



# Hello, dear friends!

THIS PRESENTATION WILL BE ON THE TOPIC OF LIGHTNING

- ▶ Lightning is an electric spark discharge in the atmosphere, occurs during a thunderstorm, manifested by a bright flash of light and thunder accompanying it. Lightning was also recorded on Venus, Jupiter, Saturn, Uranus, etc. The current in the lightning category on Earth reaches 10-500,000 amperes, voltage - from tens of millions to a billion volts



# LINEAR LIGHTNING (TOUCH-EARTH)



- ▶ The discharge of such lightning occurs between the clouds. And it can occur both between the cloud and the castle, and inside the clouds. Its length usually does not exceed 3 meters, but phenomena 20 meters long were also observed.

This type is the most common and has the shape of a broken line, from which there are several branches. Its color is often white, but there are also yellow and even blue options.

# LIGHTNING EARTH-CLOUD



- ▶ The reason for the formation of such lightning is the accumulation of electrostatic discharge at the top of the highest object on earth. Thus, it becomes an "appetizing" bait for lightning, which penetrates the air layer between the cloud and the charged object.

In other words, the higher the object, the more likely it is to become a prey of lightning, so never hide from bad weather under tall trees.

# Horizontals Lightnings



- ▶ Such lightning does not hit the ground, but spreads throughout the sky. Perhaps this is one of the most spectacular phenomena. But at the same time, it is this category that is the strongest and poses a great threat to the living.

# BELT LIGHTNINGS

- ▶ This natural phenomenon is the occurrence of several lightning bolts that go neatly parallel to each other. The reason for their appearance is the action of the wind force, which can expand plasma channels in each lightning, resulting in such differentiated options.



# BEADED LIGHTNING

- ▶ This is the rarest version of lightning. And the reasons for its occurrence are not known to scientists. And the thing is that it is represented by a dotted line, not a solid line. There is an assumption that some of its areas cool down on the way to the ground. And it is as a result that ordinary lightning becomes beaded. But you can also agree that the explanation looks at least strange.



- ▶ Ball lightning is a natural phenomenon that looks like a glowing and floating formation in the air. There is no unified physical theory of the emergence and course of this phenomenon to date; there are also scientific theories that reduce the phenomenon to hallucinations. There are many hypotheses explaining the phenomenon, but none of them has received absolute recognition in the academic environment. In the laboratory, similar but short-term phenomena were obtained in several different ways, so the question of the nature of ball lightning remains open. As of the beginning of the XXI century, no pilot installation has been created on which this natural phenomenon is artificially reproduced in accordance with the descriptions of eyewitnesses of ball lightning observation





# SPRITE LIGHTNING



- ▶ Remarkably, these lightning bolts are formed above the clouds, at an altitude of about 100 km. Alas, they don't know much about them now. And although they became known with the emergence and development of aviation, photos of this fascinating phenomenon became available only now.

# VOLCANIC



- ▶ These are the last types of zippers that we will consider. They occur when volcanoes erupt. Scientists tend to explain this phenomenon by the fact that the resulting dust dome breaks through several layers of the atmosphere at once, and since it carries a colossal charge, it naturally causes disturbances.

All the described phenomena are very spectacular and can fascinate. But at the same time, their beauty is murderous for humans. Therefore, we can only admire the incomprehensible power that nature shows us and try to disarm ourselves from raging elements.

Thank you for your  
attention!!!

