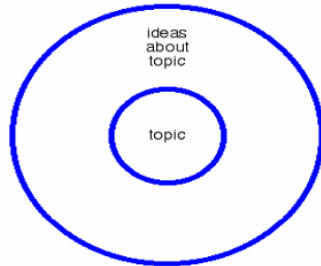


STRATEGY: Thinking Map - Circle Map
pages 1:18-1:21 in Tools for Learning Manual



SKILLS ADDRESSED

- **COGNITIVE SKILL: DEFINITION AND CONTEXT**
- Answering the questions: What do you know or what would you like to know about this topic? How would you define this thing or idea?
- Brainstorming or generating ideas about topic, issue, concept or idea
- Articulating, Evaluating, and Assessing prior knowledge
- Vocabulary Development
- Linking a concrete visual to abstract thoughts
- Encouraging expansion and refinement of ideas
- Looking for connections and patterns within information on map

PREREQUISITES

- Graphic and purpose must be familiar to students
- Students should be encouraged to write as many ideas as they can without fear of right and wrong answers.
- Circle Map must be used for **Definition and Context** only

POSSIBLE APPLICATIONS

- Defining Vocabulary
- Tool for Key Word Strategy or KWL chart
- Predicting what text will be about based on title, pictures, headings, etc
- Exploring a theme (prejudice, injustice, greed), main idea(things at the beach), mood (suspense) or author's purpose before, during and after reading
- Notetaking for key words as students read expository text
- Reference point for oral presentations or study guide
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool before sequencing (Flow Map) or categorizing (Tree Map) ideas

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STEPS INVOLVED



1. Teacher or students decide on a topic to define and place in the center circle of the Circle Map.
2. Students individually, in partners, groups or as a whole class generate what they know about that topic through personal knowledge, reading, interviewing, etc., which is recorded in the outer circle.
3. Students look at the information in the map to identify patterns of information, connections, questions and misconceptions.
4. Depending on the purpose/direction of the lesson and on the information in the Circle Map, students could:
 - write a sentence that defines the topic by synthesizing the information in the Circle Map
 - use the information as a starting point for information gathering
 - categorize the information on a Tree Map with color coding
 - sequence the information on a Flow Map to demonstrate the steps in a process or to organize for writing.
5. Students should revise the Circle Map as they learn new information and refer to it when composing writing or giving oral presentations. They could use different colors each time they update the information to see what they had learned over time. Great, ongoing assessment tool.

RELATED LEARNING PRINCIPLES

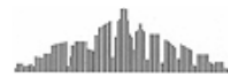
LANGUAGE AND CULTURE: sense of wholism and valuing context in knowledge

- Recognizing and fostering prior knowledge and personal connections.
- Encouraging patterning and connections to build concepts and improve memory.
- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Facilitating and synthesizing brainstorming.
- Modeling and scaffolding information processing and metacognition.

APPLICATION

The Circle Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Circle Map whenever they need/want to begin defining what they know or want to know.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle
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STRATEGY: Thinking Map - Bubble Map

SKILLS ADDRESSED

COGNITIVE SKILL: DESCRIBING

- Answering the questions: What are its attributes, qualities, traits, characteristics and properties? How would you describe this thing? What does it look like, feel like, etc?
- Describing using adjectives: sensory, emotional /aesthetic, and logical qualities
- Vocabulary development and enrichment
- Distinguishing between fact and opinion
- Improving observation skills in science and vivid language use in writing

PREREQUISITES

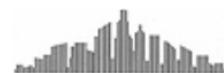
- Graphic and purpose must be familiar to students
- Students understand senses and words related to emotions
- Bubble Map must be used for **Describing only**, not brainstorming. NOT A WEB!

POSSIBLE APPLICATIONS

- Developing synonyms and adjective formation
- Inference tool
- Character/Biographical Analysis
- Notetaking for science observation
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool for descriptive writing or character sketch before sequencing (Flow Map)

STEPS INVOLVED

1. Teacher or students decide on an object, event, thing to be "qualified" and place that word in the center bubble of the Bubble Map.
2. Students individually, in partners, groups or as a whole class generate words to describe that thing by using sensory words(rough, striped), emotional words(dangerous, threatening) and logical (heavy, large). Those words are added one word/bubble as they are generated.
3. Teacher might have to ask follow-up questions like, What does it look like, feel like, etc to help students or use a concrete object to describe to support the use and understanding of adjectives or adjective phrases.
4. Depending on the purpose/direction of the lesson and on the information in the Bubble Map, students could:
 - write a sentence using several adjective phrases that describes the topic



STRATEGY: Thinking Map - Bridge Map

SKILLS ADDRESSED

COGNITIVE SKILL: SEEING ANALOGIES

- Answering the questions: What is the similar relationship between these two relationships? How does this system or relationship remind me of another relationship? How are these words related?
- making metaphors, connections across content and universal themes

PREREQUISITES

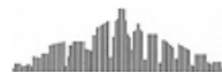
- Graphic and purpose must be familiar to students
- Students understand terms: similarities, analogy, simile, metaphor
- Students should be instructed to look at the qualities, functions, processes of things to help find relationships.
- **Bridge Map** must be used for **Seeing Analogies**

POSSIBLE APPLICATIONS

- Vocabulary development
- Connecting prior knowledge to new knowledge for conceptual understanding
- Pre and Post assessment tool for before and after a learning episode
- Finding a guiding metaphor or analogy for writing

STEPS INVOLVED

1. Teachers or students are learning a particular concept and groups can look for relationships within that concept and how that reminds them of another system.
2. Students individually, in partners, groups or as a whole class identify the relating factor that links the relationship and write that word that bridges the connection to the line of the left.
3. Students should write their first pair of words that relate to each other on the top and bottom of the left side of the bridge.
4. Students should write the next pair of words that relate to each other in the same way that the first pair relates on the right side of the bridge in the top and bottom format.
5. Read the bridge map from top to bottom with the relating factor in the middle. For example, electrons revolve around the nucleus, just as the Earth revolves around the sun. Electrons and nucleus are one pair and Earth and sun are the other pair. They have the same relationship, "revolve".
6. Depending on the purpose/direction of the lesson and on the information in the Bridge Map, students could:



NUA Learning and Teaching Strategies

STRATEGY: Key Word (Prediction)

SKILLS ADDRESSED

- Activating prior knowledge before reading to enhance comprehension
- Generating (and justifying) hypotheses that become purposes for reading
- Listening to and weighing others' information and opinions
- Focusing attention on relevant information (before, during, after reading)
- Reading to answer self-generated questions
- Recognizing explicit information; inferring implicit information
- Articulating knowledge before and after reading

PREREQUISITES

- Ability to engage in flexible, divergent thinking
- Comfort about hypothesizing with limited information
- Ability to articulate and defend an idea or point of view
- Willingness to listen to others' ideas, compare/contrast with one's own
- Ability to use general knowledge (in absence of topic-specific knowledge)

STEPS INVOLVED

1. Teacher puts topic on board along with 8-15 words, numbers.
2. Students speculate on how terms relate to topic.
3. Groups share and debate hypotheses; teacher moderates, does not give hints.
4. Students read text to get more information.
5. Students review what they have learned, how their thinking has changed.

RELATED LEARNING PRINCIPLES

- Comprehension is influenced by "priming" (key words become salient).
- Recall is triggered by association (key words are associated with topic).
- Purposeful learning is most efficient and effective.
- Learner-set purposes are more effective than teacher-set purposes.

APPLICATION

This strategy can be applied across grade levels and content areas. It works best with expository text but can be used with stories. In the primary grades, use fewer key words and read the text aloud while the students listen for them. At other levels, to differentiate instruction, have the whole class discuss the same words before reading, then read different texts on the topic, matched to students' reading levels.

Source: W. Dorsey Hammond, Ph.D. For more information, see D. Nessel, M Jones, and C. Dixon, *Thinking Through the Language Arts* (Macmillan, 1989).



STRATEGY: Metacognition

What is it? -Self-awareness of one's knowledge stated in terms such as "I know that I know" or "I know that I need to know."

SLOGAN: I Know What I Know!

SKILLS ADDRESSED:

- Accessing prior knowledge through conscious awareness
- Searching for new knowledge
- Relating prior knowledge to new knowledge
- Stating what you know, want to know, and need to know in an organized format
- Linking what you know to various subject areas

PREREQUISITES

- Group and/or class discussion of topic or ideas
- Oral statements by students of what they personally know about a topic
- Taxonomy of words related to topic
- Possible use of KWL (Ogle)
- Skimming and scanning practice of written text

STEPS INVOLVED

1. Set up double spread notebooks pages (e.g. pages 8 and 9 facing each other)
2. Write term **METACOGNITION** on top of page
3. Skip a line and write, "I know that I know something about....."
4. Skip a line and write, "First,"
5. Move to the middle of the page or go to the next page (facing) and write, "In addition,"
6. Go to the middle of the page and write, "Finally,"
7. Go to the bottom of the page, about two lines from the bottom, and write, "Now"
8. This setup will allow the students to write their first metacognition piece "I know that I know something about....." This statement will then be followed by three supporting statements and a conclusion ("Now you know something that I know about...."

See Chapter 4 in WAL for additional Metacognition formats

RELATED LEARNING PRINCIPLES

- Integration of writing with subject areas increases knowledge
- Comparing prior knowledge with new knowledge brings greater metacognition
- Becoming aware of what one needs to know and how one goes about learning how and what to know is a step in learning how to learn
- Becoming aware of one's own interests is a springboard for writing



Dancing Definitions

Augusta Mann models the Dancing Definitions strategy with a group of teachers

<https://www.youtube.com/watch?v=UI0wZ1ANWKw>

Resilience Unit Video Links

Introduce the Text

Amazing Story: Ben Underwood

Blind teen uses echolocation to navigate the world around him

<https://www.youtube.com/watch?v=XUXh-X1iveU&t=29s>

Release the Lesson

Inspirational Story: Ezra Frech

Young boy excels in sports and life despite a disability

<https://www.youtube.com/watch?v=ekLpn4zKiNU>

Assessment

Cesar Chavez Fasts

Civil Rights icon fights for the rights of fellow farm workers against all odds

<https://www.youtube.com/watch?v=YPzK6IMCEVw>