

Spinning Earth Rubric

Name _____
 Date _____ Period _____ Score ____/4

LT: Identify evidence of how the rotation of the Earth deflects surface winds – which creates the global wind patterns.

Category	4-Advanced	3-Profficient	2-Partially Proficient	1-Unsataisfactory
Drawings/ Captions ____/4	<input type="checkbox"/> Exceptional detail <input type="checkbox"/> Exceptional use of color for communication <input type="checkbox"/> Additional captions which add to the understanding of the demonstration Example: Identifying that the ping pong ball represents wind as it moves from a high pressure region to a low pressure region. Example: The ball that was rolled on the board deflected more than the ball thrown through the air.	Drawing clearly illustrates the system used to demonstrate deflection to the right. <input type="checkbox"/> Color is used for clarification. <input type="checkbox"/> All parts are labeled Captions help explain procedure and scientific explanation included in demonstration <input type="checkbox"/> Earth spins west to east <input type="checkbox"/> Outside of the merry go round represents the warmer equator (and/or low pressure) <input type="checkbox"/> Inside of the merry go round represents the poles (and /or high pressure) <input type="checkbox"/> The ping pong ball always deflected to the <u>thrower's</u> right.	One of the criteria for the 3-Proficient response is missing or incomplete.	Two or more of the criteria for the 3-Proficient response are missing or incomplete
Summary Paragraph 1 Air Deflection ____/4	<input type="checkbox"/> Discussion includes additional insights relevant to the topic: Example: Explain how this model explains (or does not explain) the jet stream. <input type="checkbox"/> Other (Describe) _____ _____	<input type="checkbox"/> Clear description of deflection caused by spinning. <input type="checkbox"/> Clearly state that the merry go round does <u>NOT</u> explain the doldrums directly. <input type="checkbox"/> The trade winds blow from the northeast to the southwest because air returning to the equator is deflected to the right <input type="checkbox"/> The westerlies blow from west to east air heading north is deflected to the right) <input type="checkbox"/> The polar easterlies blow from northeast to southwest because air blowing southward is deflected to the right	One of the criteria for the 3-Proficient response is missing or incomplete.	Two or more of the criteria for the 3-Proficient response are missing or incomplete
Summary Paragraph 2 Convection ____/4	<input type="checkbox"/> Discussion includes additional insight relevant to the topic: Example: Explain that the high pressure system that develops at around 30°N from the falling air from the equator is high enough that it pushes air northward to lower pressure and southward to lower pressure Explain how the fastest region of the planet has little or no wind. <input type="checkbox"/> Other (Describe) _____ _____	Paragraph explains the convection current that occurs between the equator and 30°N <input type="checkbox"/> Sunlight hit the equatorial region – heats the region the most <input type="checkbox"/> The hot air is less dense and rises causing a low pressure system over the equator <input type="checkbox"/> The air tends to travel toward the poles <input type="checkbox"/> The air cools and drops back to Earth at around 30°N <input type="checkbox"/> The cool, dropping air causes high pressure <input type="checkbox"/> A surface wind is caused which blows from the 30°N high pressure system to the low pressure region of the equator	One of the criteria for the 3-Proficient response is missing or incomplete.	Two or more of the criteria for the 3-Proficient response are missing or incomplete

____/12 ÷ 3 = ____/4