Amaze Your Brain *at Home!*

DIY BAROMETER

MATERIALS

- Glass jar or empty metal soup-sized can
- Balloon (or saran warp)
- Rubber bands
- Drinking straw (longer the better)
- Scissors
- Adhesive tape or fast drying glue
- Piece of paper and pencil

INSTRUCTIONS

Barometers measure air pressure, the weight of air upon a particular space. Changes in air pressure in the world relate to weather patterns – where low pressure systems correspond with wet weather (clouds and storms), and high pressure systems have drier weather. A barometer can indicate what the weather is like without even looking out the window.

1. Set the jar/can on a flat level surface.

2. Cut the balloon roughly in half, making sure the round top half (without the mouth piece) is large enough to easily cover the opening of the jar/can.

3. Cover the open end of the jar/can with the balloon. Make sure the balloon material is tight (like a drum) and fix with rubber bands – creating an airtight seal. You have now trapped air in this container, and 'captured' the air pressure from this moment in time. Changes in atmospheric pressure outside (and in your house) will cause the balloon covering to sink in to a concave bowl (high pressure) or bow out into a convex bulge (low pressure).

4. Fix one end of straw to the middle of the balloon covering, either with tape or fast acting (not super glue) glue. The straw should lie horizontally and extend well beyond the edge of the can. This is our 'needle' to easily see changes in pressure. Longer straws will be more accurate.

5. Place your barometer near a wall. Take the piece of paper against the wall near the end of the straw. Mark a line where the straw is. If it is a relatively clear day the atmospheric pressure should be 'normal.' On a wet, cloudy day – one with low atmospheric pressure – the balloon will cause the far end of the straw to lower. On a dry clear day (high pressure) the far end will rise.