Project Learning Tree's

Exploring Environmental Issues: Places We Live
Correlation with
Next Generation Science Standards (NGSS)

Exploring Environmental Issues: Places We Live provides educators with a useful tool for place-based education to help create a bond between young citizens and their communities. PLT's *Places We Live* activities have been correlated to the Next Generation Science Standards (NGSS) for grades 9-12.

We hope this crosswalk will help you and your students begin to make connections between and within the NGSS Framework.

PLT Activity	NGSS Performance Expectation	Correlation Details
Activity 2: Community Character	**HS-LS2-7.** Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. **HS-ESS3-1.** Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. **HS-ESS3-4.** Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.	Students research a land use issue in their community and prepare a presentation of their findings. Students explore who is responsible for land use decisions in their community, as well as how laws and policies regulate land use. Students discover different ways that citizens can influence land use decisions.
Activity 3: Mapping Your Community Through Time	**HS-ESS3-1.** Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. **HS-ESS3-3.** Create a computational simulation to illustrate the relationships among the management of natural resources, the sustainability of human populations, and biodiversity.	Students research the environmental, economic, social, cultural, and aesthetic components of their community over time and discover how GIS mapping technology can be used to analyze and present information. Topics include zoning and regulation, housing, transportation, water and wastewater, green infrastructure, and business and industry.

Activity 4: Neighborhood Design	**HS-LS2-7.** Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. **HS-ESS3-1.** Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. **HS-ESS3-4.** Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.	Students conduct a field survey to investigate change or growth in their neighborhood and critically evaluate a variety of development options. They come up with a plan for change and a plan for protection. Students develop understanding by reading mini-case studies about different development options for communities and analyze the pros and cons of each option. Development options include: transit, pedestrian/bicycle, mixed use, compact, conservation, and suburban.
Activity 5: Green Space	**HS-LS2-7.** Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. **HS-ESS3-1.** Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. **HS-ESS3-4.** Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.	Students use maps and conduct a field inventory to collect data on their community's green infrastructure. Then they design ideas for improving the green infrastructure. Students discover the value of green space from an ecological, social, health, and economic perspective. They also study local population growth trends and explore the balance between protecting and developing green space.
Activity 7: Far-Reaching Decisions	**HS-LS2-7.** Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. **HS-ESS3-1.** Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. **HS-ESS3-3.** Create a computational simulation to illustrate the relationships among the management of natural resources, the sustainability of human populations, and biodiversity.	Students calculate their ecological footprint and discover how the choices they make affect the environment and distant communities. Students research energy, food, consumer, and community planning choices, and how those choices affect the environment. Finally, students consider solutions to ecological issues.

Activity 7: (Continued)	**HS-ESS3-4.** Evaluate or refine a technological solution that reduces impacts of human activities on natural systems. **HS-ESS3-6.** Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.	
Activity 8: Regional Community Issue: The Ogallala Aquifer	**HS-LS2-7.** Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. **HS-ESS3-1.** Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. **HS-ESS3-3.** Create a computational simulation to illustrate the relationships among the management of natural resources, the sustainability of human populations, and biodiversity. **HS-ESS3-4.** Evaluate or refine a technological solution that reduces impacts of human activities on natural systems. **HS-ESS3-6.** Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.	Students investigate a regional issue (Ogallala Aquifer), role-play different shareholder's perspectives, and develop an action plan to combat the depletion of the aquifer.

References:
NGSS Lead States. 2013**. Next Generation Science Standards**: For States, By States. For information on the Next Generation Science Standards, visit: **http://www.nextgenscience.org/**

For specific information on **High School – Life Science (HS-LS2): Ecosystems: Interactions, Energy, and Dynamics,** visit: **http://www.nextgenscience.org/dci-arrangement/hs-ls2-ecosystems-interactions-energy-and-dynamics.**

For specific information on **High School – Earth and Human Activity (HS-ESS): Earth and Human Activity**, visit: **http://www.nextgenscience.org/dci-arrangement/hs-ess3-earth-and-human-activity.**

Project Learning Tree[®] activities build children's creative and critical thinking skills while they learn what the environment needs to remain healthy and sustainable. Visit plt.org for more. Project Learning Tree[®] (PLT) is a program of the Sustainable Forestry Initiative Inc.[®]