

Strategies to Encourage Critical and Creative Thinking

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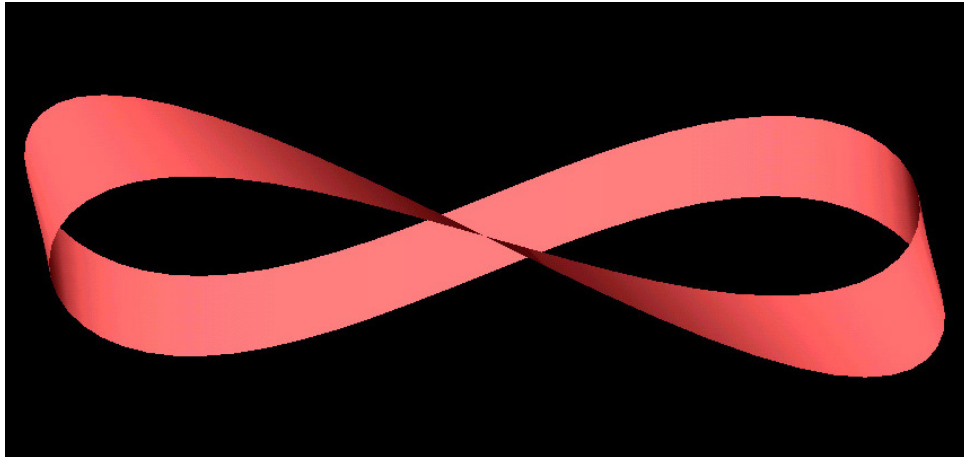
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Critical and Creative Thinking....what do those terms mean?

- Critical Thinking

- Creative Thinking



Critical and Creative Thinking are
interrelated processes essential to problem
solving



As we solve problems, we navigate
between both thinking patterns
across all disciplines.



- A facility for working with analogies gives students a structure for generating creative ideas, seeing complex relationships, and making unusual comparisons.
- Analogies may be used to deepen understanding of topics or concepts.





How many examples can you give of how this word has been used, beyond its literal definition?

MARATHON

- Friendships; Electrical circuits
- Words; Gardens
- Government; Blueprint
- The writing of the Declaration of Independence; The building up of a thunderstorm



- The PMI strategy encourages students to think about many possibilities and to *explore the positive and negative* aspects of ideas, events, or activities.
- PMI encourages students to look beyond the polarity of “yes or no,” “wrong or right,” and “my answer or your answer.”
- The goal of PMI is to develop *independent thinkers* who *consider a range of ideas and possibilities* to see beyond the obvious.



PMI Strategy

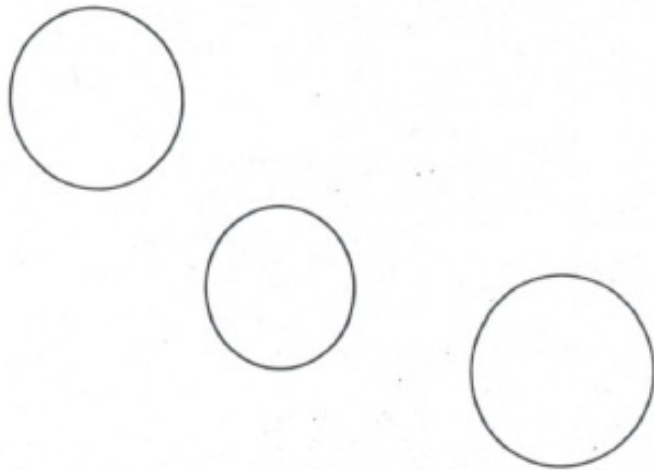
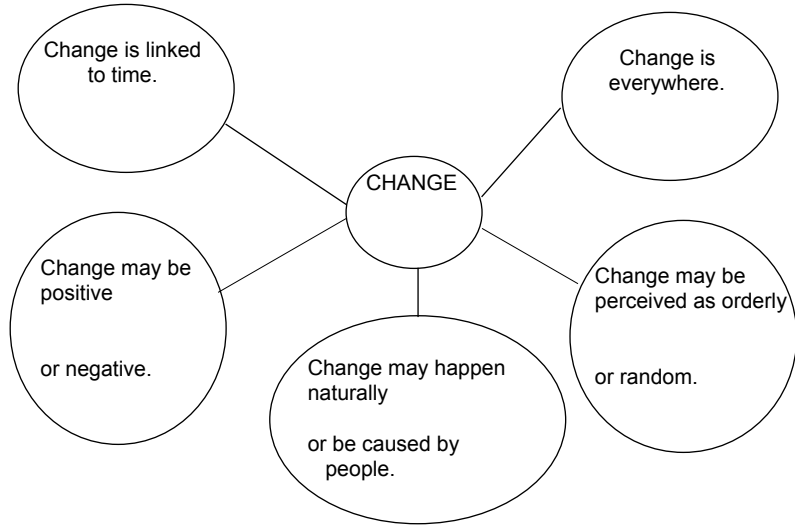
PLUS	MINUS	INTERESTING



Concept Development

- List examples.
- Categorize.
- Categorize another way.
- List non-examples.
- Generalize.


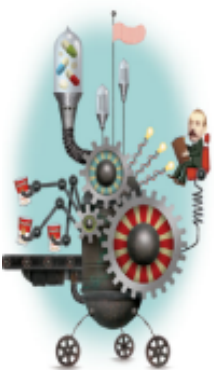
Change Model







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Fluency	Originality	Flexibility	Elaboration
Thinking of and listing many ideas	Coming up with unique ideas	Thinking from different perspectives	Building upon an existing ideas – adding details
<ul style="list-style-type: none"> •Generate •Recall •Brainstorm ~May use mindmaps, lists, wordsplashes, flowcharts... 	<ul style="list-style-type: none"> •What is an unusual way to ___ •Think of a unique solution to... •What if there were no limits/constraints? 	<ul style="list-style-type: none"> •Look from different lens •What if there were no ___ •Change the ending •Take a different path 	<ul style="list-style-type: none"> •What else? •Tell me more •Explain •Add detail •Improve upon...