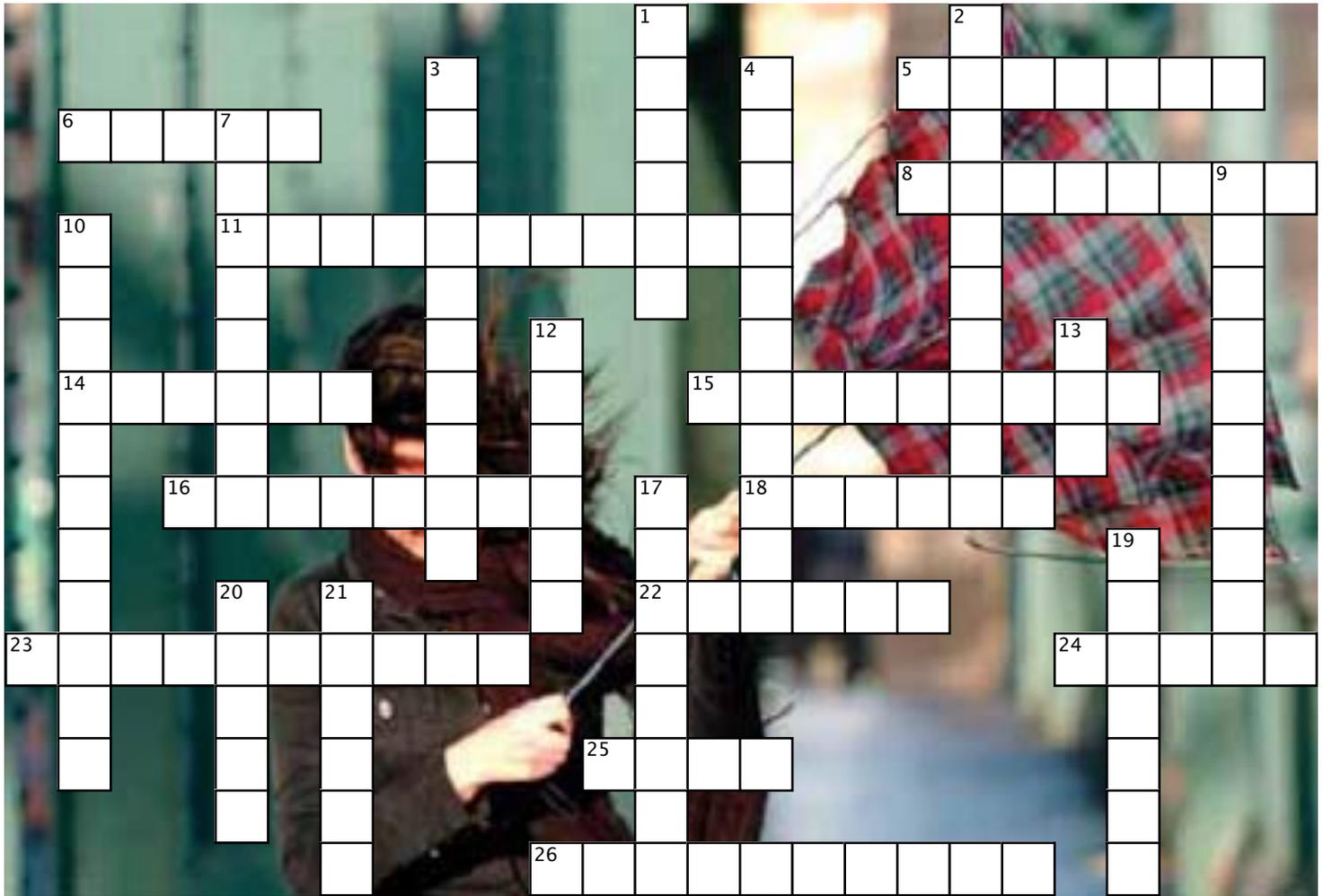


10.2 Energy Transfer in the Atmosphere



Across

5. The condition of the atmosphere in a specific place and at a specific time.
6. An important part of the stratosphere is the _____ layer. This layer absorbs much of the ultraviolet radiation from the Sun.
8. The _____ effect is a change in the direction of moving air, water, or objects due to Earth's rotation.
11. The _____, the densest of all the layers, contains about 75 percent of the total mass of the atmosphere.
14. Scientists believe this gas first appeared in our atmosphere when sunlight broke apart water molecules.
15. We can measure atmospheric pressure using an instrument called a _____.
16. The temperature in the troposphere drops by about 6.5°C for every 1 km _____ in altitude.
18. Ozone is a molecule composed of three _____ atoms.
22. The upper stratosphere gets _____ with increasing height.

Down

1. Earth is said to have a radiation _____, which keeps incoming and outgoing energy in balance.
2. Above the stratosphere is the _____, which extends from about 50 to 80 km above sea level. Temperatures here can reach as low as -100°C.
3. The SI unit for atmospheric pressure is the _____.
4. Almost all _____ in the atmosphere is found in the troposphere, which is why the weather takes place in this layer.
7. _____ and oxygen together make up 99 percent of dry air (air that does not contain water vapour).
9. The amount of solar radiation that reaches a certain area is called _____.
10. Many extrasolar planets are believed to have _____, layers of gases that extend above a planet's surface.
12. The amount of radiation reflected by a surface.
13. Low pressure systems often bring _____ weather.
17. When air is cooled below the _____, water vapour condenses.

Across

23. At the top of the troposphere is a transition zone, called the _____, which marks the boundary between the troposphere and the next layer in the atmosphere.
24. An approaching wide band of clouds indicating the boundary between two air masses is called a _____.
25. _____ is the movement of air from an area of higher pressure to an area of lower pressure.
26. The boundaries between Earth's global wind systems are therefore regions of extremely strong winds. These winds are known as _____ _____.

Down

19. A _____ is a violent, funnel-shaped column of rotating air that touches the ground.
20. At the top of the thermosphere, where the _____ radiation is the strongest, temperatures can reach 1500°C to 3000°C.
21. Earth's atmosphere is made up of five _____, which differ in average altitude, chemical composition, average temperature, and density.