Seeing Is Believing: 
Developing Visual Metaphors

The ultimate metaphorical experience: the visual arts. Why do some Henry Moore sculptures, those massive, blocky human bodies, often have gaping holes in them? What was Moore’s possible metaphor? What do Alberto Giacometti’s anguished, concentration-camp-thin figures say about 20th century humanity? Why is Pablo Picasso’s “The Old Guitarist” composed primarily of shades of blue? Why was Schindler’s List shot in black and white? And why, in the film’s unrelenting gray, do we see a little girl wearing a red coat? Since visual art is so immediate and concrete, as well as an excellent way of approaching history, its explicit and implicit comparisons would perhaps be more accessible to some students than words alone.
—John Herzfeld, Louisville Collegiate School, Louisville, Kentucky

Symbolic Sensing

When most of us in industrialized nations see the following shape on a sign posted near an intersection of two roads, we interpret it as a message to stop:
Traffic signs are a common form of visual imagery used to convey information. Runes, codes, and international warning signs ( ()) also symbolize meaning through imagery. In each instance, we are substituting something in one domain for something in another domain; we’re creating metaphors. Words and numbers are forms of metaphors. They convey meaning beyond the strokes used to make them, and each symbol redescribes or reinterprets an intended topic or message. To this day, I have an intense emotional response to the letters d-a-o-o-u-i-d-y-v-l-e arranged and written to me in the sequence “I love you, Dad,” in a message from my son or daughter. The letters mean nothing individually, but when I see them arranged in that order—in that visual pattern—I am flooded in one breath.

Teachers may wonder if a symbol, drawing, or pattern can be a metaphor. For example, does an illustration of a person serve as a metaphor for that person? Yes, in my opinion. Consider it this way: If we show the structure of a molecule with its components and suggest the relationships among them, we are creating a virtual metaphor of that molecule—expressing something in one domain (science) in terms of another (art). The same is true of an artist's rendering of a person. Is the realistic Mona Lisa a metaphor for the woman who posed for the painting, or at least the one da Vinci held in his memory? To answer this question, consider whether or not the realistic painting reinterprets or redescribes something in one domain (life) in terms of another (art). It does. In short, with metaphors we ask: Do you see what I see?

Flowers painted along the upper border of a kitchen wall could be considered a metaphor—we’re representing beauty, what we love, plants, or my wife's personality through applied art. We’re giving living characteristics to inanimate objects. The effect is metaphorical.

“One of the everyday functions of metaphor . . . is that of ‘gap filling,’” Zoltan Kovecses reminds us. “In a fundamental sense, metaphor is a ‘verbal drawing technique’ that allows people to describe referents for which there are not adequate words available” (2002, 112). Our minds long for this duet between the analytical and poetic/artistic portions of the brain.

Teachers can tap into the visual nature of thought readily. Students best remember information if it is presented in a coherent structure the first time they experience it. Metaphors and analogies provide that structure. Graphic organizers are spatial and sequential metaphors that help students perceive knowledge: a simple T-chart or Venn diagram is a metaphor for comparing and contrasting concepts; a time line is a metaphor for the presentation of information in chronological order; and a matrix enables students to visualize information in their minds. Visual metaphors help us organize content, including subsets, redundancies, parallel themes, cause and effect, and a
range of other revealed connections. We represent ideas and items in our mind primarily through visual means.

Some researchers (Marzano 2001) include senses other than sight in the visual imagery category. The case could be argued that those other senses—taste, touch, smell, and sound—evoke specific images in our minds, but when we hear the words “visual imagery,” most of us think of what we can see through our optic nerves, whether it be physically in front of us or what we can imagine in our minds. In this chapter, we’ll limit our examination to conventional visual metaphors—symbols, patterns, structures, and anything else that is most commonly perceived through our eyes.

**Art in the Imagination**

Petroglyphs and hieroglyphs are among the first recorded metaphors. From wavy lines indicating rivers or journeys to noble birds with wings folded in stiff salute to indicate royalty or vigilance, early illustrations communicated meaning through images based largely on nature. I vividly remember the rebus puzzles that filled my primary grades texts. They usually told a story that substituted symbols for selected words:

The ⚡ was very bright last night. The thunder that came with it made my ♥ pound. The ⚡ flashed through the night until the ☀ came out the next day.

Norm Blumenthal used to include such puzzles on Concentration, the television game show he created. I loved using the visual and linguistic clues to guess the answer. Can you guess what the one in Figure 7.1 is saying?

---

**Figure 7.1 Sample Rebus**

![Sample Rebus](image)

Answer: ROLL + IN + COW + T + THREAD + CAR + BED, or put another way, "Rolling Out the Red Carpet."

---

Imagine applications of this strategy at every grade level. Think of the fun students would have creating their own rebus puzzles to summarize content or review for a test. In the process, they will use the symbiosis of words and images to move new concepts into long-term memory.

**Curriculum-Specific Symbols**

Some symbols are easy to interpret because of a common frame of reference. In the United States, for example, a symbol of an open book on a signpost usually indicates a library or bookstore nearby. A highway sign showing two stick figures, a man and a woman separated by a vertical line, signals that a washroom appropriate for both genders is located at the next interstate exit.

But what do we do with symbols for which we lack appropriate context or explanation? Consider the symbol H$_2$O. If we have never studied chemistry, we may not know that two hydrogen atoms are attached to one larger oxygen atom to create a molecule of water. Similarly, depending on our mathematics preparation, we may not know that the symbol 6$^2$ refers to a base number and exponent. Skilled teachers pay attention to each student’s background knowledge and fertilize it with metaphorical context if the soil hasn't been cultivated.

Take a moment today and list the symbols associated with the subject(s) you teach. Better yet, involve your students in the effort, which will show you what they know or don’t know. Some content areas, such as music or science, have unusually large catalogs of symbols. But symbols are present in all subjects. Teaching English? Make sure students know punctuation and editing marks, reading notations, and other creative writing and literary signals. Drama, art, and physical education? Every field has its cues and representations. Create a symbol key as part of your visual metaphor toolbox.

**Can You See It?**

Let’s really get into the possibilities with visual metaphors. The following activities provide ample strategies for building metaphors in multiple disciplines. Consider each one in regard to your specific curriculum.
Comparing Photographs

Compile a selection of photographs. Students can help you assemble these by cutting out a variety of pictures from old magazines and newspapers or by downloading multiple images from the Internet (those that are appropriate and within the public domain). Next, ask students to select several pairs of photos. For each pair, they can write a sentence or two that captures the comparative elements. For example, a photo of hands could be matched with one of a bird’s wing, and the student-generated metaphor might read: “Her hands fluttered like a dove’s wings.” (Thanks to John Herzfeld for this idea.) A photo of a bridge could be compared to a photo of members of Congress meeting together to solve an issue.

Provide a few examples of your own metaphorical creations to get students started. Explain your thought processes and invite students to do the same as they present their ideas to their peers. Build the understanding that every person “sees” or interprets information and images somewhat differently. As we encourage students to develop intelligent vision—the ability to synthesize, evaluate, and communicate in multiple dimensions—we want them to learn from each other’s insights. The goal is to teach students the value of considering visual elements as metaphors, as well as to provide the cognitive skills via modeling for how to make such connections.

Students can hold multiple perspectives on a topic in their minds. As teachers, we want to build on that mental capacity as much as possible. The whole number $\frac{10}{3}$ is actually an improper fraction. In another scenario, two sets of data in completely different domains demonstrate equally geometric progressions. One man’s poison is another man’s cake. The constraints of one are opportunities for another. Dueling perspectives ignite imagination in almost anything we teach. A character bullying another character may be a thug in one sense, but alternatively, he could also be a victim of abuse. A blossoming colony of bacteria may be part of an important ecosystem, but alternatively, it could also be a deadly threat to mankind.
Who Are You?

Chris Toy, a middle school specialist from Maine, recommends a technique that involves displaying dozens of pictures, including abstract representations such as symbols, advertisements, artwork, and more, across a long table. Ask students to select an image that best represents them or their perception of a topic or issue. Then ask them to take turns explaining the connections. For example, Toy uses this activity with students when discussing youth violence by asking them to respond to this prompt: “How is the picture I selected like the issue of bullying at my school?”

An alternative strategy asks students to choose an image that best represents a character from a novel or a historical figure from a period you’ve just reviewed. Students also could use the image to suggest a feeling in response to a topic you’ve been discussing in an advisory period. The practice reinforces the use of imagery to express metaphors.

When I’ve used this technique with students, I’ve been amazed by their sophisticated analysis and the intense emotions that visual imagery prompts:

- Just looking at that house, I see my grandfather. It’s built like him: strong, a little rounded, and solid. It looks like it would be stubborn in any storm, too, just like Grandpa.

- The front of the car has a Catcher-in-the-Rye attitude. It reminds me of Holden Caulfield—bold but only so much so, jumping at the chance to get going with life, cussing and doing wrong things to test himself and the world, but still innocent, not ready for the truth. It’s trying to be something it’s not sure it wants to be.

Graphic Organizers

Graphic organizers are virtual metaphors that recode or reimagine knowledge in a particular format so as to clarify a topic, reveal a previously unrecognized aspect of the topic, or process the topic better for long-term memory. They’re powerful tools, so we need to ensure that we’re using the correct graphic organizer for our purposes. A Venn diagram, for instance, doesn’t reinforce a sequence of events, but it does help us compare and contrast two or more topics. A time line doesn’t help us understand taxonomic hierarchy, but it would be a great method of taking notes about a chronological sequence. Chapter 9 explores the limitations of metaphors, including graphic organizers, in more depth. Here I want to urge you to keep this caution in mind as
we review different methods of graphically organizing information: When selecting a particular format, ask yourself, “Is this the best method for reframing this concept or data for students?”

This section shows some common graphic organizers. Choose an organizer appropriate to your purpose, but don't hesitate to mix and match or mutate the format to fit your instructional needs. Teach students how to make good selections as well. For example, we might create a mind map to express our understanding of the interplay among plant auxins, phototropism, and photosynthesis. But we also could insert a brief T-chart or bulleted outline next to any of the areas in the mind map to further clarify its role. Ask students to justify any modifications to the organizers as they make them. Creating a graphic organizer hybrid is a wonderful visual reinforcement for students, but the real learning comes when they have to explain and defend their inventions to classmates or the teacher.

**Mind Map**

This is a diagram showing the flow of one's thinking and tasks around a specific theme or idea through arrows, cartoon representations, branching lines, single words, highlighting, frames, bubbles, decision symbols, connecting lines, and other visual cues to indicate causal relationships, levels of importance, sequences, hierarchy, decisions, tasks, and subtopics. A mind map often resembles an annotated and animated road map or journey of one's thinking.
**Cluster**

Clustering is used to show subcategories within a larger one, including elements within, relationships, and connections, all focused on central ideas, people, or themes.

![Cluster Diagram](image)

**Venn Diagram**

Made up of two or more interlocking circles, a Venn diagram is used to compare (how they are similar) and contrast (how they are different) two or more concepts, people, or objects, such as atmosphere and biosphere, nouns and gerunds, socialism and communism, cubism and avant-garde. The diagram can also be displayed concentrically, one circle within a larger one within a still larger one, and so on.

![Venn Diagram](image)
Continuum
A continuum is used to show degrees along a range of related ideas or concepts, such as the spectrum from “fully disagree” to “fully agree” as responses to a proposition, from one short wavelength to the longest wavelength, or from politically liberal to politically conservative.

Cornell Notes
Cornell notes include a T-chart with a three- to five-sentence summary of the upper portion written across its lower portion.

<table>
<thead>
<tr>
<th>Reduce</th>
<th>Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Summarize in short phrases.]</td>
<td>[Record notes from lecture, film, experience here, or essential questions next to each block of notes.]</td>
</tr>
</tbody>
</table>

Review—Summarize (paragraph-style) your points or responses to the questions. Reflect and comment on what you learned.

Pie Chart
A pie chart is used to show comparative size, influence, power, or composition within a larger whole.
Pyramid

Narrow at the top, wider at the bottom, a pyramid is used to show each level of composition, elements building toward an ultimate outcome, multiple levels of support for something important, frequency of occurrence, or number of items at varying levels.

Matrix

Usually made of two axes, horizontal and vertical, a matrix is used to organize multiple categories of information intersecting with other categories. For example, we may record four questions across the top of our paper, but we record the answers we find from each of three resources, listed along the vertical axis. This is a matrix of information on the overall topic.

<table>
<thead>
<tr>
<th></th>
<th>Earth</th>
<th>Moon</th>
<th>Mercury</th>
<th>Mars</th>
<th>Venus</th>
<th>Saturn</th>
<th>Jupiter</th>
<th>Neptune</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravity Relative to Earth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composition of Atmosphere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Year and Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Origin of Name</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from Earth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Flow Chart
A flow chart is used to demonstrate the flow of thinking, decisions, or steps taken. It often uses a variety of shapes and arrows to indicate progress.

Hierarchy Chart
A hierarchy chart is meant to show status among elements, people, and priorities.
**T-chart**
A T-chart is used to show comparisons, contrasts, complementary elements, cause/effect, relationships, or subsets of larger categories.

<table>
<thead>
<tr>
<th>Topic A</th>
<th>Topic B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tree Chart**
This chart is a basic tree with branches, fruit, leaves, trunk, and roots drawn in. The roots represent causes or precipitating events, the trunk represents the growth of those events, the branches suggest the different directions that growth might create, and the fruit or leaves show the eventual outcomes of the growth. We can add to this metaphor by putting knots and holes in the wood of the trunk, possibly sheltering animals, or subjecting the tree (process) to disease.
Number Line
A number line is used to show progressions in opposing or singular directions, such as a time line, a plot of integers, or the amount of money raised over time.

Character Trait Analysis
In a character trait analysis, record the name of the person or concept in an oval or rectangle centered in the middle of the paper. Fanning out from three or four sides of the center shape are wide rays connecting to large rectangles, almost like rays that flow from the sun. Along these rays, you can list character traits such as honest, mature, reckless, zealous, and disillusioned. In the large rectangles that end each ray, list specific evidence, including page numbers from the source text. You can also use this to analyze historical figures, fictional characters, politicians, and even inanimate objects such as identifying the “character” traits of elements on the periodic table, plants, historical eras, social movements, and types of music.
Interpreting Patterns

Daniel H. Pink, best-selling author of *A Whole New Mind* (2005), identifies pattern recognition as one of the emerging skills needed for the jobs of the future. Considering that in today's fast-paced Information Age content knowledge can change significantly every few months, we conclude that simply remembering current knowledge will not prepare employees for their work next year, let alone next decade.

Teachers must still focus on core concepts. But in addition, they must teach students how to manage, interpret, and repackage that knowledge. Metaphors and analogies are among the most effective tools students and teachers have at their disposal. For example, you might ask students to collect data showing the peaks and valleys of population growth for different countries or time periods. You could discuss how one economic trend runs parallel to another. Encourage students to design an advertising campaign aimed at different audiences. Connecting the last assignment directly to the curriculum, you could ask students to market nutritional supplements to societies that you've been exploring in class—expressing themes from Greco-Roman times, Romance literature, or the period of mass immigration in late nineteenth-century America. Imagine the depth of knowledge and the synthesis skills students would gain by accounting for each group's particular dietary and economic practices, transportation and communication systems, religious and cultural beliefs, and so on. Get really creative and encourage students to consider advertising through different themes and domains. Wouldn't it be powerful if they could recognize Greco-Roman influences in modern political satire, for example? How about the obvious allusions to Jane Austen in a wine commercial? Even better, they could draw parallels between those other domains and what they were trying to advertise in their own marketing campaigns. Learning how to recognize and reinterpret data and patterns, to reexpress them metaphorically, is an essential skill for twenty-first-century students.

To see what this might look like in a math curriculum, consider algebraic patterns. Frances Van Dyke's *A Visual Approach to Algebra* (1998) is a helpful resource. Figure 7.3 shows a few samples from the book that typify the reexpression of information into symbolic form.

The equations used by students to create these lines in these exercises are symbolic portrayals of the intended relationships. In each example, students think abstractly as they restate a concept from one domain in terms of another. This process sets them up to succeed as strategic problem solvers. As students learn to use and apply material in multiple formats, they become adept at...
answering questions that require more than simple yes or no responses. Consider how pattern recognition skills would help in these situations:

What do you notice about the immigration patterns for New York City in the early decades of the twentieth century compared to data about the rise of labor unions in America’s urban centers? What kind of lines or which geometric shape best represents what we see in the data, and if not one shape, what combination of shapes makes the best representation?

Figure 7.3 Algebraic Patterns from *A Visual Approach to Algebra* (Van Dyke 1998)

Choose the one that best matches the situation:
A submarine submerges, rises up to the surface, and submerges again. Its depth \( d \) is a function of time \( t \).

Consider the following graphs. Describe a situation that could be appropriately represented by each graph. Give the quantity measured along the horizontal axis as well as the quantity measured along the vertical axis.

Choose the graph that best matches the situation. Write a sentence explaining why you made the particular choice you did.

The exercise explores Newton’s Second Law: force = mass \( \times \) acceleration.
In looking at the distribution of your daily calorie intake and what we know about the role metabolism plays in converting food to energy, what shape best reexpresses the relationship? How would you change the shape to reflect a healthier lifestyle? What would you need to do differently in your life to achieve the relationship suggested by this new shape? Consider elements we’ve discussed in class such as calories in foods you like to eat, timing of meals, portion sizes, glycemic levels, exercise, and sleep.

In your debate about the power of Supreme Court decisions to engineer society according to a political agenda, did you and your partner come to a perpendicular point of argumentation (at right angles), or were you closer to an asymptote (a line that gradually curves as it approaches one axis, becoming more and more parallel to that axis)? What does this mean for a successful resolution?

Is the data in the table about industrial growth a linear or geometric progression, and what does that mean for the allocation of resources for the next ten years?

Describe the patterns of housing development in the area around the city. What’s the best shape to represent the trends? Do the developments fan out like tree roots or like the tributaries of the Mississippi Delta that follow concentrated areas of commerce or a major natural resource? Is it a geometric pattern indicating a strategic plan, or is it random, reflecting placement according to consumer whim and decisions made independent of larger community concerns? What do these patterns of development indicate about the limiting factors for the human habitat here?

Do you agree with the message of this graphic? If so, how could we shift youth’s priorities? If you disagree, create a more accurate design and explain your design.

Activities such as these build metaphorical thinking. When students practice pattern recognition, they learn how to sift multiple sources of information and recognize parallels, cause-and-effect relationships, and differences. Children enjoy looking for patterns in their daily lives, including in sports, math, science, music, artwork, architecture, and language. Just ask the producers of the PBS television show Sesame Street. Children all over the world join the character Bob as he sings: “One of these things is not like the others.” As teachers, we can build on this interest by actively encouraging students to discover patterns within the curriculum. Metaphors give us the tools to express those connections.

Graphic Portrayals: Cartoons and Comics

Using cartoons and comics to sharpen metaphorical thinking can motivate students in any subject. Given the popularity of comics and graphic novels, we can't pass up the chance to use this resource. Take a glance at the comics in your local newspaper and you'll discover metaphors galore. Artists depict gestures, motions, and feelings with inanimate markings on the page to convey meaning about the character or situation in small spaces. “An angry man may be drawn in such a way that smoke is coming out of his ears. This is based on the anger-is-a-hot-fluid-in-a-container metaphor,” Kovecses writes. “Cartoons are another rich source for the nonlinguistic realization of metaphors” (2002, 58).

Kovecses also points out the way children often personify a house and other inanimate objects by adding faces to them. This is one of the many natural ways that humans make sense of the world through metaphorical representation and play. In my own childhood, the stapler pushed across the floor was a school bus coming to pick up children; the clothespin was a dangerous mouth; a banana became a phone; a cardboard box was a secret fortress, and my pencil morphed into a magic wand. Look at items in your own surroundings. Can you see a weapon, an animal, a nightmare, or a poem represented in that spoon or cell phone on the table? Ignite your imagination the way a child does.

The authors of Literacy Strategies for Improving Mathematics Instruction (Hancewicz et al. 2005) suggest some appealing ways to use cartoons and comics in math class. They recommend that math teachers “make copies of key textbook pages so that students can write notes on them, add diagrams, doodle in the margins, and underline words. This allows students to engage with the text in a tactile, kinesthetic, physical way.” To bridge cartoon drawing with the next steps of math understanding, encourage students to try “a
more stylized representation of the same concept. Moving from a detailed picture to simplified shape, often called an icon, is another step toward mathematical abstraction” (Hancewicz et al. 2005, 70).

From this starting point, we can progress to considering math symbols and their meanings, such as: +, −, ×, ÷, ∞, \(\sqrt{\cdot}\), \(\approx\), \(7/8\), \(\leq\), \(\sum\), %, \(x = \frac{b \pm \sqrt{b^2-4ac}}{2a}\), and \(A = \pi r^2\). In Adventures in Graphica: Using Comics and Graphic Novels to Teach Comprehension, 2–6, Terry Thompson suggests that “pictures are the pillars that support meaning making, and we can use this visibility to our advantage as we attempt to make comprehension strategies obvious in our instruction” (2008, 50).

Asking students to portray metaphors through cartooning helps them understand complex concepts and move information to long-term memory. Cover your classroom walls with the expressions of their artistry and analysis: the difference between gymnosperms and angiosperms, the salient points in a specific law, the sinister struggles of Iago in Shakespeare's Othello, the influence of Marco Polo’s travels, or the impact of MASH units during the Korean War. Ideas and images are everywhere.

Use Visuals Every Time You Teach

One of the most powerful findings within the general category of instructional strategies is that graphic and symbolic representations of similarities and differences enhance students' understanding of content.

—Robert Marzano, 2001

Memorizing by association is an effective technique for building knowledge. Images that cue recognition—or, in this case, visual metaphors—give students another way to store, retrieve, and make meaning from new ideas and information. While teaching about a period of history or an important author, place a large symbol of that era or author close by. For example, you might stand next to a life-size photo of skeletal children feverishly sewing goods in a garment factory as you discuss the rise of labor unions during the industrial revolution. A book or a wizard's hat would be appropriate symbols for Hermione Granger in J.K. Rowling’s Harry Potter series. A magnifying glass could represent detective fiction's Sherlock Holmes.

What’s a good visual symbol of the preterite in Spanish class? What icon might remind students to focus on their target heart rates in physical education class? Can you think of a suitable symbol for an economic recession? What graphic would reinforce the proper response of bystanders who
see a classmate getting bullied? And how would Democrats and Republicans symbolize each party’s main themes? To borrow one more time from Kelly Gallagher (2004), why is a particular person in history or character in a novel best portrayed by a brake pedal (because he or she slows forward progress of something) or a gas pedal (because he or she speeds things up)?

Keep in mind that the visuals should reinforce metaphorical thinking. Icons and illustrations are useful as long as they help students engage in substantive processing of new information. The learning begins when we ask students: “Given what we’ve learned about this topic, what symbol, graphic, picture, or visual would best capture its essence?” (Or “describe its nature,” “portray its character,” “express its connection,” “clarify its meaning.”)

**Demonstrating Concepts Through Multiple Visual Formats and Domains**

Ask students to explain themes using multiple visual aids. For example, if you are studying the Italian Renaissance, you might ask students to symbolize curiosity, technological advancement, and cultural shifts through mind maps, collages, graphic organizers, paintings, sculptures, comic strips, political cartoons, music videos, Web sites, computer screensavers, CD covers, or subway advertisement posters.

Or consider the economic principle of supply and demand. What would it look like as a floral arrangement, in the music world, in fashion, or in dance? Now add some complexity: How would each of these expressions change if we were focusing on a bull market or a recession? Whatever symbols they choose, insist that students explain and justify their interpretations.

Many aspects of our curriculum lend themselves to these mental and visual exercises. The structure of a sentence, palindromes, phases of the moon, irony, rotation versus revolution, chromatic scale, Boolean logic, sine/cosine, meritocracy, tyranny, feudalism, ratios, verb conjugation, liquid measurement, balancing a checkbook, inferring the author’s meaning, the relationship between depth and pressure, musical dynamics, six components of wellness, the policies of Winston Churchill, and the pelagic zone in marine biomes can all be expressed in terms of food, fashion, music, dance, flora, fauna, architecture, minerals, weather, vehicles, television shows, math, art, literature, and more. Remove all tethers to your imagination as you create mind-expanding assignments in the metaphor realm.
I’m Having a Vision of the Future

We can’t over-emphasize the power of visualization for teaching content and metaphorical thinking. Every time we turn around, a new study is released pointing us in the visual direction:

A University of Pennsylvania psychology study, using functional magnetic resonance imaging technology to scan the brain, reveals that people who consider themselves visual learners, as opposed to verbal learners, have a tendency to convert linguistically presented information into a visual mental representation.

The more strongly an individual identified with the visual cognitive style, the more that individual activated the visual cortex when reading words.

The opposite also appears to be true from the study’s results. Those participants who considered themselves verbal learners were found under fMRI to have brain activity in a region associated with phonological cognition when faced with a picture, suggesting they have a tendency to convert pictorial information into linguistic representations.

The study was recently presented at the 16th Annual Cognitive Neuroscience Society Meeting. (ScienceDaily 2009)

We’ve become a primarily visual and graphic-oriented society. Sure, other forms of input and perception need to be developed and appreciated, but today’s students are well served by teachers’ journeys into the mind’s eye.