



January-February 2015

## DESIGNED FOR THE COLD

by Lanny and Marilyn Johnson

The Jones family was in their back yard playing in the freshly fallen snow. Mr. and Mrs. Jones were helping Mary build a snow man, but her brother Billy found it more fun to roll around in the snow. When Mary wasn't looking, Billy crept up behind her, pounced on her back and growled ferociously.

"What are you doing?" squealed Mary.

"I'm a hungry polar bear looking for a snack!" roared Billy.

"Well, little bear, I think it's time for all of us to go inside, warm up, and have a real snack," their mother chuckled.

Once inside, Billy shivered and exclaimed, "Boy I'm cold!"

"Polar bears don't get cold, silly boy," Mary teased. She then asked, "Dad, why is that? How do polar bears keep from freezing to death?"

"God has given the polar bear some amazing designs which help them live and survive on the southern edge of the sometimes bitterly cold Arctic ice cap," said Mr. Jones.

"One very important design is its fur. The polar bear has two kinds of hair that insulates its body from the cold temperatures. On the outside are long, coarse, transparent (colorless)

guard hairs. These guard hairs are hollow and filled with air, which act to slow the escape of heat from the bear's body. Underneath this coat of long hollow hairs is an undercoat of thin, short, tightly packed insulating hairs. The hairs of the undercoat are not hollow, but they are also colorless.

"The polar bear's fur is colorless and has no color of its own, so it is not actually white—it just looks that way," continued Mr. Jones. "The fur looks white (or sometimes ivory) because the air spaces in each hollow hair scatters and reflects visible light (light that our eyes can see). Because the hairs reflect (or bounce back) all the colors of light, we see all of these colors as white."

"Yeah, and those seals that it hunts see only white, too!" cried out Billy.

Mr. Jones laughed. "The white color of the coat does act as camouflage for the bear on the ice and allow it to stalk its prey. That special fur helps the polar bear in other ways, too. They have fur on the soles of their feet to keep them from slipping on ice. When in the water, the hollow hairs help the polar bear float, and combined with a long neck and webbed forepaws, this helps it to be the best swimmer of all the bears. The polar bear has been seen swimming over 50 miles (80 km) at 6 miles (10 km) per hour without rest. They can also swim underwater for

up to two minutes.

"Polar bears have black skin. When all of the colors of light are absorbed or soaked up we see black (which is not a color but the absence of color). Underneath the black skin, polar bears have a layer of fat that can measure up to 4.5 inches (11.5 centimeters) thick. While on the land or on top of sea ice, the polar bear's thick fur keeps it warm ... not its fat. However, because wet fur is a poor insulator and will not hold in heat, when in the water the bears depend on that fat layer to keep them warm.

"Polar bears need to store a great deal of fat to keep warm in the frozen Arctic and to keep them alive when food is scarce. They use their excellent eyesight, hearing and sense of smell to

find food. Polar bears can smell dead animals up to 20 miles [32km] away! Although

their main food source is seals, they also eat crabs, fish, rodents, hares, caribou, and the berries of plants when in season. Polar bears are the largest of all the bears; the males weighs up to 1,700 pounds (771 kg) and stands 8–11 feet (2.4–3.4 m) tall, while the female is usually about half this size. Because of their large size, they have to eat a lot of food for survival.

A large male can hold about 150 pounds (68 kg) of food in his stomach at one time and gobble it down in only 30 minutes!"

"Think about this, kids; Although polar bears are very intelligent, do you think they were able to plan and change their bodies to be able to survive the harsh conditions of the Arctic?" asked Mr. Jones.

"No way! It had to be an intelligent Designer to create all the wonderful designs we see in the polar bear!" Mary exclaimed.

"Yes, and those designs point to a Creator that cares about all of His creatures," added Mrs. Jones.





Find the 18 differences between the 2 pictures



## CROSS-OUTS

Only an intelligent Creator could create the amazing things we find all around us. Solve the puzzle below to find what the Bible says about that Creator.

CROSS OUT ALL:

1. Fish 2. Birds 3. Colors 4. Candy 5. Shapes

|            |           |            |         |
|------------|-----------|------------|---------|
| TROUT      | THEN      | ROBIN      | THE     |
| BEASTS     | RED       | TAFFY      | GO      |
| CIRCLE     | INTO      | DENS,      | OVAL    |
| AND        | MINT      | BLUE       | REMAIN  |
| IN         | SPARROW   | THEIR      | SALMON  |
| SQUARE     | PURPLE    | FUDGE      | PLACES. |
| BASS       | HAWK      | OUT        | OF      |
| THE        | GREEN     | SOUTH      | COD     |
| CHICKEN    | COMETH    | THE        | YELLOW  |
| WHIRLWIND: | CHOCOLATE | RECTANGLE  | PERCH   |
| LICORICE   | AND       | COLD       | SHARK   |
| EAGLE      | ORANGE    | OUT        | OWL     |
| TRIANGLE   | OF        | DUCK       | DIAMOND |
| THE        | BROWN     | SKITTLES   | NORTH   |
| EEL        | LOLLIPOP  | Job 37:8-9 |         |

FOR ANSWERS GO TO: <http://www.discovercreation.org/kids/NewsletterAnswers.htm>

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