Visual Spatial Strengths

Vivid Imagination	Picture thinkers have great—often wild—imaginations. They form strong, vibrant mental pictures that are often on the move. They make their own mind-movies as they read and listen. These mental movies can include voice-overs, close-ups, split screens, or panoramic shots. Anything they've ever seen on a screen they can imagine and use, including a zoom-in to enlarge something, an overlay of two or more images, transformation of one thing into another, rotation to see the other side of something, cartoon animation, or a graphic they can enter like a video game. They can organize information visually—laid out on an inner computer screen—and then file it away mentally to pull out later (handy for tests). Some picture thinkers may not know they have this mental computer capacity—so hampered are they by trying to listen and take notes at the same time (and then outline!). Picture Thinker's spatial imaginations can run away with them in great leaps from one fantasy to another, but when under control, there is almost nothing they cannot bring into play in the arena of their mind's eye.
Visualization	Visualization takes imagination a step further. Picture thinkers are wonderful visualizers, although some need to be taught this skill to jumpstart it. Visualization is the most versatile tool in the picture thinker tool kit. It can be applied in every subject area in school and in life in general. Tapping into what you have visualized provides immediate rich experience that can be examined whenever you want to . It is the basis of a kind of mental organization and storage of information, ideas, and their interconnections that is like a computer and imitates a computer's worldwide web potential. There are two parts to visualization. There is the "cognitive scratch pad" that is like your computer screen where you input what you see. Then there is the long term storage of all the visuals that is like your computer memory. Visualization is so important that we devote an entire section of this book to the wonders of this tool. There we include sample classroom activities that build visualization skills, and we show how to use visualization in a wide variety of school situations. Here, we are just want to emphasize how important it is as a visual-spatial tool. Visualizing will work for all kinds of thinkers, but is home territory for picture thinkers. One point. Good visual memory is needed for successful visualization. There are some picture thinkers, usually impatient ones, who never look at anything long enough to make an image. They just play with speed-of-light perceptions. These picture thinkers may need help to look "just a few nano-seconds longer" to form a real memory. Once this trick is learned, they will quickly pick up their innate visualization skills and then will be off and running.
Seeing the Big Picture	Perhaps this goes back to hunter-gatherer days. Upon encountering something new—a new subject, a new experience, some unknown object—picture thinkers want to know right away what that thing is. They want to get to the heart of it, what it IS. Once that need is satisfied, they can sit back and learn about the details, all the bits and pieces that part of the picture. To understand anything, they need to get its big picture first, which is why they ask so many questions. They are trying to hook this new thing to something that they already know. This questioning can be a frustrating time for them. They can feel stupid, impatient, upset, tense, as they "circle around something new," trying out various viewpoints. Because they are active learners, not wanting to have ready-made explanations handed to them, they are hard to teach. They insist in understanding it in their own way. It is hard for picture thinkers to experience significance if only parts are available to them without the essential whole. Remembering a detail and then attaching another detail doesn't work for them. They must size the whole situation up and sort out what feels important to understand for themselves what something is about, and to make the right connections. Often they suddenly "see" the whole thing all at once, with everything in its place. Aha!
3-D Mastery	Although they may be called picture thinkers, visual-spatial learners are oriented to the dimension of space and see in 3D. Their world is far more complex than the flat worksheets or textbook pages in a classroom. Spatials often "see" ideas in a 3-dimensions like computer animation with depth. They look through both real and imagined space to see the whole of something and to check out the relationships and connections. This creates "inner territory" to explore. Picture thinkers can quickly scan all that their senses have taken in—seeing, hearing, smelling, tasting, feeling, sensing—and mentally connect the dots that spell out what is going on, or what the essence of something is We all do this all the time to some extent. It is called "perception." But picture thinkers do it in spades. They take in 360 degrees of the space that surrounds them, making their input enormously richer and at the same time, more challenging to analyze. Having to pay attention a small set of details (like periods at the end of sentences) can feel like being pulled back from their normal range of awareness to a trivial pursuit. That tiny part better be important, or they discard it to return to scanning for significance.

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3-D Mastery Continued	Sometimes seen as having poor organization skills, picture thinkers have their order. It centers around significance, an emotional response. Rather than outline as step-by-step learners do, where main ideas stand out like trees on the plain, spatials respond to feelings about importance. If something strikes them as worthwhile, it becomes part of their web of essentials, a mental map of things worth paying attention to. Instead of outlines—so comfortable to the stepwise —a picture thinker's scheme of reality is more like a 3D star map. The various stars and constellations stand out in different degrees of brightness, all shining against the dark space surrounding them and all interconnected in some way. Those connections are based on feelings and sensed importance. At times, picture thinkers not only see but feel their way through concepts. They have kinesthetic input like those cyberspace reality games that evoke muscle response to what players "experience." These spatials grope through space as if they could touch ideas and possibilities to find what is there. Einstein, who could visualize thought experiments, spoke of using "a kind of imagistic, kinesthetic shorthand" in his thinking process. (He was groping for words, typical of spatials when trying to explain themselves.) It seems he was trying to express the visual-spatial experience of thinking, seeing in imagination, and feeling muscular response to ideas. It is interesting that he recognized this as like "shorthand"—very minute, partial symbols, and tiny, nuanced muscle responses that could mark sensed relationships and also hold them in memory for future use. Spatials' shorthand is different! Certainly not all picture thinkers are Einsteins, but this explorative mode of operation is true for many of them, especially the deep thinkers and long processors. (They are covering a lot of mental territory and this takes time.) Thinking in 3-D mode means that all sorts of connections can be made in any dimension. Quantum physics and string theory would make us aware of more than 3 dimensions Spatials may lead the way to extraordinary feats of inner space exploration, making its complexity more approachable to us all, but that is another story.
Seeing Relationships	When spatials get the big picture, they see the whole of something and how the parts fit together. The relationship of the parts to each other and to the whole comes naturally to them. That is the way things are. They often think about putting something together with something else, like a cook trying out a new recipe. They wonder what that new relationship might like—how each would affect the other. Rather than sort things into categories, their most natural mode of thinking is to consider various new combinations of parts and what the flavor of the new relationship would be. Their ability to invent and explore goes along with this curiosity about how something might affect something else. For them, everything is interconnected and, of course, related. They are very aware of personal relationships among people as well as how things relate to one another. While they can become very good at sorting into categories, this skill is secondary to that of recognizing the balance of relationships.
Pattern Recognition	Scanning and the search for significance combine to produce a talent for pattern recognition in picture thinkers. It is part of their awareness of connections. If a pattern (recurring connection) exists, they will see it. This means, for one thing, that they will learn math facts better when made aware of the interconnecting number patterns than through rote memorization. Playing games that use number patterns works far better for these emotionally attuned learners than drilling, since their memories don't hold isolated, disconnected facts. Picture thinkers immediately recognize patterns that are pointed out to them but really excel in finding their own, often seeing connections among things that are overlooked by others. Once pointed out, the connections make sense to others who wonder why they never noticed that.
Out-of-Box Thinking	An important aspect in understanding picture thinkers is that they need to think in their own way. They are uncomfortable with following someone else's line of thought, partly because such linear thinking is not the way their minds operate. Sometimes they really just can't follow along step by step. They can take in each step but without that Big Picture, the steps fade away. They don't remember details well unless those details vibrate with significance, are tagged with their own feelings, or are part of a sudden gestalt. Picture thinkers blaze their own thought trail. Most need processing time to put together their own Big Picture. There seem to be no real steps in their thinking. Often they have a sudden insight that "things go together like this!" Either slowly or in a flash, a whole concept emerges, which may be brilliant or flawed. Picture thinkers need help in proving (or discarding) their new ideas. Trying them out is a good strategy in teaching them. If their idea actually works in a variety of situations, then it has validity. If not, it's back to the spatial drawing board. The tendency to originality can make teachers uncomfortable. Not only does it throw off lesson plans, but there is often an uncomfortable feeling that they are not doing their job, not teaching them. Shouldn't they be the ones to tell spatials what they should know? They aren't sure spatials have "got it right." It is helpful to give spatials some processing time and to let them work in their own way, while insisting that they apply and test their ideas.

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Radar Scanning	It is as if picture thinkers have radar out always scanning the environment, taking in every little thing. They are alert for changes, shifts in energy, or tones of voice in everything around them. They easily notice if some little thing they saw yesterday is missing today. They scan for signals that something is going to happen as well as for the general feel of things. They absorb what's going on, intensely immersed in that experience. At school, if the lesson of the day can enter into their experience, these emotional picture thinkers will take it in and remember it forever. Otherwise, scanning makes picture thinkers vulnerable to distractibility. Their attention may be captured by all sorts of things. They can be equally aware of a bug bite on their arm, the way the lights are humming, someone's simmering anger three rows away, or the relationship of a radius to its circumference.
Emotional Intensity	Picture thinkers live emotionally. They do not shut their feelings away to examine later. Instead, their emotions enliven, interpret, and underscore their experience all the time. Their emotions affect the way they think. Moods intertwine with learning, which means that their thinking can take off when they feel upbeat and confident. On the other hand, if they are upset, confused, angry, or depressed, picture thinkers may have difficulty learning much at all. It is as if their mind shuts down then, not able to function until their feelings are more positive. This may be why they try to liven things up with humor, games, tricks, and drama. Positive vibes just help them to learn better. It follows that picture thinkers will have days when they learn poorly, just as they will have days of remarkable accomplishment. Those around need to learn that variability is the name of the game.
Gamesmanship	Picture thinkers want life to be upbeat. They love humor, fun, excitement, and challenge. They are affronted by dullness and drudgery and will often sabotage a dreary atmosphere, creating excitement of some sort. They were usually happy, cheerful, fun-loving bon vivants as toddlers. Just as then, they have boundless curiosity, are natural explorers, and delight in discovery and excitement. Positive feelings are very important to them, partly because when they are down, they can be so very down. Their desire to liven things up—often by playing the clown or stirring up arguments—can be very annoying to a teacher with a lesson to impart, but they are (mostly) not behaving this way to be obstructive. They want life to be lively. Situations where games and play are used to aid comprehension or solve problems draw out the best in them. Teachers do well to make the most of picture thinkers' creativity, out-of-the-box thinking, and solutions that seem to come from nowhere. They add excitement and interest to learning. In a classroom, hands-on participatory lessons work well for them—and for step-by-step learners too. Simulation games, board games created by students as part of a learning project, hands-on immersion learning situations, contests, construction and designing, art, music, poetry, skits, and dramatic enactment—all meet a deep need of picture thinkers to work in a rich, colorful, and stimulating environment. They remember their own experience best, so experiential lessons make their points memorably. Enlivening activities such as these also spice up things for step-by-step learners, who enjoy but won't demand this kind of teaching. It is just these lively, upbeat, dramatic personality qualities that draw others to picture thinkers like a magnet. Life is more zestful around them, and classrooms are more exciting.