## T E L L U S S C I E N C E M U S E U M

## MAKING COLORED FILTERS

## SUPPLY LIST:

- Red, blue and purple permanent markers
- Assorted colored pens and pencils
- Yellow highlighter
- White paper (index cards work best)
- (2) Clear plastic disposable sandwich bags
- Scrap paper or old newspaper to protect your work surface


## DIRECTIONS:

1. Turn one plastic bag inside out and use purple permanent marker to color entire side. Wait 10-15 seconds for the ink to dry and then turn it right side out.
2. Color the back of the purple side using the blue permanent marker. (So, one side of your plastic bag is still clear, and the other is purple on the inside and blue on the outside. )
3. Color one side of your second bag using the red permanent marker.
4. Use your colored pens and pencils to write messages on your white paper or index cards.

## TIPS:

If using the red filter: blues, greens and dark purples will be reflected (so you can read them); whereas, reds, oranges and yellows will be absorbed making them "invisible".

If using the blue/purple filter: reds, oranges, yellows and greens will be reflected, and blues, greens, and dark purples will be absorbed making them "invisible".

## EXPERIMENT:

Use a yellow highlighter to write or draw a secret message and then scribble on top with any type of blue pen, pencil or crayon. Stripes in all directions work best because you want to leave a little white space to draw the eye away from the yellow highlighter. The blue color will be absorbed and the yellow highlighter will be reflected. Once your message is completed, place your paper inside the blue/purple filter bag to reveal your message.

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