



OHIO SCIENCE EDUCATION STANDARDS SAMPLER

A sampler of PLT activities to use with the poster pair:

“Ohio Forests– A Rich & Bountiful Land”

Activity Guide	Page	Activity Title (PLT Activity Number)	Grade Level	Science Standard (ODE Page Number)	Content Statement	Content Elaboration
PLT Environmental Education Guide	194	Web of Life (45)	5	Life Science (142)	Organisms perform a variety of roles in an ecosystem	Webs represent an intertwining of food chains within the same biological community
PLT Environmental Education Guide	194	Web of Life (45)	5	Life Science (146)	All of the processes that take place within ecosystems require energy	The exchange of energy that occurs in an ecosystem can be represented as a food web
PLT Environmental Education Guide	194	Web of Life (45)	7	Life Science (218)	Matter is transferred continuously between one organism and another and between organisms and their physical environments	Energy-rich molecules that are passed from organism to organism are eventually recycled by decomposers back into mineral nutrients usable by plants
PLT Environmental Education Guide	194	Web of Life (45)	1	Life Science (46)	Living things survive only in environments that meet their needs	Plants and animals require resources from the environment
PLT Environmental Education Guide	194	Web of Life (45)	2	Life Science (66)	Living things cause changes on Earth	The environment is a combination of the interactions between living and non-living components. Living things can cause change in their environment, which can be observed

Project Learning Tree – Ohio

**Ohio DNR Division of Forestry
2045 Morse Road, Building H-1
Columbus, OH 43229-6693**

(614) 265-6657; PLT@dnr.state.oh.us



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PLT Environmental Education Guide	69	Renewable or Not? (14)	3	Earth & Space Science (80)	Earth’s resources can be used for energy	Distinguish between renewable and nonrenewable resources through observation and investigation
PLT Environmental Education Guide	69	Renewable or Not? (14)	3	Earth & Space Science (83)	Some of Earth’s resources are limited	How are the different types of Earth’s resources used and how they can be conserved
PLT Environmental Education Guide	69	Renewable or Not? (14)	6	Earth & Space Science (172)	Rocks, minerals, and soil (including fossil fuels) are examples of geologic resources that are nonrenewable	Conservation of resources through management is an important part of understanding the uses of rocks, minerals, soil, and other resources
PLT Environmental Education Guide	153	Pollution Search (36)	1	Life Science (46)	Living things survive only in environments that meet their needs	The needs of plants include room to grow, temperature range, light, water, air, nutrients, and time (growing season). The amount and distribution of these will influence the types of plants that can survive in an area
PLT Environmental Education Guide	153	Pollution Search (36)	2	Life Science (66)	Living things cause changes on Earth	The environment is a combination of interactions between living and non-living components

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PLT Environmental Education Guide	153	Pollution Search (36)	4	Life Science (117)	Changes in an organism’s environment are sometimes beneficial to its survival and sometimes harmful	Major changes over a short period of time can have a significant impact on the ecosystem and the populations of plants and animals living there
PLT Environmental Education Guide	59	Invasive Species (12)	2	Life Science (66)	Living things cause changes on the Earth	Living things can cause changes in their environment, which can be observed. These interactions can cause changes in groups of living things and the physical environment
PLT Environmental Education Guide	59	Invasive Species (12)	4	Life Science (117)	Changes in an organism’s environment are sometimes beneficial to its survival and sometime harmful	The changes that occur in the plant and animal populations can impact access to resources for the remaining organisms, which may result in migration or death
PLT Environmental Education Guide	59	Invasive Species (12)	5	Life Science (142)	Organisms perform a variety of roles in an ecosystem	Investigations of locally threatened or endangered species must be conducted and include considerations of the effects of remediation programs, species loss, and the introduction of new species on the local environment
PLT Environmental Education Guide	203	Field, Forest, and Stream (48)	4	Earth & Space Science (114)	The surface of Earth changes due to erosion and deposition	Erosion is a “destructive” process and deposition is a “constructive” process. Erosion and deposition directly contribute to landforms and features formation

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PLT Environmental Education Guide	203	Field, Forest, and Stream (48)	7	Life Science (220)	In any particular biome, the number, growth, and survival of organisms and populations depends on biotic and abiotic factors	An ecosystem is composed of linked and fluctuating interactions between biotic and abiotic factors
PLT Environmental Education Guide	217	400 Acre Wood (50)	3	Life Science (89)	Individuals of the same kind differ in their traits and sometimes the differences give individuals an advantage in surviving and reproducing	Organisms have different structures and behaviors that serve different functions. Some plants have leaves, stems, and roots; each part serves a different function for the plant. Some animals have wings, feathers, beaks; each part serves a different function for the animals
PLT Environmental Education Guide	217	400-Acre Wood (50)	3	Life Science (92)	Plants and animals have life cycles that are part of their adaptations for survival in their natural environments	Plants and animals have life cycles that are adapted to survive in distinct environments (e.g., bean plants can be grown inside during winter, but cannot grow outside in the winter)
PLT Environmental Education Guide	217	400-Acre Wood (50)	5	Life Science (146)	All of the processes that take place within organisms require energy	In most ecosystems, energy derived from the sun is transferred and transformed into energy that organisms use by the process of photosynthesis in plants and other photosynthetic organisms

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PLT Environmental Education Guide	217	400-Acre Wood (50)	7	Life Science (220)	In any particular biome, the number, growth, and survival of organisms and populations depend on biotic and abiotic factors	As one population proliferates, it is held in check by one or more environmental factors (e.g., depletion of food or nesting sites, increased loss to predators, invasion by parasites)
PLT Environmental Education Guide	217	400-Acre Wood (50)	8	Life Science (257)	Reproduction is necessary for the continuation of every species	An individual organism does not live forever. Reproduction is necessary for the continuation of every species

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