



*Thinking IS
the Foundation
for Learning*

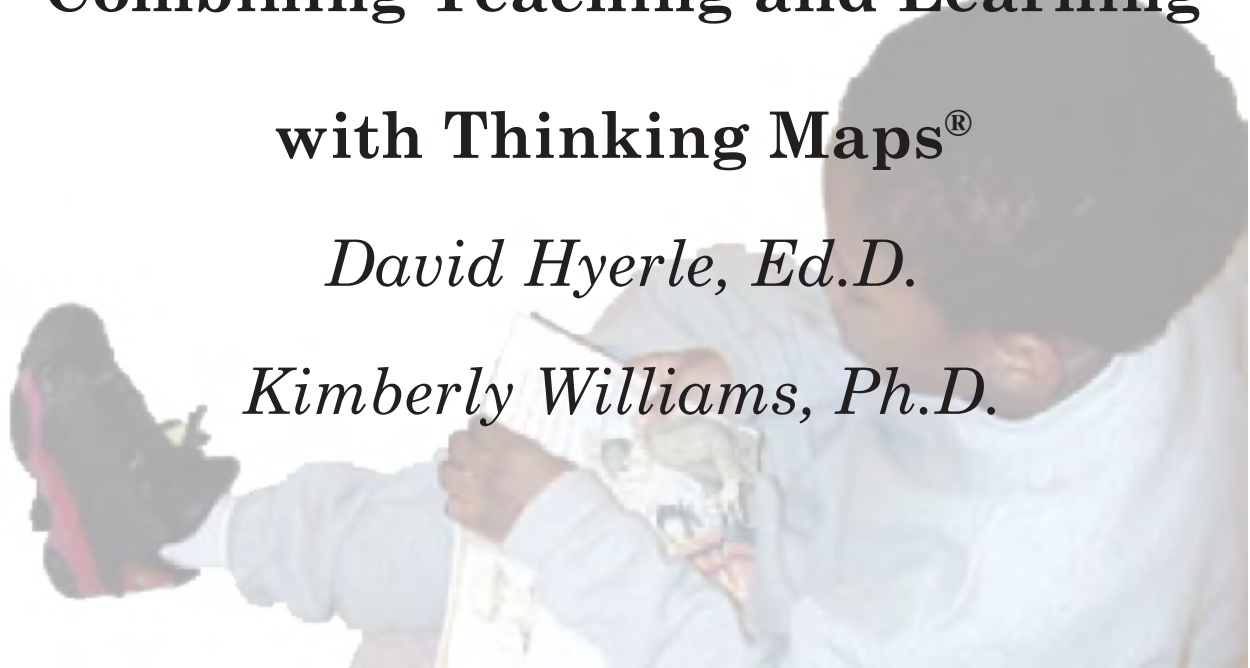
Bifocal Assessment:

Combining Teaching and Learning

with Thinking Maps[®]

David Hyerle, Ed.D.

Kimberly Williams, Ph.D.



Association for Supervision and Curriculum Development

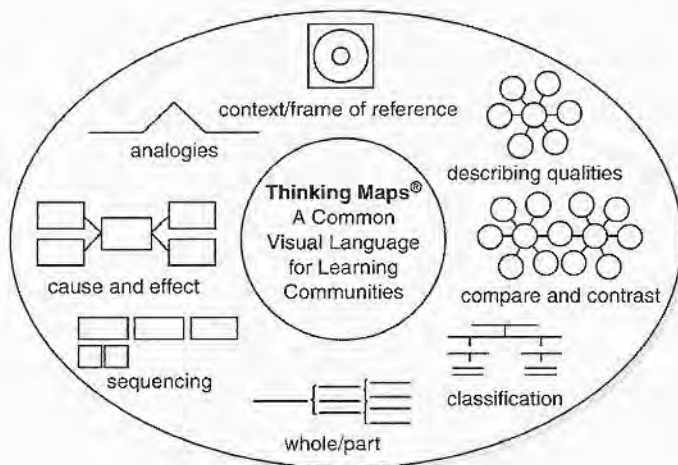
2010 Annual Conference & Exhibit Show

March 6-8 2010 • San Antonio, Texas

Critical Transformations

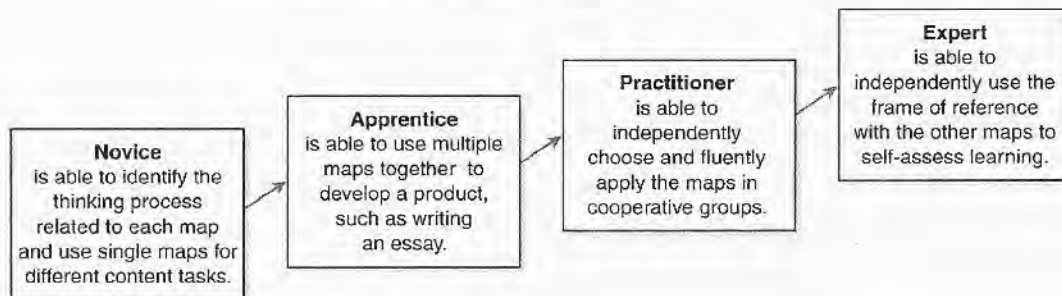
Figure 7.1 Thinking Maps Overview

Background Thinking Maps® is a language, or toolkit, of eight thinking-process maps, developed by David Hyerle. Each map is graphically consistent and flexible so that students may easily expand the map to reflect the content pattern being learned. Thinking Maps® are introduced to students as tools for reading and writing, content-specific learning, and for interdisciplinary investigations. Over time, students learn to use multiple maps together and become fluent in choosing which maps fit the immediate context of learning. Thinking Maps® and Thinking Maps® Software are used in whole schools through faculty training and follow-up.



Basic Techniques

- Begin with an application of each of the maps to a concrete object to be able to understand the relationship between thinking processes and Thinking Maps®.
- Expand each map to show the big picture and then prioritize information by deleting ideas from maps for reading comprehension and writing.
- Use multiple maps together to construct related patterns of learning, and use "frame" to identify frames of reference.

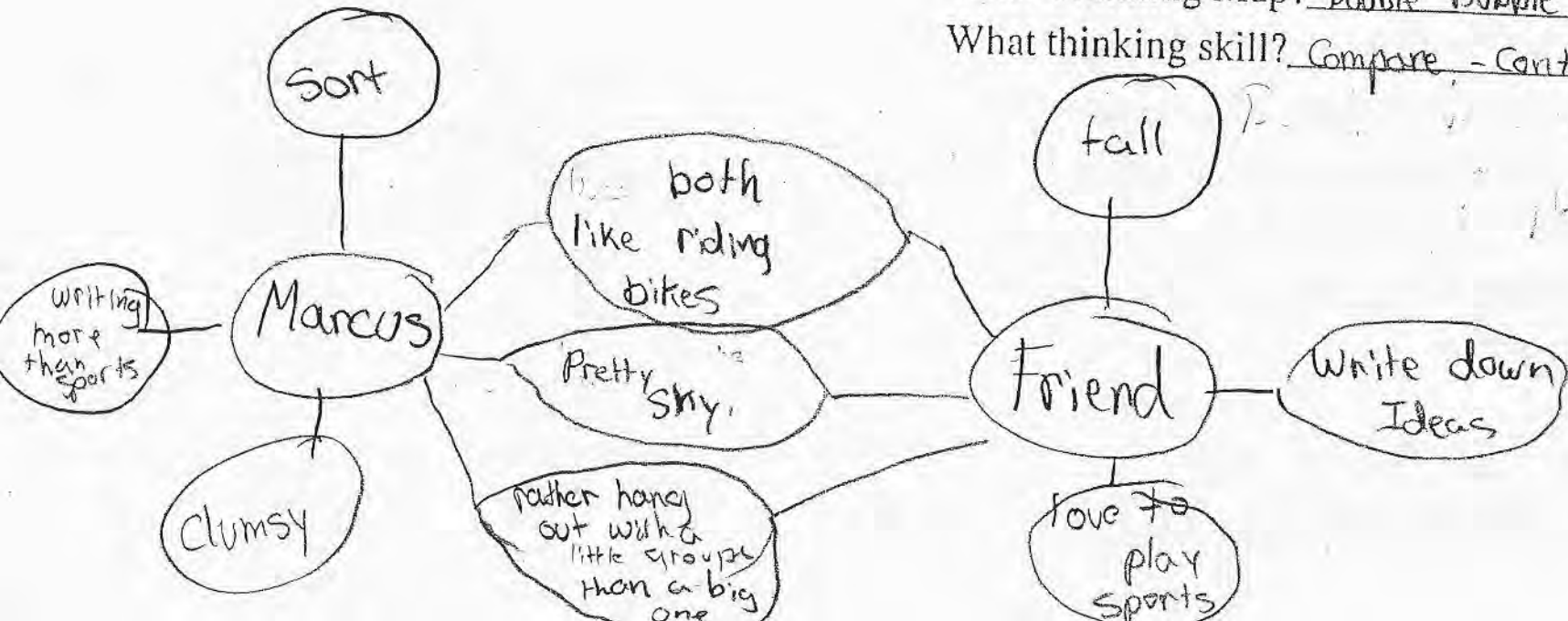


Paragraph 2. Making Friends

You really have to make an effort to make friends. I think I made friends with Marcus mostly because we both like riding bikes. We like to talk about where we would travel if our bikes were airplanes! We also are both pretty shy people; we would rather be together than hanging out in a large group. Some people think

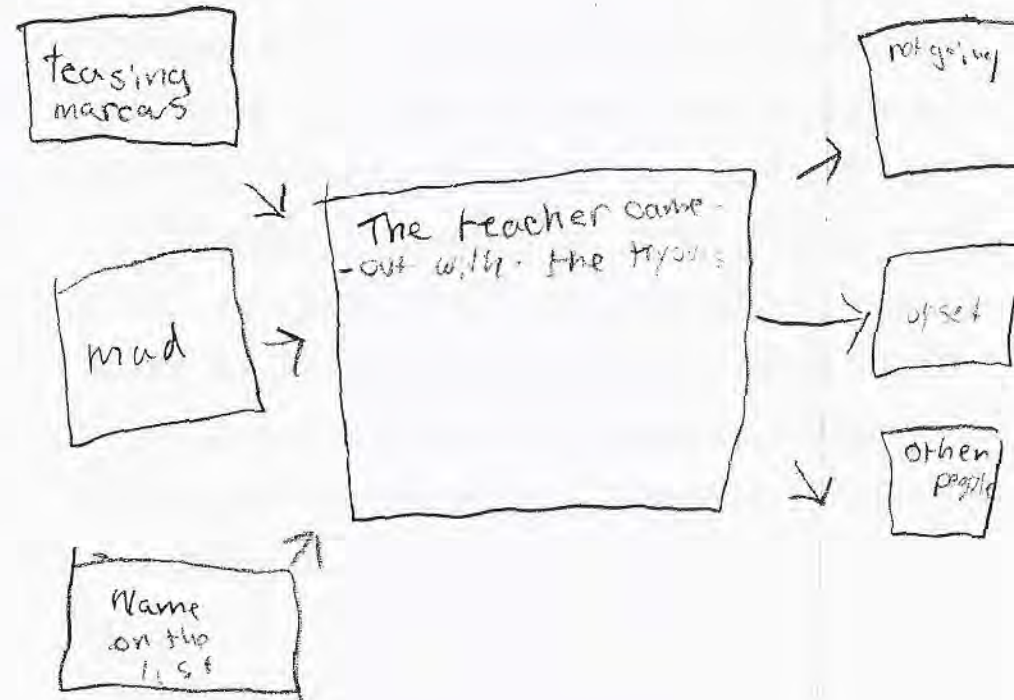
it is strange that we are friends because we are also different in many ways. We do look a bit funny together. I am very tall and Marcus is very short. I would rather talk than write down ideas. I also really love to play sports. Marcus enjoys writing much more than playing sports. I guess that is because Marcus can be a bit clumsy! But not with his hands! He is always making some sort of invention. I can't seem to make anything, but I can make a friend!

What Thinking Map? Double Bubble Map
What thinking skill? Compare - Contrast



Paragraph 8. Changing Your Mind

Marcus and I became BEST friends when I helped him with a BIG problem. He is not very good at sports, but his Dad is always watching sports on T.V. Not Marcus. One day our teacher told us that the soccer team tryouts were coming up. At recess, two boys started teasing Marcus saying, "Hey, Marcus, why don't you try out for the team. Ha! You couldn't make it as the water boy!" Marcus was mad! After school he told the soccer coach, "Put my name on the list for the tryouts." I saw Marcus the next day and he looked very upset! He told me he was thinking about what made him sign up and about what might happen at the tryouts. I asked, "Do you really want to be on the soccer team?" After a few days he returned to the coach saying, "Please take my name off of the list. I was going to tryout for the team for other people, like my Dad, and not for myself."



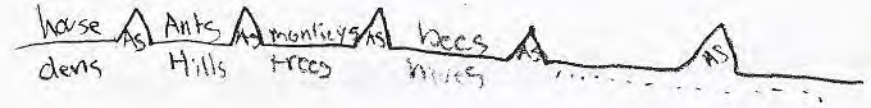
What Thinking Map? Multi-Flow Map

What thinking skill is used? cause-effect

Name: Gerardo Ramirez Hrnaya Date: 10/12/07

Paragraph 6. The Mind of Marcus

I think Marcus is very creative. He went on a field trip to the zoo last week and just loved the lions. All he could talk about was how lions remind him of how he roams around his own house. He told me that lions live in dens, just as people live in houses. And then he said, "Ants live in ant hills, monkeys live in trees, bees live in hives, and ideas live in my mind!" How do ideas live in minds?



What Thinking Map? Brige Map

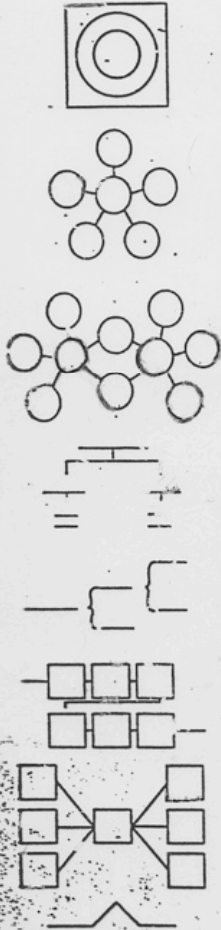
What thinking skill is used? opposite

THINKING BACK ON:

Matter

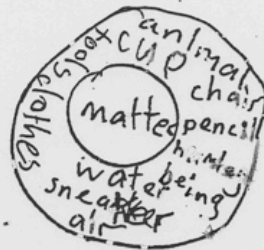
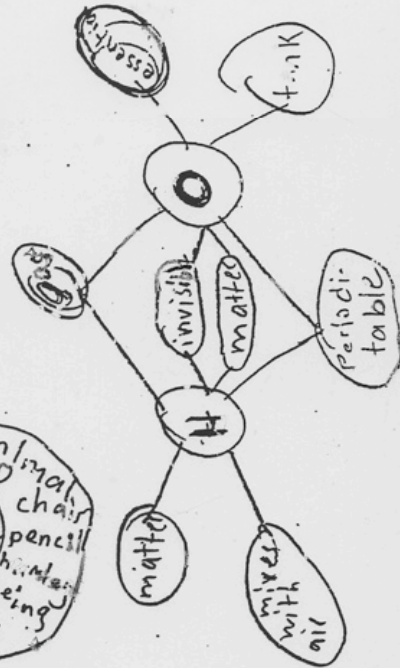
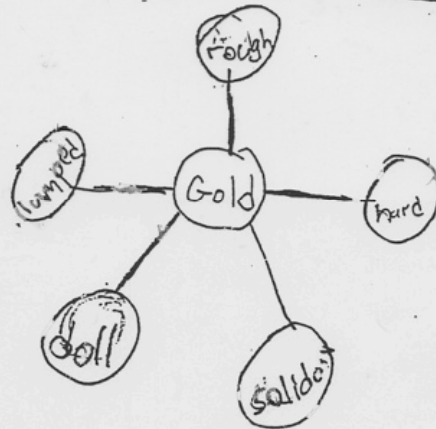
Name: Ime Nelson
Teacher: Mrs Backer
Date: _____

In the space below, use thinking maps to show what you have learned about the topic you have been studying:



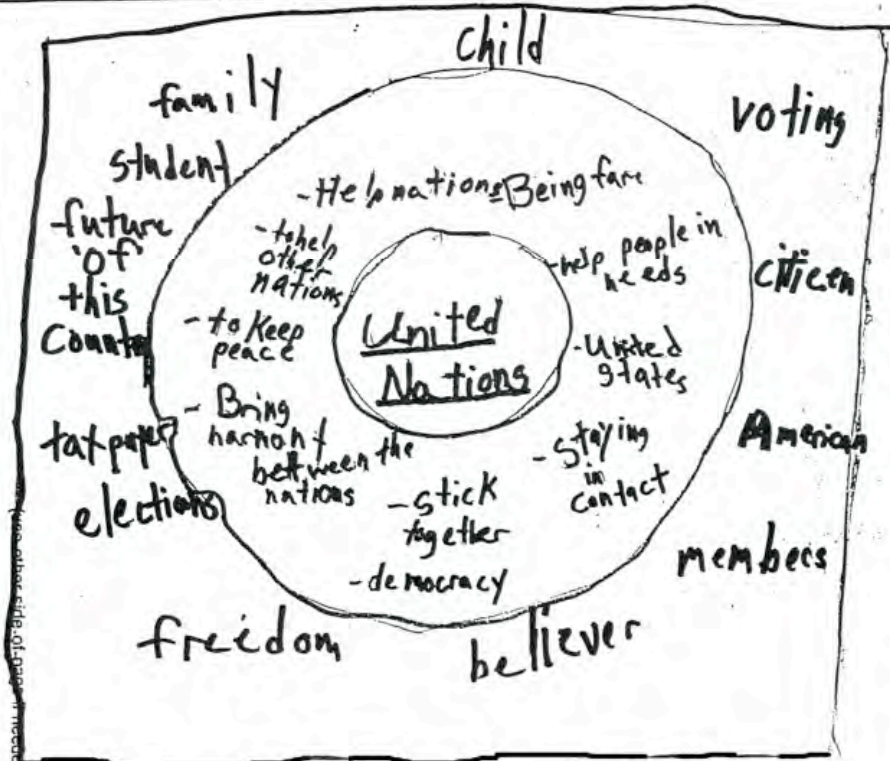
Atom } electrons
 } protons
 } neutrons

nucleus } protons
 } neutrons



Please answer these questions on another sheet of paper:

1. Look at your map(s). What are the most important things you know about this topic? ^{Do not write}
 Democracy, help in harmony.
2. What don't you know? What new questions do you have about this topic? ^{Do not write}
 I want to know ^{the} ^{where} ^{is} ^{the} ^{U.N.} [?] ^{13.}



In the space below, use one or more of the thinking maps to think about what you know about the topic you will be studying:

The United NATIONS

Name: Youna H Lee
 Teacher: Mina Steiner
 Date: _____

THINKING ABOUT:

	Minimum	Attending	Participating	Effective	Reflective
EXPAND	<ul style="list-style-type: none"> • very few connections • use of only one Map 	<ul style="list-style-type: none"> • multiple connections • few supporting details are shown 	<ul style="list-style-type: none"> • multiple concepts are shown with details • multiple Maps are used 	<ul style="list-style-type: none"> • thematic and interdisciplinary connections are shown 	<ul style="list-style-type: none"> • personal, interpersonal, and social implications are recorded
CLARIFY	<ul style="list-style-type: none"> • bits of information are isolated, unorganized • irrelevant information is included 	<ul style="list-style-type: none"> • different kinds of information are provided • details are shown in relation to general concepts 	<ul style="list-style-type: none"> • patterns in Maps are developed • details are sorted • general concepts are fully supported with relevant details 	<ul style="list-style-type: none"> • connections are shown between multiple Maps • central ideas are highlighted for application 	<ul style="list-style-type: none"> • frame is used to establish point of view and value of Map • hypotheses are generated • multiple perspectives are shown • limitations of Map(s) are suggested • self-assessment is initiated
ASSIMILATE	<ul style="list-style-type: none"> • one perspective or solution is shown • rote repetition of information is presented 	<ul style="list-style-type: none"> • alternative way of presenting information is initiated • points of confusion are highlighted 	<ul style="list-style-type: none"> • integration of prior knowledge and new information is shown • fundamental misconceptions are resolved 	<ul style="list-style-type: none"> • several Maps are coordinated for use in final product • novel applications are created 	
DESCRIPTION	<p>The student is demonstrating a simplistic level of understanding of content and/or limited effort.</p>	<p>The student is attending to the task and demonstrates a basic grasp of content and information.</p>	<p>The student is actively engaged with thinking about content and is beginning to integrate and initiate new ideas.</p>	<p>The student is strategically synthesizing information with a focus on organizing central ideas and details for meaningful applications.</p>	<p>The student is seeking a deeper understanding of knowledge by recognizing multiple interpretations, implications, and limitations of work.</p>

5

4

3

2

1

Content Area: Social Studies

Topic: Early NY State History, Native Americans indigenous to NY

Standards: E2a, E5a,

Thinking Maps : Tree, Double Bubble, Flow

**Product:
Compare and Contrast Essay**

Teacher: H. Fox
School: PS 60 Q
Grade:4

Purpose (Guiding Questions)

What makes or shapes a culture?
How are early inhabitants of New York State alike and different?

Activity 1:

What smaller groups made up the Iroquois and Algonquin groups?

Use a tree map to categorize the tribes in New York State.

Activity 2:

What were the cultures of the groups like? What did they celebrate, wear, do, etc?

Read some information about these groups and organize it into categories on Tree maps. Construct two tree maps: one for the Algonquins and one about the Iroquois.

Activity 3:

Now that you have some information about each group, use a Double Bubble to compare and contrast the cultures.

Product: Comparative Essay

(E2b: advances a judgment that is interpretive, analytic, evaluative, or reflective.)

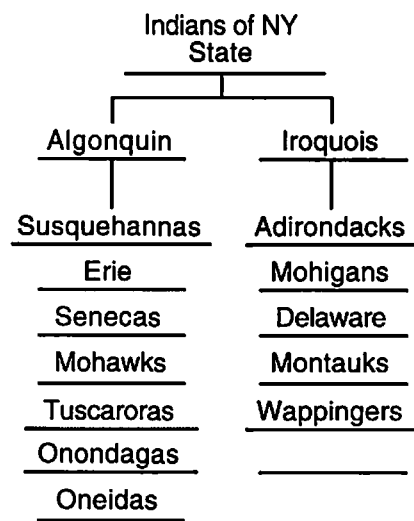
Look at your Double Bubble map to answer the following 3 questions. Write 3 reasons to prove your answers.

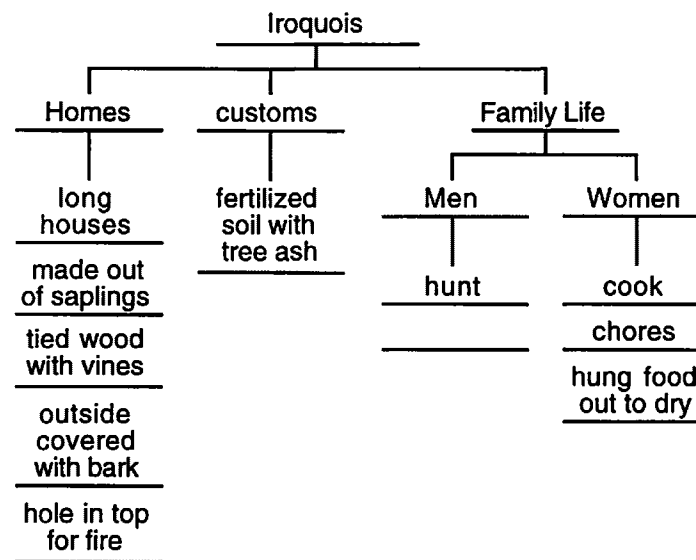
Are the Algonquins and Iroquois more similar or different?
Why do you think they are more similar or different?
What do you think are their most important differences?

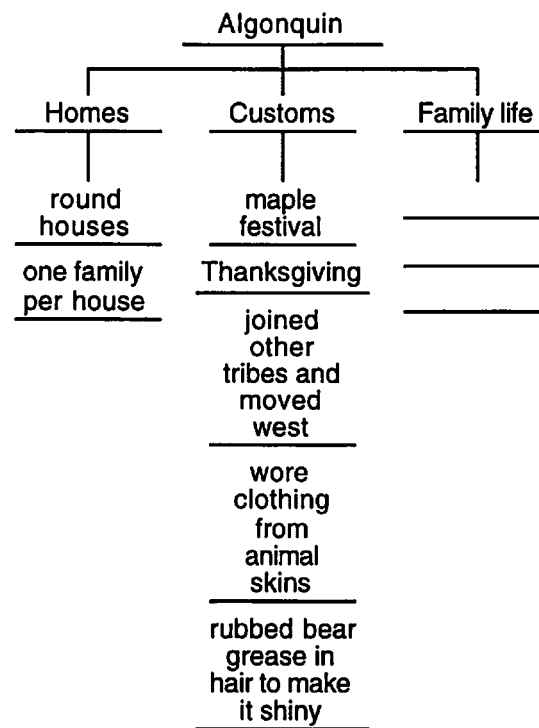
Product: Expository (Writing to Inform)

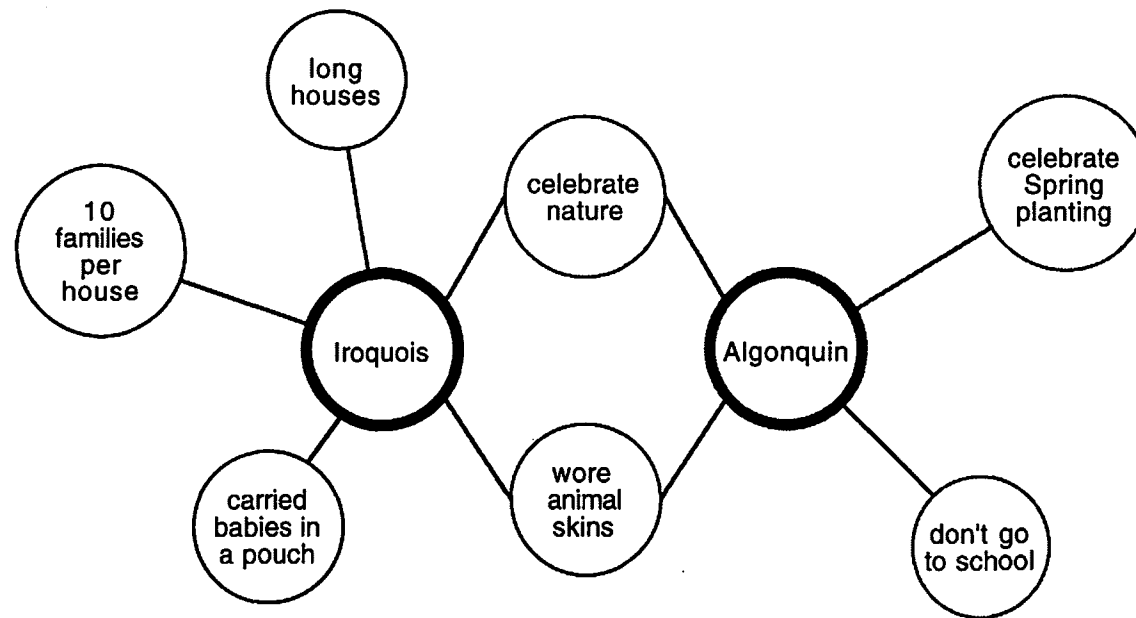
(E2a: report that analyzes subject and provides facts)

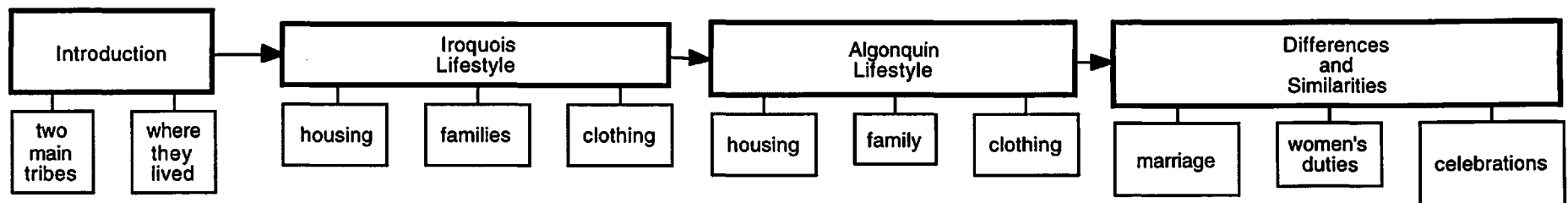
Write a 3 paragraph essay to inform others about the Algonquins and Iroquois. Use a Flow map to plan the paper.

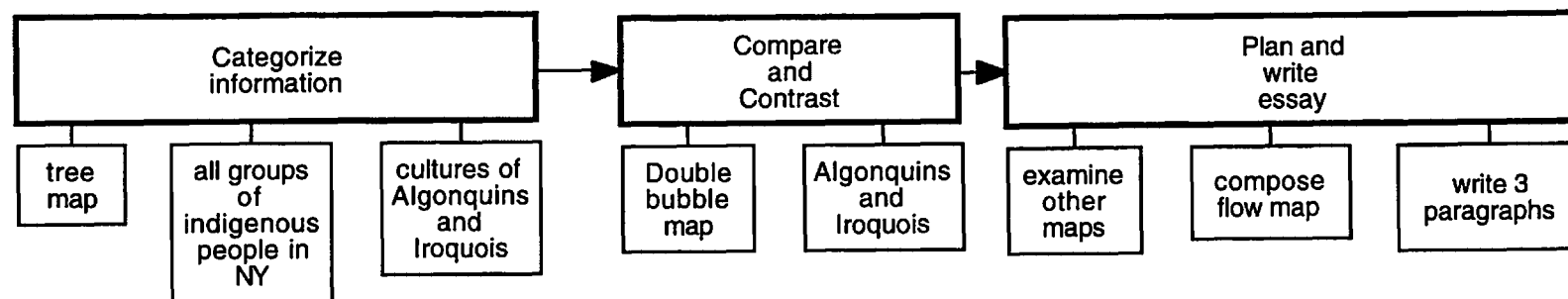












There are two major Native American groups that lived in NY state. They are the Iroquois and Algonquins. One group, the Iroquois came from the Adirondack Mts. and lived with western NY tribes including: Erie, Seneca, Onondagas. The other group, the Algonquins lived near the Mohawk river, Hudson River, with some tribes including: Adirondacks, Mohicans, Delawares, and Wappingers.

The Iroquois lived in long houses. They carried babies in a pouch. They honored the Great Spirit. They wore animal skins as clothes.

Algonquins lived in round houses with one family per house. They celebrate spring planting. The women planted with the girls and the men hunted with the boys.

The Iroquois and Algonquins were different in many ways but they were also very much alike. The thing I learned is that somebody from a clan can only marry someone from that same clan. They both have women plant while the men hunt. They both celebrate the same festivals and where the same things.