

# SKETCHNOTING K-12:

Abstract Thinking Made Concrete

BY TANNY MCGREGOR

"WHY do we only get to draw ... 'IF there's enough time' or ... WHEN the 'important work' is finished?"

"WHY do I have to write? can't I just DRAW?"

"WHY does my thinking sometimes feel incomplete without color, LINES, and shapes?"

"WHY do I seem to focus better and remember more with a PEN or STYLUS in my hand?"



## QUESTIONS

from our students that cling to our thinking are sometimes a call to action. So, when students' questions led me to wonder why brilliant minds throughout the ages have used words and pictures together to show their thinking, I started to wonder why we don't afford students the same opportunity. I read. I researched. I wrote. I talked to many whose expertise exceeded my own. I learned that there is no good reason why we, or our students, should think less of a sketch than a sentence. Thinking represented with lines, shapes, and colors holds just as much meaning (maybe more!?) than conventional writing.

Enter the sketchnote:  
a chance to merge WORDS  
and PICTURES on the page,  
birthing our invisible thoughts  
out into the world.

WORDS and PICTURES  
CAN WORK together  
TO COMMUNICATE  
MORE POWERFULLY  
THAN → EITHER → ALONE.  
WILLIAM ALBERT ALLARD

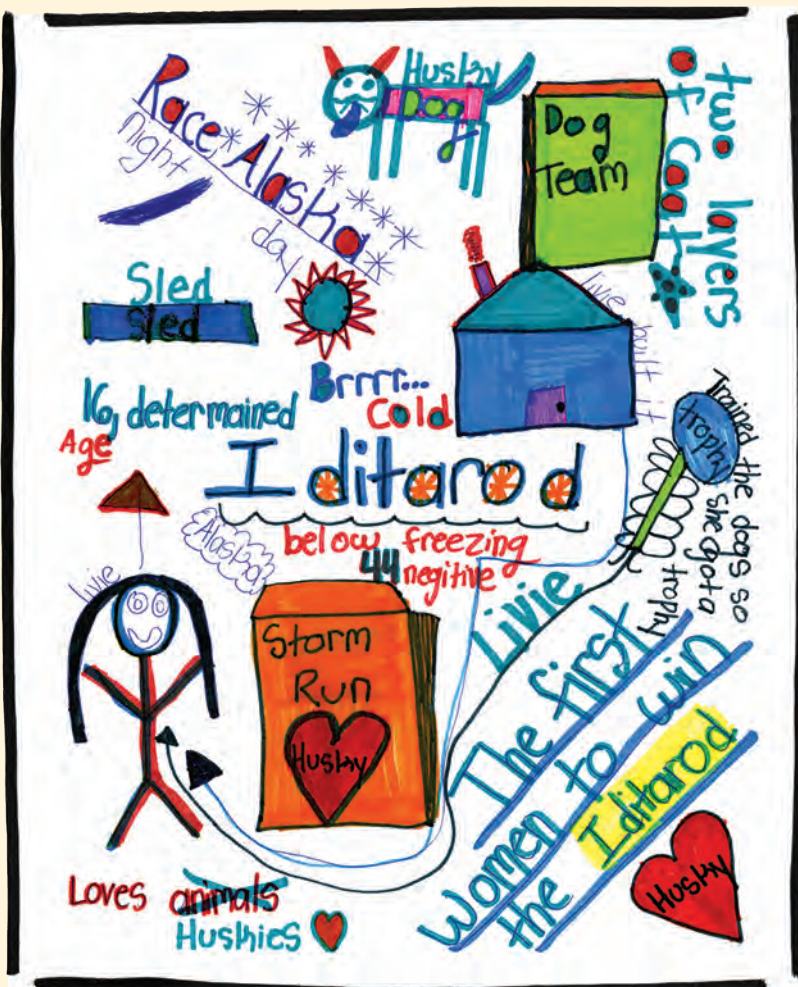
Across decades and disciplines, many great thinkers have something in common: visible thinking, in notebooks, journals, and diaries, and on postcards and paper scraps. Words. Pictures. Symbols. Color. Font. Intentional design decisions. From da Vinci to Kahlo to Goodall, original thoughts entered the world on simple pieces of paper. Einstein developed his theories through sketches, notes, and diagrams. Miss Piggy and Kermit the Frog started out as Jim Henson's sketches. Jane Goodall's observation notes include color-coded charts of her own design. But what about now? Look around.

Examples of sketchnotes are everywhere: in print media and on film, on social media and in data visualizations. When we learn about the visual note-taking habits of great thinkers, it becomes difficult to believe that sketchnoting is not taught and valued in every classroom.



When we sketchnote, our in-the-moment thinking has a permanence it might not otherwise have. When we sketchnote, we discover brilliance that might have remained hidden.

A *different* kind of *thinking* happens with pen (or stylus) in hand.



Sketchnoting is an important reader response option for students across grade levels and content areas. When we embrace sketchnoting as a viable mode of cognition and expression, let's be sure to delve deeper into the "why" and not just the "how." Sketchnoting is way more than just a pretty page.

Sketchnotes are *thinking* made *visible*.

Visible note-taking unleashes thinking in words and images: students' thoughts gush forth to flood the page. No margin is safe when a sketchnoter finds a pen and gets to work. Thinking appears, much like invisible ink under an ultraviolet light. Sketchnoting says to us, "Someone spent time thinking here."

TAYLOR, A THIRD-GRADE SKETCHNOTER, READ AN INFORMATIONAL ARTICLE AND FILLED A PAGE WITH HER NEW LEARNING.

## Sketchnotes welcome linguistic and nonlinguistic representation.

The dual coding theory (Paivio 1971) explains how powerful adding images to our thinking can be. We store information in our brains in two ways: the verbal code (language) and the nonverbal code (images and realia). Using them together maximizes the chances for recall. Sketchnoting takes the dual coding theory into the margins of our text and into our notebooks. Many students naturally express their thinking in this way when given the opportunity to do so. One student even said that sketchnoting is “like a dream come true.” He craved sketching out his thinking yet this kind of visual representation wasn’t always welcomed in many of his classes.

## Sketchnotes allow for student choice.

With sketchnoting, the one who holds the pen holds the power; only the thinker decides what appears on the page, and personalized note-taking maximizes that expression. Just as choice leads to discovery, our sketchnotes reveal our thinking to ourselves. When I’m encouraging students to give sketchnotes a try, I offer choice in as many ways as possible (McGregor 2019). Kids decide. Paper or screen? Color or just pencil? More words, more pictures, or a balance of the two?

## Sketchnotes help strengthen memory.

Sketchnotes aren’t about copying from the text or typing from a prepared slide. The sketchnoter takes new ideas and information and runs them through the brain, mixing and stirring with existing background knowledge to generate new thinking.

**VISUAL** note-taking pulls teachers and students into what the speaker or author has to say, engaging us in a unique way that is rich with meaning. We are more **PRESENT**. We are **ACTIVE THINKERS**.

Sketchnotes help us paraphrase, determine importance, summarize, and synthesize. In turn, we remember more, and we remember longer. This is called “The Drawing Effect” (Wammes, Meade, and Fernandes 2016). This holds true for me, and my students, too. We can’t read and remember everything, but when we sketchnote new thinking, it adheres to what we already know.

## Sketchnotes make annotation thinking-intensive.

Harvard librarian Susan Gilroy advises incoming undergraduates to “make your reading thinking-intensive from start to finish.” She likens reading and note-taking to having a dialogue with the author. Reading or listening with pen in hand allows thinking to merge with the text in a concrete, sharable way... in a sort of text/thinking cocktail. Visual note-taking pulls teachers and students into what the speaker or author has to say, engaging us in a unique way that is rich with meaning. We are more present. We are active thinkers.



**DURING A READ-ALoud, ANDREW, A SEVENTH GRADER, REPRESENTED HIS THINKING WITH WORDS AND PICTURES, LEAVING NO DOUBT ABOUT HIS THINKING.**

TY, A HIGH SCHOOL FRESHMAN, LIMITS HIMSELF TO ONE PAGE AS HE SYNTHESIZES LECTURES AND CLASS NOTES.

## Sketchnoting for Everyone!

Let's give our K-12 students options to show their thinking with both pictures and words. Let's take what research suggests about sketching and the brain to heart and recognize how sketchnoted information leads to long-term retention and reapplication of learning across the content areas. Let's give our students choice in how to take notes. Let's welcome creative expression. Let's model our own sketchnotes and encourage our students to abandon perfectionism and celebrate thinking. A brilliant world of words and pictures awaits.

## Works Cited

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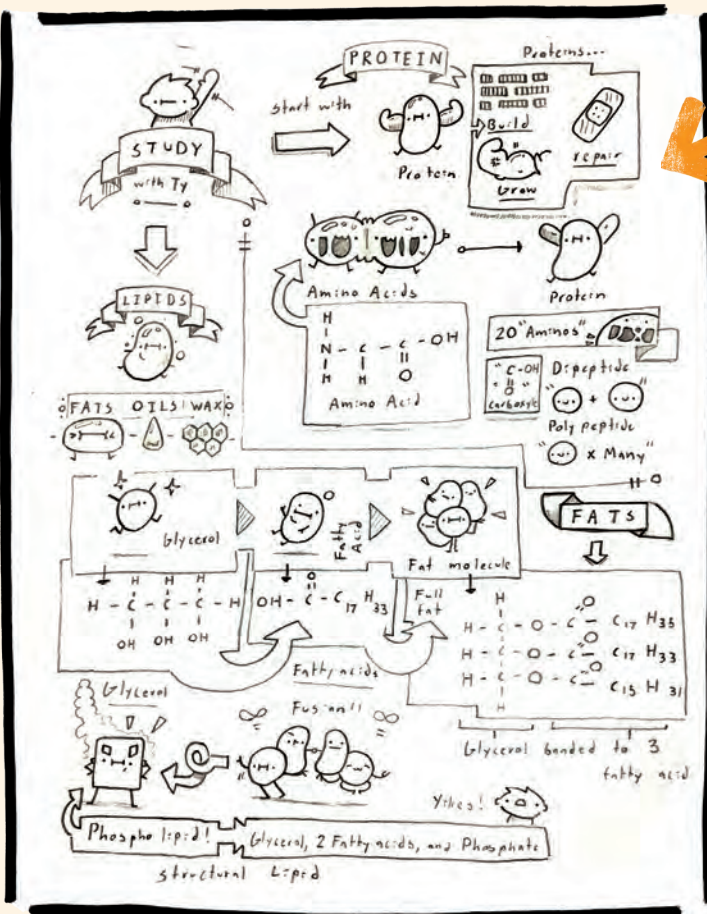
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**Tanny McGregor** is the author of three Heinemann books, including her newest release, *Ink & Ideas: Sketchnotes for Engagement, Comprehension, and Thinking*, which informs this article. Tanny's other foundational books are *Genre Connections* and *Comprehension Connections*.

As an internationally known teacher and conference speaker, Tanny has thirty years of professional experience in education. Originally an elementary school teacher, Tanny has served as a literacy coach, gifted intervention specialist, and PreK-12 staff developer; her workshops are known for their creativity and her friendly, engaging style. Currently, Tanny serves as a teacher on special assignment for West Clermont Schools in Cincinnati, Ohio.

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## Sketchnotes enhance focus and reduce stress.

When we create visual art, the stress-related hormone cortisol is reduced (Kaimal, Ray, and Muniz 2016). If we can reduce stress in our classrooms, let's do it! We all deserve a relaxed, creative environment in which to flourish. Regardless of grade level, our students know about anxiety and stress and need tools for deceleration to focus. Kids frequently tell me, sometimes even in the middle of sketchnoting, how the process helps them to relax and have fun with their own learning.

## Sketchnotes embrace design.

Design decisions that include color, lettering, and style matter because they can help to make thinking more meaningful and memorable. Design adds fun, energy, and surprise to our thinking and is accessible to anyone to create or view. We connect deeply with content when design is part of the thinking equation. I get to know my students in a more nuanced way through their sketchnotes because of the design elements they choose. Design choices bring me even closer to understanding what is really going on inside their heads.

It's also true that sketchnoting can be the quickest way to make an abstract idea concrete and some note-taking modes don't rely on the elements of design—and that's OK. At times, we just need to quickly capture content or messily scribble down our thoughts before we lose them.