



CROSS COUNTRY CAT by Mary Calhoun

The boy was right; he knew Henry could cross-country ski! Any cat that was able to walk on his hind legs "switching his tail for balance" should find this sport easy. However, from Henry's perspective, it means sliding around in that "cold, wet stuff", and he doesn't want any part of it until, inadvertently, he is left behind.

It is a good thing that the boy remembered to wax Henry's skis. This almost friction-free surface on the bottom of each ski will save his life. Once he gets the rhythm, he is able to slide right along; the melted snow under each ski does not mix with the waxed surface. They "roll right off each other" like water off a duck's back.

Today's sneakers are designed to be anything but friction-free; each brand advertises its model for its ability to grip the basketball court or the playing surface. Let your students wear their favorite pair to school and measure which one has the "best staying-power" as the ramp is raised. Then discuss what could be done to make a friction-free surface on the ramp for the sneakers.

MATERIALS: cafeteria tray, sneakers, meter yard) stick

ACTIVITY: Make a line at the top of the tray. Place each sneaker to be tested with its heel, resting on the line. Lift the tray slowly and steadily at the end where the heel of the sneaker is resting. Record the following data for each sneaker that is tested:

- Height of tray off table when sneaker "slips"
- Cost of sneaker
- Age of sneaker

- Brand of sneaker

Discuss how to graph the data with your class. Also discuss which sneaker would be the best one to buy. Questions for thought: Why do ice skates need to be sharpened? How could chains help cars on ice? Why do cars need snow tires? Why do dancers and gymnasts use rosin?

SOURCE: Adapted from *SCHOLASTIC SUPERSCIENCE BLUE*, November/December 1991.

STANDARDS:

BSL: 1.3, 1.5, 3.3, 4.8, 4.11, 6.1, 6.2, 8.1, 12.1, 12.5, 12.7

NCTM: 4d, 10a

SCS: A1, B1, B2, B3, H2, H3, H4, H5

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