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The Dividing Line of Asia and Europe: The Ural Mountains

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<http://www.geo.arizona.edu/geo5xx/geo527/Urals/relief-map.gif>

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THE DIVIDING LINE OF ASIA AND EUROPE: THE URAL MOUNTAINS

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Grade Level: 6th – 8th Grade

Purpose/Objective:

Students will discover the physical boundary between Asia and Europe: the Ural Mountains. They locate the Urals and analyze the differences and similarities among the five regions in the mountain system. Students will determine the reasons for movement among humans in the regions as well.

National Geography Standards from *Geography of Life*

Geographic Elements & Standards:

The World in Spatial Terms --

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

Physical Systems --

8. The characteristics and spatial distribution of ecosystems and biomes on the Earth's surface

Environment and Society --

15. How physical systems affect human systems

Oklahoma Academic Standards for the Social Studies:

Grade 7 World Geography: Eastern Hemisphere

Literacy Skills Standard 1: The student will develop and demonstrate Common Core Social Studies reading literacy skills.

- A.3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).
- C.7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

Literacy Skills Standard 2: The student will develop and demonstrate Common Core Social Studies writing literacy skills.

- A.2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.
 - f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

Content Standard 2: The student will examine the human and physical side of the major regions of the Eastern Hemisphere.

3. Explain and summarize how common physical or human characteristics can link as well as divide regions including

B. Ural Mountains that physically divide Europe from Asia

Geographic Themes: Movement, Place, Region

Objectives:

1. Students will determine the location of the physical border that separates Europe and Asia.
2. Students will locate the Ural Mountains on a map of Eurasia.
3. Students will discover what Eurasia is and which continents are part of it.
4. Students will analyze the five (5) regions of the Urals and their affect on humans and their movement.
5. Students will design a travel brochure to inform about the physical environment of each region of the Urals and try to persuade people to move there to live, if possible.

Materials:

1. Computer and LCD projector (or equivalent)
2. Ural Mountains PowerPoint
3. Ural Mountains PowerPoint Worksheet & Map of Eurasia (Back to Back)
4. Copies of the "Regions of the Urals " worksheet for each student
5. Regions of the Urals Chart Worksheet
6. Copies of the *Nystrom Classroom Atlas*
7. Construction Paper
8. Notebook Paper
9. Colored Pencils/Markers
10. Pencil

Time Frame: 2 class periods

Procedures:

Day 1

1. Ask students to name which country in the world is on two continents (Russia) and have them name the two continents.
2. Have students try to tell where the physical boundary is that separates Asia and Europe.
3. Hand out the Ural Mountains PowerPoint Worksheet and Map of Eurasia.
4. Show the Ural Mountains PowerPoint and have students complete the accompanying worksheet while viewing.
5. Have students label the Ural Mountains on the map of Eurasia. Use the *Nystrom Classroom Atlas* if necessary.
6. Discuss the answers learned from the Ural Mountains PowerPoint.

Day 2

1. Review the information regarding the Ural Mountains from the PowerPoint shown on Day 1, especially the five regions of the Urals.
2. Display PowerPoint slide 11 with the five regions of the Urals on the map.

3. Hand out the Regions of the Urals Chart and information packet to the students.
4. Have students use the packet to answer questions on the Ural Mountains chart. Allow 15-20 for this activity.
5. Discuss the correct information that should be listed in each region on the chart. Be sure that students understand how the physical environment is a major factor in how humans move in this part of the world.
6. Ask students, "If given the choice, in which of the five regions of the Urals would you like to live and why?"

Assessment Options:

1. Have students create a travel brochure advertising ONE of the five regions of the Urals. Be sure they describe the physical environment of their region as well as the way of life for human survival. They must write their information in complete sentences and have pictures as well.
2. Have students compare and contrast TWO of the five regions of the Urals using pictures, facts, and charts created by them.
3. Have students act as reporters writing an editorial piece to convince people to come live in their chosen region of the Urals. They will write a piece on why their selected region of the Urals is a great place to live.

Extension and Enrichment/Simplification:

1. Examine the Ural Mountains in greater detail using Google Maps or Google Earth.
2. Examine the historical events where the Ural Mountains were a barrier and discover the outcome in these situations due to this barrier.
3. Research the different types of minerals and gems are located in the Ural Mountain area, and determine what conditions must be present for these resources to be exploited.

Connections: History, Science

Resources:

Encyclopedia Britannica - Russia: The Ural Mountains

<http://www.britannica.com/EBchecked/topic/513251/Russia/38577/The-Ural-Mountains>

Any Latitude - Facts about the Ural Mountains

<http://www.anylatitude.com/resourcepages/facts-about-the-ural-mountains-boundary-between-europe-and-asia/>

Peakware World Mountain Encyclopedia.com – Ural Mountains

<http://www.peakware.com/areas.html?a=408>

Map of the Eurasia

<http://www.dreamstime.com/stock-images-political-map-eurasia-image8733984>

Blank Map of the Eurasia

<http://www.worldatlas.com/webimage/countrys/printpage/printpage.php?l=/aatlas/newart/euroasia.gif>

The Ural Mountains PowerPoint Worksheet

1. Eurasia is the world's largest landmass made up of the continents of _____ and _____.
2. The world's largest country in area, _____, has one-fourth of its land in Europe and the rest in Asia.
3. What is considered the physical border between Asia and Europe?

4. The Ural Mountains are also known as _____.
5. The Urals appeared over _____ ago when Laurussia and Kazakhstania collided.
6. The Urals run from the _____ to the _____.
7. Most of Russia's people live on which side of the Ural Mountains? _____
8. Only 20% of Russia's population lives in what region? _____
9. The Urals do NOT impede migratory movement because they are composed of broken _____.
10. Which region has the main routes for humans to use from Europe into Siberia?

11. The Urals act as a natural barrier to winds from _____
12. The Ural Mountains are considered Russia's treasure chest due to its richness of minerals, _____, _____, oil and _____
13. The Urals have 5 regions:
Sub-Artic (Nether-Polar)

Southern
14. The highest peak of the Ural Mountains is _____

Regions of the Ural Mountains

Source: Peakware World Mountain Encyclopedia.com – Ural Mountains

Arctic (Polar)

The Arctic Urals, are represented by a narrow chain of mountains which are practically unforested, devoid of any foothill belt, and open to all winds. Not far from here is Paier (1472 m), the highest peak in the Arctic Urals and one of the most severe mountains in the entire mountain system. Across the valley of Sob' River, with a thin line of the northmost Trans-Ural railway connecting Seida and Labytnangi, the Ural mountains, before they blend into the coastal plain, widen again and the last groves of the Ural forest occur in warm valleys protected from biting winds. Above them, high in the mountains, lie real glaciers. And behind the mountains there is tundra stretching right to the coast of the awfully cold Kara sea, with huge ice blocks drifting in the water even in summer. The Polar Ural extends for about 385 kilometers (239 mi) from the Mount Konstantinov Kamen in the north to the Khulga River in the south; it has an area of about 25,000 km² (6.0 cu mi) and a strongly dissected relief. The maximum height is 1,499 m (4,918 ft) at the Payer Mountain and the average height is 1,000 to 1,100 m (3,300 to 3,600 ft). The mountains of the Polar Ural have exposed rock with sharp ridges though flattened or rounded tops are also found.

Sub-Arctic (Nether-Polar)

The Subarctic Urals, or the Nether-Polar Urals, are wider, up to 150 km (93 mi) and higher than the Polar Urals. Here we see the Naroda Mountain (Poznurr, 1895 m), which is the highest peak in the Urals, and some mountains of Alpine appearance - the famous beauties Sablya and Manaraga. Other high tops, such as Karpinskogo Mountain (1803,4 m), Mt. Yanchenko (1740 m), Kolokolnia ("Bell tower"), and Neroika Mountain, are situated here. North open taiga grows in this part of the Urals. Most of the slopes are bright with the paints of Alpine meadows and mountain tundra. To the north of the Naroda, the mountains narrow sharply and for the first time deviate from the usual northern direction, turning to the Northeast. It includes the highest peaks of the range: Mount Narodnaya (1,895 m (6,217 ft)), Mount Karpinsky (1,878 m (6,161 ft)) and Manaraga (1,662 m (5,453 ft)). It extends for more than 225 km (140 mi) south to the Shchugor River. Its many ridges have sawtooth shape and are dissected by river valleys. Both Polar and Nether-Polar Urals are typically Alpine; they bear

traces of Pleistocene glaciation, along with permafrost and extensive modern glaciation, which includes 143 extant glaciers.

Northern

The Northern Urals extend strictly in the meridional direction up to the latitudinal section of valley of Shchuger River. Telpos-Iz ("The Nest of Winds") is the highest mountain (1617 m). Short dividing ridges (Poyasovy Kamen, Khozatump, Kvarkush, etc.) form the axial part of the mountains. Higher mountains, including popular Konzhakovski Kamen and Denezhkin Kamen, are found in eastern massifs. Western foothills of the North Urals are characterized by wide rolling ridges, which are called parmy. We enter the most desolate and unsullied corners of the territory in the north.

The Northern Ural consists of a series of parallel ridges with the height up to 1,000–1,200 m (3,300–3,900 ft) and longitudinal depressions. They are elongated from north to south and stretch for about 560 km (350 mi) from the Usa River. Most of the tops are flattened, but those of the highest mountains have dissected topography. Intensive weathering has produced vast areas of eroded stones on the mountain slopes and summits of the northern areas.

Central

The Middle Urals, also called the Central Urals, are a relatively low and narrow part of the Ural Mountains, located north of the valley of Ufa River up to the latitude of Basegi. Their gently sloping hills are blanketed with south taiga. The Middle Urals present the most populated part of the Urals. The major transport routes connecting the European Russia and Siberia pass here. The legendary Chusovaya River - the only river in the Urals that crosses the mountain chains from the east to west - runs its waters in the Middle Urals.

Southern

The widest part of the Urals is called the South Urals, and comprises dozens of parallel ridges, bounded in the north and in the south by the valleys of Ufa River and Ural River respectively. Steppe and forest-steppe landscapes are typical of the foothills in this part of the Urals. Higher in the mountains, the hillsides are covered with mixed forests and the highest peaks, like islands, emerge among the green ocean of forest. The highest mountains of the South Urals - Yamantau (1640 m) and Bolshoi Iremele (1582 m) - are located in the western row of ridges.

Map of Eurasia



<http://www.worldatlas.com/webimage/countrys/printpage/printpage.php?l=/aatlas/newart/euroasia.gif>



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Regions of the Ural Mountains

Region	Physical Environment	Can humans live here? Explain.
Arctic (Polar)		
Sub-Arctic (Nether-Polar)		
Northern		
Central (Middle)		
Southern		