



Using Soils to Teach Basic Concepts in Science and Art

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Teaching primary and secondary school students (K-12) about science and art, although absolutely critical, can be difficult. Teachers have specific standards or subject matters that they are required to cover and often soils and soil science is not included in that list. We have struggled with ways to bring soil science information to the larger audience as the direct approach meets with resistance due to the time commitments to other standards. Our approach now is to use soils as a media or vehicle to teach key concepts in broad subject areas. We have developed several lesson plans in science, geography, math and art that focus on a concept but use soils to convey it. For example students make “mini” monoliths of a state soil. During this exercise students need to use skills in geography to find where their state soil occurs in their state and in the country. They need to understand colors in order to choose the correct colors to use to make their monolith. Finally, they must understand how scales work in order to make the monolith accurate in terms of horizon depths. Throughout the exercise discussion on my certain colors occur in the soil can be discussed. This discussion can lead to a qualitative understanding of chemistry and biology. This presentation will demonstrate this lesson and several others that have been developed and available through the Soil Science Society of America’s K12 Education Committee.