

Weather Worksheet #2

Name: _____

1. Explain what is meant by the Coriolis effect?

The apparent deflection of the wind due to the rotation of the earth.

2. Which way does the wind appear deflect in the northern hemisphere?

To the right.

3. The prevailing winds in Winnipeg come from what direction?

West

4. Explain what a convection current is.

Air warmed becoming less dense and rises leaving a "hole" for cooler surrounding air to fill.

The air cools becoming more dense and falls.

This results in a rotation of air.

5. Ocean gyres rotate in what direction in the northern hemisphere?

clockwise

6. What type of weather would result in Winnipeg from an El Niño event?

Warmer than normal winter

7. Why does warm air rise at a front?

Warm air is less dense than cold air. Therefore, it rises above the cold air.

8. Why does cold air stay close to the ground?

Cold air is more dense than warm air. Therefore, it stays near the ground.

9. What type of weather is associated with a

(a) warm front?

Slow steady rain, warm humid temperature

(b) cold front?

Thunderstorms, fair, cool temperature

10. List two ways that a warm front and a cold front are similar to each other:

*air masses of different temperatures meet
in both cases, the warm air rises*

11. In the winter, which type of front would cause a heavier snow storm?

Cold front

12. Which type of front would likely bring hail and possible tornadoes into an area?

Cold front

13. What is a stationary front?

A stationary front occurs when a cold air mass and a warm air mass run into each other but, neither is able to make the other move out of the way.

14. What type of weather occurs with a stationary front?

cloudy, overcast, light showers or drizzle

15. Which way does the air rotate in a

(a) low pressure system?

counterclockwise

(b) high pressure system?

clockwise

16. What type of weather is associated with a

(a) low pressure system?

cloudy, possible precipitation

(b) high pressure system?

Sunny, light wind