



Land Cover

[Getting to Know Your Satellite Imagery and GLOBE Study Site](#)

Students use the satellite image of their GLOBE Study Site to become familiar with the different types of land cover in their area.

Site Seeing

[Beginning](#) and [Intermediate](#) level activities introduce students to the concept of dynamic systems.

[Leaf Classification](#)

Students make a collection of leaves and then discover how a hierarchical classification system is developed by sorting and organizing their leaves according to a set of labels and rules which they specify.

Odyssey of the Eyes

These [beginning](#), [intermediate](#) and [advanced](#) level activities will introduce students to remote sensing and mapping.

[Bird Beak Accuracy Assessment](#)

Students learn how to evaluate the accuracy of a classification they perform.

[Discovery Area](#)

Students use the satellite image of the GLOBE Study Site and their knowledge of remote sensing to decide where a new hospital should be located.

[Using GLOBE Data to Analyze Land Cover](#)

Students find another GLOBE school that reported the same MUC class and systematically compare the other GLOBE measurements that they each reported.

[Manual Land Cover Mapping](#)

Students outline and label different areas of land cover as seen on their Landsat image to create a land cover map..

[Manual Mapping: A Tutorial for the Beverly, MA, Image](#)

A tutorial to guide the user through developing a Land Cover map of their own local area using a Landsat image as a base.

[Computer-aided Land Cover Mapping](#)

Students use MultiSpec to perform unsupervised clustering of their Landsat image and then assign MUC classes to every cluster to create a land cover map.

[Accuracy Assessment Tutorial](#)

This tutorial is intended to be used after a land cover type map has been made, through either the Manual or Computer-aided Land Cover Mapping learning activities, to assess the accuracy of the map. This tutorial is meant to be used as a guide. There is also an example Accuracy Assessment Work Sheet for practicing.

[Land Cover Change Detection](#)

Using MultiSpec, students compare two images of their GLOBE Study Site; one from the 1990's and one from the 2000's, to determine how the land cover has changed in that time span.

[Change Detection Tutorial](#)

A tutorial designed to guide the user through making a comparison of two Landsat images using MultiSpec. The user would then follow these steps using their own Landsat images to look for changes over time.

[Do You Know Your MUC?](#)

Students produce a land cover map of plant life at a site in order to determine the site's MUC.

Phenology

[Green-Up Cards](#)

students participate in a preparatory activity that will help them identify green-up progression in their local plants and this activity also introduces the idea of spatial scale related to plant observations.

[A Sneak Preview to Budburst](#)

Students learn what to look for during budburst by observing variations in timing and appearance of leaves of different local plant species.

[First Look at Phenology](#)

Students observe and classify local plants based on their patterns of change other than growth.

[A Beginning Look at Photosynthesis](#)

Students learn about plant response to light by setting up simple investigations in the classroom.

[Investigating Leaf Pigments](#)

Students learn about plant pigmentation and photosynthesis while conducting simple investigations to demonstrate the presence of pigments other than chlorophyll in leaves.