

Код УГПС – 05.00.00

МАТЕМАТИЧЕСКИЕ И ЕСТЕСТВЕННЫЕ НАУКИ

Тема 3. Государственные учреждения, бизнес и услуги



Express your opinion on the following quotation.

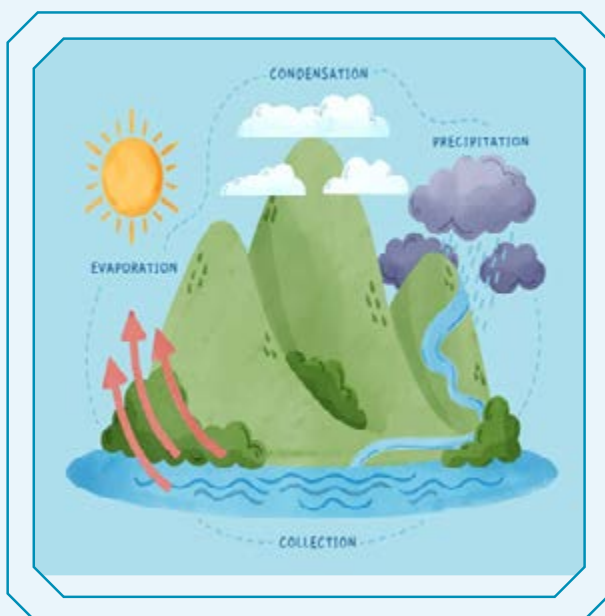
«When two Englishmen meet, their first talk is of the weather» (Samuel Johnson).

Connection Between Meteorology and Hydrology

Meteorology and Hydrology are important fields of study, they are closely connected and both focus on the Earth's atmosphere and its connection with the water cycle. Meteorology studies the Earth's atmosphere, which includes the processes that control weather and climate around the world. Hydrology, on the other hand, studies the movement and quality of water, as well as how it is spread across the planet.

Connecting the Dots

The water cycle in nature is what connects Meteorology and Hydrology. This process is responsible for the movement of water in the Earth's biosphere, which appears in cycles. Therefore, water turns into vapour and then returns to its previous state, falling as rain, snow. Meteorology studies atmospheric conditions such as temperature, humidity and atmospheric pressure, because these conditions affect how precipitation forms. This precipitation is important for the planet to refill water on land, including rivers, lakes and groundwater.



Then hydrologists come into play. They study how precipitation connects with the land, especially how water soaks into the ground, goes through the whole process and finally reaches rivers and streams. They also study how water is stored in various water reservoir like lakes, swamps, etc.

Studying these processes helps hydrologists predict how changes in weather patterns or temperature can affect water quality in a region.

In conclusion

The connection between Meteorology and Hydrology shows the close relationship between the atmosphere and the Earth's water resources. Studying these two sciences helps scientists to understand and solve water-related problems (floods, droughts and water pollution). It is impossible to imagine an ecologically clean world without these sciences.

Key words:

- **evolving rapidly** – быстро
- **water cycle** – круговорот воды
- **atmospheric pressure** – атмосферное давление
- **vapour** – пар
- **precipitation** – осадки
- **humidity** – влажность
- **drought** – засуха

Discuss the questions

1. What dangers do you think water pollution poses to the environment?
2. How is climate change affecting water resources and the water cycle?

Project

1. Choose a region or country for your research.
2. Analyse data on climate change in the region over the last 10-20 years.
3. Analyse the impact of these changes on the water cycle, water levels in rivers and lakes, and formation of droughts
4. Give recommendations on how to manage water resources in the region considering climate change projections.

Provide the results of your research in the form of a presentation or report.