

Curriculum Topic: Outside In / Inside Out

Grade Level: Elementary

Areas of Study: Activities and Writing

Developed for: West Virginia

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Year: 2006

Introduction

The following pages describe a curriculum designed to involve and engage students in their local environment, both manufactured and natural. Please keep in mind that this is a work in progress! and will be refined and expanded once I begin working with actual students (the students I was going to be working with were hypothetical until yesterday, when I was offered a third grade teaching position at Blue Ridge Elementary School).

The curriculum revolves around three basic themes: "Thing of the Day", "Place of the Week" and "Pick a Place". Each of these themes serves as a framework on which to structure a variety of activities that engage students with their local community. The framework is a flexible, simple structure which can be adapted to many different circumstances and can be used throughout the school year. Each of the three themes is briefly described in the following pages and Thing of the Day and place of the Week are supplemented with handouts of specific activities I hope to implement.

Most activities described can take place within the classroom, the school yard/campus, or within walking distance of the school and can take place within a single class period or several periods spread over several days (in other words students will not have to miss other classes). Actual field trips to the Appalachian Trail or nearby parks and nature preserves would be grand, but I'm focusing on activities that I can do with my students quite easily without depending upon transportation or funding.

As written most activities, are designed for primarily for elementary students or students who are learning English, but I believe all can be adapted successfully for older students.

I have also included a brief description of what I've termed "Exploration Stations" (basically portable learning centers), a list of ideas to pursue and a material wish list.

Thing of the Day (ToD)

As the name of this concept suggests, Thing of the Day revolves around a thing – an object – brought into class each day. Initially I will focus on natural objects such as leaves, nuts, and bones, but the concept can incorporate any type of object, as long as it can easily be carried into the classroom.

As the days pass, there will be an increasingly large collection of objects to interact with. Through the course of various activities and procedures, students will learn a wide variety of skills including how to:

- Collect natural objects in a sustainable and safe way
- Store objects safely such that they can be accessed easily
- Obtain data about objects
- Describe objects
- Utilize systems to record data about objects

The basic components of ToD curriculum are:

1. Gather and store objects

- Teach sustainable collection techniques such as:
 - Take only what you need, not more
 - Don't kill anything (sometimes it may be necessary to kill an insect or small plant for learning purposes, but taking of a life – even that of a small plant or insect - should be done with consideration and purpose)
 - Have something to carry the object in (such as a plastic bag or Tupperware container)
- Safe Accessible Storage (SAS)
Implement and teach children how to utilize systems for the safe and accessible storage of objects. The collection of objects will expand quickly and you will need a system for both storing the objects and making them easily accessible to the students. Kid-friendly plastic tubs, big glass bowls, Tupperware containers, re-used yogurt tubs all work well (though it's best if the storage containers are clear so students can see what's inside). Places to store objects should be clearly labeled and kids should be able to reach them easily. Apart from the storage containers, additional bowls or trays (Styrofoam meat trays work well) should be provided to enable students to interact with various objects.
- The teacher should begin the curriculum by modeling correct behavior. Bring in a variety of natural objects that can be found in the local area - in Jefferson County, WV this might include a black walnuts and hickory nuts, a piece of deer bone, an acorn, and leaves from trees such as maple, Osage orange, Ailanthus, and oak trees – and show students how to do some of the activities.
- Encourage students to bring in objects:

- Ask all students to bring in a particular type of object, such as a nut / seed or a leaf.
- Have students fill out a sign up sheet and commit to bringing in an object on a specific date.
- Have students bring in part of their favorite plant. If they can't find one locally, ask them to draw a picture or take a photo.
- Lead students on a walk around the school property, instructing them to collect one object of interest to them.

2. Create and utilize a system to record information about the various objects

In order to work effectively with the objects over the course of time, you will need to develop and implement a system which students can use to record information gleaned from the objects. Some components of such a system can include:

- Sign up sheet (handout01_ToD_signup.doc)
- Have students record information in the Thing of the Day Log (Thing of the Day Log.doc)
- Have children write the name of the object on one side of an index card and on the other side write 3 facts about that object. Store in an accessible box.
- Show the children how to keep personal journals or logs about various objects they interact with.
- Show students how to record data using a computer program such as MS Excel.
- Make a large wall chart that students can use to record data about their objects.

3. Create activities to encourage interaction with and observation of objects.

Specific activities are provided in the accompanying document (handout02_ToD_activities.doc). General concepts around which to structure activities include:

- Categorize objects (various rules used to categorize things such as size, color, use, botanical family, age, etc)
- Compare and contrast objects (i.e. the black walnut is bigger than the hickory nut. The black walnut is round, but the hickory nut is oval. The deer vertebra is smoother than the black walnut, etc).
- Identify object (i.e. What tree is that? Take students on a tour of the school campus. Have the children pick a leaf off a tree - each student in the group or each group should pick a leaf from a different tree. Back in the classroom have the children identify the tree the leaf came from using a tree identification book).



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- Record data about object (record data about the object such as it's weight and length on a specially designed form or in a log book).
- Describe the object.

Place of the Week - PoW

This concept revolves around studying a different place each week. The curriculum begins by investigating the idea of "place". Once students have a thorough understanding of place, they move on to investigate the places closest to them (i.e. the classroom, school and the home) and then expand outwards to study the local town, county and state. If the concept is used all year long, the students will eventually investigate national and global places.

Like ToD, PoW is flexible and adaptable to a variety of different situations and circumstances. The basic components of PoW are described below.

Additional activities and materials are provided in the following accompanying documents:

- handout03_jeffCounty_map.doc
- handout04_placesWhereIAm.doc
- handout05_activity_cards_jeffCty.doc.

1. Introduction: What is a place? What are my places?

- Have students fill out the Places Where I Am handout (handout04_placesWhereIAm.doc)
- What are the different kinds of places?

Have students brain storm a list of places they know about. Write up a master list and make available to the class (handouts, write on a large piece of paper and tape to wall)

Once the master list has been developed experiment by grouping places by category, such as natural versus human created places:

Natural Places	Human Created Places
Rivers	School
Lakes / ponds	Homes
Mountain ranges / peaks	Shopping malls
Forests	Roads
	(Hiking trails)

Other possible categories include:

- Green space / built space
- Places to learn / work / play
- Places to eat / buy / grow food
- Single unique place / big place with many unique places (i.e. Appalachian Trail vs. Garvey Shelter)

- **My Favorite Place**
Students identify and describe their favorite place, then mark where it is on a large map of the local area.

Questions students might answer about their favorite place include:

1. Where is it my favorite place?
2. Why do I like it?
3. When do I go there?
4. Do I go there to be alone or to be with other people?
5. What do I do there?
6. What do I feel like when I am in my favorite place?
7. How do I get there (do I walk or does someone have to drive me)?

2. Our Classroom

- Have students determine the area (in feet and or meters) of the classroom.
- Try to have students come up with different ways to measure the walls. Some ideas include: measuring with a tape measure, using string and then measuring string, obtaining blueprints of room, determining how many feet / meters and average step is and then walking around the room, counting steps.
- Have children map the classroom, noting non movable aspects such as permanent bulletin boards, doors, windows, and closets, as well as moveable items such as desks and chairs.
- Have children hide an object and then draw a map to it. Switch map with another student and see if each can find the item. Once they find it, place it back exactly as they found it, sign the sheet and exchange with another.
- In an ESL classroom, have students write items such as clocks, doors, windows, desks, plants in both English and as many languages as spoken in the class.

3. Our School

- Have students measure area of school building(s) and school grounds (walk perimeter).
- Determine what percentage of the school building the classroom is
- Determine what percentage of the school grounds the buildings are – what percentage is building and what percentage is fields and play areas
- Fill out inventory of the school – how many classrooms, bathrooms, offices, closets, etc.
- Survey questions: favorite classroom, favorite area, etc
- Identify places problems exist – leaks, graffiti, too narrow halls, areas that are too cold or too hot, etc.
- Mark places (such as problem areas, favorite areas) on school map

- Create maps of various kinds, such as a map identifying different trees on school property or a map noting features such as playing fields, school buildings and fences.
- Identify the trees and other plants growing on school property.

4. Our Town / Area in which the school is located

- Identify local areas students can visit. Possible ideas include:
 - Private Gardens: Contact owners of homes near the schools with impressive flower and/or veggie gardens, asking if I can visit with kids. Have owner or Master Gardener volunteer lead us around the garden, identifying various plants. Possible activities include having kids: sketch a plant they particularly like, list plants for future study, map garden, identifying various plants.
 - Town Hall: See if students can visit the nearest town hall and visit with local politicians.
 - Local library: sign students up as members if possible
- Design activities based on local census data (visit <http://quickfacts.census.gov/qfd/index.html>)
- Have students identify specific local places using Google Earth.

5. Our County: Jefferson County, WV

- A variety of activities provided. See *handout05_activity_cards_jeffCty.doc* for full description.



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Pick a Place

[Draft - To be expanded]

This is similar to Place of the Week, except that groups of 3-5 students select a place to study in depth. Students should prepare materials with which they can inform the rest of the class about their place of choice.

Ideas to Pursue

1. Speakers – from WV Sierra Club, ATC, PATC, local politicians, etc
2. Day or half day field trips – what are rules and regulations, what do I need to do to organize?
3. Supply / labor donations – check with Home Depot, 84 Lumber, Wal-Mart, grocery stores, Staples, Radio Shack for possible donations
4. Possibility of weekend trips – family involvement needed, not officially school but to support and extend what is being covered in class.
5. Determine availability of parents and local community members to volunteer to help with activities
6. Contact other local teachers for possible collaboration
7. Identify possible sister schools my class can interact with.
8. See if students from nearby middle schools and the high school can work with my kids.
9. Follow up with people from TTEC for possible collaboration.

Resource Wish List

(All kid friendly)

1. Digital cameras (5)
2. Laptop computers (2-5)
3. Desktop computers (2-5)
4. Software: MS Office, photo editing software, web development software (Dreamweaver), camera software
5. Color printer
6. Scanner
7. Paper cutter strong enough to cut cardboard
8. Plastic tubs with tops of various sizes and shapes
9. Plastic tackle boxes (clear boxes of many small compartments and closing lid) of various sizes
10. Zip lock bags
11. Plant and insect identification books
12. Large scale maps of local area