

The Text–It Is A-**C**h**a****N****G**i**n**'

By Kit Granat

“Students understand and remember ideas better when they have to transform those ideas from one form to another. Apparently it is in this transformation process that author’s ideas become reader’s ideas, rendering them more memorable.”

-P. David Pearson, Dean of the Graduate School of Education, U. of CA–Berkeley

Since much information passes quickly through sensory memory and since short-term memories can hold only five to nine items (see Dr. Carol Santa’s article), it is important that students are taught how to transform the text into personal, meaningful re-presentations of content. Project CRISS offers students many ways to “re-present” (transform) information so that it goes into long-term memory and may be retrieved at a later time. The retrieval cues (re-presentations) help students organize or catalogue information for recall. A critical aspect of these transformations is that students take ownership of which cues help them “catalogue” most effectively for their particular learning style.

One goal of Project CRISS is that students reach the point

where they are able to decide independently which of these transformations most effectively suit their learning styles. QARs (CRISS manual, 3rd edition, Chapter 4), Picture Notes and summaries (Chapter 5), all varieties of Two-Column Notes and Content Frames (Chapter 6), Learning Log Entries (Chapter 7), Vocabulary Maps and Semantic Feature Analysis (Chapter 9) are only a few ways that students can change information so that it belongs to them. Remember, this transformation aids in moving information *into* the long-term memory and also assists students in retrieving information *from* the long-term memory.

Following are some examples of transformations of a secondary text on earth’s waters.

A Perspective Learning Log Entry that explains the water cycle:

Dear Water Cycle,

I know you think a tiny bug has been tickling you, because I’m so lively. Since I’m so little, you can’t see me hanging around. Actually, I do sort of a disappearing act. I am Molly Cule, in a drop of water. I’m filled with energy! I float around on top of a body of water (not a body in water!) and, if I’m in the ocean, I shake the salt out of my “cules,” evaporate, and head north, thanks to the sun. Some of my smaller siblings evaporate from leaves and the sun pulls them up through the environment. I tell these cules that they are drops of perspiration, but they tell me this act of turning into water vapor is transpiration.

Anyway, all of us Cules form Cloud 9, where we cool off. Instead of calling it “Chillin’ out” we call it “condensing out.” After a while, Cloud 9 gets too crowded and some of us have to head south. Al Roker, the weatherman, calls us “Precipitation” and tells everyone to carry an umbrella. We part ways—some of us go into ponds, rivers, lakes, streams, and even puddles! We don’t exactly have a race, but we’re in a runoff and we go back to the larger bodies of water or are soaked up into the ground.

Then we float around on the top of water until the sun makes us warm enough to change into vapor, and we start the whole process over with you. So, Water Cycle, I’m always with you, traveling through the environment.

*Your friend,
Molly Cule*

We've all had students who tap their pencils and are definitely marching to a different drummer! These students are often the ones who can turn any text into a rap or song. This rap identifies the three states of water.

A Rap

*Water comes in three different states.
Just hang loose and learn of its fate.
Ice is water, a solid for sure,
And when it melts, as a liquid it's pure.
Water vapor in the air is a gas indeed,
But it's not deadly, that's guaranteed.
A universal solvent is H₂O,
But with wax and water it won't go.*

Still another way to transform text is with an "ABC" list (CRISS manual, p. 57). While this strategy is often used prior to reading, it may be used after reading as students recall vocabulary from the lesson. After working with a partner and filling out the list, they may use a variation of "Word Elaboration" (p. 215) or "Word Combining" (p. 219) to transform a subset of these words (words that directly relate to each other) into a sentence or paragraph.

ABC Brainstorming

<i>Aquifer</i>	<i>Ocean</i>
<i>Buoyancy</i>	<i>Precipitation</i>
<i>Condensation</i>	<i>Quick shower</i>
<i>Dew</i>	<i>Rivers</i>
<i>Evaporation</i>	<i>Sun</i>
<i>Flood</i>	<i>Transpiration</i>
<i>Groundwater</i>	<i>Universal Solvent</i>
<i>Hydrogen</i>	<i>Vapor</i>
<i>Ice</i>	<i>Water Cycle</i>
<i>Just a minute while I think...</i>	<i>X-amine use</i>
<i>Kinetic energy</i>	<i>Y</i>
<i>Lake</i>	<i>Zone (ocean)</i>
<i>Molecules</i>	
<i>Neap Tide</i>	

*In the **water cycle**, **evaporation** usually takes place over the **ocean**, **condensation** makes clouds form as water **vapor** cools, and **precipitation** occurs when the water droplets fall back to earth.*

Diamante Directions

- Line 1: Write a noun. (It should be an antonym of the word in line seven.)
- Line 2: Write two adjectives describing the noun in line one.
- Line 3: Write three *-ing* or *-ed* words that describe the noun.
- Line 4: Write four nouns. The first two should relate to the noun in line one; the second two nouns to the noun in line seven.
- Line 5: Write three *-ing* or *-ed* words that describe the noun in line seven.
- Line 6: Write two adjectives that describe the noun in line seven.
- Line 7: Write a noun that is opposite of the noun in line one.

Diamante Poetry

Ice
Cold, Slick
Vibrating, Moving, Changing
Icicle, Crystals, Liquid, Solvent
Dissolving, Melting, Flowing
Beneficial, Necessary
Water

Ice
Smooth, Slick
Twirling, Sliding, Skating
December, January, February, March
Melting, Shimmering, Splashing
Clear, Refreshing
Water

Students' critical thinking is heightened through these transformations. Enthusiasm for these activities will energize your classroom and *transform* you into Super Teacher!

About the Author: Kit Granat, former Language Arts Supervisor for Miami-Dade Public Schools, is an educational consultant and CRISS Master Trainer from Palm City, Florida.

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