

Sweat Spot

Visualize where and when you sweat.

Use a chemical reaction to visualize where moisture forms on your body. This is an extension to the “Sweaty Fingers” activity from *Human Body Explorations* by Karen Kalumuck.



Materials

Iodine tincture (available at pharmacies)
Cornstarch
Variety of antiperspirants and deodorants
Magnifying glass or dissecting microscope

To do and notice

1. Apply a different antiperspirant or deodorant to at least 2 different fingertips. Leave at least 1 of your fingers untreated. Make sure you write down what's on each finger to help you remember.
2. Once the antiperspirant is dry, apply a thin layer of iodine to each finger, included an untreated finger. You can do this with the applicator that comes in the bottle or a cotton swab. Let the iodine dry completely.
3. Gently press your fingertips into a pile of cornstarch so that they are lightly coated. Gently rub off any excess starch.
4. Observe what happens on each fingertip using a magnifying glass or microscope.

What's going on?

Hyperhidrosis is a condition characterized by excessive sweating. This activity is based on Minor's iodine-starch test, which is a diagnostic test that doctors use to detect hyperhidrosis. Minor's test takes advantage of a reaction between iodine and starch that results in an iodine-starch complex that has a deep blue color. This dark color aids in the visualization of where moisture is forming, since the reaction needs to occur in an aqueous environment. Antiperspirants are products that inhibit sweating (*anti=no, perspire=sweat*), usually by blocking the sweat pores in your body. Pure deodorants reduce body odor by masking the smell or inhibiting bacterial growth, which shouldn't affect the actual amount of sweat. With an easy method of detecting sweat production, you can test how effective different antiperspirants are for your body. Since this test indicates where fluids are formed, you can use it to detect sweat glands all over your body!