Visual Thinking Strategies (VTS) uses art to teach thinking, communication skills, and visual literacy to young people. Growth is stimulated by three things: looking at art of increasing complexity, responding to developmentally-based questions, and participating in group discussions that are carefully facilitated by teachers.

Thinking about art, or *aesthetic thought*, is rich and complex. Psychologist Abigail Housen has been studying aesthetic thought since the early 1970s and has found it to encompass the cognition that educators refer to as critical and creative thinking. Housen’s studies over ten years of field research of VTS have shown that it produces growth in aesthetic thinking, and that other cognitive operations also grow in a relatively short time — specifically, observing, speculating, and reasoning on the basis of evidence. These skills have been documented as transferring from art viewing to examining other phenomena, as well as to reading and writing.

During VTS lessons:

- all students must have ample opportunity to point out what they see in the art they examine and express their opinions about it;
- students must know that their thoughts are heard, understood, and valued;
- students must provide evidence to explain their interpretive comments; and
- students must see that each comment contributes to the group process of mining the art for multiple meanings.

Rigorous discussion of a wide range of art is the impetus for cognitive growth. The art has been chosen to allow students to draw upon, apply, and reflect on what they already know. As teacher, you are the facilitator of this process, never the source of information or opinion. You enable students to debate possibilities and let the visual thinking process itself strengthen their ability to examine, articulate, listen and reflect. Students’ engagement in turn stimulates curiosity and a search for information.

At various points you are asked to apply the VTS method to other subjects you teach, reinforcing the transfer of skills likely to occur. Writing and reading exercises are introduced (optional in Grade 3, strongly advised in Grades 4 and 5) to further encourage this transfer and to give you concrete evidence of how students operate without group support. Where possible, students use computers for these activities.

Though your main goal might be meeting thinking and communication standards, VTS also significantly increases art viewing skills, extending the art making skills that are the appropriate emphasis of art teachers in your school. You are helping these specialists with the task of developing visual literacy among students and meeting standards in art education.

As you know, everything you do as a teacher has a direct impact on students’ behaviors. Using VTS, you are given a structure for powerfully influencing them in useful, enriching ways. Take the time to read what follows, practice and reflect on the VTS process, and learn to make the most of it.
The curriculum works best if you follow certain basic, logical, tested rules, even if they seem a bit restrictive at first. In truth, these simple rules open a world of possibility:

- Ask the questions provided to initiate an active process of discovery and probing on the part of the students.
- Listen carefully to and acknowledge every answer by looking with the students at the image, pointing to those details mentioned, and paraphrasing what students say.
- Facilitate the discussion as it progresses, linking various converging and diverging opinions and helping students to synthesize a variety of viewpoints.
- Encourage further inquiry, keeping the process open-ended and asking students to stretch and search for information beyond what they know.

**Asking Questions**

VTS is a discovery process. Discussions are initiated by questions, phrased to provoke many thoughtful responses to what is seen in the images. Responding leads to active and extended involvement. The questions ask students to focus, become reflective and to question—the basis for thinking critically. They acknowledge art's ambiguity and its multiple and shaded meanings. Answering the questions in this context is safe (no one is going to be wrong), engaging, and fun.

VTS questions are calculated to insure particular results. We ask you to use them as written, as you would follow a time-tested recipe.

What's going on in this picture? opens up the discussion. The phrasing of this question suggests that the image is “about” something which can be figured out—that the things depicted add up to something discernible. It particularly encourages the finding of stories or activity, playing into the natural tendency of beginning viewers to be storytellers (see VTS Research and Theory). At the same time, the question's phrasing allows comments of any sort—addressing colors, feelings, information, highly personal associations, and so forth. Students are asked simply to think and speak for themselves.

Think about the wording of the question above. Compare it to “What do you see in this picture?” The latter often results in students making lists of what is depicted. The wording we recommend (and the several variations provided) urges them to probe for meaning. Making meaning is rewarding in a way that list-making is not. It engages students and nudges them toward deeper thinking.

What do you see that makes you say that? asks students to look more and gather evidence to support their opinions. They argue their points, not proving them so much as grounding their interpretations in concrete visual data. This requirement helps them to become fact-based and logical when they express or debate a position; it is useful in any critical inquiry, whether it be about art, history, science, or mathematics.

Again the phrasing is important. “Why do you say that?” might seem a reasonable alternative, and indeed at some point it becomes one. But at first, the much more concrete “What do you see that makes you say that?” keeps the discussion anchored in the image. It is also less daunting; asking “Why?” implies that the student should provide motives, not evidence, for an opinion.

What more can we find? has the effect of making the conversation more complete. Details that might be missed are found when students are urged to look for more. The habit of making thorough examinations is thus encouraged, and it is partly the sense of being thorough that makes the VTS serious and rigorous.
This question must be asked frequently—not just when no hands are in the air—in order to make the point that there is usually more to be seen and talked about than students first think. This question may also be used when you think students have dwelled on a topic for long enough and you want them to return to searching.

**Acknowledging Responses**

VTS discussions are structured to insure that participants get immediate feedback. You acknowledge every student’s contributions in ways that feel supportive and signal to the group the value of each person’s thoughts. Nothing encourages participation more than being heard and respected. Individual growth results from participation.

**Point, and be physically expressive.**

As students speak, point to all that they mention in the picture. Gesture with precision so that all can see exactly what is being pointed out. This encourages students to keep looking actively—their eyes follow your finger around the image so that more is taken in. (Being thoroughly familiar with the images yourself helps.) Alternate looking between the students and the picture as you point. Nod and smile to underscore how you value them and their contributions. If you cannot find what a student is seeing, ask her/him to come forward and point it out.

**Paraphrase each person’s response.**

First, listen carefully, then consider new phrasing. Rephrase each comment, as if you were saying “What I hear you saying is…” This process accomplishes many things:

- You ensure that all in the group hear each comment.
- You underscore the fact that listening to and trying to understand others is important.
- You indicate that you have not just heard but also understand students, encouraging them to participate.
- Through this positive attention, you build all students’ sense of being valued and capable.
- If you are careful and skillful, you can turn a student’s halting answer into something crisper, clearer or more exact. This helps him/her expand vocabulary, improve grammar, and/or increase the accuracy of language without making him/her feel as if s/he has been corrected.
- You have a short but clear view of how a particular child sees and thinks. When you are listening intently enough to rephrase a child’s comment, you are inside her/his mind and understanding the link between her/his thoughts and expression.

In rephrasing, make sure you change only the words and not the content of the student's thought. You can tell from his/her face if you have it right. Ask for clarification if you are not sure. The short, simple answers of very young children are often hard to paraphrase, and therefore repetition is acceptable. With long or meandering comments, take care not to cut a child short; then summarize, but try to capture the entirety of a student’s thoughts.

Paraphrasing takes practice. You must be good at it to maximize the benefits of the VTS. It is the tool you use most to assess a student’s growth.

**Remain open and accepting.**

As part of teaching critical thinking, you need to emphasize the importance of considering all possibilities. Remain open, therefore, as students offer their ideas. Acknowledge each
comment as equal in value to all others. Experience tells us that staying neutral elicits the most fruitful conversations.

This might be challenging for you, as it runs counter to convention. There will be times when you think a comment is mistaken, but right and wrong are not issues at this point. Practicing thinking is what matters. Don’t correct or add comments. Don’t be overly enthusiastic about responses that confirm your own views. Let students carry out a full process of discovery. Most of their interpretations will coincide with what the artist intended when grounded by evidence from the picture. Over time, group interaction usually sorts out the “truth.” In any case, the VTS process allows students to find the interpretations that mean the most to them, thus encouraging further learning.

When you hear answers you think are “wrong,” try to figure out what’s behind them. They may mean that students see things differently from you. There may be mis-steps in a process that still ends up in the right place. “Wrong” answers often inform you about how a student’s mind works.

When a student says something intended as a challenge or to be silly, continue your neutral stance. It helps to defuse reactions. Moreover, having to answer, “What do you see that makes you say that?” minimizes the student’s pleasure in putting you on. If you think it necessary, be clear that you know you are being tested. But try to do so in a way that does not undermine delight in brainstorming. You might be surprised: outlandish comments often jump-start creative thinking.

Neutrality is even more essential when you hear a comment that is hurtful. Use your common sense about how to handle such situations. But consider this: such comments reflect things students have learned outside of school. Telling them they are wrong seldom achieves its goal. Paraphrasing allows you to take the sting out of a comment. For example, a student says, “She looks like she’s on welfare.” You want neither to condone nor vilify the remark because the child is simply reflecting what s/he has picked up elsewhere. You can say, “So you think she might need assistance to live.” You thus demonstrate how carefully chosen language can change how something sounds. Since you do not want to extend what might be hurtful, avoid asking, “What do you see that makes you say that?” Immediately follow your paraphrase with, “What else can we find?” This encourages other opinions to be expressed. What ultimately convinces someone to drop a bias is to think that there are other more interesting ways to think.

Let them talk.

VTS gives students a chance to speak out in non-threatening circumstances. They are free to use their imaginations as well as their recollections, which can include books, films, and television programs. When new to this, students might speak for a long time about each picture, and their stories can be fanciful, even far-fetched. Just remember that as they start to wander, you can ask them to anchor their stories in the picture by using the very productive question, “What do you see that makes you say that?”

With very quiet students, use your judgment to decide when to call on them even if their hands are not in the air. You can encourage shy students by saying something like, “Who haven’t we heard from today?” Or, “Is there someone who hasn’t had a chance and might like to say something?”

In the opposite case—students who always have something to add—you might at some point insert a comment that acknowledges their enthusiasm, but opens the way for others: “I see that Brent has something more to say, but let’s give someone else a chance to contribute.” Or, “Shelley has given us many good ideas, so let’s hear from someone
else.” If a student habitually takes the floor and seems reluctant to relinquish it, you may want to ask him/her to try to become more concise and give others more of a chance. This is best done after class; handle this with the kind of directness and delicacy you use to discuss any domineering behavior.

**Don’t worry about repetition.**
To the extent that students repeat, they need to, and they need acknowledgement for speaking out. For very young children, repetition is a natural way to learn. Their thoughts become real to them as they articulate them, not necessarily when someone else does. They may not hear their voice in someone else’s words. Older students need time to adjust to the freedom of thought that is allowed in VTS. They are accustomed to seeking the “right” answer and may believe your acceptance of a first response means that it is “correct.” And they may not have registered what someone else said; listening, too, is a skill they must develop.

Give them time and encouragement to speak, assurance that you value what they say, and they will develop listening skills in good time. They will eventually learn that any comment can be added to, changed, or debated as new discoveries occur. Repetition decreases as habits of thinking and rethinking increase.

That being said, you may see a time when it is helpful to suggest that an idea has already been expressed. This is the time to say, “So you see that too. Can you find other things to point out? How about others—any different ideas?”

**Linking Thoughts**
Discussions about art are potentially rich, lively, and fruitful. Yet they must be facilitated to become a catalyst for learning. This is your job in VTS teaching.

The first and perhaps most critical aspect of facilitating a discussion is explained above: acknowledging every comment. This encourages participation, and participation insures engagement, and engagement results in a variety of observations and interpretations. This diversity of insights helps students grow beyond the tendency to see things from a single perspective and leads to habits of valuing different viewpoints and of speculative thinking.

Second, you must manage and nurture the group dynamics. Working together, students can solve many complex problems, deciphering the meanings in a work of art, for example. Student interactions lead them to more observation, more ideas, and usually more accuracy. Debating and building on the ideas of others, students stretch their reasoning skills, often deducing an artist’s intentions, methods, and context. As individuals take in the discoveries of others, they are stimulated to find more layers of possibility. Given new information, students often revise first opinions or change their minds. While all of this leads to thoughtful interpretation of art, it also provides practice at most aspects of critical and creative thinking.

In order to encourage this, you are asked to keep track of various strands of thoughts and to draw links among them. For example, you acknowledge agreements and disagreements: “It seems that several people see that,” or, “We have a variety of opinions here.” You also connect thoughts that build on others: “Rebecca said the woman had a sad expression, and Edward added that he thought it was because of her eyes.” You note shifts: “Several of you thought she was sad, but now there are arguments suggesting she might just be thinking about something.” Or, “I see you have changed your mind, or added another possibility.”
When you link various ideas, creating a kind of outline of the discussion as it builds, students become aware of how thinking unfolds and meanings are discovered. They begin to see how observations stack up and lead to others, and how many interpretations can be achieved if you keep working at something.

Tracking discussions in this way is a difficult thing to do. You have to be attentive to everything that is said and at the same time pull back to think about how one part of the discussion connects to others. You will have time to develop and refine this skill, however, because it takes a while for the students’ conversations to deepen and mature. As part of your training, you are asked to observe other teachers and to make videotapes of your own classes to help with this process. It will be difficult for you to nurture and assess students’ growth if you are not able to understand their thinking well enough to link.

Answering Questions
Practice has proven that students have more to say than to ask about art in the VTS. If given permission to talk freely, and to give their own interpretations of the art they see, they tend to be satisfied with what they figure out on their own. Curiosity develops after a certain amount of experience, at a point when they become aware that what they know is not all there is to know.

When someone does ask a question, the first response should be, “Can we answer that by looking?” Or you open the question to the group: “What do you think the answer to that might be?” or, “Does anyone know the answer to that?” In these ways, most questions are answered to the satisfaction of students at this moment in their development.

If it is the kind of question that cannot be answered by examining the picture together—for example, “Who painted this?”—reply by asking, “Where can we look to find that out?” Help them find the answer themselves. If they need help with this, show them how you would seek information: “If that were my question, here is how I would look for the answer.”

If you are in the museum and there is a label near the picture, you might refer to it, showing what information is usually available. Discuss what can be gleaned from it.

Always deal with questions in a way that reveals how to acquire information. Students should learn how to use appropriate resources, finding out what they want to know as a step toward independent learning.

The best way to prepare yourself for questions is to look carefully and think about each image—in the way you would prepare for a lesson involving reading. You do not need vast expertise. Just turn the question into a quest.

Timing
Fifteen to twenty minutes per picture is a good rule of thumb for discussions, although there is no prescribed length of time. When the process is new, discussions are likely to take a bit longer. To know when to stop, take your cue from the students. Don’t be too hasty; students often find stories in an image after your interest has waned. Silence does not always mean they are finished; they may just be thinking.
If more students are restless, or if comments are repetitive or silly, it is time to move on. If, on the other hand, hands are still in the air when you think it time to move on, suggest to the students that there is always more to think about in art.

If time is limited or discussions take a long time, use only the first two images in a set, perhaps coming back to the third at a later date. You will gradually learn how to manage the flow of time in these classes as you have in other subjects.

**Closure**

The act of interpreting works of art seems to justify itself. Strenuous efforts to bring closure are not needed.

Moreover, letting students think they have “completed” a discussion of a work of art is misleading. One of the most wonderful aspects of art is the fact that it can be revisited many times productively. The most expert viewers never tire of looking at the same works, knowing that each encounter brings something new. Therefore, suggesting that the experience is complete and finished is counterproductive.

Summarizing or trying to render some kind of consensus is unwise, as it is hard to remember all that was said and is unnecessary if you have linked throughout the discussion. Summaries seldom do justice to the art or the discussion. Moreover, as you summarize, you take back the reins from students. It becomes about you and what you recall and choose to highlight.

The best way to end a class is to complement students on how well they probed a particular image, for example, or how carefully they listened to one another. You can also ask students to reflect on what they did, what they enjoyed or what they might like to remember to tell others about the class. It is recommended that you preview the next set of slides and tell them when to expect another lesson.

**Developing Connections to Other Classes**

The observation, thinking, and communication skills that develop as result of the VTS classes will at some point be transferred by students to other subjects. You may soon see certain habits—like giving reasons to back up an opinion—carry over to other classes independent of any suggestion from you.

You should encourage this by applying the VTS questioning and response strategies to other situations where they appear helpful—when you have images in any other texts, for example, or when you are looking at objects in science classes. The VTS method applies easily to discussions of reading as well.

It also has an effect on writing. Since the research on the VTS began, teachers have commented on how, after experience with discussions, images stimulate both interest in and ability to write among most students. Some lesson plans, therefore, come with descriptive and expository writing activities. In addition, students might also write stories, poems, or scripts where images are either a starting point, or a mid-point, or the final scene of fictions that they create. They can draw stories as an alternative, perhaps combining them with text, again based on the contents of an image that interests a student.

The art teachers in your school should become familiar with the VTS as you learn to use it. They can be invited to attend your discussions to see the skills that students are
developing. Together you might develop art activities and projects that build on classroom discussions.

Class Size
It is difficult to conduct effective discussions in classes of more than 28-30 pupils, however; they work well with 22-25. Perhaps a perfect size is 15-18—enough voices to make sure that there are many ideas, yet all have ample chance to speak. Some teachers create smaller groups by giving half a class an assignment that keeps them busy while conducting the discussions with the other half, then switching.

In the museum, it is better to keep the groups close to fifteen. This presupposes that some accommodation can be made to split larger classes into sub-groups. Museum staff might be enlisted to take half of large groups in the museum, and if they do so, they should be familiar enough with the VTS to use the method, as that is what the students will expect.

Have Fun!
Enjoy these lessons. Relax into the process of discovery—your students’ and your own. As you teach observation, critical and creative thinking, effective self-expression, listening, and group interaction skills, you can still have fun.