**River Basin Project**

**Due: November 16th (End of Class)**

**2.3.2b N.C. River Systems**

Course: Earth/Environmental Science

Objective: 2.3.2b Explain river systems including N.C. river basins, aquifers, and watersheds.

Essential Questions: How are North Carolina river basins different? Why is it important to protect them?

**Part A: River Basin Research (**[**https://tinyurl.com/yag5yo83**](https://tinyurl.com/yag5yo83)**)**

**Directions:** Using Google Slides, you will provide the class with information about YOUR River basin. The slides presentation should involve the following questions. Do not copy and paste (that is plagiarism), put ALL the information into your own words.

Questions:

1. What is the name of your river basin?
2. Where is the river basin?
3. How many miles of streams and rivers are included in the basin?
4. How many people live in the basin?
5. Describe the river basin (at least 5 sentences)
6. Describe an environmental issue in the basin and what is being done about it (at least 5 sentences)

**Google Slides Requirements:**

1. **Must have color**
2. **Must be in a font size everyone can see**
3. **Must include pictures especially a picture of the River Basin on the NC Map**

**Part B: Water Supply Planning**

**2.4.1c Local Water Supply Planning (**[**https://deq.nc.gov/about/divisions/water-resources/planning/basin-planning**](https://deq.nc.gov/about/divisions/water-resources/planning/basin-planning)**)**

2.4.1c Evaluate the effects of population growth on potable water resources. Infer future effects.

**Directions: Click on your River Basin and click on Water Quality Report/Plan. On your Google Slides presentation answer the following questions.**

Questions:

1. How many miles of drainage are included in this water system?
2. How many people are supplied water from this River basin?
3. Using the basin’s description, what are the percentages of agriculture, wetlands, forests and grasslands?
4. What percent of the water is used by residents each day? What percent is used by commercial, industrial, or institutional uses each day?
5. Which months use the most water?
   1. Why do you think we use more water in these months?
6. What surface source does our water come from?
7. What is the current population in the area served by this local water supply?
8. Is the population expected to grow or shrink over the projected time period? (<https://www.osbm.nc.gov/demog/county-projections>)
   1. How much will the population change between now and 2020?
   2. How much will the population change between now and 2040?
   3. How much will the population change between now and 2060?
9. How is the change in population expected to impact the water demand?

Project Rubric

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| --- | --- | --- | --- |
| Category | Level 3 (25%) | Level 2 (20%) | Level 1(15%) |
| Google Slides Requirements | All requirements met | One of the following not met:   * Must have color * Must be in a font size everyone can see * Must include pictures especially a picture of the River Basin on the NC Map | Two or more of the following not met:   * Must have color * Must be in a font size everyone can see * Must include pictures especially a picture of the River Basin on the NC Map |
| Part A - Questions 1-6 | All requirements met | One of the following not met:   * Name * Description of River Basin * Description of River Basin Environment | Two or more of the following not met:   * Name * Description of River Basin * Description of River Basin Environment |
| Part B -Questions 1-6 | All requirements met | One of the following not met:   * Supply * Water Usage * Water Source | Two or more of the following not met:   * Supply * Water Usage * Water Source |
| Part B - Questions 7-9 | All requirements met | One of the following not met:   * Current Population * Population Projections * Population impact on water | One of the following not met:   * Current Population * Population Projections * Population impact on water |