**GLOBAL WIND PATTERNS**

**PURPOSE:** T0 become familiar with the global wind patterns that influence weather.

**MATERIALS:**

· Paper Plate · 6 strips of construction paper (extra credit) · Glue

· Marker · Textbooks (pg 421-424) . Crayons/Color Pencils

**PROCEDURE:**

* Using the marker, draw a line across the center of your plate. Mark this “Equator.”
* Draw parallel lines north of the Equator that correspond to 30°N and 60°N. Label 90°N at the very top of the plate.
* Draw parallel lines north of the Equator that correspond to 30°S and 60°S. Label 90°S at the very bottom of the plate.
* In general, regions of low pressure occur over the equator or near the Equator, areas of high pressure occur near 30°N and 30°S, areas of low pressure occur again near 60°N and 60°S, and areas of high pressure occur near 90°N and 90°S (The Poles). Mark each of these areas on your model as being either Low or High Pressure.
* Winds are named for the direction from which they blow (where they come from). Remember that wind always blow from areas of high pressure toward areas of low pressure. Draw arrows and label the wind patterns by name for each section.
* Color the wind patterns for each section as indicated.
	+ Polar Easterlies - red
	+ Westerlies - green
	+ Trade winds - orange
	+ Doldrums - blue
	+ Horse Latitudes - yellow
* Draw the approximate location and wind direction of the Northern Polar Jet Stream and label.
* Draw arrows on one side of the plate to indicate where air is rising vertically and where it is descending vertically. Remember that air rises at low pressure areas and falls at high pressure areas. See the diagrams in the textbook to identify the circulation cells.
* Attach your plate to a piece of paper as demonstrated. Continue your lines of Latitude across the paper. For each section as indicated:
	+ Label the wind pattern by name.
	+ Write the direction the wind travels.
	+ Write a description (wind’s behavior, weather in that region, how it got its name, etc).
* Extra Credit: Roll the 6 narrow strips of construction paper so that one fits in between each pressure section. Glue these onto the plate to represent the global circulation cell created by the areas of high pressure and low pressure. Draw arrows on the sides of the paper strips to indicate where air is rising vertically and where it is descending vertically.
* Complete Global Winds Activity at the top of pg. 423