

ESSENTIAL QUESTION: *How does where we live affect how we live? How does how we live affect where we live?*

How do we take care of our soil?

ENDURING UNDERSTANDING:

- Soils where our lives interact with our planet
- healthy soil means healthy living
- our actions impact our PLACE

Introductory Lesson #1: We stumble upon our classroom and school composting problem- In light of new laws and garden soil needs how do we manage these responsibilities?

Formative Lessons: The following represent six weeks of study in the following primary areas: the problem- our current state of composting, soil background, our soil- assessment and improvement, composting solutions, educating the community

- ❖ What is composting? Why do it?
 - define composting and its value
 - investigate resources for learning about compost
 - invite visiting experts
- ❖ Addison County Solid Waste Management District (ACSWMD) Don Maglienti visit 9/2/14
 - On campus tour of our current compost situation (kitchen, classrooms, compost bins, garden)
- ❖ What is soil?
 - Recipe for soil (*Project Seasons* p.59)
- ❖ How is soil made?
 - sources for organic/ inorganic material
 - observe and analyze current compost
 - what makes it decompose? (oxygen, temperature, organisms)
- ❖ Who are these decomposing organisms?
 - worms, red wigglers
 - search for decomposers in our compost bins
 - collect, identify, sketch, release specimens
- ❖ Is all soil the same?
 - visually identify soil layers (humus, topsoil, eluviation layer, subsoil, regolith, bedrock)
 - analyze/compare soil from home, forest and school garden (composition, percolation, texture)

- ❖ What is healthy garden soil? How can we check our soil?
 - id qualities of healthy garden soil (pH, humus, drainage, nutrients) with master gardener
 - visit master gardener garden and UVM Extension results
- ❖ How can we improve our soil?
 - amending soil- determining pH, living organisms, moisture
- ❖ What systems can we create to manage organic matter from our school lunchroom to garden?
- ❖ What do we do now?
 - Trash on the Lawn Day
- ❖ What can we do?
 - Make a plan for setting up systems and sharing these with school and town community
- ❖ Here is what we need to do.
 - Present composting Public Service Announcement and system to school community, posters and tool kits for all classrooms, all school airing of findings and procedures
 - Reflections on findings from Trash on the Lawn Day

CULMINATING ACTIVITIES: Assessment to Essential Question

- Making a Personal Plan for managing waste and supporting soil