Welcome Mat

Grade(s): 4-8

Subject: Social Studies

GPS: SS5H3 d  
    SS8H12 e

Time Required: 45 minutes

Setting: Indoors

Materials:  
    Non-native invasive plant cards  
    World map

Objectives:  
    Students will be able to describe the geographical origins of immigrants to the Southeastern United States by tracing the arrival of non-native invasive plants into that area.

Vocabulary:  
    Native Plant – a plant that grows naturally in a specific area  
    Non-Native Invasive Plant – a fast-growing plant that is brought into an area where it does not live naturally and results in an adverse effect on the environment  
    Immigration – the settling of people in a country where they are not native

Background:  
    On a bronze plaque on the Statue of Liberty, the poem “The New Colossus” by Emma Lazarus states “…Give me your tired, your poor, your huddled masses yearning to breathe free …” And so they came, people from other countries, seeking a new and better life here in the United States of America. Along with their hopes and dreams they brought familiar belongings to remind them of home. These belongings included plants and seeds. Unknowingly, these immigrants introduced non-native invasive plant species into the United States. To them, these plants were an essential everyday part of their life. The plants were used for ornamentation, agriculture, medication, and food. They were unaware that these plants would reproduce and spread easily throughout the US and be detrimental to the native species.
    As years passed, the citizens of the US continued to introduce plants from other countries. With good intentions, these citizens brought these plants into the country for purposes such as erosion control, wildlife habitat enhancement, and more.
Other plants arrived here by accident – dirt ballast in ships, hidden seeds in livestock feed, even the mud on someone’s shoe carried the seeds of non-native plants.

These non-native invasive plants have had a negative environmental and economical effect on the habitats that they disturb.

**Activity:**
- Divide the students into groups of two. Give each group a non-native invasive plant card. Have them research their plant and fill in the information on the card. Information sources are listed under References and Resources.
- Have the 8th graders include the following information:
  - scientific name of the plant
  - type of habitat that the plant prefers (forest, meadows, ponds, etc.)
  - adaptations of the plant that make it an invasive (prolific growth, animal dispersed seeds, large roots, etc.)
  - effects of non-native invasive plants (displacement and possible extinction of native plants, disruption of native habitats, etc)
- Each group will mark the location of origin of their non-native invasive plant on the world map. They will then present the information on the plant’s history, emphasizing the reason the plant was brought to the United States.
  - See attached Answer Key.

**Evaluation:**
- Have the students list four locations from which people emigrated, two reasons they brought non-native invasive plants with them, and the impact this action caused.

**Extensions:**
- Make a bulletin board displaying the cards of the non-native invasive plants and the world map. Border the cards with a color that corresponds to the color dot of the plant’s location on the world map.

**References and Resources:**
- Adapted with permission from Invaders of the Forest 2005 WEEB, WDNR, Park People of Milwaukee County
- [http://www.gaeppc.org/list.cfm](http://www.gaeppc.org/list.cfm)
- [http://www.invasive.org/](http://www.invasive.org/)
- Nonnative Invasive Plants of Southern Forests by James H Miller
Answer Key for Non-Native Invasive Plant Cards

Chinese privet, *Ligustrum sinense*
- Type – shrub
- Place – China & Europe
- Date – early to mid-1800s
- Use – ornamental

Chinese wisteria, *Wisteria sinensis*
- Type – vine
- Place – Asia
- Date – early 1800s
- Use – ornamental for southern porches

English ivy, *Hedera helix*
- Type – vine
- Place – Europe
- Date – early to mid-1700s
- Use – ornamental, varnish resin, dye, tanning

Japanese climbing fern, *Lygodium japonicum*
- Type – vine
- Place – Asia
- Date – 1930s
- Use – ornamental

Tree of heaven, *Ailanthus altissima*
- Type – tree
- Place – Europe
- Date – 1784
- Use – ornamental

Alligator weed, *Alternanthera philoxeroides*
- Type – aquatic floating mat
- Place – South America
- Date – 1897
- Use – none, arrived by accident in the ballast of a ship

Autumn olive, *Elaeagnus umbellate*
- Type – shrub
- Place – China and Japan
- Date – 1830
- Use – wildlife habitat, strip mine reclamation

Chinaberrytree, *Melia azedarach*
- Type – tree
- Place – Asia
- Date – mid-1800s
- Use – ornamental
Japanese honeysuckle, *Lonicera japonica*
- Type – vine
- Place – Japan
- Date – early 1800s
- Use – ornamental, erosion control

Kudzu, *Pueraria montana*
- Type – vine
- Place – Japan and China
- Date – early 1900s
- Use – erosion control, livestock feed

Mimosa, *Albizia julibrissin*
- Type – tree
- Place – Asia
- Date – 1745
- Use – ornamental

Nepalese browntop, *Microstegium vimineum*
- Type – grass
- Place – Asia
- Date – 1919
- Use – ground cover

Tallow tree, *Triadica sebefera*
- Type – tree
- Place – China
- Date – 1700s
- Use – ornamental, seed oil

Water hyacinth, *Eichhornia crassipes*
- Type – floating aquatic mat
- Place – South America
- Date – 1884
- Use – ornamental plant for ponds

Shrubby lespedeza, *Lespedeza bicolor*
- Type – shrub
- Place – Japan
- Date – 1800s
- Use – ornamental, stabilizing soil

Hydrilla, *Hydrilla verticillata*
- Type – aquatic mat
- Place – Asia and Africa
- Date – 1950s
- Use – aquarium plant
Marsh dewflower, *Murdannia keisak*
- Type – perennial herb
- Place – Asia
- Date – 1935
- Use – none, hidden in imported rice

Cogongrass, *Imperata cylindrical*
- Type – grass
- Place – Asia
- Date – early 1900s
- Use – stabilize soil

Garlic mustard, *Alliaria petiolata*
- Type – biennial
- Place – Europe
- Date – 1800s
- Use – medicinal use

Princesstree, *Paulownia tomentosa*
- Type – tree
- Place – Asia
- Date – early 1800s
- Use – ornamental, wood exports