Wapsi River EE Center Externship

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Part I: Overview of Workplace

The Wapsi River Environmental Education Center is located along the Wapsipinicon River and consists of 225 acres of upland and bottomland forests, grasslands, and wetlands. The Wapsi Center, along with Sherman Park across the river, provide a 432-acre complex offering a wide variety of uses.

Part II: Workplace Focus

The Wapsi River Environmental Education Center provides multiple uses, with an emphasis on resource protection and environmental education. Specific goals include:

- protection of existing natural resources
- a comprehensive environmental education program
- providing limited outdoor recreation
- providing public access to the Wapsipinicon River
- managing the area to provide diverse wildlife habitat
- development of a Wapsipinicon River Greenbelt

Part III: Introduce the Problem

The problem that we are focusing on revolves around ecosystems. Working with the Wapsi River EE Center staff the students will learn how energy flows through an ecosystem. Next they spend time learning about how ecosystems can become unbalanced due to human activity..

What will be the public product?

After visiting the Waspi River EE Center the 5th grade students in the Pleasant Valley school district will return to their home buildings and evaluate their school campus to see if they feel it is a balanced or unbalanced ecosystem. The students will then conduct research and develop a plan to improve the school campus to provide a more balanced ecosystem. The plans will be presented to peers within the district and to the naturalists at the Wapsi River EE Center. We hope to invite the Wapsi staff to each campus to provide their expert opinion so that the students can self evaluate their plans.

Part IV: Standards, Driving and Essential Questions

- *What classroom standards and learning targets could this learning unit cover?*

5-LS1-1: Support an argument that plants get the materials they need for growth chiefly from air and water.

5-PS3-1: Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

3-5-ETS1-1: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

- *What are the main driving questions and underlying questions to help move students toward learning targets, benchmarks and the eventual project or problem solution?*

There are 2 main driving questions in this PBL. the first one is 'How does matter and energy flow through an ecosystem?' and the second is 'How does a change in an ecosystem affect its balance?'.

Part V: Extern Host Role

- *What is the role of your extern host in this learning unit? Include names and titles so others can reach out to these professionals.*

Dave Murcia is the director at the Waspi River EE Center. His role in my learning unit has 2 parts. Part one of his role is to facilitate a field trip that reinforces the vocabulary that has been introduced prior to the trip concerning ecosystems, habitats and food webs. Part 2 of his role is to visit each of our elementary schools at the end of our PBL unit to evaluate student solutions.

Part VI: Student Learning

- *Do they have some level of voice and choice? Are there opportunities for revision? Are there opportunities for reflection along the way.*

In this PBL students will each have the opportunity to evaluate their school campus and devise a plan to improve the environment. After listening to the naturalists that visit their building the students will have the opportunity to reevaluate their plans after having listened to an expert in the field. Students will then have the opportunity to share their solutions with other students in elementary buildings across the district. Our hope is the eventually the students will be able to implement solutions at their buildings by partnering with the Wapsi River EE Center, PTA and other private business owners.