Community Walkabout

Objectives:

▪Identify natural and built components of communities, including social, natural, built and managed.

▪Analyze relationships between people and the components of their neighborhood, both natural and built.

▪Recognize that infrastructure provides service to people through both natural and built components.

▪Recognize that there are unintended consequences (both positive and negative) in how we build/design our neighborhoods

Time:

2-part lesson: 15 minute overview + time for students to complete activity on their own. 30-minutes discussion after activity is completed

Grade Level:

7-12

Authors

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Standards

Background:

How is a happy/healthy neighborhood designed and managed? All students live in a neighborhood, yet they may never have thought about the different components that contribute to it being a good place to live. In this multi-day activity, students photograph their neighborhoods identifying desirable and less desirable components.

Advanced Preparation:

Ideally student will have completed the Natural/Built lesson.

Vocabulary:

infrastructure: infrastructure' is a term that describes the components that have to be in place to be able to provide services to people. Infrastructure can be completely designed, built and managed by people (like waste removal and disposal), or may utilize some naturally occurring elements and processes in order to function (flood management). . Infrastructure includes all of the organizational structures and systems that are needed for a city to function. It links the biological, physical and social aspects of urban ecosystems. It includes terrestrial ecological features, aquatic features and built structures as well as social institutions.

ecosystem services: ecosystem services are those things that nature provides us for free. These include supporting(i.e. photosynthesis, soil formation), provisioning (i.e. pollination, clean water) regulating (i.e. moderating temperature, controlling flooding), cultural (i.e. aesthetic, recreation)

Suggested Procedure

Walkabout – Section 1 (15 minutes classroom time, approximately 1 hour independent student time):

Engage:

1) Share a photograph of a street (slide 1) and/or park (slide 2) and ask students on a really hot day in the summer where would they stand to wait for a friend. Most students will choose to stand in the shade of a tree or a building. Ask them why? Why is a tree in the picture? Why is the ramada/bus stop in the picture? How do these living and non-living components contribute to the livability of the neighborhood?

Clarify what is meant by 'natural' and 'built', i.e.: 'natural' are items not created by people (insects, birds, plants, rocks, streams) while 'built' are items created by people (houses, roads, electrical lines, canals). Included in "natural" are both living things that people placed in a location (like trees in a yard) and living things that are attracted to neighborhoods (birds, insects, weeds). Start students thinking about how nature is a part of all spaces, and also that people build things in order to sustain or enhance societal living conditions. Sometimes things we build or place in neighborho0ds which have unintended consequences, both positive and negative.

If time permits read Read a Shady Situation: http://chainreactionkids.org/files/issues/4/chreact4_p18_19.pdf: This article is about parking lot trees and the harsh environment they have to survive in here in Phoenix while providing the ecosystem service of shading/climate moderation

Explore:

2) Have students walk around their neighborhoods observing items that they see. Have them take photographs (or write descriptions) of what they see, paying attention to the natural/built parts of the environment Use Worksheet 1. Students may take as many photos as they like, but will only be asked to share about ten.

   *Some of your photos should include things that are 'natural'.

   *Some of your photos should include things that are 'human-made' or 'built'.

   *Some of your photos should have things you think are desirable for people in the community

   *Some of your photos might have things you think are NOT desirable for people in the community. Some photos might have both desirable AND undesirable aspects.

   *Some of your photos might have things you think are beneficial or harmful to plants and/or animals.

Students need to record a description of the area walked, such as street sections or designate the area on a map. If possible using, obtain a map of the area (i.e. from Google Map or similar application). Photos can also be inserted into the map document physically or electronically.

Explain

Section 2 (Full class period, following independent student activity):

3) In small group discussion, students complete the table and questions on Worksheet 2. Students need to identify photos for the group portion by using student initials and number, or renumbering photos.

   ▪Choose three photos from all the photos in your group that show things you think are desirable for the people in the community. Explain your group's reasoning.

   ▪Choose three photos from all the photos in your group that show things you think are undesirable for the people in the community. You can repeat photos. Explain your group's reasoning.

   ▪Choose three photos from all the photos in your group that show things you think are beneficial for plants and/or animals. You can repeat photos. Explain your group's reasoning.

   ▪Choose three photos from all the photos in your group that show things you think are harmful for plants and/or animals. You can repeat photos. Explain your group's reasoning.

   *Choose one or two photos that your group was surprised to find in your neighborhood

   *Compile a list of the "bonus" questions

Expand:

4) Large group discussion: A 'service' is an asset that helps people. Ecosystem services are those things that nature provides us for free (Slide 3). In cities, we disrupt ecosystems and so have to build infrastructure to provide some of these services. 'Infrastructure' is a term that describes the components that have to be in place to be able to provide that service to people. Infrastructure can be completely designed, built and managed by people, or may utilize some naturally occurring elements and processes in order to function. Infrastructure includes all of the organizational structures and systems that are needed for a city to function

5) From your photos that show things that are desirable for people/plants/animals: list the services that are being provided by these things for people. Don't forget that some services might be unseen like clean air or natural sounds (like bird song)

6) From your photos that show things that are undesirable for people/plants/animals: list any services that are being provided by these things for people. If they are providing a service why are they undesirable? (i.e. wide roads move cars quicker but might bring more noise/air pollution).

7) Brainstorm ways to transform these undesirable things into something more desirable.

Evaluation:

* Turn in photos & individual walkabout worksheet. Work collaboratively in the group project.

Extension:

▪Following completion of additional lessons supporting learning about infrastructure, ecosystem services, and options for neighborhood design, have students again complete Worksheet 2 in groups, discussing any changes in knowledge and perspective.

▪ Create a wall-size time line with 2015, 2020, 2030, 2040, and 2050 along the x-axis. Label the top of the y-axis 'desirable' and the bottom 'undesirable'. Have

students choose and place photos that they believe may change in desirability for people over time. Have them write on a sticky note their thinking about this change.

Standards

Student Name:

Walk around your neighborhood and take photos of what you see. Select about 10 photos to share with your classmates by filling out the table below

Describe where your walked: (attach a map, or list streets)

_____
_____
_____

	Photo #	Managed by People? Y/N	Naturally Occur-ring? Y/N	Why you took this picture	Like	Don't Like
Living						
Non-Living						
Surprised to Find						

List one other things you found in your neighborhood:

What did you see that was beautiful?_____

What did you see that showed community pride?_____

What did you see that showed sustainability?_____

What did you find that was loud?_____

What did you see that was colorful?_____

Community Walkabout
Student Worksheet 2

Student names:

Desirable for people	Photo #	Explain your group's reasoning
Not Desirable for people		
Beneficial to plants/ animals		
Harmful to plant/animals		
Surprised to find		

List Other Things Found in Neighborhood:

Beautiful   Community   Sustainable   Loud   Colorful

What are similar? What are different?

1) From your photos that show things that are desirable/beneficial for people/plants/animals: list the services that are being provided by these things for people. Don't forget that some services might be unseen like clean air or natural sounds (like bird song)

2) From your photos that show things that are undesirable/harmful for people/plants/animals: list any services that are being provided by these things for people. For example, a street provides an efficient way to move people, but may bring more cars into your neighborhood.

3) Brainstorm ways to transform these undesirable things into something more desirable.

Where would you wait for a friend?

Where would you wait for a friend?

Ecosystem Services Examples
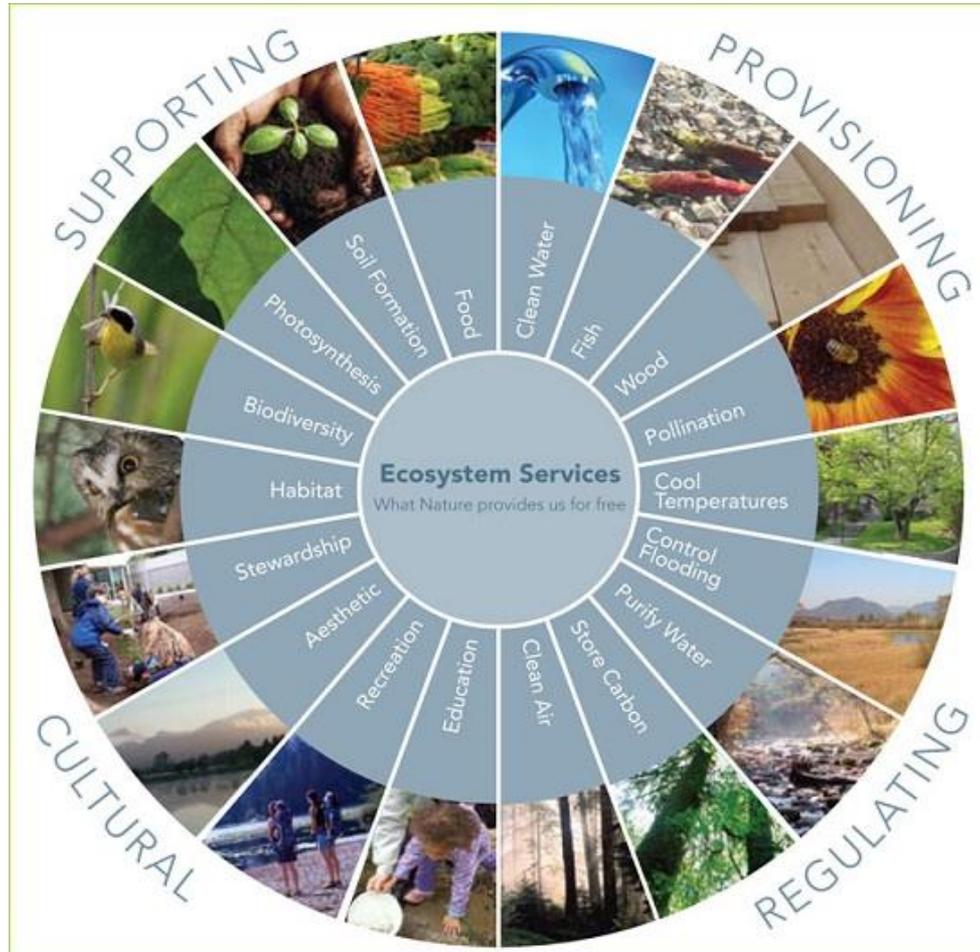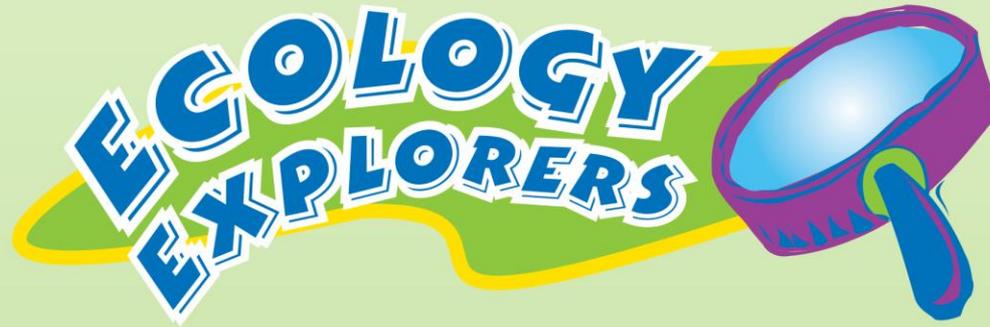
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