

## **Earth Science**

### **Activity 16: Write an Opinion Essay**

#### **Topic 26: Weathering Erosion & Rivers**

#### **General Instructions:**

- Use a computer to complete your essay/document.
- Write a “five-part” 250-400 word essay in a single 40-minute session.
- Include an introduction, three key supporting paragraphs, and a conclusion.
- Correct spelling, punctuation, and grammar errors prior to completing work.
- Submit or share your final document with your instructor.

#### **Suggestions and Tips:**

1. Read the background and context provided to familiarize yourself with the subject area.
2. Select either A or B as the basis for your thesis.
3. Plan the essay prior to writing it.
4. Make the essay organized. Avoid placing multiple points in one paragraph.
5. Use only Times New Roman font 12 with double-spacing to format your document.
6. Discuss only one perspective in each of the body paragraphs.
7. Conclude with a summary.
8. In the summary, rephrase the introduction and thesis. Emphasize key supporting rationale.

**Background and Context:** (*Adapted from 2015 article*).<sup>1</sup>

Constructing new dams is highly difficult. Constructing new water dams requires a lot of money. New dams could do a lot of damage to a river's ecosystem. Most existing dams in the U.S. do not produce electricity. More than 90 percent of U.S. dams do not produce electricity. That totals about 80,000 dams that do not produce electricity. These dams hold back water, which can be useful for things like flood control, irrigation, and navigation.

Retrofitting some of the existing 80,000 dams could produce up to a total of 12 gigawatts of new hydropower. That amount would be about 15 percent of current hydropower capacity. That amount would be equal to about half of all U.S. solar.

Making these projects viable would require ecological studies, infrastructure investment to transport electric energy into the grid, possible negative impacts on wildlife and endangered species, and a sizable investment through tax-payer dollars.

**Position A:** Use of existing dams as a way to increase hydro-power should be a high priority of local governments and the U.S. Department of Energy.

**Position B:** Problems and obstacles of retrofitting non-electric producing dams into hydro-power dams outweigh the potential benefits.

<sup>1</sup> Spector, J. (November 23, 2015) "*The Untapped Potential of America's Hydroelectric Power.*"

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