

Become familiar with the Seeing Reason tool

1. Examine the [Seeing Reason Web site](#). Familiarize yourself with the tool and read associated resources such Walk Through an Example, Try Out the Tool, Classroom Strategies, Project Examples, and Benefits. When you are ready to use the Seeing Reason mapping tool with your class, visit the Teacher Workspace to set up projects where students will save individual maps.
2. For Ecology Explorers, set up three projects and teams in the teacher workspace.
 - Project 1, Ecology Explorers: Limiting Factors. Students address the question “How do limiting factors affect an animal population?”
 - Project 2, Ecology Explorers: Overlapping Habitats. Students answer, “What happens when human and animal habitats overlap?”
 - Project 3, Ecology Explorers: Species Success. Students explore the question “How does human activity affect your organism’s survival, either directly or indirectly?”
3. Set up a test team and make practice maps to uncover potential directions student mapping might go, and to refine the investigation.

Introduce students to causal mapping using Seeing Reason

1. Introduce students to the Seeing Reason mapping tool by exploring the [Try Out the Tool](#) demonstration space together.
2. Start by discussing the sample map.
3. Next, clear the map (using button at bottom of page), and make a map of student thinking about a non-research-based question such as, “What makes a song popular?”
4. Show students how to read, construct, and describe factors and relationships. Demonstrate how chains of factors emerge as discussion goes deeper.
5. Show students how they can support their map models by including definitions, quotes, citations, or data in the factor and relationship description fields.
6. Explain that maps can show how thinking changes over time, and encourage students to engage in cycles of mapping, research, discussion, and re-mapping.
7. Tell students they will work in teams so they can discuss their developing ideas.
8. Explain that you plan to examine their developing maps, looking for opportunities to support and guide their learning. Discuss the comments feature, and agree on how you will use it.