

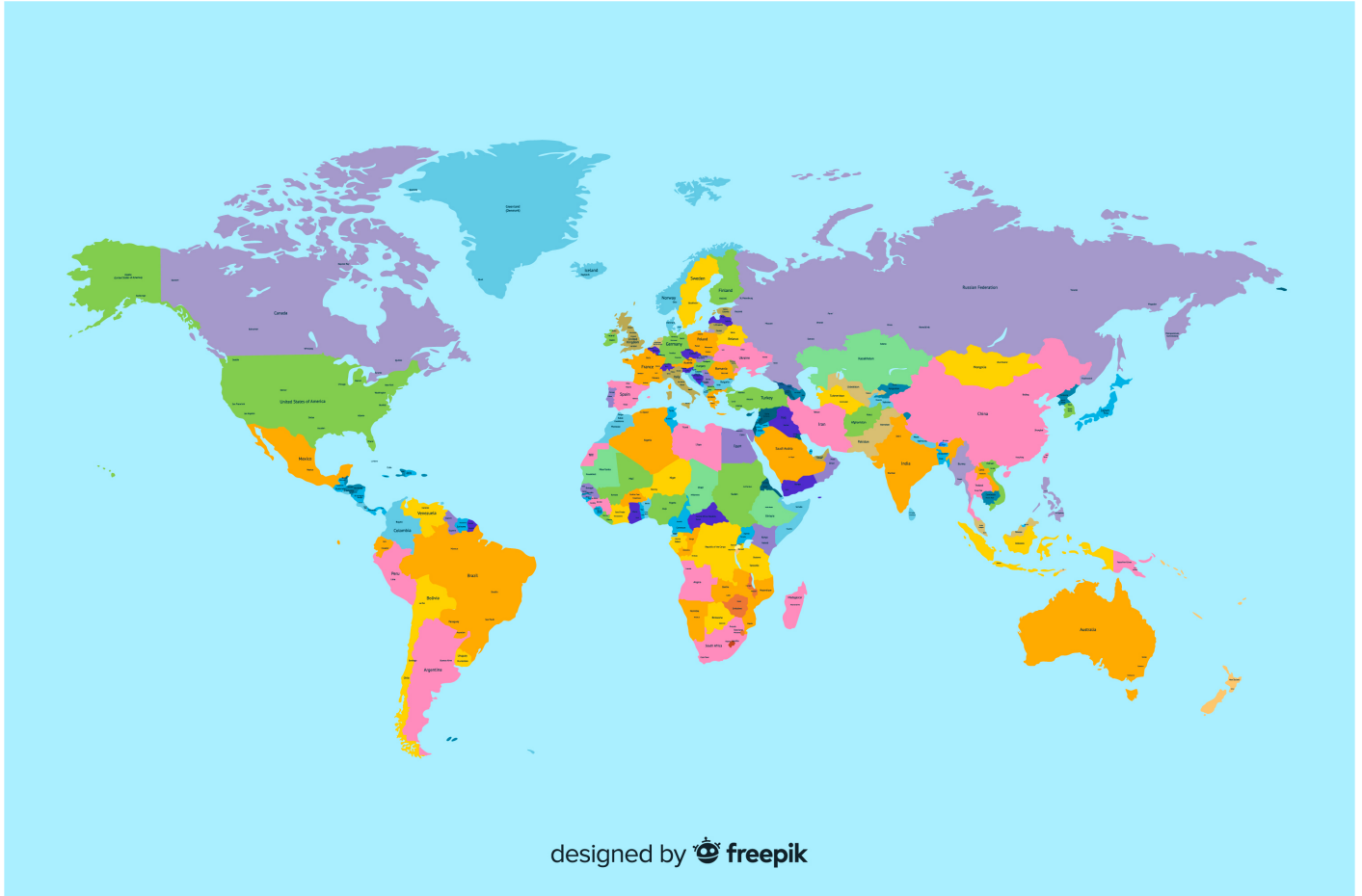
Spatial Analysis of a Geographic Region



Name:

Date:

Defining a geographic region



Sumatra

Look at the world map and try to find the geographic region mentioned in the headline. Do you know which cities/countries belong to it and what the weather is like there? Take notes and then share your thoughts with the class.

Spatial Analysis of a Geographic Region



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Spatial analysis

Now have a closer look at the geographic region. But first have a look at some important terms.



Geofactors

Climate

The climate describes the average weather conditions in a specific area over a long period of time. It includes temperature, precipitation, humidity, and other weather elements. The climate is influenced by solar radiation as well as physical and chemical processes in the atmosphere and other Earth spheres.

Biosphere

The biosphere encompasses all areas of the Earth where living organisms exist. It extends from the highest layers of the atmosphere to the depths of the Earth's crust. The biosphere is a complex system in which living organisms interact with their non-living environment and exchange substances and energy.

Rocks

Rocks are solid materials composed of minerals. There are different types of rocks, such as igneous, sedimentary, and metamorphic rocks, which form through various geological processes. Rocks form the solid foundation of the Earth's crust and play an important role in the landscape.

Flora

Flora refers to the totality of plant species in a specific area. It includes all plant families, genera, and species that occur in the region. Flora is an essential component of vegetation and contributes to biodiversity and the stability of ecosystems.

Fauna

Fauna encompasses all animal species living in a specific area. It is the counterpart to flora and includes all vertebrate and invertebrate animals. Fauna plays a crucial role in food webs and contributes to biological diversity and ecological balance.



Societal factors

Population

Population refers to all the people living in a specific area. It includes the number of people, their age structure, gender distribution, as well as ethnic and cultural backgrounds.

Economy

The economy encompasses all activities related to the production, trade, and consumption of goods and services. It determines how wealthy or poor a society is and influences the quality of life of its people.

Infrastructure

Infrastructure refers to the fundamental physical and organizational structures necessary for the operation of a society. This includes roads, bridges, water and electricity supply, schools, hospitals, and communication systems.

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Match the terms with the explanations.

Climate

Biosphere

Rocks

Flora

Fauna

Population

Economy

Infrastructure

All the people living in a specific area

All areas of the Earth where living organisms exist

All animal species living in a specific area

Activities related to the production, trade, and consumption of goods and services

Solid materials composed of minerals

Fundamental physical and organizational structures necessary for the operation of a society

Totality of plant species in a specific area

Average weather conditions in a specific area over a long period of time

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Sumatra



Source: Unknown artist [File:Sumatra.png](#) Public domain

Sumatra is a large island in Indonesia, known for its incredible diversity and natural beauty. It's the world's sixth-largest island and is located in the western part of Indonesia. Sumatra is surrounded by the Indian Ocean and several seas, making it an important part of Indonesia's geography.

The climate in Sumatra is tropical, meaning it's warm and humid all year round. This makes it a perfect place for rainforests that are home to many unique plants and animals. The island's biosphere is rich, with rainforests that host thousands of plant species, including the famous Rafflesia, known for having the largest flower in the world. Sumatra's rainforests are also home to endangered animals like the Sumatran tiger, orangutans, and elephants.

The island's geology is fascinating, with mountains, volcanoes, and flat plains. The Barisan Mountains stretch along the west coast, providing a stunning backdrop and fertile soil for agriculture. The Kerinci mountain is the highest peak on the island, standing tall at 3,805 meters.

The people of Sumatra are diverse, with around 50 million inhabitants. They speak various languages and have rich traditions. Most of the population practices Islam, and there are also communities that follow Christianity and Buddhism. The economy of Sumatra is driven by agriculture, mining, and oil production. Palm oil plantations are widespread, but they cause conflicts with local communities who depend on the forests for their livelihood.

Sumatra has a network of roads and airports that connect its major cities, like Medan and Palembang, making it easier for people and goods to move across the island. However, infrastructure development sometimes leads to disputes over land use, especially when it threatens the natural environment.

In Sumatra, there are conflicts between conservation efforts and economic interests. The expansion of palm oil plantations often leads to deforestation, which harms the environment and endangers wildlife. Efforts are being made to balance economic growth with protecting Sumatra's unique ecosystems.

Overall, Sumatra is a beautiful and vibrant island with a rich natural and cultural heritage. It's a place where modern life meets ancient traditions, and where the challenges of development are met with efforts to preserve the environment for future generations.

Name two endangered animals found in Sumatra's rainforests.

Describe the climate of Sumatra and its effect on the island's vegetation.

Explain the economic activities that drive Sumatra's economy.

Describe the infrastructure development in Sumatra and its associated challenges.
