Crown 85 Report

Benham's Disk Demonstration and report

The Benham's disk 'illusion' is the creation of perceived colors from a black-and-white spinning disk. This report will consist of a demonstration of Benham's disk for the class (apparatus supplied by Prof. Switkes) and slides created by the student to illustrate what known about the origin of the phenomenon. When spinning, the differing black-white patterns at various radii create different temporal "light-dark" patterns whose temporal profiles also depend on the speed of the rotation. Although the details are not completely understood, it is believed that since the L-, M-, and S-cones react to the onset of light at differing rates and thus are not turned on-and-off simultaneously, the imbalance leads to the perception of color, e.g. L-cone on faster than M- or S-cone give perception of red.

Material sufficient for the report may be found at:

1. **What colour can YOU see? Dizzying optical illusion creates a different shade for every viewer - but no-one knows why**

2. **Benham's Top**

3. **Some slides from Prof. Switkes**

STUDENT SHOULD MAKE APPOINTMENT WITH PROF. SWITKES TO SEE APPARATUS AND DISCUSS REPORT