Cities of Yenisei and Lena River Basins: a Curriculum Guide

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Introduction: The Yenisei and Lena river basins constitute a massive portion of the land area of the Russian Federation east of the Urals. Although these river basins are geographically distinct from one another, they will be treated together in this guide for the sake of convenience. The region surrounding the Yenisei River Basin is of critical economic importance to the Russian Federation. Mining and metallurgy are key industries in the region, with an aluminum works in Krasnoyarsk and nickel mining and refining in Norilsk. The Lena River Basin is a sparsely populated region of Russia known for its remoteness and very cold temperatures. This curriculum guide is intended to serve as a brief introduction to the major rivers and cities of these regions.

Goals of Lesson for Students: The goal of this lesson plan is to familiarize students with the basic human geography of the regions surrounding the Yenisei and Lena river basins. Students should come away from this lesson with a general knowledge of the regions' cities, the names of the major tributaries of the Yenisei and Lena rivers. By participating in the activities, students should come away with a greater understanding of the significance of these regions for Russia.

Key Cities and Rivers of the Yenisei River Basin: Below is a table of key geographic features for students to learn.

| Cities | River | |
|-----------------------------------|---------|--|
| Ulaanbaator (Mongolia) | Selenge | |
| Ulan-Ude | Selenge | |
| Lake Baikal | | |
| (fed by Selenge and Upper Angara) | | |
| Irkutsk | Angara | |
| Angarsk | Angara | |
| Bratsk | Angara | |
| Ust-Ilimsk | Angara | |
| Confluence with Yenisei | | |

| Cities | River |
|-------------|---------|
| Kyzyl | Yenisei |
| Shagonar | Yenisei |
| Sayanogorsk | Yenisei |
| Abakan | Yenisei |
| Divnogorsk | Yenisei |
| Krasnoyarsk | Yenisei |

| Yeniseysk | Yenisei |
|--|---------|
| Lesosibirsk | Yenisei |
| Igarka | Yenisei |
| Dudinka (connected by rail to Norilsk) | Yenisei |
| Yenisei Gulf | |

Key Cities and Rivers of the Lena River Basin: Below is a table of key geographic features for students to learn.

| Cities | River | |
|------------|-------|--|
| Ust-Kut | Lena | |
| Kirensk | Lena | |
| Lensk | Lena | |
| Olyokminsk | Lena | |
| Yakutsk | Lena | |
| Lena Delta | | |

| Left Tributaries of the Lena | Right Tributaries of the Lena |
|------------------------------|--------------------------------------|
| Kirenga | Vitim |
| Vilyuy | Olyokma |
| | Amga |
| | Aldan |
| Lena Delta | |

Design of Lesson Plan: The instructor should first use an atlas or an online map such as Google Maps to identify the geographic features listed above and read the news articles listed below prior to the in-class lesson. Suggested Activities 1 and 2 will familiarize students with the rivers and cities of the region. For the assignment, students should locate news articles on a particular, city, company, or river etc... associated with either the Yenisei or Lena basins. Students will then profile a city, company (e.g. Norilsk Nickel, RUSAL, ALROSA etc...) or river listed above in the context of the issues discussed in the articles for the next class meeting.

Suggested Activity 1: Using a detailed map of the region (either a large physical map or a digital map using a projector), point out the major cities of the Yenisei River Basin. Also, identify the tributaries of the Yenisei listed above.

Suggested Activity 2: Using a detailed map of the region (either a large physical map or a digital map using a projector), point out the major cities of the Lena River Basin. Also, identify the tributaries of the Lena listed above.

Suggested Student Assignment: Students should be asked to profile one the cities mentioned above for the next class session. Profiles could be delivered either orally or in writing (1/2 page

to full page). Ideally, any city profile should include information on demographics, economics, political structures, and cultural aspects of a given city. Students may also profile a company listed above, or any other company with a major presence in these regions. Company profiles should include what activity the company pursues in these regions, their international presence (if any), and a basic idea of their total value or revenue. Tributaries of the Yenisei and Lena can also be profiled, containing information such as length, origin and location of their confluence with the either the Yenisei or the Lena. Information for all three possible tasks can be easily found on the Internet and will further familiarize students with this region.

Assessment: The instructor naturally has latitude in determining the quality of students' work. Students should be expected to demonstrate a basic level of familiarity with the easily identifiable facts relevant to their chosen topic. It is then within the instructor's discretion to grade based upon quality of work or simple participation.

Suggested Materials:

Google Maps Wikipedia Other Internet Resources

Background Reading:

Blinnikov, Mikhail, A Geography of Russia and Its Neighbors, New York: The Guilford Press 2011.

- "Ch. 2. Relief and Hydrography", pp 9-21.
- "Ch. 21. Infrastructure and Services", pp 317-336.
- "Ch. 27. Siberia: Great Land", pp 391-399.
- "Ch. 28. The Far East: The Russian Pacific", pp 400-407.