



Introduction to Thinking Schools Ethiopia Program



Stage 1: Getting Started

Six Starting Points for Thinking

Here are the six Starting Points for Thinking we are going to use and practice throughout this guide together to share and understand our ideas.



Reflective Questioning

high quality questioning and listening skills



Thinking Skills

explicit use of cognitive processes



Visual Mapping

the use of visual tools to map out ideas



Collaborative Networking

between us in pairs, groups, schools, and global networks



Developing Dispositions

characteristics, dispositions, and habits of mind are engaged



Structuring Environment

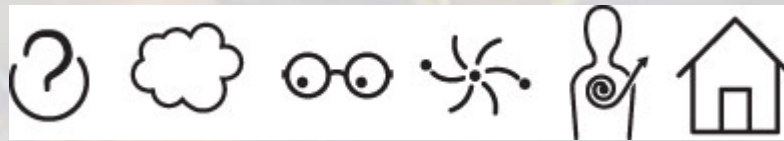
considering how the physical space is organized and resources used

The six Starting Points for Thinking are a synthesis of what we consider to be some of the essential starting points for developing thinking students and thinking schools. You may already use some of these strategies. While there are programs and resources for each of these areas, in this guide we are modeling the use of some of these strategies and how they work together. We also hope you will try out some of these ideas in your school.



Reflective Questioning

Reflective questioning is the use of prompts and questions to engage students in both thinking about “what” they know (factual memory) and also “how” they know (critical reflection). High quality questions guide students to think about their thinking (metacognition), dispositions that they are drawing on, and how they are collaborating with others as they are learning.



Thinking Skills

Thinking skills are not mysterious entities existing somewhere in the mind. Nor are they like mental muscles that have a physical presence in the brain. What the term refers to is the human capacity to think in conscious ways to achieve certain purposes. Such processes include remembering, questioning, forming concepts, planning, reasoning, imagining, solving problems, making decisions and judgments, translating thoughts into words and so on. Thinking skills are ways in which humans exercise the *sapiens* part of being *homo sapiens*.

Visual Mapping

Visual mapping is a way to think through complex issues or solve problems that has several benefits. Visual mapping makes it easier to work creatively and collaboratively with a group. It's non-linear, so you can work out complex hierarchies and relationships. It allows you to see a whole issue, problem or plan, in its entirety and at a glance. It helps you see patterns, relationships and dependencies that might otherwise remain hidden.



Collaborative Networking

The techniques for cooperative learning are many and there are models for establishing collaborative groups, classrooms and schools. The research on cooperative learning in school and the need for high quality collaborative groups in the workplace connect to the recent evolution of social networking through new technologies as learners engage other learners around the globe.

Developing Dispositions

A **disposition** is a habit, a preparation, a state of readiness, or a tendency to act in a specified way.” such as persistence, remaining open-minded, and metacognition. Dispositions are often related to the new field of emotional intelligences and the developing empathy in relationship to others.

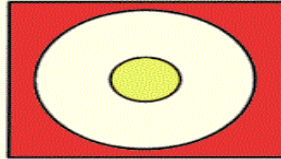


Structuring Environment

How the classroom, school, and surrounding area are physically structured has a great effect on teaching and learning. Positioning of students on the floor, seating arrangements in the classroom, and the accessibility of learning materials are all dimensions of the environment. The use of all the resources available within and around the school and wider community is key to engaging students.

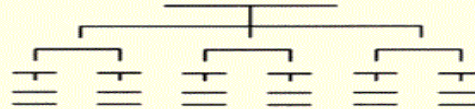
THINKING MAPS

CIRCLE MAP



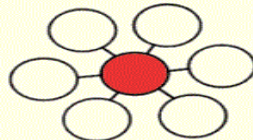
FOR DEFINING IN CONTEXT

TREE MAP



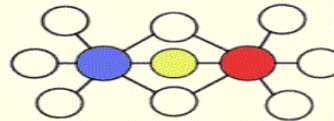
FOR CLASSIFYING AND GROUPING

BUBBLE MAP



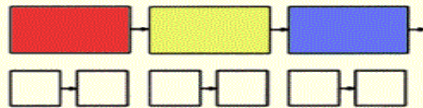
FOR DESCRIBING USING ADJECTIVES

DOUBLE BUBBLE MAP



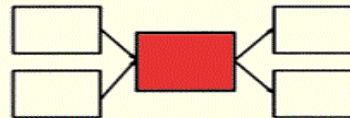
FOR COMPARING AND CONTRASTING

FLOW MAP



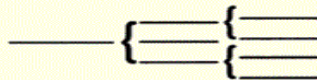
FOR SEQUENCING AND ORDERING

MULTI-FLOW MAP



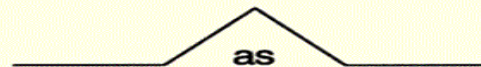
FOR CAUSES AND EFFECTS

BRACE MAP



FOR ANALYZING WHOLE OBJECTS AND PARTS

BRIDGE MAP

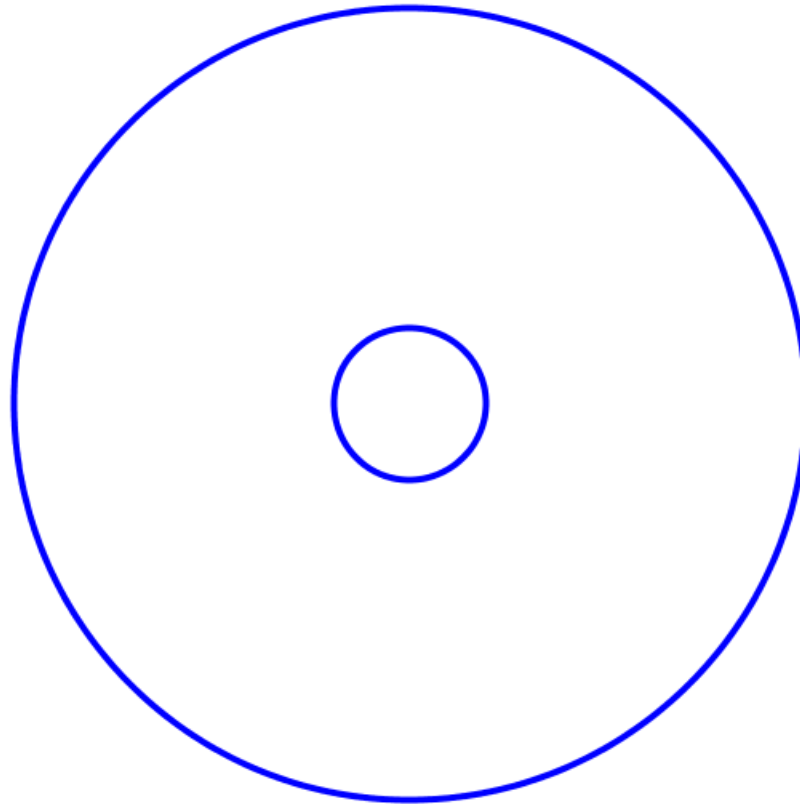


FOR SEEING ANALOGIES

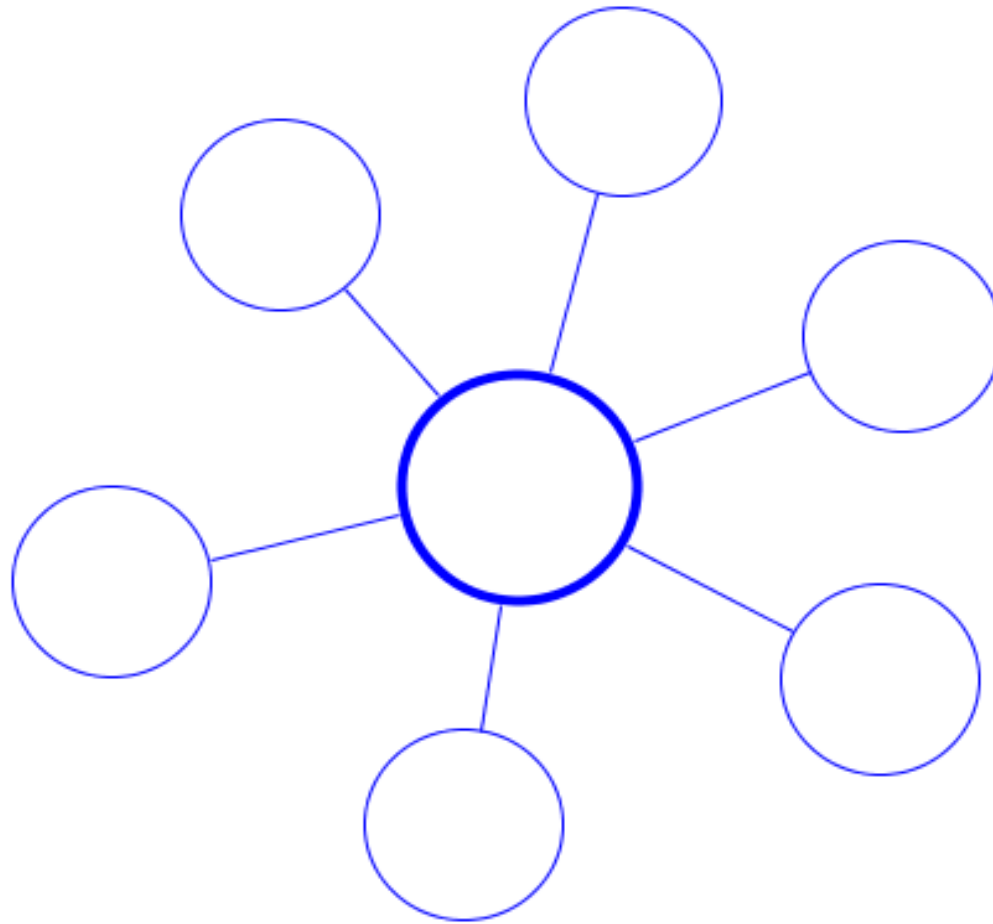
Why Thinking Maps?

- Thinking maps work the way the brain works -- which is not in nice neat lines.
- Memory is naturally associative, not linear. Any idea probably has thousands of links in your mind.
- The mind remembers key words and images, not sentences.

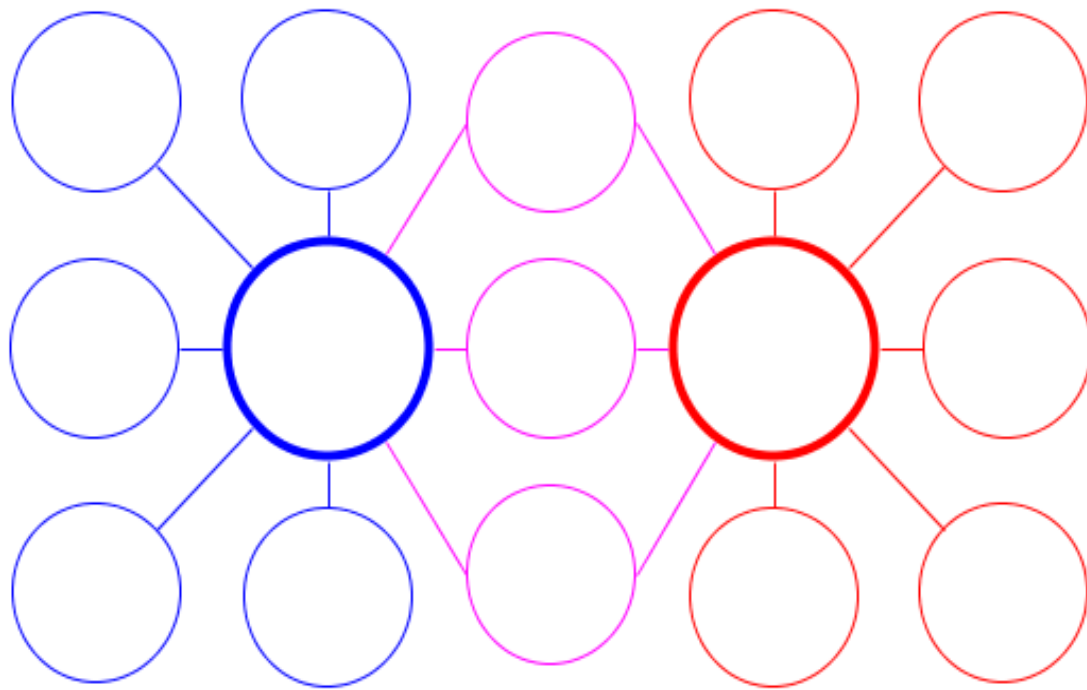
CIRCLE MAP- defining in contexts



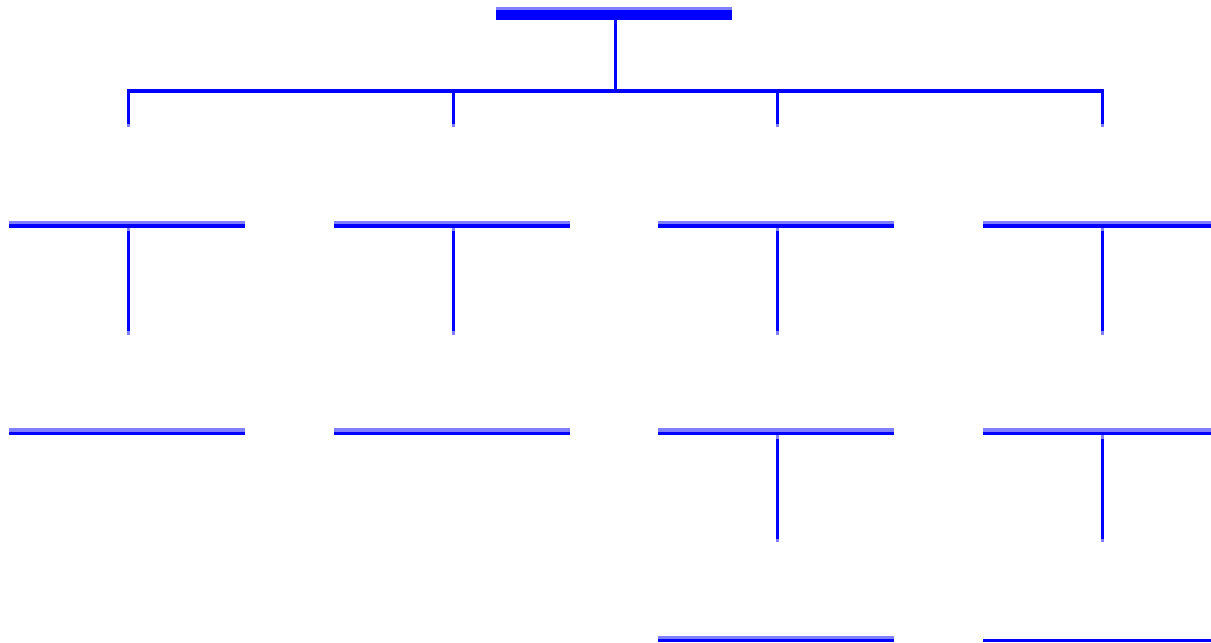
BUBBLE MAP- describing



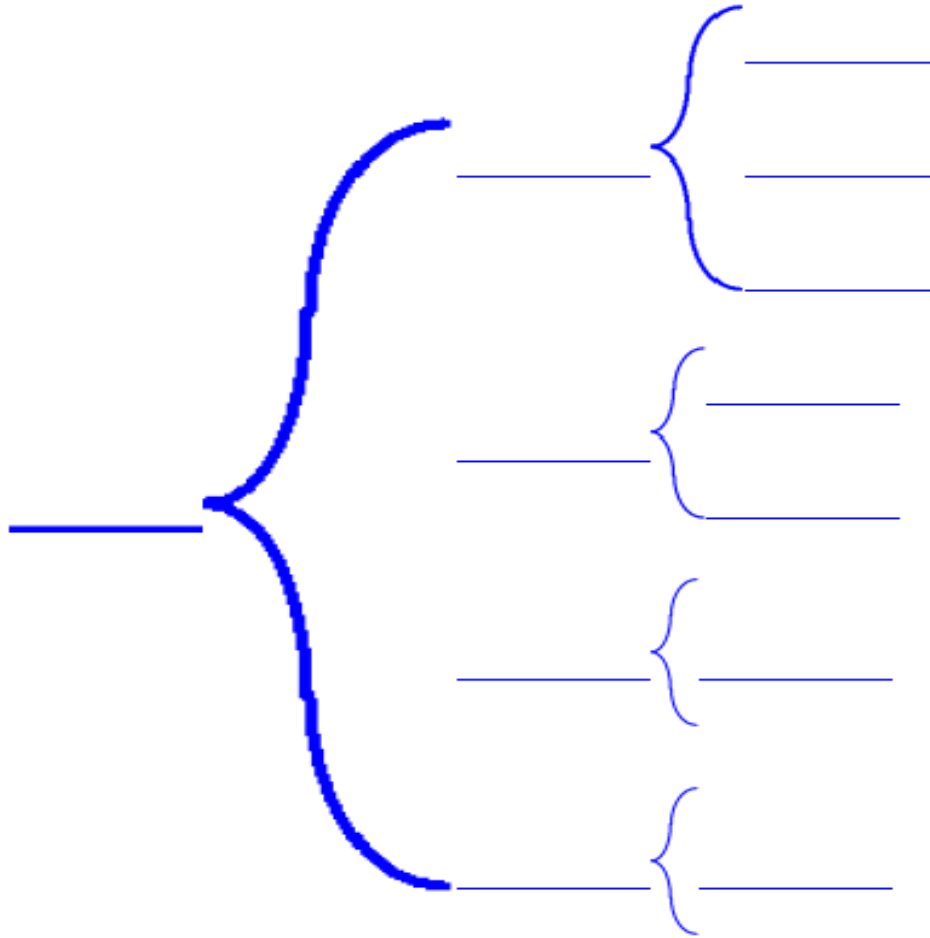
DOUBLE BUBBLE MAP-compare & contrast



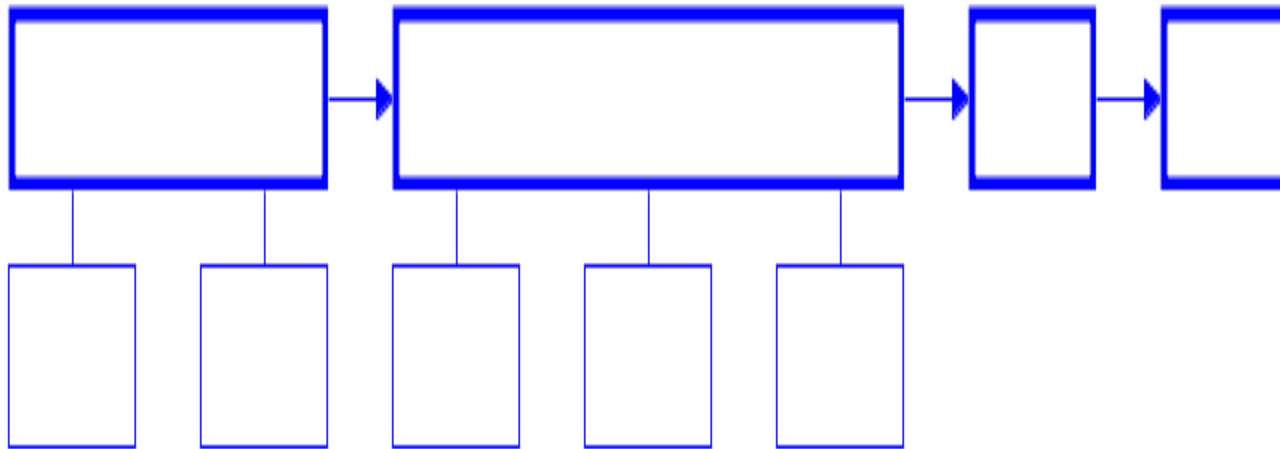
TREE MAP -classifying



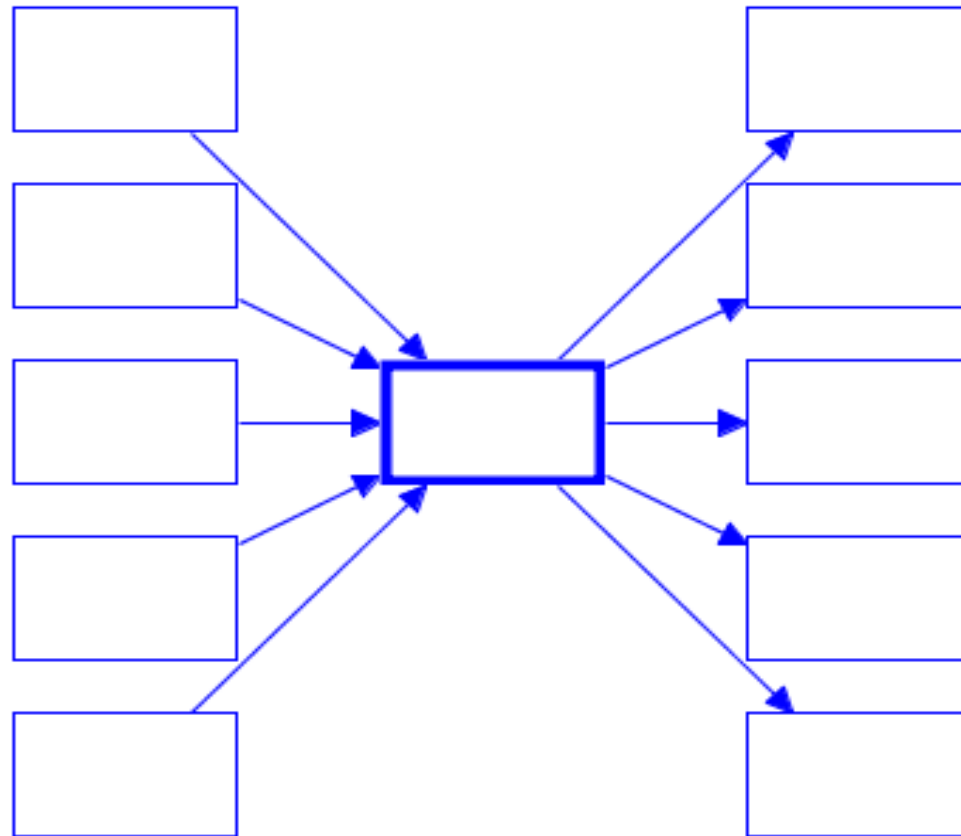
BRACE MAP – whole - parts



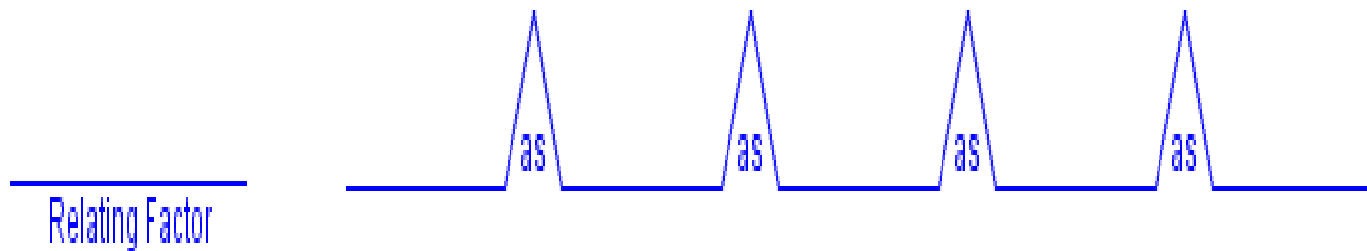
FLOW MAP - sequencing



MULTI -FLOW MAP –cause & effect



MULTI -FLOW MAP – seeing analogies



Benefits:

- Students learn more effectively and more efficiently
- Objectives are covered in less time with greater retention
- Thought processes are represented similarly throughout the curricula
- Schools also promote integrated thinking and interdisciplinary learning
- Teachers can easily gauge student knowledge prior to a specific lesson
- Student performance can be tracked accurately over time
- Students gain effective tools to use across their academic and working careers
- Lifelong thinking tools

THINKING SCHOOLS ETHIOPIA

INPUTS -> OUTPUTS

causes - inputs

effects - outputs

