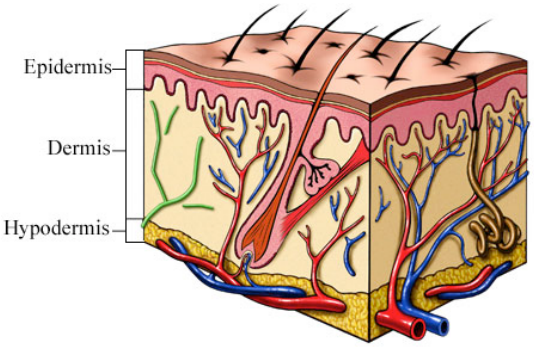
NAME: _____

Science Experiment: Rubbed Off (#77) Cycle 3, Week 5

Demonstration of how epidermal cells are rubbed off

The outer layer of human skin is called the **epidermis** (ep'-ih dur'-mis). It is made up of a layer of cells which protect the body's inner cells from germs and harmful substances. It also acts as a barrier to preserve moisture, vitamins, minerals and proteins.



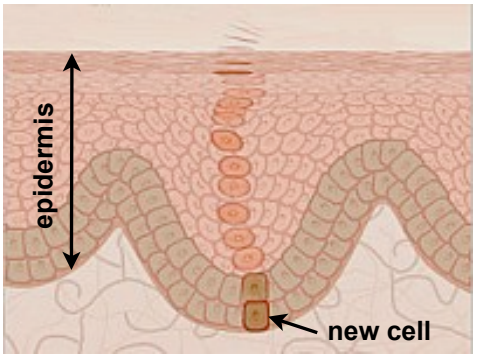
Needed materials:

☐ bar of soap ☐ course sandpaper ☐ colored paper

Procedure:

1. Hold the bar of sap over the paper.
2. Gently rub the soap against the sandpaper.

The *epidermis*, like the soap, is constantly rubbed off and can be scraped, cut, and burned. Unlike the soap, however, the epidermis does not wear away. This is because there is a constant replacement of lost cells by cells below the skin.



The outer layer of the *epidermis* is composed of dead cells that fall off when touched. New cells are created at the base of the *epidermis* and slowly move upward. As the cells move upward, they loose moisture and flatten out until they form a paper thin barrier at the top of the *epidermis*. The skin cells in younger skin are replaced every 15 to 30 days. As you age, the process takes longer.

Flesh gives birth to flesh, but the Spirit gives birth to spirit. ~ John 3:6 NIV