



Eskimos and Wheat

➤ SNOW is the friend of migratory Eskimos in the long Arctic winter, just as it is of the rooted wheat in this more favored land. When a little band of Eskimos decide to make camp, they quickly build a perfectly domed igloo out of blocks of packed snow. When there is a thick cover of snow over the wheat-fields, farmers stop worrying about the crop.

The same physical property of snow benefits both frigid-zone men and temperate-zone plants, though not in exactly the same way. The structure of snow crystals, as spiky six-pointed stars, insures that massed snow on the ground shall be highly porous and fluffy, with a great deal of trapped air. This makes snow a good thermal insulator, for exactly the same reason that such things as rock wool, felt and cork are good insulators. As a matter of fact, up to the temperature where it partly melts and then re-freezes into solid ice, snow is a better insulator, weight for weight, than most commercial products used for that purpose.

Not that it is warm under the snow. It cannot be, else the snow would melt. But it is less cold than it is in the outer air, and the wind does not reach the living creatures within its shelter. The latter point is of especial importance in the case of the wheat, for it is probable that plants suffer even more from drying out than from freezing when they are naked to the winter weather. Another important benefit of snow-insulation for the plants it covers is its prevention of too-rapid changes in temperature, either up or down, which can harm plants in a number of different ways.

The snow-sheltered Eskimos do warm up the inside of the igloo to some extent, partly with their blubber-fed stone lamps, partly with animal heat from their own robust bodies. They even keep themselves warm when lying on the snow sleeping-bench, by inserting a layer of a different kind of insulator—furs. But they must not make the interior so hot that the snow walls begin to melt, then re-freeze; for ice, unlike snow, is a rather good conductor of heat. You ruin the igloo if you make it too warm inside.

Exactly this has been happening, among Eskimos who have obtained kerosene stoves from white traders. After the excessive warmth has changed the igloo from a snow house into an ice house, it loses much of its value as a shelter, and the inhabitants are liable to contract tuberculosis and other lung ailments. Since the trade in stoves cannot be stopped, missionaries in the Arctic now try to persuade the Eskimos to use their summer skin tents as linings for their igloos, thereby preserving the insulating value of the snow blocks.

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credible, but it does not mean that you can quit what you are doing and become a scientist. To be a professional scientist requires many years of study and preparation as well as native ability. But there are many situations in your daily work and life that require the same kinds of ability that scientists need.

The science aptitude test is only one of the techniques used in selecting boys and girls who are scientifically gifted. In addition each contestant filled out a personal data blank and wrote an essay describing some scientific project he has done or wishes to do. Teachers filled out

a recommendation form and principals reported scholarship. All these are used in choosing winners.

Taking the test and competing in the search comes as a culmination of high school science study and science club activity for thousands of boys and girls of America's public, private and parochial secondary schools.

Don't read further. Cover up the following paragraph until you have taken the test.

The correct answers to Part A are: 1, 4; 2, 4; 3, 2; 4, 1; 5, 2; 6, 4; 7, 2; 8, 2; 9, 3; 10, 4; 11, 2; 12, 4; 13, 1; and 14, 2. Right answers for Part B are 65, 2; 66, 3; and 67, 2. 85, 1; 86, 2; 87, 2; 88, 3.

Your true and false answers should read: 101, 0; 102, 0; 103, X; 104, 0; 105, X; 106, X; 107, 0; 108, 0; 109, 0; 110, 0; 111, X; 112, X; 113, X; 114, X; 115, 0; 116, X; 117, X; 118, 0; 119, X.

On the last questions, you may take credit if your answer was in different words, but be sure it means the same as the correct ones. They are: 137. One over 39.37 squared; 138. Centiliter or .01 liters; 139. Symmetric or symmetrical; 140. Universal and negative; 141. Both sides were divided by zero in going from step four to step five, which results in an indeterminate form.

Your score is the number of questions you answered correctly. If you only answered 20 or less correctly, you probably are not gifted in science. But if you scored 33 or more, then you may have a real talent for science. Average aptitude is indicated by scores ranging from 21 to 32 inclusive.

Now, let's go back over the answers and see which questions you answered correctly. You should have been right on 1, 3, 7, 8, 101, 102, 105 and 112. Those are rated as the easiest ones.

Which ones did you puzzle over most? The hardest questions are 13, 85, 88, 103, 106, 108, 110, 113, 137 and 140.

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