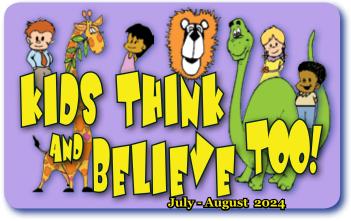
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WEIGHT OF CLOUDS ***

by Lanny and Marilyn Johnson

"Hey Mary, what weighs over 1 million pounds but floats in the air?" Mr. Jones asked. "Uhm ... a rocket? A big airplane?"

"Technically, those fly. They don't really float. If you want a hint, look up into the sky."

Mary looked and said, "All I see are some big clouds."

"Believe it or not, that's the answer," Mr. Jones replied.

"No way, Dad! You are pulling my leg!" "Not really. Think about it. What are clouds made of?"

"Water and air."

"That's right, Mary. Scientists have estimated that the water in a cumulus cloud 3,280.84 feet (1000 meters) long, wide, and high, would weigh about 1,102,311.31 pounds (500,000 kilograms)! A gallon of water weighs

8.34 pounds (3.783 kilograms), so this cloud would hold about 131,894 gallons (499,273 liters) of water. A standard bathtub holds about 80

gallons (302 liters) of water, so it would take about 1,649 standard bathtubs to hold the water of this cloud. It has

been estimated that the total amount of water hanging in the air is over 50 trillion tons!" 1

"Wow, that's incredible! But how can clouds be so heavy and still float in the air?" Mary asked.

"First, let's talk about what a cloud is made of. As liquid water from lakes, ponds, rivers, and oceans is heated up by the sun, it is changed into an invisible vapor. When the sun heats the

> it to rise. As it rises, it begins to cool. As it cools, the vapor collects around tiny pieces of dust in the air. Eventually, liquid droplets of water or solid ice crystals are formed. Yet, they are still small enough to float on even the slightest breeze. When

billions of these droplets of water come together, they form a cloud that you can see." 2,3

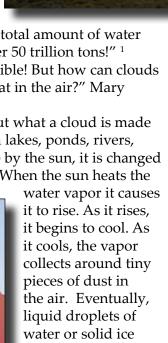
"But I still don't understand how a cloud floats!" Mary declared.

"As long as the cloud is warmer than the

surrounding air, it floats. It works very much like a hot air balloon. The air inside the balloon is hotter than the air around it, so it rises. As gravity slowly pulls the cloud down the heated air from the sun pushes it back up. However, if the droplets or crystals

clump together they can fall as rain, hail, or snow! The Earth has a total average precipitation that would cover the entire planet at a depth of about three feet. This supply of water in the atmosphere is maintained by the power of the sun. 4

"Amazingly God set this whole system up to water the Earth. In the Bible, Job 26:8 states, 'He binds up the water in His thick clouds, Yet the clouds are not broken under it.' God told of this thousands of years before scientists understood it. We didn't even know how much clouds weigh until recently. But God knew!" Mr. Jones ended. 5

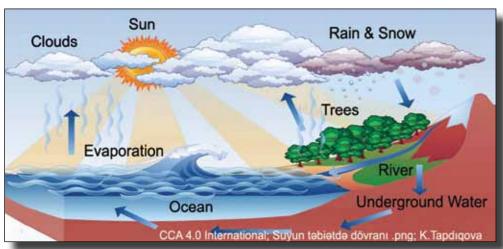




1,3 https://www.loc.gov/everyday-mysteries/meteorologyclimatology/item/how-much-does-a-cloud-weigh/

^{2, 4, 5} ***By permission this article is adapted from Inspired Evidence Ony One Reality, Julie Von Vett and Bruce Malone May 11; by Search for the Truth Ministries - https://www. searchforthetruth.net

For more on clouds go to: https://www.discovercreation. org/documents/kids/SepandOct2008KTB.pdf



Use the alphabet code at the bottom of the page to solve the Bible verse.

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Puzzles by Lanny Johnson © AOI 2024

Maze adapted from krazydad.com/puzzles

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Help the heated evaporated water vapor from the oceans water) rise through the maze to make the two clouds (2 paths)

