

SYNOPTIC WEATHER MAPS 2

Name _____

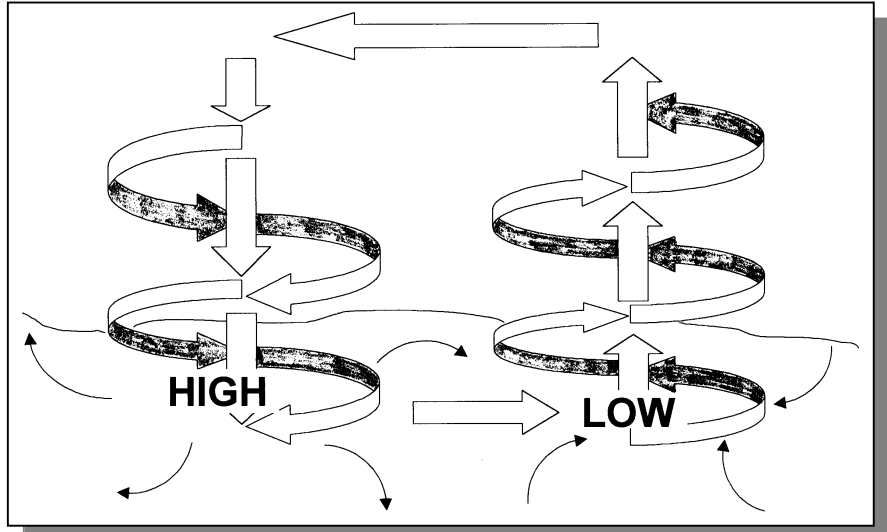
Partners _____

Give the best answers to the following questions.

1. An anticyclone is a _____ pressure air mass, where winds move UP / DOWN, rotate in a _____ direction, and TOWARD / AWAY FROM the center.

2. A cyclone is a _____ pressure air mass, where winds move UP /DOWN, rotate in a _____ direction, and TOWARD / AWAY FROM the center.

3. Notice that the diagram at right shows a cyclic path – a convection cell in effect.



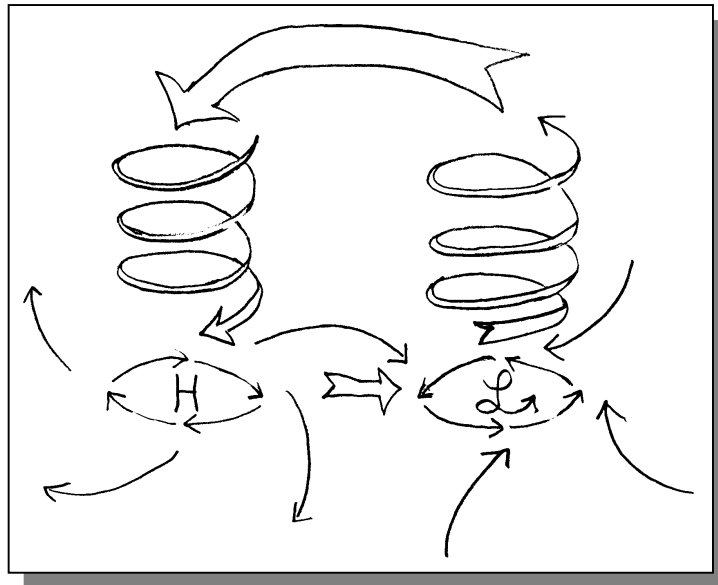
Where would warmth and moisture tend to be picked up by the winds? _____

4. Where in the diagram would cooling, condensation and precipitation be most likely? _____

5. Where is the coldest, driest air found? _____

6. Why is it good to remember “high and dry?”

7. In the hand-drawn diagram, notice the symbol for the LOW. How can the “L” help you remember the direction of rotation (HIGH is just the opposite)? _____



8. HIGHS / LOWS are associated with storms, whereas HIGHS / LOWS bring cool, fair weather.

9. Unstable conditions produce wind and storms. The atmosphere can become unstable between two _____, along a boundary called a _____.

10. Fronts are named for whichever air mass is moving _____.

11. Warm and cold fronts are shown on maps as lines with little half-circles or triangles along one side. How can you tell which way the fronts are moving? _____

12. Since COLD / WARM fronts move fastest, they can catch up to, and overtake, COLD / WARM fronts moving in the same direction.

13. When a _____ front first appears, its air is way up high in altitude, showing up as wispy, fine cirrus clouds (like “mares tails.” Gradually the clouds get thicker and lower and layered, and the sky becomes gray – these are stratus clouds.
14. When a _____ front first appears, its air comes in low on the ground, like a bulldozer! Tall, puffy cumulus clouds appear quickly, and strong winds rush in from the south. A violent storm passes quickly, followed by cool, clear weather, and a dramatic shift in wind direction from the northwest.
15. _____ fronts bring relatively light, steady, long periods of precipitation, followed by warm weather.
16. In the boxes below, draw a warm front and a cold front from the side. In *each* diagram, draw and label:
 a) the interface, b) the direction of front movement, c) the warm air mass, d) the cold air mass, e) wind motions along the front, f) clouds, g) precipitation.

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17. A front that doesn't move much is called a _____ front.
18. When a cold front catches up with a warm front, it pushes the warm air up above it, forming an _____ front.
19. In the diagram at right, the cold front is moving toward the _____, while the warm front is moving toward the _____.
20. Where is the heaviest rain likely to be found?

21. High pressure systems contain only one air mass. Low pressure systems, like the one shown, contain _____ air masses, separated by fronts.

