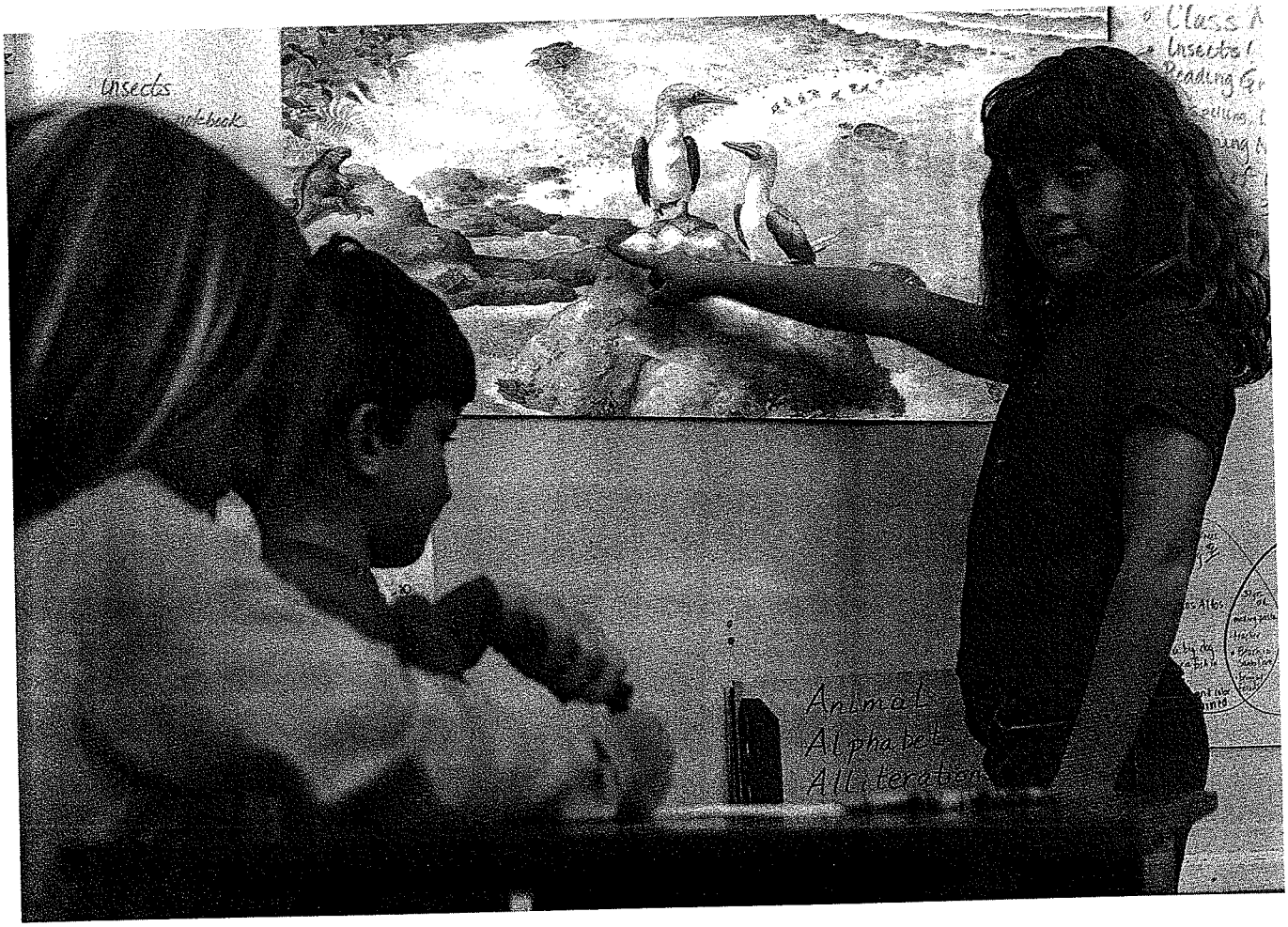
Visual Discovery



Steps at a Glance

1. Arrange your classroom so projected images will be large and clear.
2. Use a few powerful images to represent a lesson's key concepts.
3. Ask carefully sequenced questions that lead to discovery.
4. Challenge students to read about the image and apply what they learn.
5. Have students interact with the images to demonstrate what they have learned.

Introduction

Even today's youngest elementary students are bombarded daily with media images. Constant exposure to television, videos, computer games, magazines, and advertisements has created a "visual generation." Many teachers are beginning to notice, however, that while students certainly "consume" many images daily, they don't always understand what they are seeing. In fact, far from being visually literate, many of our students have become so numbed by the sheer quantity and rapidity of media images that they have been left visually *illiterate*.

Visual Discovery activities turn the passive viewing of images into a dynamic, participative experience. Students view, touch, interpret, and bring to life compelling visuals as they discover key social studies concepts. The strategy sharpens visual-literacy skills, encourages students to construct their own knowledge through higher-level thinking, develops deductive reasoning, and taps visual, intrapersonal, and body-kinesthetic intelligences. It equips students to continue to "read" and analyze images even as they develop their reading skills. Best of all, this strategy is great fun and levels the cognitive playing field by allowing your nonlinguistic learners a chance to shine.

Arrange your classroom so projected images will be large and clear.

Careful attention to your classroom's geography is essential for a successful Visual Discovery activity. Most classroom arrangements actually inhibit interaction; students often sit in long rows or at tables far from the front of the classroom. A clutter of desks, tables, and file cabinets can make it difficult for students to see and touch projected images. To set up your classroom successfully, follow these steps:

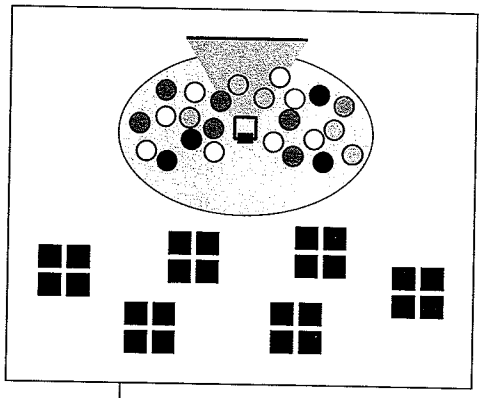
1. **Begin by finding the best wall to shine the overhead projector on.** The wall should be in an area of the room that you can make fairly dark. Project a sample transparency on the wall, and make the image as large as possible. The larger you project an image, the more interaction and excitement you will generate.

2. **Create a screen.** If buying a large screen is cost prohibitive, you can easily create your own. Simply tape butcher paper to the wall to create a screen at least 8 feet tall by 8 feet wide. Or tape together two 4-foot-by-8-foot, 1-inch-thick insulating foam boards, found in many building-supply stores. If you want the screen to roll up, you could purchase a large window shade.

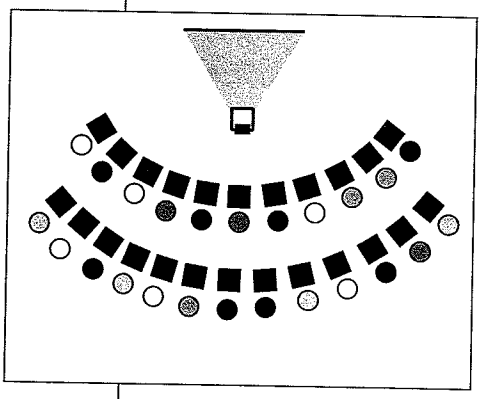
3. **Design a floor plan of exactly where you want students to sit.** You may need to try a few configurations to know exactly how you want your students and their desks arranged. Lower-elementary teachers usually have students sit on the carpet in front of the image (see Map 1). They move all other furniture out of the way of the image; in the darkened room, students can then quickly and safely get up to "touch" the image. Upper-elementary teachers have students form their desks or tables into a crescent shape (see Map 2) or a parliamentary configuration (see Map 3).

4. **The first time you arrange your classroom for a Visual Discovery activity, choose a time when students are not in class and you can try out various configurations.** Once you have found an arrangement that works, prepare a transparency to show your students exactly how to set up the room. If they need to move desks or tables, consider putting small marks or bits of tape on the floor to indicate where they are to position the furniture.

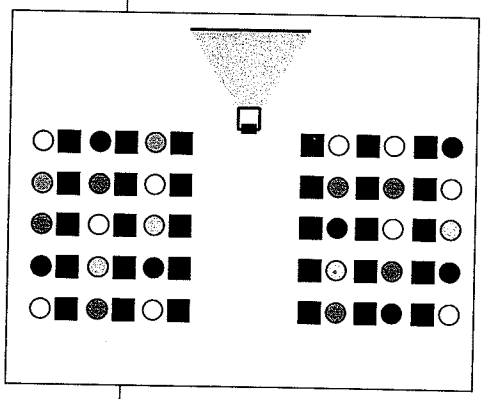
5. **Make sure you can darken the room enough for the transparency to really "pop."** Too much light will make the image difficult to see and give students trouble locating fine details. If need be, cover the windows with dark paper. Or, if your room becomes pitch dark when you turn off the lights, use table lamps to create soft, unobtrusive lighting.



Map 1: Seating arrangement for lower-elementary classroom



Map 2: Seating arrangement for upper-elementary classroom



Map 3: Seating arrangement for upper elementary classroom

"Since I've been using the Visual Discovery strategy, my students automatically want to dissect any image, on the overhead or in a textbook. I've seen them sit quietly, looking at a picture much longer than before, because they are 'reading' all the details. It has become a habit for the kids."

This photograph of a suburban community is rich in visual details.

Students can easily act out this image of a town meeting.

STEP 2 Use a few powerful images to represent a lesson's key concepts.

The key to a successful Visual Discovery activity is using a few powerful images that represent the key concepts of the lesson. The right image will stay in your students' minds for months or even years and will serve as a powerful visual referent to help them recall key social studies concepts.

Selecting only a few strong images enables you to spend quality time helping students "read" each image and develop their visual-literacy skills. Since images won't be shown as fast-paced videos or computer animations, it is essential that each tells a rich story. Here are characteristics of images that will grab your students' attention and allow you to "work" a single image for up to 5 minutes with lower-elementary students and 10 minutes with upper-elementary students:

Use images that clearly convey the key concepts you are trying to teach. If you are trying to teach the differences among rural, urban, and suburban communities, for example, use only one or two images of each type of community. Each image you choose should be richly detailed. For example, a photo of a suburban community should include homes, cars, quiet streets, and a few people.

Use images that show emotion, drama, or human interaction. In a lesson in which students learn about ways that people have a voice in their community, for example, you may want to use an image of a group of people passionately involved in a town meeting or of a politician giving a rousing speech. This will enable students to easily "step into" the image and use their acting skills to bring it to life.

Use images with abundant details that are connected to the reading. A wonderful way to improve students' reading comprehension is to ask students questions about a projected image, have them read a related passage, and then ask them to connect details from their reading to the image. For example, you might project a photograph of an Inuit family sitting in front of their shelter made of sewn-together animal skins. After students have examined the visual, give them a reading focused on how the Inuit adapted to their environment. They should then be able to use their newfound knowledge to point out several examples in the photograph of how the Inuit adapted to their Arctic environment.

Use a variety of images. Use different sorts of images—photographs, illustrations, paintings, maps, cartoons—to captivate student interest. Images with bold colors, simple messages, or rich details work best.

Ask carefully sequenced questions that lead to discovery.

For each image you project, ask a series of questions that spiral from the basic to the critical-thinking level. The projected transparency is the primary source around which you will ask these inquiry questions. Students often want to analyze images with interpretive statements without carefully inspecting all the visual details. Move to the next level of questioning only when most of your students can "see" the answers to your questions. In this way, you will give them the building blocks they need to understand the most important social studies concepts related to each visual. To keep engagement high, show a new image every 5 to 15 minutes or until you feel students have a satisfactory understanding of the concepts.

This sequence of questions will allow all students to discover a wealth of information about this photograph:

- What do you see in this image?
- Describe the structure you see and what is hanging from it.
- What are the people doing?
- What are they wearing?
- What can you tell about the environment in which these people live?
- How have these people used the natural resources in their environment to survive?

Here are some hints to help you get the most from the visual-inquiry process:

The first question to ask is always this: *What do you see in this image?* Don't move to the next question until students can point out many details in the image. You might ask several students to stand around the image and actually "touch" the details they see. This will give your students the building blocks they need to answer the higher-level questions you will soon ask.

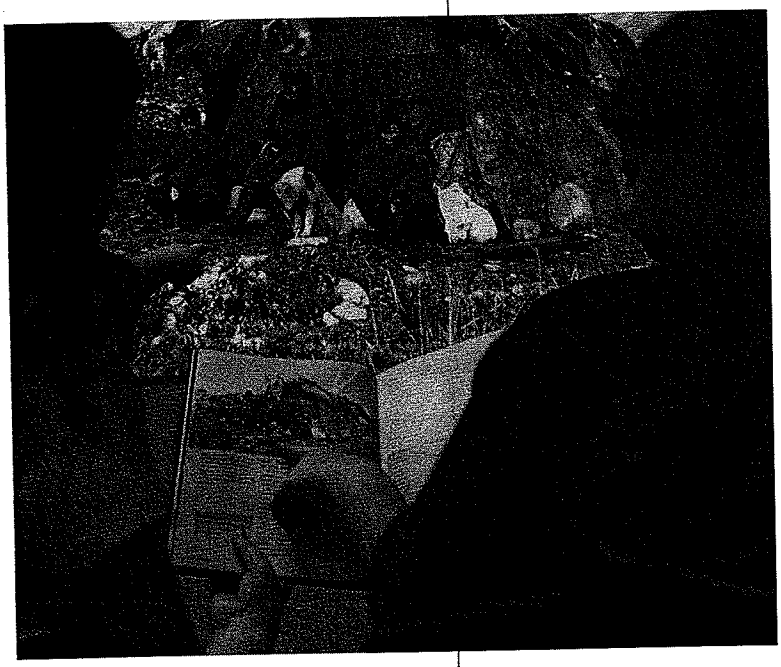
To increase interaction among all students, ask a question and allow pairs of students up to a minute to discuss it. Then have them share their ideas with the class.

Use a "detective analogy" to create spiral questions that will help your students better analyze and interpret visuals. Ask students to think of an image as a "scene from a time or place" that they, as detectives, need to investigate. Level 1 questions explain the details—what a detective would call evidence—that students could actually touch if they were somehow able to step into the scene. Level 2 questions challenge students to formulate ideas or make inferences based on the existing evidence. Level 3 questions encourage them to consider the scene as a whole and make hypotheses about what is happening and why, much as a detective surmises motive for an event.

Teach your students basic visual-literacy skills that they can use for each new image you display. Lower-elementary students can be taught to point to the top, bottom, right, and left of an image. Upper-elementary students should be able to point out details in each quadrant (upper right, lower left; or northeast, southwest to reinforce geography skills) and distinguish between the background and foreground.

Use "Magic Paper"

To focus students' attention on a specific part of a projected image, hold a large, stiff piece of white paper about 20 inches in front of it. A detail from the image will appear to be magnified on the paper.



After using their visual-literacy skills to discover how the Inuit adapted to their environment, students are eager to read in more detail about how the Inuit lived.

STEP 4 Challenge students to read about the image and apply what they learn.

Now that you have asked carefully crafted spiral questions about an image and students have used their visual-literacy skills to analyze that image, you are ready to have them read about the image. They will then apply what they have read to further analyze the image. Elementary teachers are finding that this simple yet powerful technique is helping their students become skilled and inspired readers. Here is an example of this approach in action:

1. **Students spend ten minutes analyzing the image of the Inuit family at their camp in northern Alaska.** The teacher has helped students reach these conclusions about the Inuit: *The Inuit live in the Arctic. It is a cold and harsh environment. They have used some type of animal furs to create clothing and shelter. The Inuit live together in small family groups. They have dogs.* Having discovered a lot about the Inuit on their own, students are eager to continue the learning process.

2. **Students are now challenged to complete a six-paragraph reading on the Inuit and look for "ten details" that are also in the photograph.** They enthusiastically open their books and pour over the text, searching for more information, and discover a wealth of details: *The Inuit sewed walrus, seal, and polar bear skins together to make clothing, blankets, and tents. They burned animal fat for fuel. They filled sealskins with air. When attached to a harpoon that was thrown into the side of a whale, the inflated skins would float behind the whale and eventually tire it out.*

3. **After completing their reading, students have many more details about Inuit adaptations to help them interpret the photograph.** Eyes shine, hands wave, and the class buzzes with excitement as students share their new knowledge of Inuit adaptations. They can be heard exclaiming, "I didn't notice the rocks holding down the tent against the Arctic winds!" and "Look at the two blown-up sealskins hanging from the poles. They're used as floats!"

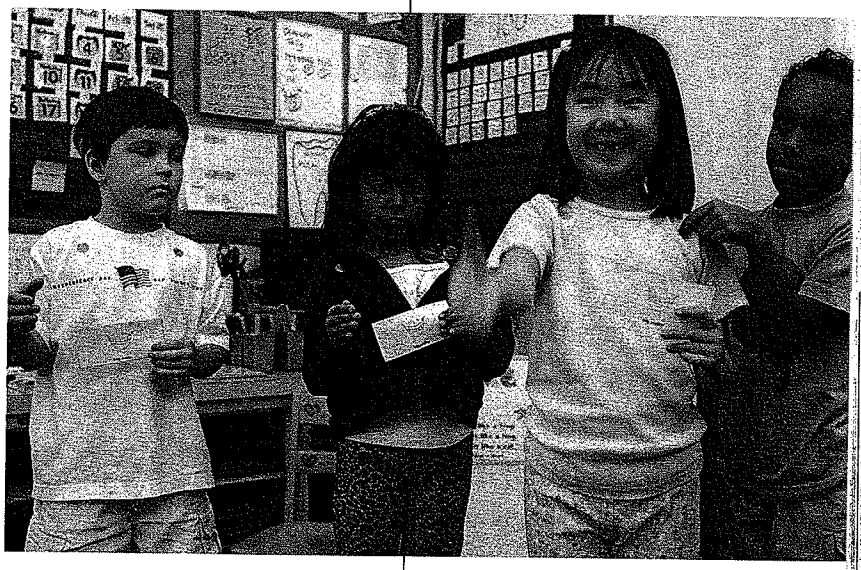
4. **When students are now asked to share ten details from their reading *not shown* in the photograph, they are just as informed and excited.** They mention such Inuit adaptations as snow goggles, igloos, knives, and harpoons.

Using images to motivate and set the context for reading will help you increase your students' literacy. Your students, especially those without strong linguistic skills, will experience success interpreting visuals and be more motivated to read. They will also have a better context to understand what they read. This will translate into greater effort and patience as they read because they will be working hard to discover more details than ever before. Ultimately, this approach helps individual students and the entire class become better critical thinkers.

Have students interact with the images to demonstrate what they have learned.

How do you assess what students have learned during a Visual Discovery activity? This is where the fun really begins. After all your hard work helping students to interpret each visual, you get to sit back and watch them "step into" the visuals and bring them to life. Your students will now use their visual, body-kinesthetic, intrapersonal, interpersonal, and logical intelligences to demonstrate what they've learned. Here are three ways you can kindle their imagination and motivate them to show you what they have learned:

Talking Statues In a lesson designed to teach lower-elementary students the typical duties of a school teacher, principal, secretary, and custodian, students are asked to "step into" a projected image of one of these school workers and create a "talking statue." For example, for the image of the principal, students are divided into three groups. The first group is encouraged to think about something a principal does to help students, the second something a principal does to help families, and the third something a principal does to help teachers. The teacher then "interviews" each group, asking such questions as, *Who are you? What are you doing? How do you help at your school?*



These students are bringing to life what they have learned about what a principal does to help students, families, and teachers.

Simulated Trips In another lesson, students act as space shuttle astronauts returning to Earth and seeing various geographic features—hemispheres, continents, oceans, and than a country, state, and city—coming into focus as they near their landing site. Students begin by lying on the floor in two rows in front of the screen, bending their legs with their feet on the floor. As they look out the space shuttle's window (the screen), they listen to a CD playing the sounds of rockets and NASA's communications with them. As they see closer and closer images of Earth through their shuttle window, they guess in which hemisphere, country, state, and city they will be landing. They identify each feature on individual maps as they near their target.

Cue Cards and Props In a lesson about how agriculture in the Midwest changed from 1800 to today, students act out various images of farm life through the two centuries. For each act-it-out, they are given cue cards and props to help them put on more detailed performances. For example, to help them bring to life an image of a woman washing clothes on a Midwest farm in 1900, students are given a picture of a washboard to use as a prop and a cue card with these questions: *What are you doing? How do you get the clothes dry? What do you dislike about the job? How often do you have to do this job?* The cue card also contains these hints: *Discuss how the person who is chosen to perform can make the character come alive. Decide how the character can pantomime the job. Collect additional simple props to use during the act-it-out.*

"Children love the magic of make-believe. As their teacher, I enter this exciting child's world and endear myself to them when we 'act it out.' All my students love Visual Discovery lessons. The only problem is responding to the plea, 'Do it again! Oh please, may we do it again?' "