



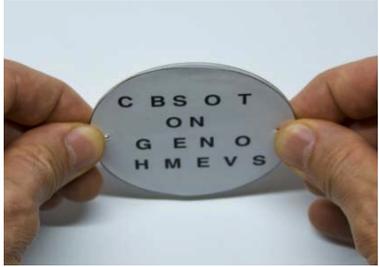
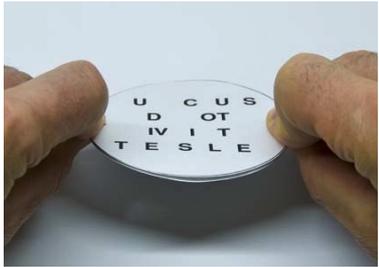
## CUB SCOUT BOOMERANG TEST 7 – PROMISE & LAW LAW SPINNER

*Make a spinning disc that displays the Cub Scout Law as it spins. This exercise also demonstrates a property of human vision, whereby the human brain assembles all 'images' captured over a short period of time and effectively presents them as one.*

### Resources

- Cardboard discs (8cm dia);
- (Strong) thread or fine string;
- Letter templates;
- Scissors and/or circular cutter;
- Paper glue;
- Hole punch.

### Instructions

1. Colour or simply blacken the characters on the spinner templates (there are two different templates, one for each side of the disc—the template file contains two copies of each);
2. Cut out the two templates and stick them, with a small amount of paper glue, to the cardboard disc. Note that the black dots on the two templates need to be aligned as carefully as possible, on either side of the disc, with the text upright on both sides as the disc is rotated about the axis along the diameter through the two holes;  

3. Punch holes through the two black dots. I used an eyelet punch, rather than regular paper punch, because the holes are somewhat smaller and it's easier to see where you are punching the hole;  

4. Cut a piece of thread about a metre long, pass it through the holes in the disc as illustrated, and tie the two ends together;
5. Place the fingers of each hand in the loops at either end of the thread, wind up the disc, either with the help of another Cub or simply by holding the thread loosely and swinging the disc around between your hands;  

6. Pull firmly, but be careful not to pull so hard that you break the thread! If the disc is spinning quickly enough, you will be able to see the letters on both sides of the disc at once, and you will be able to read the message the letters would make if they were all printed on one side of the disc.

## Resource Preparation

### White Card

8 SHT Pasteboard                      510mm x 640mm    \$1.65                      The Art Shop

Cut 8 cm circles—with careful layout, 45 can be cut from 510 x 640 sheet. This requires a bit of patience using the Compass Cutter, as the cutter must be used gently, circling 10-12 times—try 5-6 times from each side of the card—to cut through the card neatly. A thinner card, which will be easier to cut, can be used, but thicker card will generally yield a disc that spins better.

### Compass Cutter

Art & Craft by Colby    \$9.95                      The Art Shop

This is the preferred means of cutting circles in the present case, although, since the disc is only spinning on the axis that is aligned with a diameter of the circle, it is not critical. The disc doesn't need to be perfectly round, or really even round at all (a square would probably work just as well), as long as it's roughly symmetrical about its spinning axis.

### Compass Cutter blades

Art & Craft by Colby    Pkt of 12                      \$4.95                      The Art Shop

### White bond paper (standard laser printer paper) for letter templates

The templates (Letter Template.pdf) are printed 4 to an A4 page, then cut into individual template pairs. Colour the letters if desired before finally cutting out the wheel with either the Compass Cutter or scissors.

### Coloured pencils/felt pens/crayons/paints

Anything to add a little 'life' to the exercise.

### Paper Glue

UHU *stic* Glue Stick    6 x 8.2g                      \$9.99                      The Art Shop

The smaller glue sticks (specified) are much easier for children to use to get a neat result than the larger items.

### String or thread

Gutermann 100% Linen thread (CA02776) (50m)    \$3.10                      Spotlight

Strong, fine string or thread is all that is required here. The thread specified is not easily broken by an adult with bare hands, yet is fine enough to require that only small holes are punched in the disc.

[PAH 2-Apr-09]