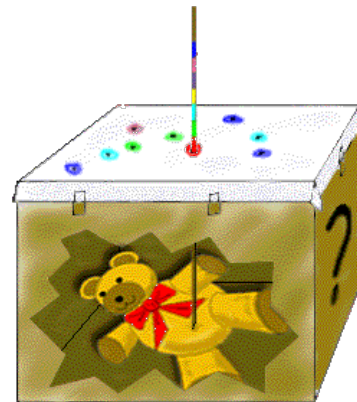
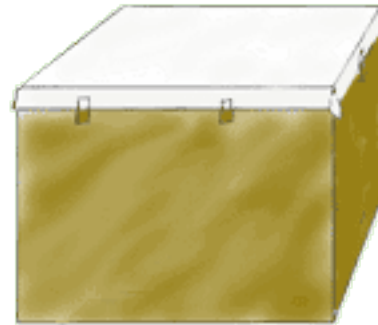
"See" inside a closed box!

Make a detailed map of an object you can't even see!

Suppose someone shows you a box and says it contains a mysterious object. Figure out what's in the box without looking or touching and the object is yours!

The box has no lid, but is covered by a piece of paper so you can't see inside. You are allowed to poke small holes in the paper with a sharp, straight stick of some kind, like a knitting needle, but you can't peek inside. How would you discover what's in the box?

Well, one way is to poke the stick straight down into the box until it touches something. Mark with your fingers how far the stick went in. Take out the stick and measure how far it went into the box. Mark that hole with that measurement. You could use numbers for the measurements, but an easier way is to use colors. For example, 5 inches deep is blue, 6 inches is purple.



After you have almost covered the paper with color-coded holes, you could color in the areas with same-colored holes. You would then have a topographical map of the object inside the box! You might not be able to tell exactly what the object is even from its "topo" map. But, if you know what colors stand for what heights, you could imagine how the object might look in three dimensions.

Find this activity online by visiting NASA's Space Place website: <http://spaceplace.nasa.gov/topo-bear>.

Find more fun activities at <http://spaceplace.nasa.gov/menu/do>.