

1

Answer the following questions in your own words.

1. What are the factors that weather depends on? **temperature, air pressure, humidity, altitude, precipitation etc..**
2. Where is our weather created? **in the lower part of the atmosphere - troposphere**
3. What does the Earth's atmosphere consist of? **78% nitrogen and 21% oxygen**
4. Why are temperatures higher during the summer months? **the sun's rays hit us more directly**
5. By how much does it get colder the farther up you go? **0.7° C per 100 meters**
6. Air moves from **high** pressure areas to **low** pressure areas.
7. What happens when the air cannot hold any more moisture? **it forms clouds**
8. What other forms of precipitation, apart from rainfall, are there? **snow, hail, sleet, fog, drizzle**
9. Which force makes global winds bend and shift? **Coriolis effect**
10. Why does it often rain around the equator? **rising air from trade winds that blow to the equator**
11. Why can you find the world's deserts between 20° and 40° north and south of the equator? **areas of high pressure**
12. Describe the Mediterranean climate? Where can you find it? **hot, dry summers and cool, rainy winters ; southern Europe, northern Africa, California, South Africa**
13. In which climate zone are tundras located? **polar climate**
14. How do airplanes benefit from global winds? **strong tailwinds , less fuel**
15. What happens when cold and warm air masses meet? **a front develops**
16. How do meteorologists collect weather data? **weather balloons, satellites**
17. In which parts of the world have the highest and lowest temperatures been recorded? Explain! highest temperatures : **Libyan desert, lowest temperatures : Antarctica**
18. Why are weather forecasts sometimes inaccurate? **humans make mistake, conditions of the atmosphere always changes**

2

Multiple Choice Task

Choose the correct answer for each question

1. **The Earth's atmosphere is made up of**
 - a. **about 78% nitrogen and 21% oxygen.**
 - b. about 78% oxygen and 21% nitrogen.
 - c. pure oxygen.
 - d. more oxygen than nitrogen.
2. **When you go higher up in the mountains**
 - a. there is less rainfall.
 - b. the temperature increases.
 - c. there is more humidity.
 - d. **the temperature decreases.**
3. **Cold air**
 - a. produces more wind.
 - b. **sinks to the ground.**
 - c. has a lot of humidity.
 - d. moves to high pressure areas.
4. **Trade winds blow**
 - a. **near the equator.**
 - b. in the northern hemisphere.
 - c. in the westwind zones.
 - d. around the poles.
5. **During the summer season**
 - a. The Earth's axis is tilted away from the sun.
 - b. the sun's rays come in flatter.
 - c. the sun's rays are weaker.
 - d. **the Earth's axis is tilted towards the sun.**
6. **100% relative humidity means**
 - a. that clouds start forming.
 - b. **that the air cannot hold any more moisture.**
 - c. that the air starts sinking to the ground.
 - d. that it starts to rain.
7. **The Coriolis effect**
 - a. takes place around the poles.
 - b. makes westerly winds faster.
 - c. pulls air to high-pressure areas.
 - d. **makes winds change their direction a bit.**
8. **When a cold front catches up with a warm front**
 - a. clouds start forming.
 - b. **it pushes the warm air upwards.**
 - c. it starts to snow.
 - d. the cold front disappears.

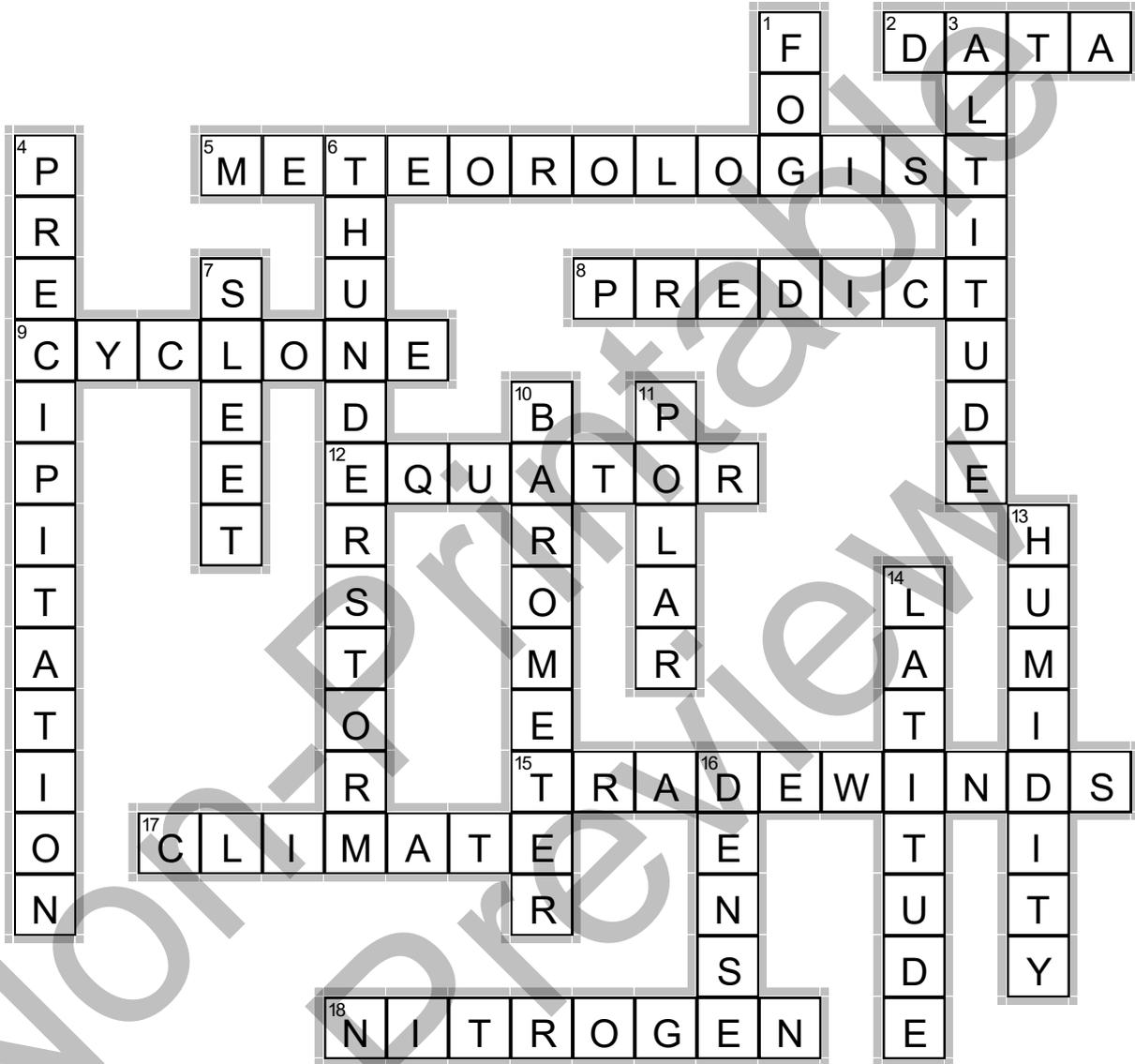
WEATHER AND CLIMATE – KEY

3

Match the words on the left with the definitions on the right.

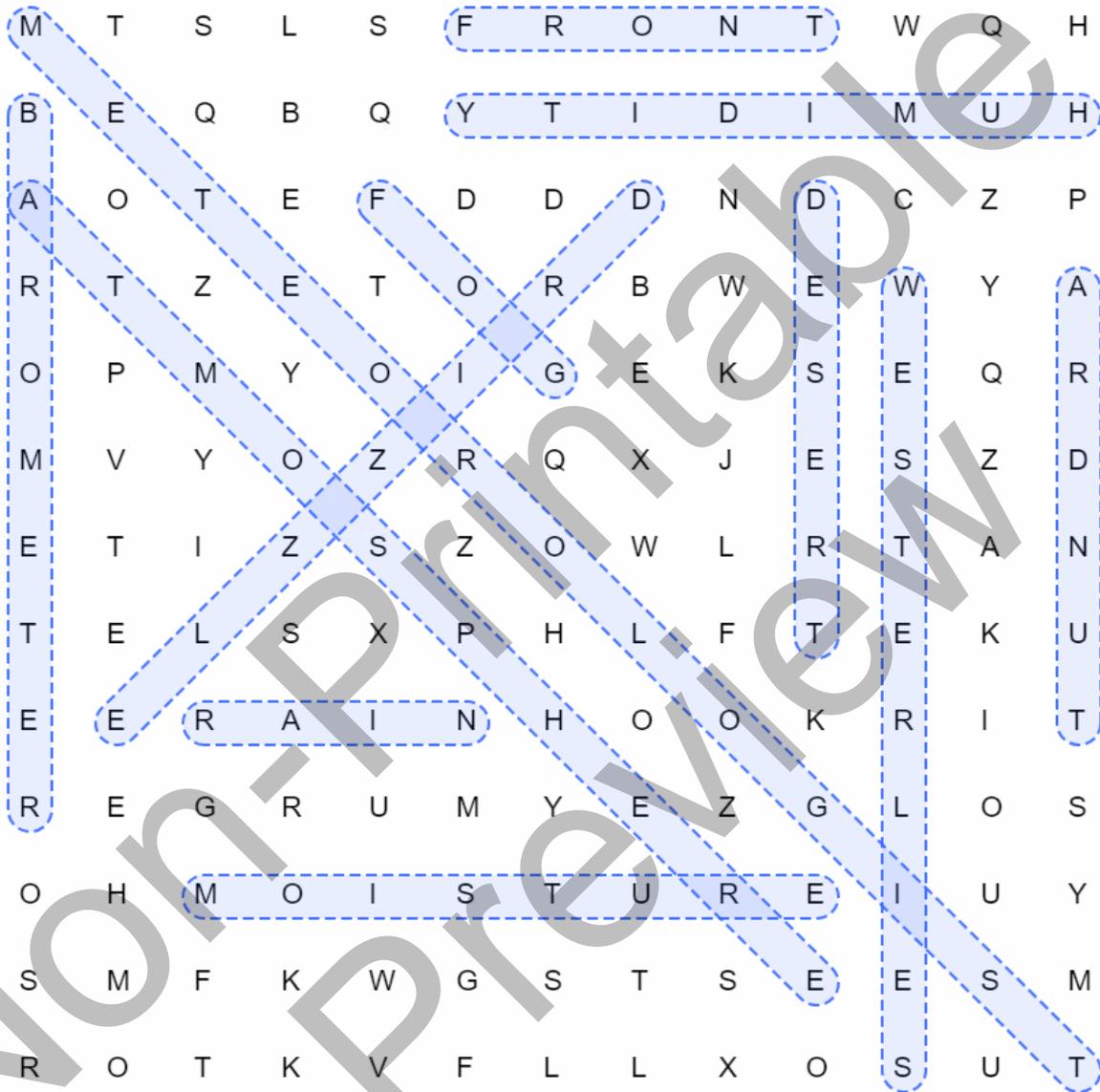
| | | | |
|----------|---------------|----------|--|
| A | axis | C | small droplets of water in the air |
| B | hail | M | to find out the amount or size of something |
| C | moisture | H | clouds that are near the ground; it is difficult to see through them |
| D | altitude | F | line of light from the sun |
| E | dense | R | not exact, not correct |
| F | ray | J | to go around an object |
| G | oxygen | A | the line around which an object turns |
| H | fog | L | wind that is blowing in the same direction in which you are travelling |
| I | moderate | P | object that orbits the Earth and sends back important information |
| J | rotate | B | frozen raindrops that fall down as hard balls of ice |
| K | cyclone | N | person who studies weather conditions and the climate |
| L | tailwind | O | machine that uses radio waves to find out where an object is |
| M | measure | G | a gas that is in the air and that we need to breathe |
| N | meteorologist | K | tropical storm |
| O | radar | D | the height of a place above the sea |
| P | satellite | I | not too hot and not too cold |
| Q | equator | S | yearly |
| R | inaccurate | E | thick, heavy |
| S | annual | Q | line around the middle of the Earth |

| | T | F |
|--|---|---|
| Weather is the state of the atmosphere over a long period of time. | | ✓ |
| The Earth's atmosphere consists mostly of oxygen. | | ✓ |
| Weather is created in the lower part of the atmosphere. | ✓ | |
| The northern half of the Earth is tilted towards the sun in June. | ✓ | |
| The sea makes the climate more moderate and not so extreme. | ✓ | |
| Air always moves from low pressure to high pressure areas. | | ✓ |
| Warm air can hold more moisture than cold air. | ✓ | |
| When the air cannot hold any more moisture, it starts to rain. | ✓ | |
| The amount of rainfall that a place gets depends on the temperature. | | ✓ |
| There are always clouds and rising air around the equator. | ✓ | |
| The world's largest grasslands are around the equator | | ✓ |
| It rains a lot between 20° and 40° north of the equator. | | ✓ |
| Trade winds blow from the equator to the poles. | | ✓ |
| Winds are stronger the higher up you get. | ✓ | |
| Airplanes that travel from west to east need less fuel because of tailwinds. | ✓ | |
| Warm weather fronts develop around the poles. | | ✓ |
| Warm fronts arrive before cold fronts. | ✓ | |
| Meteorologists are scientists who study weather and climate. | ✓ | |
| A hygrometer shows how much it has rained. | | ✓ |
| The weather can be predicted rather well over a period of a few days. | ✓ | |
| The lowest temperature ever recorded was in Siberia. | | ✓ |



6

Find 12 words in the grid and mark them (↘ ↙ ↗ ↖ ↓ ↑ ← →).



7

Fill in the words from the box to complete the weather report. There are TWO words you will not need.

In the morning you can expect to see (1) **fog** and mist in wide parts of Britain. During the early morning hours it is expected to (2) **clear up** and we should look forward to a (3) **partly** sunny day.

The southern part of Britain should see a spell of (4) **clear** and sunny weather today. Towards the north it will become (5) **cloudier** as a the first wave of a (6) **front** is coming in from the northwest.

(7) **Showers** will spread over the west of Scotland and Northern Ireland during the early parts of the afternoon. The eastern part of Scotland should stay (8) **sunny** throughout the day.

It will stay (9) **moderately** warm with temperatures between 17 and 21° C. (10) **Calm** winds will be blowing from the east and southeast at 10 to 15 miles an hour.

calm
clear
clear up
cloudier
fog
front
humid
moderately
partly
showers
sunny
temperate

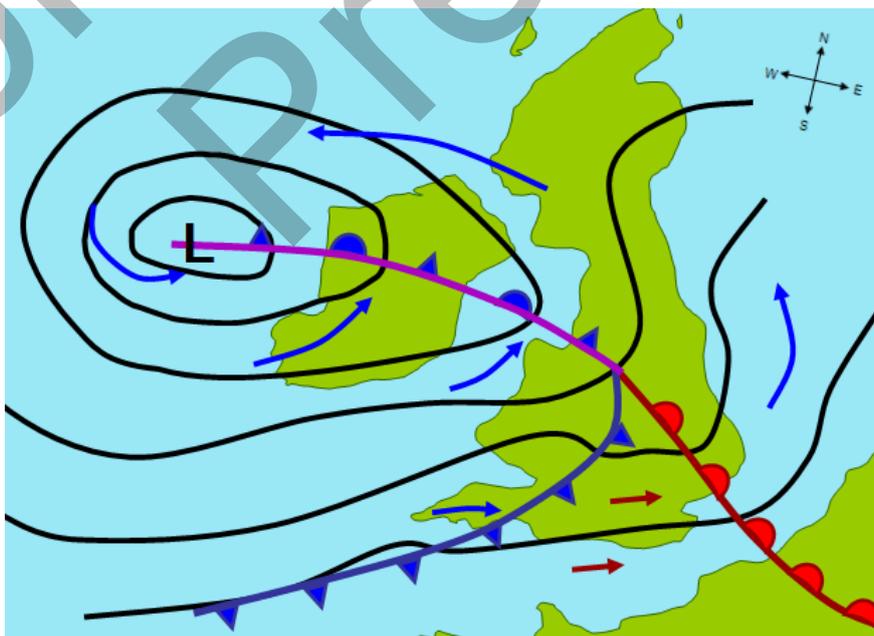


Image: <https://garystockbridge617.getarchive.net/amp/media/uk-cyclone-2-a7047d>, Public Domain

8

Seasons And How They Affect Our Weather – Fill in the correct sentence parts from the list. There are TWO parts you will not need.

Seasons are a very important element in our lives. They have an influence on what we wear, what we eat and what we do in our free time. They also affect the mood we are in. In ancient civilizations people observed that the sun was at different places **(1) G**. But they didn't understand how this led to the changes in seasons.

Towards the end of the Middle Ages the astronomer Nicolai Copernicus changed **(2) E**. He said that the sun, not the Earth, was at its center and all objects moved around it. Today we know that the Earth moves in an elliptical path around the sun. The Earth **(3) B** and is tilted towards or away from the sun. This means that the northern and southern parts of the Earth get different amounts of sunlight throughout the year. The sun gives us heat too and temperatures change, **(4) J** how steep the sun's rays come in.

The seasons start with solstices and equinoxes. Solstices occur every year in June and December. They mark the beginning of summer and winter. The Earth is tilted farthest towards or away from the sun. The equinoxes occur in March and September. On March 20th or 21st the sun seems to be right above the equator and **(5) H**. At the end of September the sun passes the equator on its way to the south. Day and night **(6) A** almost all over the planet. The exact day and time of a season's beginning always changes a bit.

The change of seasons also has an effect on our weather. In June, the northern hemisphere is tilted towards the sun. The sun's rays are more direct, and they do not have to travel so far **(7) F**. More radiation reaches the Earth. The days are longer and more light gets to the surface. There it is changed to heat. At the same time the southern hemisphere is tilted away from the sun. Rays have to travel longer to get to the surface and there are fewer hours of daylight.

Although June and December **(8) D** of summer and winter, these months are not always the hottest and coldest of the year. Temperatures also depend on the heat that is absorbed and reflected by land and the oceans. In most cases the hottest months in the northern hemisphere are July and August and coldest times of the year occur in January and February.

| | |
|----------|------------------------------------|
| A | have the same length |
| B | spins around its axis |
| C | are always different |
| D | mark the official beginning |
| E | our view of the solar system |
| F | to reach the surface |
| G | during different times of the year |
| H | moving towards the north |
| I | to move towards the equator |
| J | depending on |

9

Multiple Choice – Fill in the correct word.

Our weather is created in the **(1) lower** part of the Earth’s atmosphere, which consists of 78% **(2) nitrogen** and 21% oxygen. Weather depends on many factors. Temperature, for example, depends on **(3) altitude**, distance from the coast and in which angle the sun’s rays hit the Earth. Normally, the temperature decreases the higher up you go.

Air pressure is the **(4) weight** of the air. Cold air sinks and warm air rises. This causes movement in the air and creates global wind systems. **(5) Trade** winds blow around the equator, between 30° northern and southern latitude. Because it is very hot around the equator the air rises and creates low **(6) pressure** areas. That is why it rains a lot in the tropical regions.

Steady winds from the west blow eastwards in the middle latitudes. This jet stream allows planes to travel faster and save fuel when moving from west to east. **(7) Easterly** winds blow around the polar regions.

When cold and warm air masses meet a **(8) front** forms. The colder air moves under the warm front and pushes the warm air up. Clouds form and it begins to rain. Humidity is the moisture that the air holds. Warmer air **(9) expands** and can hold more moisture than colder air. Relative humidity is **(10) measured** in %, so 100% humidity means that the air is fully saturated and it rains.

Precipitation does not only come down as rain or snow. Hail, sleet and drizzle are other forms of precipitation. Some places on Earth are extremely dry, like **(11) desert** areas, others get many meters of rainfall every year. Places near the **(12) coast** usually get more precipitation than areas than lie far away.

| | | | | |
|-----------|--------------|-----------|------------|-----------|
| 1 | below | upper | lower | middle |
| 2 | nitrogen | carbon | hydrogen | dioxide |
| 3 | wind systems | fronts | mountains | altitude |
| 4 | heavy | power | weight | strength |
| 5 | Summer | Trade | Monsoon | Temperate |
| 6 | pressed | pressing | press | pressure |
| 7 | Easterly | Northerly | Westerly | Southerly |
| 8 | tornado | front | wind | cyclone |
| 9 | increases | develops | expands | grows |
| 10 | measured | checked | determined | marked |
| 11 | tundra | savannah | rainforest | desert |
| 12 | beach | coast | mountains | lakes |