

## Local Resources for "Exploring Environmental Issues: Places We Live"

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One of Project Learning Tree's newest secondary modules, Exploring Environmental Issues: Places We Live , is an activity guide whose activities encourage students to develop an awareness about the communities in which they live. The eight activities in the guide build on on each other, moving students from discovering a sense of place in their community to investigating, evaluating, and applying their knowledge of the community to broader environmental problems.

To get the most out of the activities, additional resources are available, both locally and further afield. The Project Learning Tree website, [www.plt.org](http://www.plt.org), catalogs dozens of articles, websites, and other materials. This article is meant to supplement that list with resources especially useful for New England.

The links in the headings below lead to the activities at the PLT site where you can access their material lists. Additional resources are in each section. If you have materials to add to the list, please leave a comment at the bottom of the page, and they will be added.

### Activity 2: Community Character

#### Sources of Photos

Short of crawling the streets of your community with a camera (a tried and true method), it can be challenging to find quality images of your community's character. It can be even more challenging to find images of other communities' character to compare to your own.

To complicate matters, most images found on the internet are of resolution too poor for printing or are copyrighted. It is a common misperception that educators are free to reproduce materials found on the internet as long as it's for educational use. (It is always best to contact the owner before using any content not owned by you.) Here are some starting points for finding good images:

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CreativeCommons.org is dedicated to helping people find content which is licensed as creative commons, or "some rights reserved." Begin your search at [creativecommons.org](http://creativecommons.org) for photos and many other free-to-use materials.

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Flickr.com is one of the largest photo sharing sites on the web. At the moment of this writing, 3,945 photos were loaded in the last minute! The site includes images that are often surprisingly professional. Use the advanced search and select the "Creative Commons" option for items provided for use without the need to obtain prior permission. Of course, you can search the whole database and then contact the individual owners for permission. Also try Flickr's searchable map for geotagged photographs.

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Pbase.com is a photo sharing site whose contributors include professional and advanced amateur photographers as well as common people. Images at Pbase are often suitable for high quality printing. Most images are posted as "all rights reserved," so be sure to contact the owner before use. Depending on your intentions, permission may be just an email away.

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Google Streets is function of Google's mapping application where you can see a street-level view of an address. At a location within an area of coverage, you can pan in 360° as if you were standing there and instantly assess the character of even far away places. On a Google map, select the "Street View" option (near, "Map," "Satellite," etc in the upper right corner)-- blue outlined roads are included in the coverage. To save an image, grab a screenshot and crop it in an image editor (it will only be 72 dpi). Google images are usable as long as credit is given.

**Note:**

If you do crawl the streets of your community with a camera, please consider posting your photos on Flickr.com or another photo sharing site so that others may benefit from your time. If possible, commit them to one of the creative commons licenses.

Compare these sample searches for Charlestown, MA:

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Flickr.com images (under creative commons license)

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Flickr.com images (all images)

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Pbase.com images

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Google Street view of Charlestown. Click on any blue lined road and use the controls in the upper left corner of the image window to pan and zoom. Click the arrows on the white line to change location, or drag the little orange man to different places.

### Activity 3: Mapping Your Community Through Time

#### Bird's Eye View (Panoramic) Maps

Part map and part landscape drawing, bird's eye views show a moment in a town's history, depicting the land, its uses, and the values people put on it at the time. These artist's renditions are drawn as if they are 2000-3000 feet above the ground. They are remarkably accurate, if not quite to scale. They clearly show what was important to the artist or commissioner by what features are emphasized or identified. In that way, bird's eye views can tell a compelling human story that other types of maps may not.

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The Boston Public Library's Leventhal Map Center contains 600+ bird's eye views of towns in Massachusetts, New England, and nationwide. Visit [maps.bpl.org](http://maps.bpl.org) or contact Ronald Grim, curator at 617-859-2387

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Of the 1700+ maps in the Library of Congress' panoramic map collection, 278 are of New England communities. The collection is completely accessible online for viewing or download.

### FIRE Insurance Maps

Fire insurance mapping, originally for the purpose of assessing risk, began in the 19th century and continues today, providing a detailed account of land use change and urbanization for over 12,000 towns in the United States. Drawn to a very large scale of 50- or 80-feet per inch, most fire insurance maps include detailed notations of building construction, as well as the footprint and relationship of every building within range. Collections of fire insurance maps are fragmented, however, and access is often restricted. Therefore, it difficult to use this potentially overwhelming resource. Major publishers include Sanborn, Bromley, Hopkins, Richards, and Walker. Atlases and map sheets can be found in local libraries, historical societies, and sometimes online.

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The map collection at the Harvard College Library maintains a complete set of fire insurance maps for Boston from 1867 to 1992 and Cambridge from 1873 to 1992, along with various Bromley, Hopkins, Richards, Sanborn, or Walker fire insurance maps for other cities in Massachusetts, Connecticut, the District of Columbia, and New York. The map library is open to all researchers. Contact library staff for details at 617-495-2417.

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The Boston Public Library's Leventhal Map Center holds several Bromley and Hawkins atlases of of the Boston area.

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The Special Collections department of the State Library of Massachusetts keeps this reference list for its insurance maps, which date from the 1860s to roughly 1990 for towns across Massachusetts. Contact [Special.Collections@state.ma.us](mailto:Special.Collections@state.ma.us) or 617-727-2595 for more information.

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The complete set of Sanborn maps were scheduled to be digitized by the Library of Congress in the late 1990s. The project stumbled over copyright issues. The complete microfish collection of Sanborn maps is available on a subscription basis from ProQuest. Your local or university library may subscribe.

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The Boston Redevelopment Authority has integrated several of insurance maps of Boston into an online mapping tool called The Boston Atlas.

## USGS Maps

The United States Geological Survey began a systematic approach to mapping America's land in 1882. Periodic remapping and updates reveal the changing nature of the landscape. One aspect of USGS maps that make them ideal for mapping a community through time is the consistency in scale from period to period.

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The Historic USGS of New England and New York collection at the University of New Hampshire contains over 1500 USGS topographic maps, including complete geographical coverage of New England and New York from the 1890s to 1950s.

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Maptech: Historical Topographic Maps. Like the UNH collection, but includes more states. Coverage is spotty.

## Online Mapping Tools

As technology becomes more accessible and internet connection speeds increase, more Geographic Information Systems (GIS) are becoming available to regular people. A GIS is "an organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information" (USFWS glossary, 2008). Don't let the definition scare you: while using a GIS can be complicated, there are several systems which are simple to use. Here are some of them:

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The simplest include online travel aids, such as Google Maps and Mapquest. Layers of information on these sites include streets, aerial photographs, hotels, restaurants, and other amenities. These tools are aimed at consumers, but can be used to identify contemporary features of a community.

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Google Maps can also be used to create your own map by drawing on it, adding placemarks, and viewing "Panoramio" images, those that have been uploaded by users.

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Google Earth is stand-alone software (free version; upgrades available for \$) which has the ability to show aerial photographs and topographical maps in 3-dimensions, allowing users to view a position from various altitudes and bearings. In addition to Google-provided data layers such as roads, city labels, and other infrastructure, it also has the

ability to store uploaded data, such as photographs, links to Wikipedia articles, and even displays of 3D structures. Users can also maintain layers locally, so they can create personal projects or can share them with the world.

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MassGIS's OLIVER is an all-purpose, web-based browser for all the datalayers they maintain. Examples of data available include infrastructure such as roads, schools, and libraries; openspace by ownership, by land use, and changes in land use over time; orthophotography and topographical maps; and more. MassGIS also provides more purpose-built viewers, like this one dedicated to open space.

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The Boston Redevelopment Authority's The Boston Atlas (referenced above) is a viewer of current and historical data.

### Demonstration

This slide show shows how you can incorporate several different historical and geographic materials to tell the story of a place through time. Mapping Roxbury through Time (3.17 MB)

Activities in need of local resources:

Activity 1: Personal Places

Activity 4: Neighborhood Design

Activity 5: Green Space

Activity 6: A Vision for the Future

Activity 7: Far-Reaching Decisions

Activity 8: Regional Community Issues: The Ogallala Aquifer