Inspiration®

Mind Maps: Tapping Prior Knowledge & Developing Ideas

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Subject Areas: All subjects

Grade Level: 6 – 12 (ages 11-18)

Time: Two 45-minute class periods; time outside of class as necessary

Lesson Objective:
Students will develop a mind map to help them brainstorm what they know about a topic, identify questions for further inquiry, and support the research and writing process.

Common Core State Standards[1]:
>   College and Career Readiness Anchor Standards for Reading:
>>   **Standard 7.** Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
>   College and Career Readiness Anchor Standards for Writing:
>>   **Standard 7.** Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

Overview:
This lesson introduces mind mapping to students, with the goal of helping them to brainstorm what they know about a topic and identify questions for further inquiry. Similar to other types of graphic organizers, mind maps are visual displays of information, but they are only used when there is just one main idea. Other types of diagrams can include multiple main ideas.

Mind maps have an organic appearance, like a tree with many branches. They are quick to create because Inspiration's mind mapping tools are efficient to use and their structure is always the same. With a central trunk (main idea), the thickest branches are main subtopics, and the thinner branches are subtopics of those. These visual cues help students as they map prior knowledge about a topic and build new knowledge related to it. A basic **Map View** starter document is shown below.


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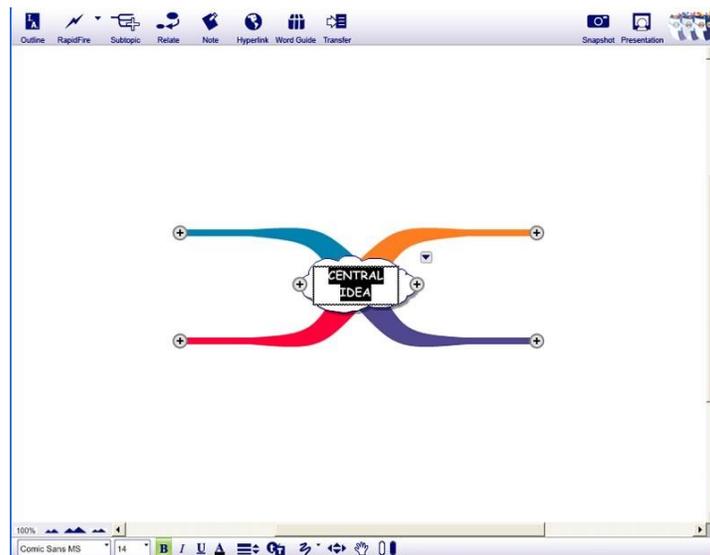
Preparation:
- This lesson requires the Inspiration software application published by Inspiration® Software, Inc. 30-day trials can be downloaded at <http://www.inspiration.com/Inspiration>.
- Access to library resources and/or the Internet would also be helpful for student research.

Lesson:
1. Begin by showing the students an example of a completed mind map and explain that they will create their own mind maps to help them choose a topic for a research project—and then complete the project. There are many examples included with Inspiration 9 which you can share, including a descriptive writing brainstorm (**Inspiration Starter>Learn to Use>Examples>Language Arts>Descriptive Writing**).
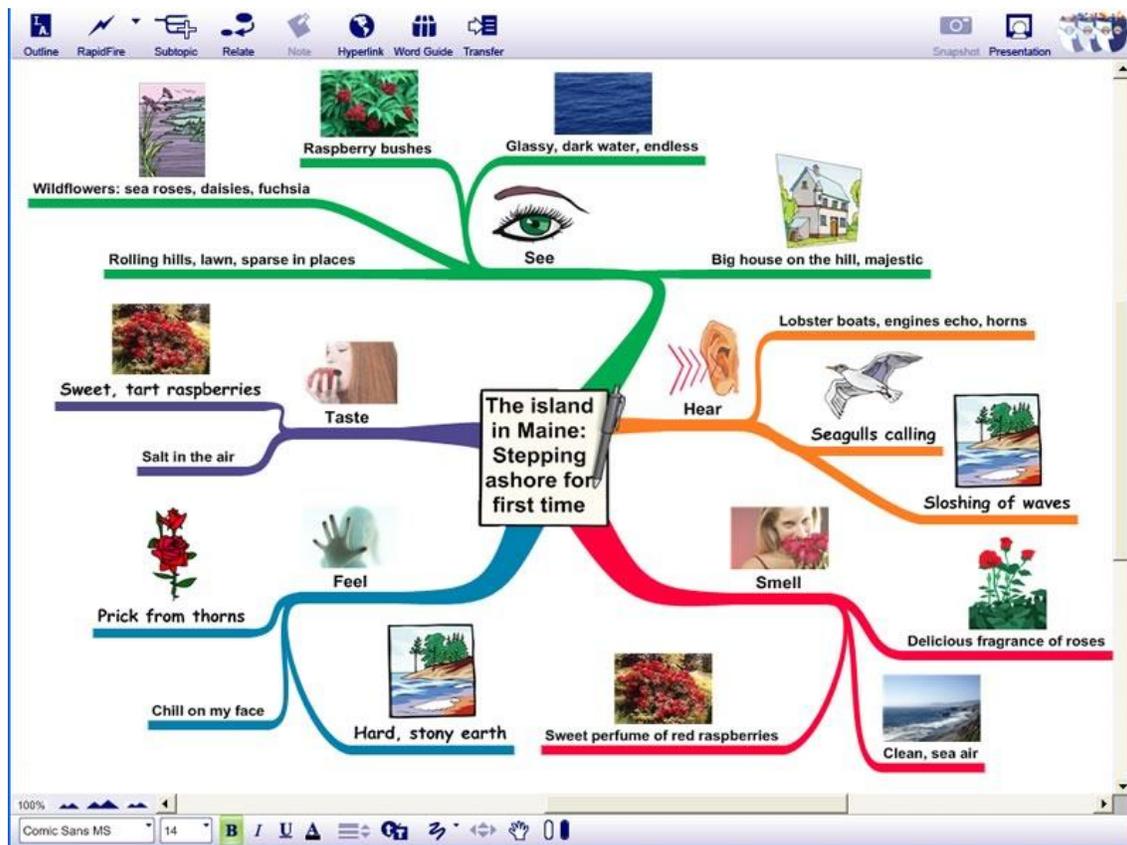

2. While pointing out the relevant areas of the map, explain that mind maps are visual displays of information that always have one main idea. Branches of subtopics spread out from the main idea, and the branches get smaller for each level of subtopics. In this way, students can easily see a hierarchy of ideas.

3. Show students how to start a new mind map (**Inspiration Starter>Mind Map**), and use it to demonstrate how students can use it to help them brainstorm and record what they know about a topic. Have students suggest topics, or use one related to your subject area, such as "Trees" if you teach life science. Type the topic into the "Main Idea" symbol and add a symbol for it, if you wish.

4. Point out to students that new mind maps in Inspiration start with four branches, which can be used to start recording main subtopics. Ask students to suggest main subtopics related to the

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topic, such as some of the characteristics of trees and their ecological roles. Record the ideas on the branches, such as "Types," and demonstrate how to click the **Add Subtopic** button (plus sign) on the main idea to add more branches.
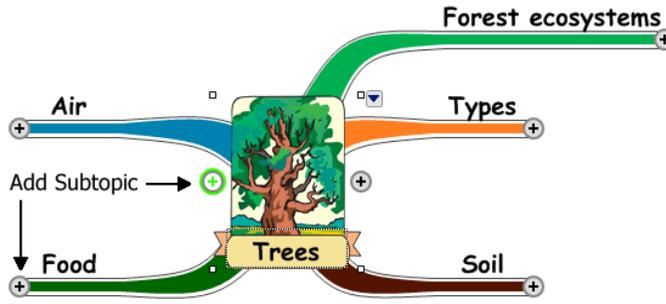
5. Two main types of trees come to mind, so demonstrate for students how to click the **Add Subtopic** button at the end of the "Types" branch twice to add subtopics for "Deciduous" and "Coniferous." Then show students how they can use the **RapidFire**® tool (found on the **Main** toolbar) to quickly add specific types of trees to those branches. For example, demonstrate how to click one of the types and then the **RapidFire** button. Show students how they can record many ideas without leaving the keyboard, simply by hitting the **Enter** or **Return** key between each one. Point out how all of the subtopics then become their own small branches, to indicate visually that they are simply subcategories of the main types of trees.
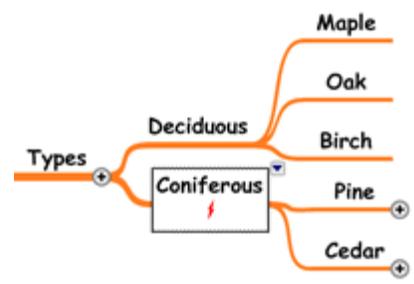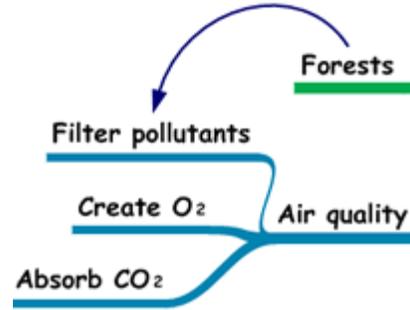

6. Point out how students can add visual information to their map by adding a symbol from the **Symbol Libraries** or Symbol search, or they can bring in their own images from the web or their computer.


7. Tell students that as they work they may need to reorganize the map. They may want to move branches to group ideas or create more room to develop topics further. Get ideas from students about an area of the map that could be reorganized and demonstrate how to click and drag branches to new positions. Demonstrate that a benefit of mind maps is that if a topic (branch) is moved, all of its subtopics move with it. When a topic is dragged to a new location, a green highlight appears over it with a dashed green arrow which indicates the location where the branch will appear; let go of the mouse button and you will see the change. (*Please note*: The *Map View Overview* video listed in the **Adaptations / Extensions** section below provides a good demonstration of this process.)

8. Explain to students that as they brainstorm ideas related to a topic, their goal is to identify an area in which they will focus their research. Demonstrate that one way to help them do that is to look for "relationships" between their ideas. They can show relationships or "relationship links" on their maps with the **Relate** tool. Explain how the **Relate** tool works like the **Link** tool in **Diagram View**. Demonstrate how they just click a topic, then the **Relate** button on the **Main** toolbar and then click a connection point on the topic where they want the link to end. They can connect topics on the same branch, different branches or to detached topics. They can also show a connection between any topic and the "Central Idea" symbol. For example, tell students that relating forests and the idea that trees filter air pollutants might give them the idea to research how forests impact air pollution.

9. Explain that as students conduct their research and gather information, they can use it to complete the mind map. Demonstrate how they can use the **Note** tool and switch to **Outline View** to add details and even write whole sections of text which they can easily reorganize.
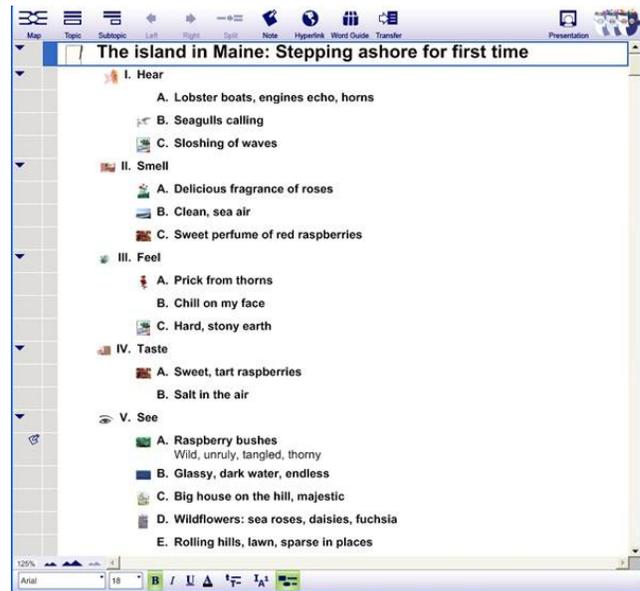
10. Have students start a new **Mind Map** and begin the brainstorming process. Explain that when they identify a topic for their research project, they should talk to you and their peers about it to make sure it is suitable and specific enough for the project. They may then begin the research process using online sources and/or the library or textbooks.

11. Students can use the **Transfer** tool to transfer their projects to a word processor and publish a written paper about their project.

Adaptations / Extensions:
- At the start or end of the lesson, show students the brief **Map View** introduction video. Explain that one way they can access it to review it is from the **Help** menu>**Training Videos>Map View Overview**.
- Students can make presentations to the class about their findings. To create a presentation, including visual talking points and elements of their mind maps, students can use the integrated **Presentation Manager**. See the *Creating Oral Presentations I and II* lesson plans for more information about this process.
- Students may also use complete diagrams as visual aids during presentations in **Diagram View**. Subtopics can be hidden or viewed using the **Subtopic Quick Controls** to allow focused attention on the topic being discussed.

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