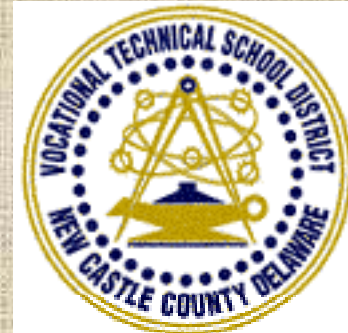


Journaling and How Students Learn



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How Students Learn



1. Engaging students' alternative conceptions
2. Students need deep foundation of factual knowledge, conceptual framework, organized knowledge
3. Metacognitive approach

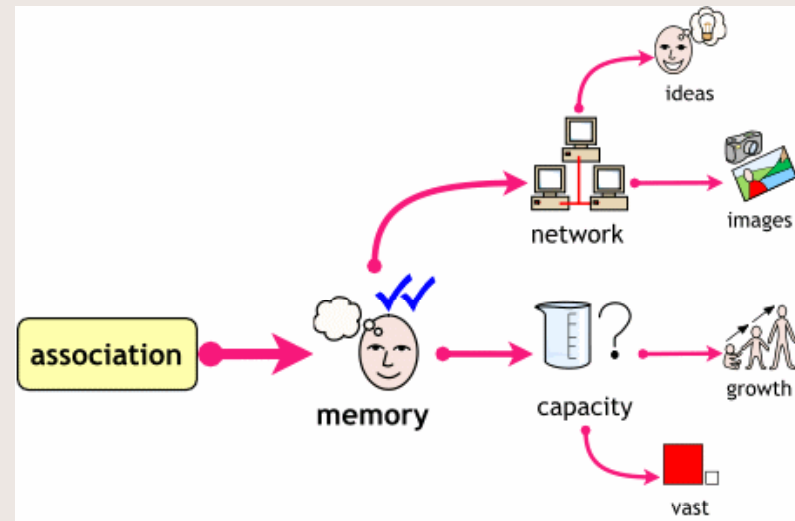
Alternative Conceptions

- Open-ended questions to promote free-thinking
- Opportunities to portray information graphically
- Create a non-threatening atmosphere



Conceptual Framework

- ✓ Drawing and writing about something we have just experienced fixes it into long-term memory
- ✓ Stimulates relational thought
- ✓ Archived for future



Metacognition



Self-monitoring can help students:

1. Take control of their learning
2. Define their learning goals
3. Monitor their progress

Helping students become metacognitive is closely tied to self-assessment

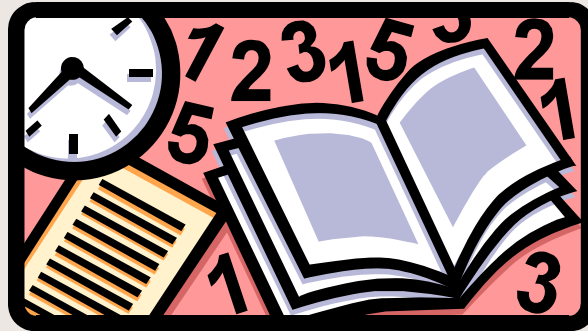


Advantages

Journaling can help students:

1. Improve students' writing
2. Enhance their visual literacy
3. Express themselves graphically, metaphorically, informally
4. Self-assessment

Disadvantages



- Time
- Providing feedback (prompt, effective, meaningful)
- Motivating students
- Connecting with learning

Effective Journaling Strategies

- Why are students journaling?
 - Writing skills, drawing/graphing skills, think more deeply, self-reflection, metacognition
- How often?
- How will they be assessed?
- Rubric?



Example

- Make your own journal
 - report covers, paper, cover sheet
 - Dr. Theilacker - “RARE response”
- Rubric on Effective Writing
 - Completed? (5 points)
 - Following directions? (5 points)
 - Grammar/Spelling? (5 points)
 - Thoughtfulness? (10 points)





Journal Entries


What is your definition of a good paragraph?

"My definition of a good paragraph is answering the question and using examples with detail."

" a good paragraph is a paragraph that includes information, statistics, facts, opinions, or statements pieced together in sentences formatted in an elaborate but understanding level."

Compare what you know about chemistry today to what you knew six weeks ago.

" I learned to write chemical reactions, oxidation #'s and valence electrons. Forming compounds with elements and ions are also topics we discussed in chemistry class. We learned electron distribution and how to form them. Towards the end of the six weeks and now, we are currently learning about the 5 reaction types single & double displacement, decomposition, sythesis and combustion."



As you now know, the period table contains many patterns. In this journal entry, describe three of the patterns that you have learned. Feel free to use diagrams to explain the patterns. You may also use the chemistry textbook as a reference.

How can we tell the difference between planets? Use vocabulary and explain how to distinguish one planet from another. Think about which qualities of a planet a spacecraft would want to record to help us identify it.

What would you tell someone who thought chemistry has nothing to do with life or their surroundings?

"If someone told me that chemistry had nothing to do with life I'd say YOU'RE CRAZY. The air we breathe has oxygen in it and oxygens on the periodic table of elements, that's chemistry right there."



Questions



- Come up with four or five questions that you could ask which would address student alternative conceptions
- Consider how you would implement journaling in your classroom