

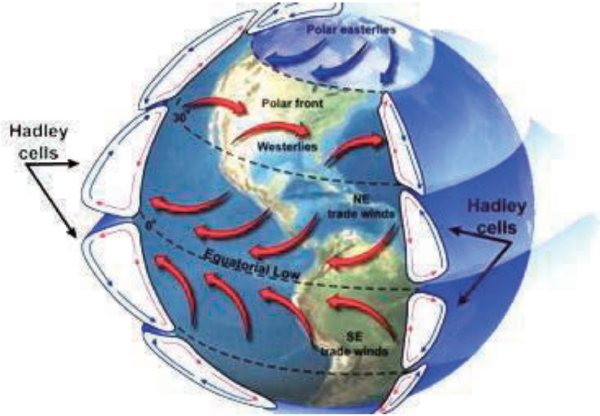
物理学科推薦入試小論文〔問題〕用紙	受験番号	氏 名
受験番号と氏名を全ての用紙に記入すること。 試験終了時に全ての用紙を回収します。		

北 里 大 学 理 学 部 物 理 学 科      2025 年 度 推 薦 入 試    小 論 文 課 題

下記の英文を読み、設問に答えなさい。

“History of Meteorology”

The development of meteorology is deeply connected to developments in science, math, and technology. The Greek philosopher Aristotle wrote the first major study of the atmosphere around 340 B.C.E. Many of Aristotle’s ideas were incorrect, however, because he did not believe it was necessary to make scientific observations.



A growing belief in the scientific method profoundly changed the study of meteorology in the 17th and 18th centuries. Evangelista Torricelli, an Italian physicist, observed that changes in air pressure were connected to changes in weather. In 1643, Torricelli invented the barometer, to accurately measure the pressure of air. ①The barometer is still a key instrument in understanding and forecasting weather systems. In 1714, Daniel Fahrenheit, a German physicist, developed the mercury thermometer. These instruments made it possible to accurately measure two important atmospheric variables.

There was no way to quickly transfer weather data until the invention of the telegraph by American inventor Samuel Morse in the mid-1800s. ②Using this new technology, meteorological offices were able to share information and produce the first modern weather maps. These maps combined and displayed more complex sets of information such as isobars (lines of equal air pressure) and isotherms (lines of equal temperature). With these large-scale weather maps, meteorologists could examine a broader geographic picture of weather and make more accurate forecasts.

In the 1920s, a group of Norwegian meteorologists developed the concepts of air masses and fronts that are the building blocks of modern weather forecasting. Using basic laws of physics, these meteorologists discovered that huge cold and warm air masses move and meet in patterns that are the root of many weather systems.

Meteorology : 気象学、	development : 発達・発展、	math : 数学、
Greek philosopher Aristotle : ギリシャの哲学者アリストテレス、	atmosphere : 大気、	belief : 信念、
profoundly : 深く、	Evangelista Torricelli : (人名)トリチェリ、	barometer : 気圧計、
Daniel Fahrenheit : (人名)ファーレンハイト、	mercury : 水銀、	invention : 発明、
Samuel Morse : (人名)モールス、	meteorological office : 気象庁、	isobar : 等圧線、
Norwegian : ノルウェーの、	air masses and fronts : 気団と前線、	isotherm : 等温線、
		building blocks : 基礎的な要素

National Geographic Education より抜粋

問1 下線部①と②を、和訳しなさい。

問2 この文章を読んで、どのようなことを感じたか。また、自然環境とテクノロジーの発展の関連についてどのように考えるか。自分の知っていることも含めて 400 字以内で文章にまとめなさい。