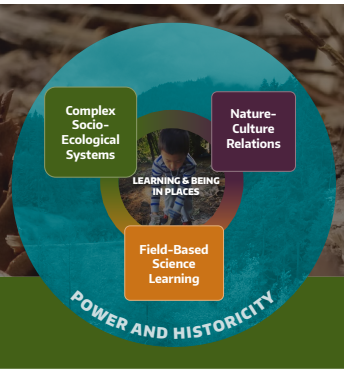
Learning in Places

Family Science Learning Engagement



LE 5.C Creating a Neighborhood "Should We" Question

Activity Purpose

Use this tool to make observations that you can use to brainstorm neighborhood "Should We" questions. Then select a neighborhood "Should We" question that your family wants to focus on and create an initial model that helps you understand what phenomena are involved in answering the "Should We" question. You can use the activity sheet provided or use blank sheets of paper to take notes on.

Activity Overview

This is a three-part activity.

- **Part 1:** Go on a walk and make observations about the ways that people seem to be making decisions in your neighborhood. You may not see them directly but need to interpret what you see and what decisions led to what you see. Use those observations to brainstorm "Should We" questions.
- **Part 2:** From your list of neighborhood "Should We" questions, decide on one that your family wants to focus on. Discuss important parts of your question.
- **Part 3:** Create an initial model of your family's "Should We" question.
- Extension activity ideas are listed on page 5 of the activity sheet.

What can you do to support learning?

- To prompt thinking about your neighborhood "Should We" question, consider:
  - What have people built or placed in our neighborhood? Who has it impacted?
  - Who and what (for example, animals, plants, people, elements like water and the sun, and/or human-made artifacts) are involved in our "Should We" question?
  - How are the "who" and "what" we have identified specific to our neighborhood?
  - What types of relationships are the "who" and "what" in with each other, and with place?
- The initial model that your family constructs in Part 3 of this activity is a way of explaining who and what are involved in your "Should We" question and how they are in relationship with each other. You might start by brainstorming all of the places and things (for example, animals including humans, plants, water, rocks) that are involved in your "Should We" question. Then draw those places and things, as well as how those places and things are connected and why.

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Connecting with other families

» Share "Should We" questions and initial models with other family members and friends, explaining why they are important and related to your neighborhoods.

Disciplinary Core Ideas

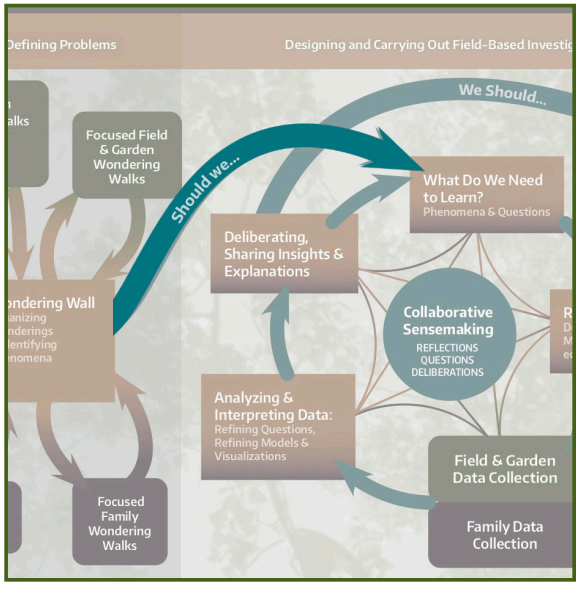
Human communities have always made socio-ecological decisions that are shaped by values and cultural practices. These choices reflect how human communities construct their relations (everyday, institutional, legal, etc....) with the natural world.

"Scientists use models...to represent their current understanding of a system (or parts of a system) under study, to aid in the development of questions and explanations, and to communicate ideas to others..." (National Research Council, 2012, p. 57).

Science Practices Emphasized

- Asking Questions
- Developing and Using Models
- Obtaining, Evaluating, and Communicating Information

YOUR PLACE IN THE SEASONAL STORYLINE



Key Ideas

"Should We" Questions

Asking "what should we do" and then making a decision is something that all people do everyday. Deciding what to do involves utilizing knowledge, clarifying values and goals, and exploring potential impacts. Socio-ecological "should we" questions (1) explore relationships between humans and the natural world, (2) explore multiple possibilities and how each decision impacts families, communities, and the natural world, and (3) encourages us to make more ethical and accountable decisions within the natural and social world. "Should We" questions require deliberation and action even with uncertainty.

Modeling

Working with models helps scientists and science learners visualize their thinking and better understand the kinds, relationships, behaviors, and various scales being explored. Scientific models are dynamic and change based on new information learned through investigations of phenomena, discussions and deliberations with others like family and community, and media of various types.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CONNECT TO OTHER ACTIVITIES

- Learning Engagement 5.A: What should we do? Exploring your family's decisions
- Learning Engagement 6.B: Observing and Modeling Specific Relationships

LEARNING IN PLACES FRAMEWORKS TO CONSIDER

- Socio-Ecological Deliberation and Decision Making
- Modeling Socio-Ecological Phenomena

Creating a Neighborhood "Should We" Question

In this activity, your family will ask a "Should We" question that is focused on your neighborhood and then create a model to explain the different parts and relationships of your "Should We" question.

What is a "Should We" question and what are some examples?

"Should We" questions come from observations and wonderings about those observations. Here are some example observations and the "Should We" questions that someone could ask related to those observations:

1. We observed a vacant lot in our neighborhood.
    a. Should we plant more trees [or other types of plants] there?
2. We observed that there are a lot of insects in a community garden in our neighborhood.
    a. Should we use an insecticide in the community garden to kill the insects?
3. We observed that water is running off into a certain area of our neighborhood after it rains, and then a lot of birds visit the standing water.
    a. Should we call the city to ask that they fix the slope of the concrete, so water won't pool in that spot after it rains?

More information about "Should We" Questions:

A "Should We" question tries to:

1. think about the relationships between humans and the natural world.
2. think about how our decisions impact our surroundings.
3. help us understand what we can do to be more aware of our role within the natural world.

"Should We" questions ask us to think about scales of time, and processes of change (and how long it takes to make change). "Should We" questions lend themselves to being explored through a seasonal lens. "Should We" questions lend themselves to some action, or at least deliberation around an action. They rarely, if ever, have a "right" or "wrong" answer, and they can impact families, communities, and the natural world in different ways.

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Part 1:

A. **As a family, take a walk in your neighborhood and make observations** (or you can use observations you made on other walks, and your wonderings about those observations, as part of this activity)**.**

B. **Then ask a neighborhood "Should We" question based on your observations and your questions about your observations.**

Where we went for our walk in our neighborhood: _____

We made these observations on our walk: (Write and/or draw the observations you made.)	***We are curious about these "Should We" questions based on our observations:*** (Write as many "Should We" questions as you want.)

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Part 2: Pick a "Should We" question you want to focus on and discuss it as a family. Write and/or draw important parts of your discussions (you can use the prompts in the chart to focus your discussions)**.**

The "Should We" question we want to focus on is: _____

What different species (animals including humans, plants) and/or kinds (water, rocks, sun) are involved in our "Should We" question?	*What relationships among species and kinds do we think are important? (You might think about eating relationships, shelter relationships, cooperation or competition relationships, cause and effect relationships.)*
How might the species and kinds that we identify be connected to specific places, lands, and/or waters in our neighborhood?	*Might any of this be different in different seasons? How?*

Part 3: Now, using your discussions, create an initial model of the different parts of your "Should We" question. Scientists use models for several reasons. For example, they use models to help make their thinking visible and explore their ideas. You can make an initial model of your "Should We" question (including its parts and how those parts are related and why) by drawing diagrams, or using words and arrows (or other symbols). If you want to, you can use a lot of different materials to make your model (pencils, pens, markers, crayons, yarn, and/or pictures, for example).

- The point of your model is to capture the important elements of your "Should We" question.
- How can you represent how species and kinds, places, and relationships that are part of your "Should We" question work together?
- How does your model explain your thinking about that?

Our neighborhood "Should We" question is: _____

Our initial model that captures our thinking about our neighborhood "Should We" question…

Extension Activity Ideas

- Find out more about different elements of your "Should We" question by talking to other people, reading books and magazines, watching videos, and finding online resources.

- Continue to go outside and make observations related to your "Should We" question. Then, revise your model to incorporate new information that you learn (from observations and from any other sources you have consulted). This will allow you to track your family's thinking over time.
    - How has your thinking changed?
    - How has it stayed the same?

- Once you have spent time collecting information and revising your model, host a family deliberation about your "Should We" question. What do different family members think should be done and why? What actions could you take? How might you do that?
    - Consider inviting other family members and friends to participate. That way, you can hear more ideas and questions connected to your family's "Should We" question.

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