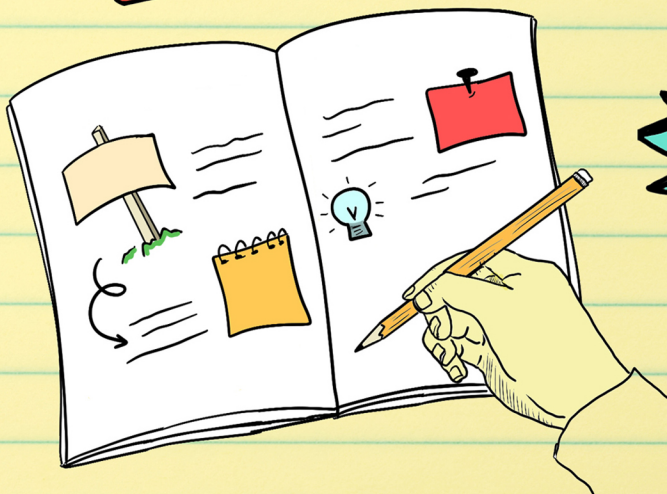
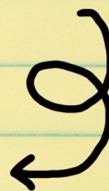


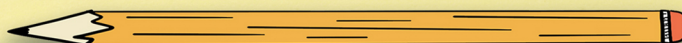
**A Practical Guide to
Deepen Student Learning**



**SECOND
EDITION**



Nichole Carter



ADVANCE COPY—NOT FINAL. NOT FOR DISTRIBUTION.

SECTION I

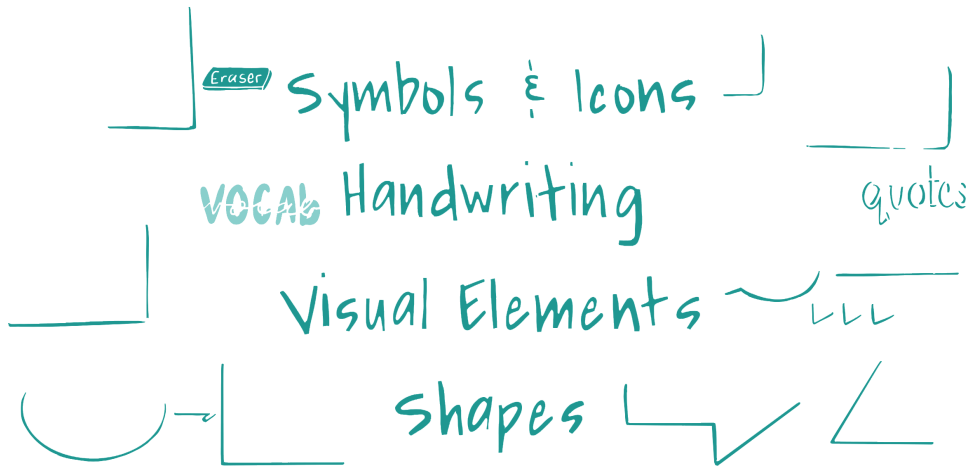
THE WHAT & WHY OF SKETCHNOTES

CHAPTER 1

SKETCHNOTE BEGINNINGS

Sketchnotes are a form of visual note-taking that combines words, images, and structure to make learning stick. What sets sketchnoting apart is how it supports strategic thinking, listening comprehension, synthesis, and cognitive science concepts, including Dual Coding Theory. Sketchnoting also gives learners the freedom to personalize their notes—connecting new learning to prior knowledge and even emotions. It builds not just understanding, but *executive functioning* skills, such as organization, working memory, and metacognition.

Sketchnotes Are:



THE HISTORY OF MODERN SKETCHNOTES

Although the roots of visual storytelling date back over 35,000 years to the cave drawings of Sulawesi, Indonesia, the modern history of sketchnoting is much more recent. The term *sketchnotes* was coined by Mike Rohde in 2007, and since then, the practice has flourished in both analog and digital forms. Educators began to embrace sketchnoting around 2013, when Toronto teacher Sylvia Duckworth started illustrating edtech buzzwords and pedagogy, helping spark a visual learning movement in schools.



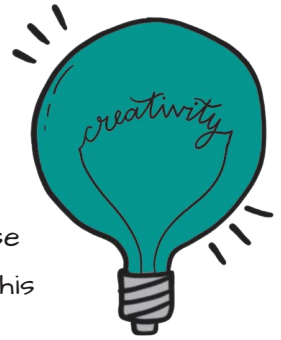
Graphic recording, however, can be traced back to the 1970s when visual facilitation experts began popping up in board meetings. We are currently in the fifth or sixth wave of graphic recording. Today, for example, Fortune 500 companies regularly hire graphic recorders to visually document and make sense of their planning meetings.

Graphic recording is much more difficult than sketchnoting—it requires not only listening comprehension, but also the ability to make your notes clear and consumable for others. With sketchnotes, the audience is you. It's a form of note-taking that sticks because it's unique and personal to your thinking. For instance, here's how I would draw a sketchnote on what I learned about the differences between sketchnotes and graphic recording.

Graphic
Recording

Sketchnote

YES, YOU CAN DRAW!



If you are looking at some of my sketchnotes and already comparing them to your first attempts, please don't. Sketchnoting takes practice—and that is what this book is all about. One of the things I hear most from adults (and students over the age of twelve) is: "I can't draw."

By the time we reach middle school, many of us have already decided we're either "artistic" or "not." In this book, we're letting go of those preconceived notions and judgments. Moving forward, you are a sketchnoter. You are taking the first steps to build a skill set that will grow—both artistically and cognitively—making this process easier and more natural.



Scan the QR code for Graham Shaw's TEDx Talk, "Why People Believe They Can't Draw." Grab a pen and paper—or your favorite digital device—and draw along with him.

Why People Believe They Can't Draw

You can't pick up a pencil and expect to draw the Mona Lisa on the first go; you have to practice. As my friend and colleague Carrie Baughcum (@HeckAwesome), a fellow sketchnoter, likes to say, "It's not a sprint, it's a marathon." She's right. You get better and better the more you train. The more you ask your brain to conjure up images or symbols, the easier it becomes. To prove it, jump-start your brain with a little game.

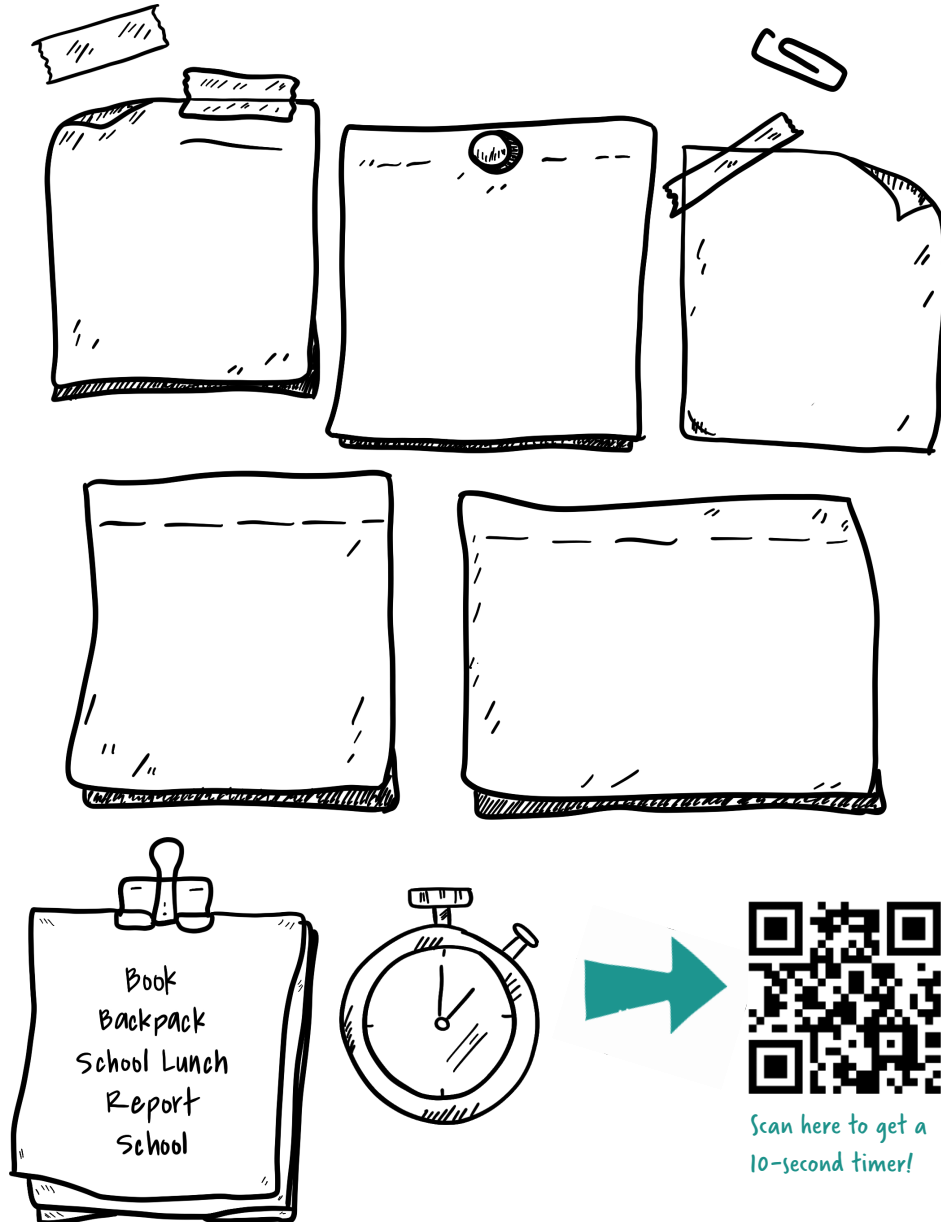


LET'S PLAY A
DOODLE GAME

BUILD YOUR VISUAL VOCABULARY WITH

GRAPHIC

Draw an icon or image for each of the words in the bottom-left corner. Time yourself, allowing about 10 seconds to just draw before moving on to the next word.



What's interesting about this activity (inspired by a similar one in Sunni Brown's *The Doodle Revolution*) is that our brains can come up with very different icons for the same word.

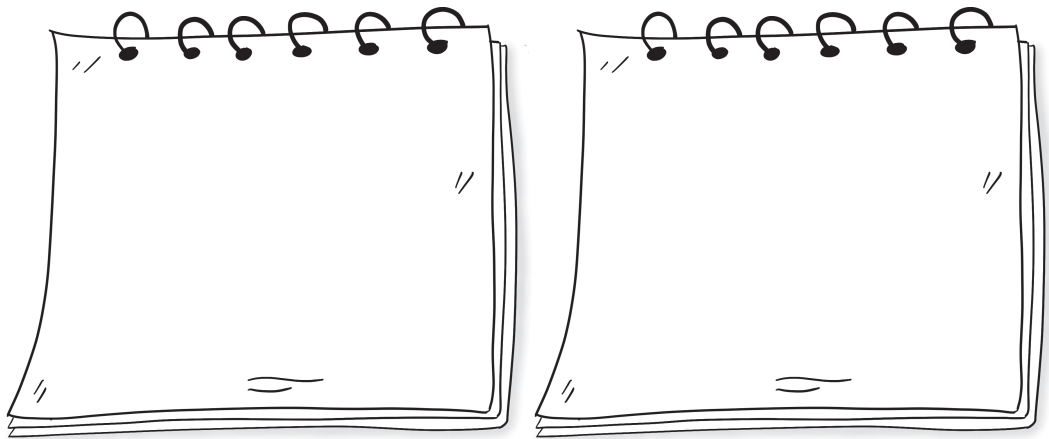
This makes our notes personal—and that uniqueness helps with retention.



For example, when I introduce sketchnoting to a class—whether educators or students—I always ask them to draw a cup. Some will draw a water cup, others a coffee mug.

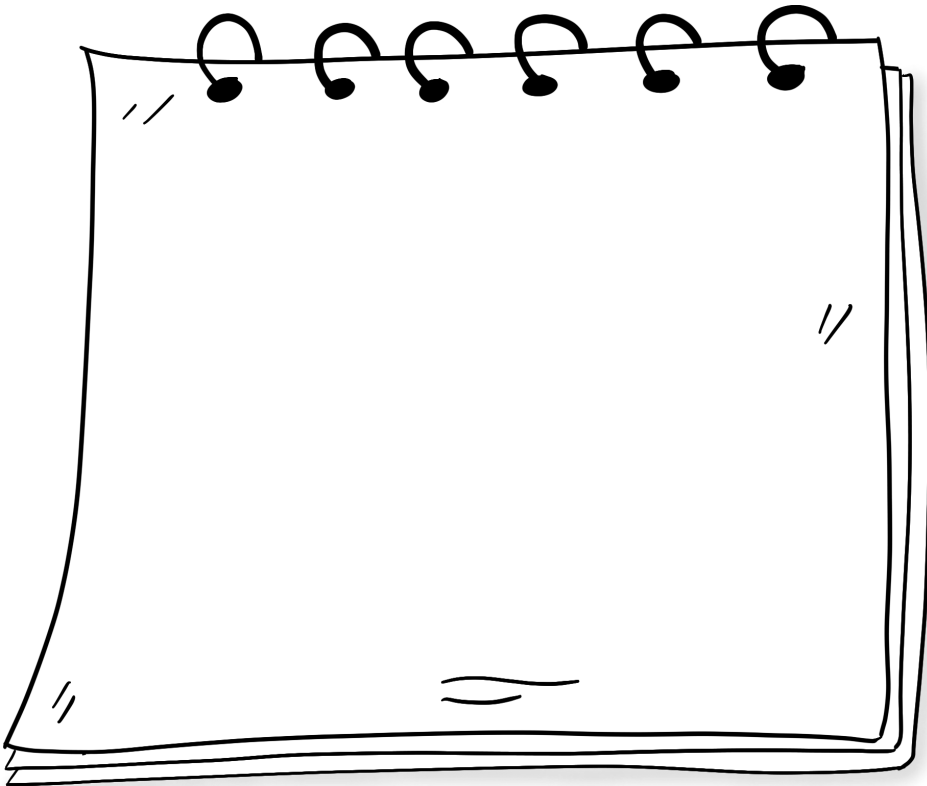
When I say phone, students often sketch an iPhone, which is quick and simple. Adults, however, might think of a rotary phone and try to draw that—much more complicated. Sometimes our age and life experiences shape the symbols we choose to represent ideas.

In the space provided, draw a cup and a phone.

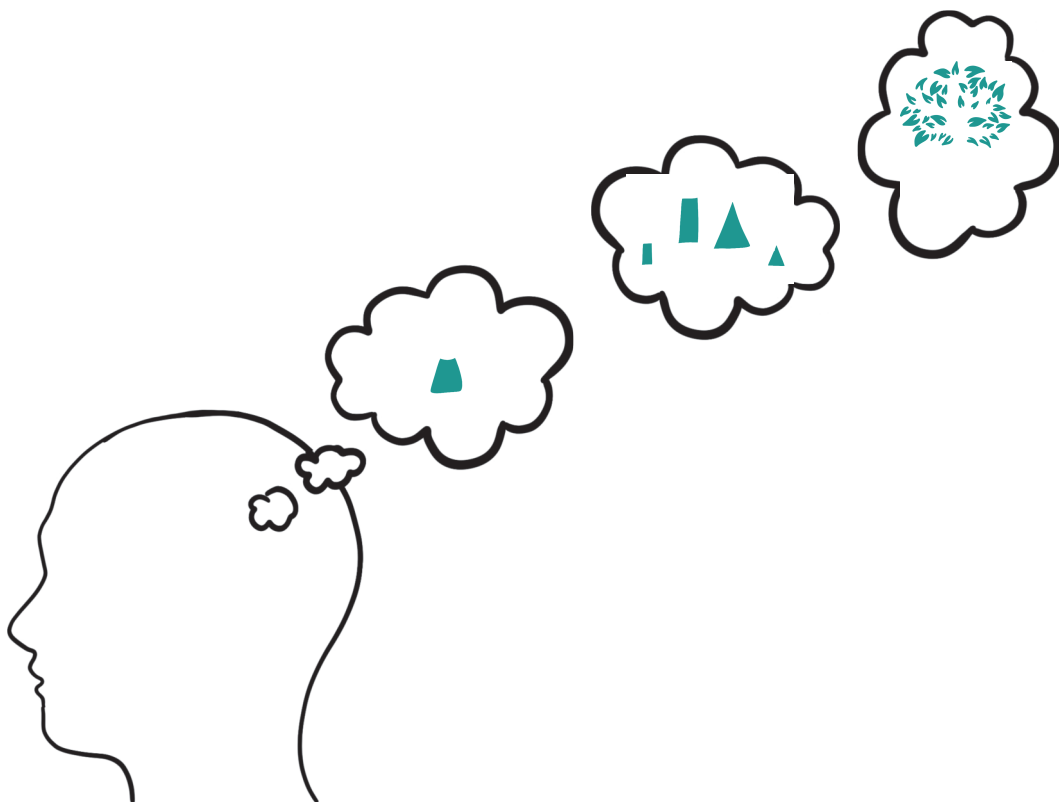


That difference in perspective is what makes sketchnotes so powerful: They are unique to you. And giving your brain the freedom to express information visually taps into a powerful cognitive process. In fact, developing a flexible visual vocabulary isn't just about creativity; it's a way to build executive functioning. When you decide how to prioritize information, choose what to draw, and categorize it visually, you're practicing working memory, organization, and flexible thinking.

Now try this: Draw a symbol or icon for the word *life*.



There's no one right answer—and that's the point. Visual note-taking activates parts of your brain that traditional note-taking might miss. The more symbols you create, the more fluent and confident you become in turning ideas into visuals.



KEEP PRACTICING

A great way to continue your practice—or provide more opportunities for your students—is to explore the companion resources for chapter 1 on the book's website.

Scan the QR code to access:

- A downloadable list of school-related icons to sketch
- A sketchnote starter template for practicing your visual layout
- Printable versions of the Graphic Jam and other classroom activities



Sketchnote
Beginnings Resources

You can also try Google Quick, Draw!, a free online game where you sketch a word and Google's AI tries to guess what it is. It's fast, fun, and a great way to sharpen your visual thinking. (Scan the QR code to get started!)



Google Quick, Draw!



What have you
just learned?
Sketch about it!

! Plan



CHAPTER 2

THE BRAIN RESEARCH BEHIND SKETCHNOTES

Brains love practice and repetition. It's how we build memory and fluency. In sketchnoting, we call this process building.

YOUR VISUAL VOCABULARY

The more often you challenge your brain to generate simple visuals, the easier it becomes to retrieve and use those images later for learning.

Deeper Learning Connections

Brains also love visuals, and they require connections to retain and process new information. The more connections we create—across sensory systems, emotions, and prior knowledge—the deeper the learning becomes.

If we deliver information in just one way—especially if that way relies only on listening or reading—we neglect other powerful brain functions. Consider what we know about teaching reading: Comprehension doesn't come from one part of the brain alone. It requires multiple systems working together. Sketchnoting activates the brain in a similar way, through multisensory and multimodal learning.

Given that, shouldn't we prioritize the act of note-taking more intentionally in our classrooms?



We know learners come in many shapes, strengths, and neurotypes. A one-size-fits-all approach to note-taking doesn't work any better than a one-size-fits-all approach to reading. We need to give students flexible tools to help them process and remember content—and sketchnoting is a simple, powerful way to do just that.



DUAL CODING THEORY AND VISUAL PROCESSING

Sketchnoting taps into a well-established theory in cognitive science: Dual Coding Theory. Often discussed in the context of multilingual learning, this theory holds that people remember information better when it's delivered both verbally and visually.

DUAL CODING

When learners pair an image with a word or concept, they create an additional pathway for storing and retrieving that information.

The brain is wired for this kind of learning.

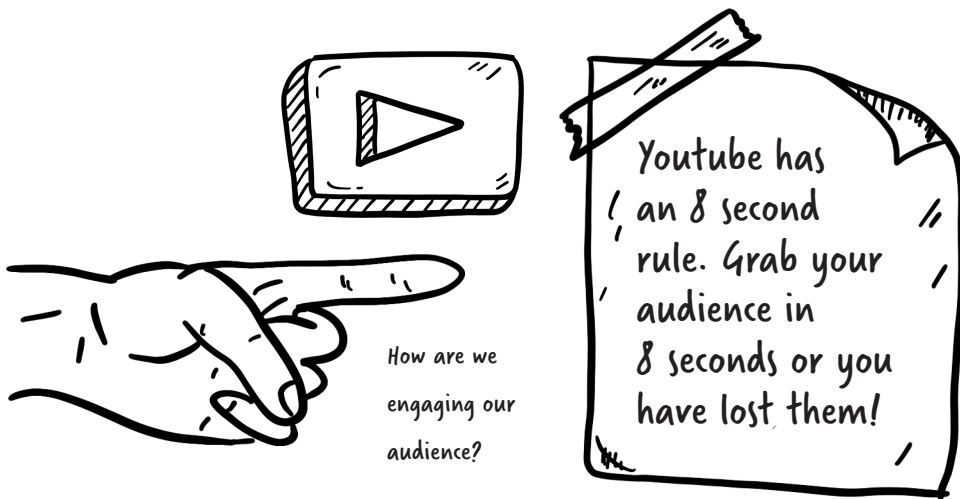


75% of our entire sensory processing capacity is dedicated to vision.



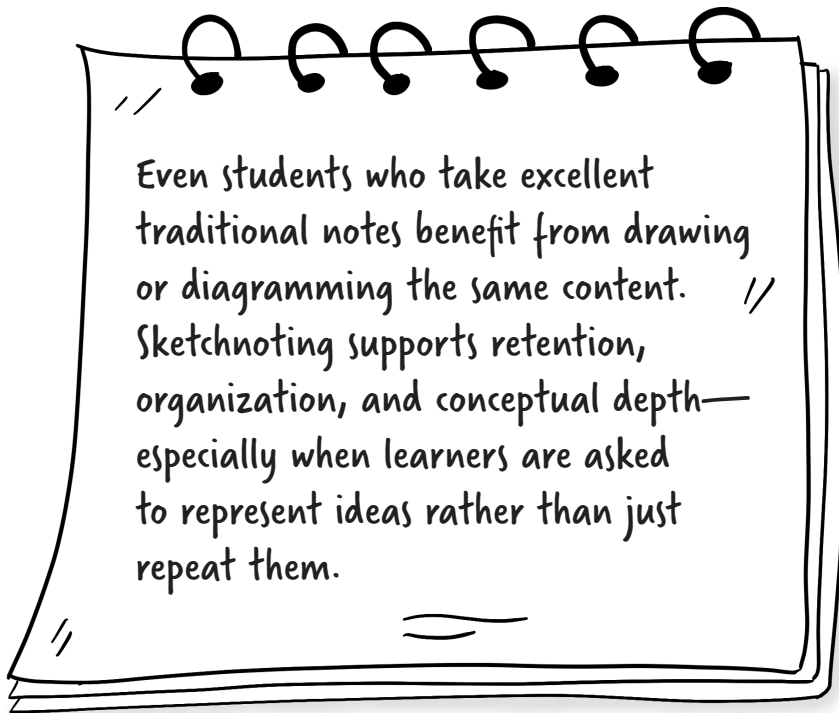
Images are processed 60,000 times faster than text.

While text is processed sequentially, images are processed simultaneously. This is why "glance media" asks whether your message can be understood in three seconds.





When touch is combined with vision,
learning jumps by 30%





C

f

+

80%

20%

1%

A BRAIN THAT THINKS IN PICTURES

One of the best-known examples of visual thinking is Temple Grandin. Diagnosed with autism at a time when few supports existed, Grandin realized at an early age that her brain worked differently from those of other people. She thought in *pictures*, not in words, and she used that difference to her advantage.

She later became a scientist, author, and advocate for neurodivergent learners. Her story is a powerful example of how visual thinking is not a weakness but a strength.

A sketchnote based on Temple's story, inspired by her children's picture book, appears on the next page. This book is a great entry point for introducing sketchnoting in younger grades. For older students, scan the QR code to access a *Smithsonian* magazine article about her life and how her thinking process influenced the world.

TEMPLE GRANDIN



Article on
Temple Grandin

Sketchnoting is one of many tools that can help students like Temple—and all students—learn to use their own cognitive strengths.

KEEP EXPLORING

A great way to dive deeper into the brain science behind sketchnoting or to bring these ideas into your classroom is to check out the companion resources for chapter 2 on the book's website.

Scan the QR code to access:

- A downloadable sketchnote infographic explaining Dual Coding Theory
- A ready-to-use template comparing verbal and visual learning strategies
- A visual vocabulary builder designed to help students sketch what they learn



Brain Research
Behind Sketchnotes
Resources

You can also check out a short collection of articles and videos about Temple Grandin, perfect for classroom use or your own professional learning. Just scan the QR code to explore.

INDEX

NUMBERS

Four Cs, 92-95

Five Ws, 118-122

A

accessibility, 181-184, 188

Adobe Fresco (app), 74, 81

Adonit Pro 4 (stylus), 75

analog sketchnoting, 67-73, 76-79, 159, 170

anchor charts, 111, 159-160

Anderson, Brad, 189

Anderson, Nancy, 189

Apple Pencils, 67, 74-75

apps, 73-74, 77

Argy, Stephanie, 189

arrows, 54, 58, 122

assessment, 169-177

B

banners, 59-60

Baughcum, Carrie, 8

Blah Blah Blah, 87

body shapes, 50

Brains On! (podcast), 142, 151

Brown, Sunni, 11, 30

C

Canva, 74, 120, 126

cause & effect (social studies), 125-126

Choose Layout (activity), 55

Collaboration Sketchnote (activity), 94

color-coding, 115, 122, 125, 135, 175

Common Core, 26, 32, 39

CommonLit, 122

Compare Apps (activity), 77

Consider Causes (activity), 126

consistency, 134, 184-188

containers, 59-60, 122, 133

Cornell notes, 30, 85

Creative Communicator (ISTE Standard), 30

cues

listening cues, 87, 95, 127

visual cues, 81, 115, 131

current events, 116-122, 131

D

digital sketchnoting, 67-69, 73-81, 90-91, 170

dividers, 58

Doodle Buddy (app), 73

Doodle Revolution, The, 11, 30

Doors into Text (activity), 148

dot paper, 159

Draw What's Happening (activity), 156

Dual Coding Theory, 19-21, 25

Duckworth, Sylvia, 5

E

end-of-unit reviews, 108-111

equity, 181-184, 188

evaluation, 169-177

Expressive Faces and Postures
(activity), 50

F

face matrices, 46, 48, 50

Facilitator (ISTE Standard), 28-29

Fester, James, 80-81, 189

FigJam, 74, 120

Five Ws, 118-122

Flowcharts, 116, 125, 131

fonts, 56-57, 63

formulas, 162-165

Foster, Danielle, 189

Four Cs, 92-95

G

Google Quick, Draw! 14

grading, 169-177

Grandin, Temple, 23-25

graph paper, 159

graphic recording, 7

H

headers, 61

Hello Fonts (activity), 57, 63

highlighters and highlighting, 87, 135

Hoxie, Heather, 150-151, 189

I

icons, 10-14, 43-45, 65, 170, 183-185

in language arts, 136, 138-139, 143-144,
149

in math, 159, 161-162, 165

in science, 101, 104-105, 111

in social studies, 115, 119-122, 125-127, 131

inclusiveness, 181-184, 188

iPads, 67, 74-75, 81, 112

ISTE Standards for Educators, 28-29

ISTE Standards for Students, 29-30, 39

J

Jiggly Origins of Jell-O, The, 124

journaling, 79, 129, 145-149

K

Key Terms (activity), 110

Kleki (web app), 74

Kluesner, Misty, 178-179, 189

Knowledge Constructor (ISTE Standard), 29
Know-Want-Learned (KWL) Charts, 85, 101

L

Lab Gone Wrong (activity), 108
lab safety, 106-108, 111
lab write-ups, 102-106
LaCrosse, Leah, 112-113, 189
Laflamme, Linda, 189
language arts, 134-151
Learning Tools (activity), 71
listening comprehension, 87-89, 95, 126-130, 141-144, 150-151
listening cues, 87, 95, 127
Listenwise (podcast), 142
Logitech Crayon, 75

M

Make Toast (activity), 35-36, 39
math, 152-167
mentor texts, 145-146, 148
Merian, Maria Sibylla, 98
metacognition, 34-39
Mini-Sketchnote Themes (activity), 125
Miro, 120
modeling, 28-29, 39, 43, 104-105, 113, 117, 135, 150-151, 158, 170, 180, 187
peer modeling, 121, 175

modular layouts, 54-55, 59
Mueller, Pam, 68
multimodal learning, 17-25

N

Nakatsuka, Karalee Wong, 132-133, 189
National Geographic, 151
NCTE Standards, 31, 39
Newsela, 122
Nixon, Cynthia, 166-167, 189

O

Oppenheimer, Daniel, 68

P

Pacing Practice (activity), 91
Paper Comparison (activity), 73
paper orientation, 53, 170
Partner Review (activity), 175
path layouts, 53-55, 63
peer modeling, 121, 175
pen and paper sketchnoting, 67-73, 76-79, 159, 170
people (sketchnote element), 46-52, 122, 181
Peplinski, John, 189
plotlines, 135-139
podcasts, 90, 141-143, 149
pre-reading, 114-115
presentations, 120, 126-130

Procreate (app), 74, 76, 126

Psychological Science, 68

Q

Quick, Draw! (Google), 14

Quick Sketch Plot Points (activity), 139

R

radial layouts, 54-55, 63

Ramírez, Martha, 64-65, 189

Read-Aloud Connections (activity), 144

read-alouds, 143-144

Reading Strategies Book, The, 141

real-time sketchnoting, 82-84, 90-91,
95, 126-130

reflection, 175-176

revisited sketchnotes, 34, 82-86, 95

Roam, Dan, 87, 95

Rohde, Mike, 5

S

Samuelson, Jon, 189

science, 98-113

Science Visuals (activity), 106

Serravallo, Jennifer, 141

Shaw, Graham, 8

Sketch the Definition (activity), 162

Sketch Trigger Phrases (activity), 89

Sketchbook, 126

Sketchnote a Formula (activity),
164-165

Sketchnote Connections (activity), 87

Sketchnote Elements (activity), 43

Sketchnotes with Nichole, 76

Sketchnoting From Memory
(activity), 130

Sketcho Frenzy, 57, 126

Sketchpad (web app), 73

Skillshare, 76

social studies, 114-133

software, 73-74, 77

speeches, 126-130

stick figures, 48-49

sticky notes, 90, 121, 181

story problems, 152-160, 165

StoryCorps (podcast), 142

structure of sketchnotes, 53-61, 63,
133, 150-151, 174

styluses, 67, 73-75

T

TEDGlobal, 35-36

TEDx, 8

Time to Think Visually (activity), 83

timelines, 116, 122-125, 131

Today I Found Out (YouTube channel), 124

Tracing Faces (activity), 52

Two Approaches, One Problem
(activity), 160

U

Universal Design for Learning (UDL),
32, 184

language arts and, 136, 142, 144-145

math and, 156, 159, 162, 165

peer modeling and, 174-175

science and, 102, 104, 107, 109, 111

social studies and, 116, 122, 126, 128, 131

tool choice and, 76, 170

V

Venn diagrams, 125-126

visual cues, 81, 115, 131

Visual Framing (activity), 60

visual hierarchy, 38, 55-56, 73, 109, 151

visual thinking, 23, 55, 63-65, 166-167, 174

visual vocabularies, 9-14, 43-45, 90

See also icons

Visuals for Podcast Keys (activity), 143

W

We Do, You Do a Reading Strategy
(activity), 141

What Makes a Sketchnote Successful
(activity), 171

Witte, Valerie, 189

word problems, 152-160, 165

workshops (language arts), 139-141

Writing Strategies Book, The, 141

Wujec, Tom, 34

Y

YouTube, 90, 124, 167

Z

Zagg Pro Stylus, 75

ABOUT THE AUTHOR

Nichole Carter has worked in education since 2004 and currently serves as a district-level literacy leader in Beaverton, Oregon. Throughout her career she has taught a variety of subjects, including geography, U.S. history, reading intervention, and middle school language arts. Today, her work focuses on curriculum design, professional learning, literacy instruction, and supporting educators across grades 6-12.

Nichole discovered sketchnoting in 2015 and quickly became fascinated by its ability to make learning more visible, engaging, and memorable. What began as a personal learning tool soon became a passion for helping students and teachers use visual thinking to deepen understanding. Since then, she has presented nationally, led hundreds of professional learning sessions, and supported educators across content areas in bringing sketchnoting into their classrooms.

Nichole is also the author of *Creative Journaling for Teachers: A Visual Approach to Declutter Thoughts, Manage Time and Boost Productivity* and *Unlocking Your Potential: A Workbook for Developing Executive Functioning Skills for Teens*. She believes that creativity belongs in every classroom and that everyone—not just artists—can learn to think visually.

When she is not working with teachers, writing, reading, or creating sketchnotes, Nichole enjoys gardening, journaling, listening to music, and spending time with her daughter, Molly, and her Wheaten Terrier, Stewart. For resources, templates, and additional sketchnoting ideas, visit mrscarterhla.com.