


Lesson 5. Are you weather-wise: how does weather work?

1. What is weather? Is it important to understand weather? Why?

2. We live 'inside' weather, every aspect of our life depends on it. Therefore, it is worth having a deeper understanding of this life's mystery. With your class ask researchers' questions about weather, e.g. *Why does it (rain)?*

Write them on the board.

3a.  Listen and read the information from the "Weather-Wise Magazine". Say if it answers any of your research questions (ex. 2).

3b. Read aloud together with the class and guess the meaning of the words in bold.

For weather to occur, there must be energy. This energy comes from the Sun, which **heats** the Earth. The **heating** is uneven (неравномерное), because there is day and night and because different surfaces, e.g. trees, mountains, water in oceans, seas, rivers, absorb [əb'zɔ:b] and reflect [rɪ'flekt] different amounts of **solar** ['səʊlə] energy. Besides, the Earth is heated more at the equator [ɪ'kwetə] than at the north and south poles. These temperature differences influence the atmosphere. Warm and cold air move and change air pressure. The movement of the air near the Earth's surface is key to weather formation, and so is pressure, as air moves from high to low pressure areas.

The Sun also heats the water, which is on the Earth in rivers, lakes, seas, oceans, and in the upper layer of the ground.



It **evaporates** and water vapour rises into atmosphere making it **humid**.

When the water vapour rises higher and mixes with the cold air, **condensation** occurs: water vapour (a gas) turns into small water **droplets**, which form clouds. When the little droplets run into

each other because of wind, larger **drops** grow and start falling to the ground because the air can't hold them any longer. During a storm, the wind can throw the **raindrops** high up where they freeze and turn into little balls of ice (лёд). They fall down in the form of hail. When clouds rise higher, the water in them freezes and turns into ice crystals, which make up **snowflakes**, falling to the Earth as snow.



3c. Check if you can read the words below and if you remember their meaning. Work in pairs.

heat [hi:t]

solar ['səʊlə]

droplet ['drɒplət]

snowflakes ['snəʊfleɪks]

humid ['hju:mɪd]

evaporate [ɪ'væpəreɪt]

condensation [ˌkɒndən'seɪʃ(ə)n]

3d. Find answers to the questions (you can read them). Work in pairs.

1. Why does weather occur?
2. How do clouds form?
3. Why is there rain?
4. What is snow?
5. What is hail?
6. Why is there wind?

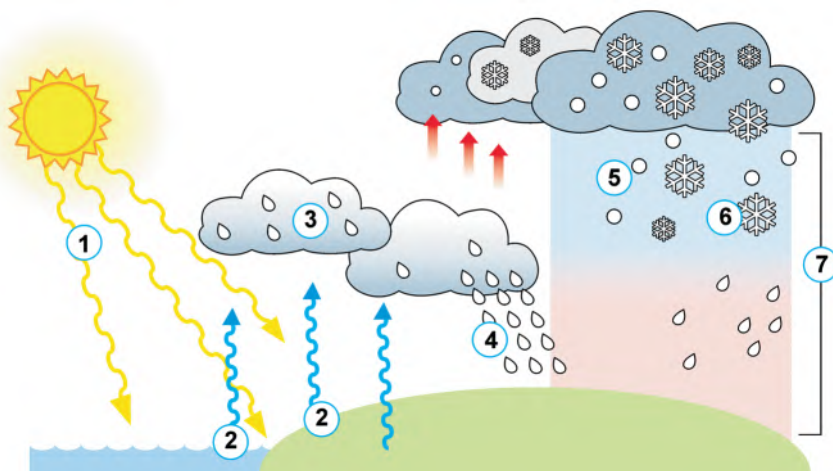
4. Complete the list of words and describe weather formation.

Heat, heating, different surfaces, ...

5. Make a simple experiment and explain what process occurs.

1. Breathe on a cold window.
2. What do you see on the glass?
3. What is the relation of this experiment to weather formation?

6a. Are you weather-wise? Look at the picture and explain in pairs how weather works.



6b.  Look and write how weather works.

Lesson 6. How is weather predicted?

1. For centuries people used their senses and experience to predict (= forecast) weather. Read what you should observe (= watch) and match the observations with their explanations.



1. Observe plants. 2. Check for humidity. 3. Observe birds.
4. Watch the clouds.

- A. Many people feel it in the hair (it curls up), or salt clumps (берется комками). It happens before rain.
- B. If there is a cover of them at night – expect warmer weather. They are like a blanket (как одеяло) for the earth. They keep warmth near the ground.