Moment of Process

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Introduction and Exhibition Themes

Emil Lukas often works on a project, not knowing, or envisioning fully, what the final result will be. His artwork combines elements of the known—his choice of materials, for example—with the unknown—namely, phenomena that will affect his chosen materials in unpredictable ways: gravity, light, chemical reactions, and time. Importantly, for Lukas, it is when these elements of the unknown exert their influence, when, for an instant, the artist cannot know exactly how his materials are being transformed, that a pivotal *moment of process* occurs. In this way, Lukas constantly tests the parameters of the materials he employs in his art and enables, as he explains, "marks to make themselves." To discover this exquisite play with materials and process is our aim for you and your students this semester.

This curriculum guide accompanies the fall 2001 exhibition in Kidspace, *Moment of Process*, and includes four sections that underscore central aspects of Emil Lukas's artistic production:

1) Abstraction
2) Observation and Investigation
3) Printmaking
4) Layering

Abstraction: The introductory lesson included in this section will serve as a fundamental point of departure for you and your students in developing a rich understanding of Lukas's work. Though Emil Lukas is not considered an abstract artist in the style of Piet Mondrian or Jackson Pollock, his work may be described as *abstract*. That is, Lukas does not aim to imitate objects, scenes, or figures in a *naturalistic* or *representational* manner. Rather, Lukas creates paintings and sculptures in which marks, shapes, and materials are arranged in ways that are pleasing or exciting to his eye and do not necessarily give the illusion of or symbolize visible reality.

Observation and Investigation: Even though Lukas does not seek to *depict* the material world per se, references and allusions to nature, bodies, insects, and the "stuff" of life abound in his work. Lukas is a keen *observer* of the world around him, and nowhere is this more evident than in his art. The materials he uses are organic and inorganic, natural and synthetic, and he is continuously *investigating* the possibilities inherent in the combination and re-combination of objects and materials. The activities included in this section are designed as straightforward exercises that will encourage students to observe and investigate their surroundings, the properties of objects and materials, and of natural phenomena.

Moment of Process: Observations and Investigations

Grades pre-K-6

What?

In these relatively quick and straightforward projects, students will observe and investigate a variety of objects and phenomena. Do as many activities as time permits; we recommend that you try at least one from each of the four sections.

Why?

These lessons are designed to heighten students' awareness of their surroundings and of the ways in which objects and materials change under different conditions. These projects are inspired by the ways in which Emil Lukas closely observes the world around him and investigates materials and phenomena in the conception and production of his art.

I. Observing Your Surroundings

Sound Portraits

Discussion

We learn a great deal about the world by using our five senses**—sight, smell, touch, taste, and hearing. Ask students to use as many of their senses as possible to make at least five different observations about your classroom.**

Now tell students that for a few minutes, they will observe their environment using only one of their senses—hearing. As they listen they will take note of the sounds around them; then they will work together to create a sound portrait **of what they hear. This observation can last from 30 seconds to two minutes, depending on the age and attention span of your class.**

When to do this activity
Before or after your visit to Kidspace

Time needed
15 minutes

Materials
none

Key terms

Action

1. Take a couple of deep breaths together as a class and ask students to clear their minds. Suggest that students take note of the following as they listen to their surroundings:
   - the objects or people that made the sound
   - what kind of noise the sound resembled (clicking, yelling, humming, etc.)
   - how long the sound lasted and how frequently it occurred

   You may want to write these suggestions on the board so students can refer to them while listening.
2. Ask students to begin listening quietly to all the sounds in and around your classroom.
3. Once the allotted time has passed, make a list on the chalkboard of everything your class heard. Make sure each student contributes an observation to the portrait (if students run out of sounds to describe, they can expand on the description of a sound someone else has listed). A portrait might look like this:

Ms. Thompson's classroom, 11:15-11:16 a.m., Oct. 22

- Custodians wheeling trashcans down hall—squeaking wheels; about 15 seconds
- Birds and lawnmowers outside—chirping, buzzing; the whole time we listened

•Class next door reciting times tables—talking (teacher's voice, then students' voices); the whole time

Tips and suggestions

- This exercise can be repeated for increasing lengths of time to develop students' listening skills and sensitivity to their surroundings.
- Create sound portraits at different times of day, or in different parts of the school. What different sounds can you hear in the morning, at lunchtime or in the afternoon? What can you hear from the hallway, the cafeteria, or the playground? Students can also perform this exercise at home or in different parts of town (the grocery store, the post office, a park) to compile a sound portrait of their community.
- Many artists use sound to create art. When you visit Kidspace, look for works of sound art around MASS MoCA. The brochure "Sound Art at MASS MoCA" and cards about several individual works are available from the racks to the right of the main ticket desk.

Changing Shadows

Discussion

Explain to students that in this activity they will observe how **shadows** change shape, length, and intensity at different times of the day.

When to do this activity
Before or after your visit to Kidspace

Time needed
10-15 minutes three times over the course of a day

Materials
masking tape or string
clear tape

Key terms
shadow

observation

Action

1. On a sunny day, ask your students to find spots in your classroom where the sunlight casts interesting shadows, created by the windowpanes, desks, plants, mobiles, etc.
2. Help students mark the outlines of the shadows on the floor (or on other objects), using masking tape or string. Be sure to note the time of day of your first **observation**.

3. At another time during the day, mark the shadows again, perhaps using a different color of string or writing the time of day on the masking tape. Try to collect observations from three or more different times of day (e.g., when school starts in the morning, after lunch, and before leaving in the afternoon).

Reflection
Discuss with your students why the shadow outlines have moved. You may want to tie this in with a lesson about the solar system.

Tips and variations
If your room does not get enough light to create distinct shadows on the floor, you might try moving a lamp or flashlight around to create different shadow patterns. Alternatively, you might try doing this activity outside on a playground, parking lot, or sidewalk, using different colors of chalk to mark the shadows at different times of day.

II. Investigating Common Objects

Investigators

Discussion

1. As a class, make a list of people who investigate objects and phenomena as part of their jobs or just for fun. What do they **investigate**, and why? Examples could include:
    - paleontologists (investigate the earth to look for fossils and determine whether dinosaurs or other animals lived there)
    - police (investigate to find out who committed a crime)

When to do this activity
Before or after your visit to Kidspace

Time Needed
20 minutes

Materials
students will work with commonplace objects found in your classroom

Key Terms

- news reporters (investigate what is going on in their town, country, or in the world)
- archaeologists (investigate material remains such as fossils and artifacts to learn about past cultures and human life)
- doctors (investigate to find out whether people are healthy or sick and to determine how to treat their illnesses)

2. After brainstorming, ask students what, how, and why artists might investigate. Some ideas:
    - artists often investigate the world around them to find subject matter for their art
    - artists investigate different materials to learn how to work with them, which materials they enjoy using, and which might work best for different kinds of projects
    - they investigate museums to see works of art other artists have made and to think about how they might respond to them
    - they investigate people, cultures, places, events, and phenomena to develop ideas for their art

Action

1. Now it's your students' turn to be investigators! Tell them that their job for the next few minutes is to become experts on one object. Students can work individually, in small groups, or as a class.
2. Have the class, or each group or individual, choose an object to investigate. This object can be anything in the classroom that is small and light enough for students to pick up and handle easily.
3. Read or write on the chalkboard some or all of the following questions for students to address in their investigations:
    - What color is the object? What material(s) is it?
    - How big is it? How heavy is it?
    - What is the object used for? Does it have a specific function? What qualities does it have that help it perform its function?
    - What else could you use the object for?
    - How do you think the object was made? Who do you think made it? Where was it made?
    - Is it scratched or broken? Does it have a tear or hole in it?
    - Does the object have a smell? Does it make any sounds?
    - How does the object feel? Is it smooth, bumpy, rough or fuzzy (surface texture)? Is it hot or cold?

4. Ask students to respond to these questions in a class discussion or by recording their observations in a journal.
5. Once students have recorded their observations, they can also draw pictures or make **rubbings** of their objects as a further part of their investigation.

III. Marks that make themselves

Sunlight Discoloration

When to do this activity
Before your visit to Kidspace

Time Needed
15 minutes discussion time, a few days to run the experiment

Materials
construction paper, preferably in dark colors and of lesser quality
variety of small objects
a sunny window

Key Terms
discoloration process

Discussion
Explain to your students that in many works of art, marks on the paper or canvas are the direct result of the artist's hand and the way in which he or she applies the paint or materials. In many of Emil Lukas's artworks, however, he has allowed for a slightly different **process** of mark-making to occur —one in which, as he describes it, "marks make themselves." Ask your students what they think this phrase means; then explain that Lukas is not talking about pencils or paintbrushes that draw by themselves, but about naturally occurring phenomena that an artist can utilize in creating art. The activities in this section are inspired by Lukas's art practice, and they are designed to give students the opportunity to experiment with materials and learn about natural, mark-making phenomena.

Action
1. Place a few pieces of colored construction paper by a sunny window. Dark colors work best.
2. Have students choose several small, solid objects such as cups, a ruler, pencils, paper clips, or scissors and place them on the paper.
3. After a few days, ask students to remove the objects and observe the construction paper. It will be faded where it was exposed to light. If the paper has not yet faded, have students carefully replace the objects where they were before, and wait a few more days. Depending on the quality of the construction paper, fading may take from a few days to a week or more.

Reflection
Discuss what has happened to the paper and ask students if they know why the **discoloration**, or fading, occurred. Did different colors of construction paper change more or less? Ask students what they think would have happened if the paper had been left in a shady spot. In what way are the marks left behind where the sunlight faded the paper "marks that make themselves"?

Tips and suggestions
- Students might use what they have learned in this lesson to create designs on paper. Try using a doily, coins, a fork, etc.
- Create a "control group" by setting up this experiment in a shady spot. Then compare the results from the sunny and the shady areas.

Potato Chip Paintings

Discussion
Same as Discussion for *Sunlight Discoloration* above

Action
1. Have students place potato chips on paper.
2. Let the chips sit for a few hours or days before removing them. What kinds of marks have appeared on the paper? Ask students to describe what they look like. What caused the marks?

When to do this activity
Before your visit to Kidspace

Time needed
1 min. to set up, a few hours for the experiment, & 10 min/ to discuss

Materials
potato chips
construction paper

Key terms
process seep

Reflection
Emil Lukas has made a painting using just potato chips! He carefully sewed potato chips onto the back of a canvas, and over time,

brown circles appeared on the front of the canvas where the oil **seeped** through. In what way are the marks left behind where students placed potato chips on the paper "marks that make themselves"? In what way are they not?

Ask students if they can think of other natural phenomena that could cause marks to make themselves.

IV. Alternative Materials and Processes

In the activities in the previous section, students saw how, through natural changes in materials or the environment, "marks could make themselves." Explain to your students that in this section they will continue to explore unconventional ways of making marks, but this time taking a more active role. Like Emil Lukas, they will both experiment with **alternative** materials and find new ways of working with a conventional **medium**.

Alternative materials

When to do this activity
Before your visit to Kidspace

Time needed
20-30 minutes

Materials
see "Action" below

Key terms

abstract medium

Discussion
In this activity, students will draw not with crayons and markers, but with flowers, food, soap, or whatever other alternative materials you and they can imagine using! Ask students why an artist might want to use materials other than paint, clay, or pencils to make art. What materials can they imagine drawing with?

Action
1. Pass out drawing paper and the alternative materials of choice. These could include:

- Flower petals: rub them on white paper to stain the paper. Geraniums, chrysanthemums, roses, marigolds, various green leafy house plants, and grass work well; you can experiment with seasonal flowers and plants
- Chocolate (M & Ms work well) or colored bar soap: draw with the corner of the bar
- Colorful marshmallows (from cereals) or tea bags: moisten slightly and draw
- Old makeup

2. Allow students to draw freely, experimenting with as many materials as are available. Then, if time permits, have students create more finished drawings.
3. Ask students to think about the materials they are using. Does their medium lend itself to **abstract** or **representational** work? Does the smell of soap or the texture of rose petals make them think of a certain scene or mood they want to depict or convey? Students can consider these questions as they make their drawings.

Reflection

As a class, discuss what it was like to draw with alternative materials. Were students surprised by what the materials could do? Did they encounter any problems they do not normally deal with when drawing? When using chocolate as a material, for example, did it begin to melt? Or when using tea bags, did students feel restricted by this material's limited range of colors?

Then ask students how their finished drawings are similar to or different from drawings made with conventional media. Could they have created the same effects using crayons or paint? Imagine seeing a student's drawing in a museum or art gallery, and not knowing what materials were used to make it. Would discovering that it was made of chocolate or soap change their feelings about it?

Alternative Processes

When to do this activity
Before your visit to Kidspace

Time needed
20-30 minutes

Materials
construction and typing paper
tempera paint

Key terms

abstract process art
process representational

Discussion
Explain to your students that in this project they will use traditional materials—tempera paint and paper—to make paintings. Instead of working with a brush, however, they will use alternative **processes**, dripping, squishing, and otherwise manipulating the paint to create abstract images.

Action
1. Distribute paper and set out paint for students. Students can try one or all of the following processes:
    - Drip paint on paper, then hold the paper by the edges and tip it in different directions to make the paint run.
    - Fold a piece of paper in half. Soak a piece of string in paint, then place it between the two halves of the paper, letting one end hang out. Arrange the string to make squiggly and curvy lines, but avoid letting it cross over itself. Then press down on the top of the paper, so the string is squeezed between the two halves, and pull the string out by the exposed end. Unfold the paper and look at the resulting image.
    - Fold a piece of white typing paper in half, and put a glob of paint in the crease. Push the paint in different directions, then unfold the paper to see the design.

Reflection and further discussion
Ask students to describe what their paintings look like. Are they **abstract**? Ask students to think back to the abstract collage project, and any other abstract art-making they have done. When they made their collages, they carefully considered where to put each piece or mark. Did they—or could they—exercise as much control in the alternative processes painting project? Were they surprised when they unfolded the paper? Ask them to specify in what ways.

Talk further with your students about how painting using these alternative processes is different from painting with a brush. Did these processes have any limitations? Could any of these processes easily be used to paint a **representational** picture?

Ask students to imagine describing one of their alternative process pictures to someone who is not familiar with the project. (You could also invite another

class or parents in for a real-life presentation!) What would they tell someone about their painting? Would they be sure to describe how it was made? Tell students that in the 1960s and 1970s a number of artists were very interested in presenting the process by which they made their work as its central subject matter. Rather than saying, "My sculpture is about a tree," they might say, "My sculpture is about paint that has been dripped onto clay and then covered with leaves, dirt, sticks, and feathers." This trend in art, often called **process art**, is related to much of Emil Lukas's work. What connections can students find between process art and abstract art?

Moment of Process: Printmaking

Grades pre-K-6

What?

Students will use a simple printing technique to make an edition of prints based on the collages or drawings that they made during the lesson on abstraction.

Why?

This project introduces students to printmaking, an art form whose process is of great interest to Emil Lukas. Unlike traditional painting or drawing in which artists directly control each mark made, printmaking is an art form in which the materials are transformed indirectly through a chemical or pressure-driven process. This activity will teach students the

When to do this activity
Before or after your visit to Kidspace;
After you have completed the lesson on abstraction

Time needed
15 min. for Part 1; one class period for Part 2; 15 min. for Part 3

Materials
paper and pencils for sketching
Styrofoam plates or trays
dull pencils
ink for printing
brayers
white or colored paper on which to print

Teacher preparation
Part 2 of this project will be done in collaboration with Cheryl Wildermuth and Sharon Daldoss-Bergeron in art class. Classroom teachers should schedule a day to print in the art room and have sketches prepared in advance.

Key terms

edition	**process**
impression	**to pull**
to ink	**sketch**
plate	

fundamental characteristics of printmaking and develop their understanding of the printmaking process.

Part 1: Discussion and sketching (in classroom)

Begin by discussing the steps artists take in creating works of art—the **process**. First, artists conceive of ideas for a project. Then, often, they work through their ideas by making **sketches**. Because sketches can be created and changed quickly and easily, they can aid artists in imagining many different ways of making a project. Once artists are satisfied with their sketches or other preliminary research, artists begin work on the piece itself and may continue making changes until the work is completed.
Explain to students that printmaking involves multiple steps. In the technique they will use, students will cut a design into a plate. They will then apply ink to the **plate** and press it against paper, repeating this last step to make multiple prints.

Before printing in the art room, students will plan their prints in the classroom. Hand out paper and pencils and allow students to sketch for 5-10 minutes. Students may want to base their sketches on their abstract collages or on one of the extensions to the lesson on abstraction, or they can create new drawings using what they have learned about abstraction. *The sketches will be damaged when traced onto the plate, so students should not use anything they wish to keep*. Students should finish two or three sketches to take to the art room for Part 2 of this project.

Part 2: Printing (in art room)

1. Have students lay out their sketches on the table in front of them, and review the process of printmaking. Ask them to choose one sketch for their first print edition.

2. Give each student a foam plate or tray, and help them cut off any curved edges so the tray lies flat. Instruct them to place their sketches on top of the tray, then to use a dull pencil to trace the lines of the drawings into the foam. They should remove the drawings and retrace the lines on the tray, pressing

harder to create a deep indentation. The foam tray is the **plate** from which students will **pull** prints.

3. Now students will **ink** their plates with printing ink. Using a brayer, they should cover the scored side of the plate with a single color of ink. Be sure they apply the ink evenly, since globs of ink may smear. Do not work ink into the indentations.

4. Tell students to place the plate, inked side down, on a piece of paper. Students should carefully press down on the plates to transfer the ink to the paper. Make sure they apply equal pressure to all parts of the plate so it prints evenly; they should not allow the plate to move while they are printing, or the image will smudge.

5. Students can now lift the plate and place it on another piece of blank paper. Tell students to work quickly so they can pull at least two prints from each plate before the ink dries. The plates can then be washed, dried, and reused.

6. If time allows, have students choose another sketch, and repeat printmaking process.

Part 3: Reflection (in art room and classroom)

When students are finished printing, bring the group together for a discussion. Look at students' prints and review the steps and key terms of the printing process as a group. Which steps were more difficult? Which were quicker and easier? How many prints could students pull from one inking of the plate? How was the first **impression** different from the second or third? Did the prints turn out as students expected? Ask your students if they enjoyed this process and what they learned from it. How is printmaking different from other artistic processes they have used before, such as painting or making sculptures?

Ask students how making prints is different from using a photocopier to make multiple images. If they were going to make similar pictures for 10 of their friends, would they rather print or draw them? Discuss how some art processes can be done in many different places, while other processes require a specific space or special equipment. Ask students if they could make prints while sitting on the beach. Probably not, but they could gather ideas and make sketches at the

beach, then make prints based on the sketches when they returned to home or school.

Variations

- Try printing with different colors of paper and ink. Once students are proficient with single-color printing, they can try applying different colors to different parts of the plate to create multi-colored prints.
- Experiment with different kinds of paper. Does the same plate print differently on tracing paper, typing paper, brown paper bags, cardboard, wood, or fabric?

Tips and suggestions

- To make cleanup and traffic flow easier, designate separate tables for inking plates, printing, drawing, and drying.
- Tempera paint can be used instead of printing ink, but it may be a little runny. Adding white glue or acrylic gel medium will thicken it.
- If the drawing does not print to the paper, the grooves in the plate may not be deep enough. The lines should be deep but not punch through the foam. Also, lines that are too narrow may not print.
- Lines pressed into the plates will print as the color of the paper. The unmarked surface of the plate will print as the color of the ink. Also, images print in reverse, and any writing on the plate will come out backwards. See if students can make writing print correctly. Can they get their names to print?
- Students can, like professional artists, number and sign their prints. A print is typically numbered to show which impression out of an **edition** it is; "4/15" indicates the fourth impression out of 15.

Moment of Process: Layering

Grades 4-6
(see activity for pre-K through 3 on page 2-22)

What?

Drawing on the themes of Emil Lukas's stack sculptures, students will create *visual diaries*: layers of pages composed of collages, rubbings, and written reflections that tell a story about their lives.

Why?

In his stack sculptures, Lukas incorporates plaster, paint, glass, paper, and found objects into a series of layers that connect in a fixed order. When looking at his work, as when reading or telling a story, we must proceed in

When to do this activity
This activity is suggested for after your visit to Kidspace. If your field trip is late in the semester, you should begin this project in advance of your visit, allowing at least four weeks to complete the project.

Time needed
About 30-45 minutes a week, for four or more weeks

Materials
shoeboxes, food cartons, or other cardboard boxes (with lids if possible), at least two inches deep and wide enough to fit collage pages into
construction paper (see Tips and suggestions 3)
glue and tape
scissors
crayons, markers, paint, pencils, or other materials for writing and drawing
collage materials (collected by students throughout project)

Teacher preparation
- Collect one cardboard box for each student, or have students bring boxes from home.
- Bring in a 35mm, Polaroid, or digital camera to take the photograph(s) that students will use for the first page of their diaries.

Key terms
abstraction
collage
evidence
free association
layer
layer
rubbing
trace
visual diary

a pre-determined sequence in order to appreciate the evolving relationships between the parts and the whole. Unlike traditional narratives, however, Lukas's abstract works do not employ discernible plots or casts of characters. In finding ways to connect the layers of their visual diaries then, students will, like Lukas, explore an alternative form of storytelling – one that involves visual and associative cues to derive the narrative. Furthermore, this twist on keeping a journal will give students an opportunity to reflect on their fall semester and express their feelings in an innovative format.

Part 1: Understanding the Visual Diary — Class Discussion

Begin by asking your students how many of them keep a diary. Discuss what one usually writes in a diary. Then ask students what a *visual* diary might include.

Explain to your students that, over the next four weeks, they will be making their own **visual diaries**. Once a week, they will work in class to make a **layer** of their diary: a **collage** and a **rubbing** featuring an object or material that has played some role in their lives. These objects, which can be as inconsequential as a discarded candy wrapper or as prized as a favorite photograph, constitute **evidence** of the students' lives. On the back of each collaged page, students will make crayon or pencil rubbings of their objects or some related object (see "Tips and suggestions," 2). These rubbings will serve as **traces** of the objects on the other side of the page, in the same way that fingerprints and footprints are traces of the body, thus connecting the back side of the pages to the front sides. Students will stack completed layers in a box that they decorate.

As they make subsequent pages, students will work to link each page, visually or conceptually, to the previous one. At the end of the project, students will have produced a stacked sculpture of pages that suggest a narrative about their lives.

Once your students have visited Kidspace and have begun work on this project, they should be able to draw connections between their visual diaries and Emil Lukas's work, especially his sculptures *Somewhere in the Devonian Period/A Brief Moment* and *Blood and Oxygen*.

Part 2: The First Page – Class Photograph

1. A few days before you plan to make the first layer of the visual diary, take either a single photo of the whole class or photos of each student. Develop the photos (unless you are using a Polaroid or digital camera). If you took a photo of the whole class, make one photocopy of it for each student.
2. Bring photos (or photocopies) to class. Give each student a box and his or her photo. Distribute paper, glue, tape, and collage materials. If necessary, help students cut a sheet of paper so it will fit in their box.
3. Tell students to begin by making a rubbing of their photo. Have them place a sheet of paper on top of the photo and rub the paper gently with a crayon or colored pencil. The crayon or pencil will gradually reveal the outline of the photograph. This trace, and other rubbings your students make, will be an **abstraction** of the object beneath the paper. If desired, students can make multiple rubbings on the same sheet of paper, using different colors of crayon or pencil and changing the position of the photo.
4. When they have finished making rubbings on one side of the paper, students can turn their paper over and glue their photo to the other side.
5. Your students may now decorate the collaged side of the page with drawings and additional collage materials. (Before they begin, you may want to review briefly your discussion of composition, color, line and shape from the lesson on abstraction.) Students may also write a few sentences on the page about themselves or about what they did the day the photo was taken.
6. When students have completed this page, they will have the first layer of their visual diary! Have students place their first page in their cardboard box.
7. Remind your students that the box containing the page is also part of their diary. They may want to decorate their boxes and lids in a way that reflects something about them.

Part 3: The Next Pages

Ask your students to carefully consider all aspects of their first page and to imagine another page that would somehow connect to it. (You can do this immediately after completing the first page, or have a separate discussion a few days before the next page-making session.) The following are two suggestions for how students can connect their pages:

- Visually: Students might pick a color, shape, or other motif from their first page and repeat it on their new page. For example, if a student was wearing a red shirt when the class picture was taken, his or her next page could be based on a red Lego or doll shoe. Another student might observe that the class photo shows fourteen students standing in a row, and repeat this pattern on the next page by including fourteen popsicle sticks.
- Conceptually: Students can think about what themes or associations their initial layer evokes for them, and thus generate ideas for the next. These connections can be logical: the class photo might make a student think of how school begins in the fall, inspiring him or her to incorporate a fall leaf into the next page. Or students can **free associate**, using whatever wacky ideas pop into their heads. For example, the class picture might make a student think about school and remind him or her of the phrase "school of fish." The student could then base his or her next page on a napkin taken from the cafeteria on a day when fish sticks were served. Make sure that students who take this route can explain the connection between their two pages, however obscure!

Discuss students' ideas for their next pages and list them on the board. Remember that from this point in the project, not every student will continue in the same direction; encourage them to trust their instincts and use their imaginations. Once students have listed their ideas in the discussion, they should work individually to plan the next page. Their assignment is to bring in their found objects before the next page-making session.

Your class can continue this project to create as many pages as desired, but it is best if students make at least four pages (i.e. spend four weeks on the project).

Tips and suggestions

1. Designate a spot in the classroom in which to store the students' diaries. Boxes with lids can be stacked.
2. Some materials your students use in their collages will show up in a rubbing; others will not. In these cases (or whenever it appeals to the student), they can make a rubbing using a related material. For example, a student might make a rubbing of coins and then make a collage with a candy wrapper to indicate how he or she usually spends money.
3. Have students experiment with different weights of paper. Construction paper generally works well, but for making rubbings of delicate objects, typing paper may work better.

Part 4: Reflection and presentation

When students have finished making their diaries, have a class session in which they share what they have made.

Ask students how they chose the objects in their visual diaries. What are the links between each page? Do the pages tell a kind of story about their lives? How are these stories different from those in the *Harry Potter* books or *The Lion, the Witch and the Wardrobe*? Do the stories in their visual diaries have a plot, linear narrative, etc., or are they relatively abstract?

By creating art with objects that are significant to them, how have they left evidence of their lives? What could someone else learn about them by looking through their diaries?

Ask students to think back to their visit to Kidspace. How are their diaries similar to artworks they saw in the gallery, and how are they different? Students should recall and discuss Emil Lukas's stack sculptures *Somewhere in the Devonian Period/A Brief Moment* and *Blood and Oxygen*, which are also made of stacking pieces that connect to each other. The rubbings they have made might also remind them of Lukas's press printing series *Press and Vent*, in which ordinary objects leave their traces on paper.

Moment of Process: Layering

Grades preK through 3
(see activity for 4 through 6 on page 2-25)

When to do this activity
This activity is suggested for after your visit to Kidspace. However, if your field trip is late in the semester, you should begin this project in advance of your visit, allowing at least four weeks to complete the project.

Time needed
15 minutes twice a week, for at least 4 weeks

Materials
a large, clear plastic container
you and your students will find materials for the layers

Teacher preparation
Bring in a large, clear plastic container with a wide mouth, such as a rice container or animal cookie jar. Clean the jar and remove any labels.

Key terms:
accumulate
archaeologist
collaborate
evidence
layer
memory
memory layer jar

What?

In this class project, you and your students will work together to make a sculpture that incorporates layers of materials drawn from your life together at school.

Why?

Students will collaborate to produce a sculpture that they feel represents the experiences of your class this fall. Making a sculpture with layers of materials will also help students make connections between the work you are doing in the classroom this semester and Emil Lukas's sculptures, in particular his stack pieces, *Somewhere in the Devonian Period/A Brief Moment* and *Blood and Oxygen*.

Part 1: Discussion

Tell students to open their desks (if they don't have desks with storage space, they could use their backpacks). Ask them to think briefly about what they have in their desk, then imagine what an **archaeologist** could learn about them by looking in it. What kind of **evidence** would he or she find—old food wrappers, lost gloves or mittens, graded homework, notes from friends? How could this person tell *when* events in their lives had occurred—are older or forgotten objects further down in the desk than things they use every day?

Explain to your students that they are going to make a sculpture in which evidence of their lives **accumulates** in **layers**, just as it does in their desks. Over the next few weeks, they will **collaborate** to make a **memory layer jar**. Each week, students will add to the jar a layer of a material that reflects something about the class's recent experiences. As the jar fills, they will be able to look inside and recall **memories** of different experiences they have had during the semester, as though peering into a time capsule.

Part 2: Action

1. Pick a Thursday afternoon* to discuss what your class has learned or experienced in the past week. Talk about books you have read, projects you have done, field trips you have taken, etc. Make a list on the chalkboard.
2. As a class, think about a *material* that would reflect one of these activities. Make a list of these materials on the board. Narrow it down to materials that are readily available (i.e. gold or molten lava is not a good choice for this project!).* Come to a consensus on the material you will use for the first layer. Then either assign the collection of the material as homework, or bring the material in yourself. If the material is something that can be found around school, such as sand or leaves, you can collect it as a class.
3. On Friday, add the material to the jar, trying to make an even layer that is thick enough to be viewed from the side. Review why your class decided to use that material and what it reflects about them. Write the name of the material and its significance on a small label and attach it to the side of the jar.
4. Keep the class jar in a prominent location so that students and visitors to the classroom can see it. Encourage students to look at the jar every day and think about materials they could add to it. (You could also assign students to keep a list of possible materials throughout the week in a journal and have them present it at the weekly brainstorming sessions on Thursdays.)
5. Continue adding layers for as long as time permits, or until the jar is full. As a variation for the final layer, you could have each student add his or her own material to create a "collage layer" on top.

Tips and suggestions

*This is just a suggested schedule; adapt to suit your class.

*Beware of materials that might cause mold, like moist grass, foodstuffs, etc.

Part 3: Reflection and presentation

When you have completed or filled your memory layer jar, discuss its contents as a class. (You might even present your sculpture to students' families or to another class.) Begin by reviewing the materials in it and why you chose each layer. Does looking at the jar jog students' memory about events or experiences that happened earlier in the year? What could another class—or an archaeologist working 100 years from now—learn about your class by looking at your jar?

Ask students whether their jar sculpture reminds them of anything they saw at Kidspace. In many of his works, Emil Lukas builds up layers using materials he has encountered in his life. Ask students why they think an artist might do this. How is making a sculpture this way different from carving it from wood or modeling it in clay?

Extensions and Connections

The following are suggestions for projects and lessons that extend from the Lukas curriculum and connect to other subject areas.

Abstraction

Painting emotions and concepts **(*Language arts, self-expression)***

Students can create abstract paintings* that convey a feeling or a concept. Begin by discussing ways that ideas are communicated visually. A representational image of freedom might show kids being let out on the last day of school, while a symbolic image of freedom might include a flag or an eagle. As a class, discuss ways that freedom could be shown without using recognizable images. What about joy, sleepiness, or confusion? Then have each student pick a concept or emotion on which to base a painting. Students must communicate their idea using only abstract elements, not representational or symbolic images.

* We've suggested using paint for this exercise because this medium often allows students a greater degree of spontaneity and expressiveness in making images than do crayons or pencils.

Abstract drawing to music (Music, self-expression)

Have students create abstract drawings in response to music. Play several pieces of music and have students draw freely on plain paper as they listen, making lines and shapes based on how the music makes them feel. Then discuss how students responded to each piece, both emotionally and in their drawings. This activity can be expanded to include a more general discussion of interpretation and expression in music, perhaps in cooperation with the music teacher. When selecting music to use in this activity, avoid music with lyrics in English that may narrowly determine students' responses; instead, try classical music, jazz or traditional music from other cultures.

Observations and Investigations

Oil and water observation (Science)

Connect observation and investigation to elementary principles of chemistry by having students mix oil and water. Explain, to the extent appropriate for your grade level, why oil and water separate. Students might make small interactive sculptures by mixing oil, water, and paint, or food coloring in a baby food jar or other small jar with a tight-fitting lid. Students can shake the jar and watch the materials mix and separate again and again.

Investigating an investigator (Writing, interpersonal skills)
Invite a guest investigator to the classroom. This person can be anyone who investigates for a living or for fun, from a research scientist to an avid gardener. Students can prepare interview questions to ask the guest investigator, focusing on discovering how the person investigates through his or her job or hobby. Students might follow up on the interview by writing a "personality profile" or feature story on the guest.

Investigating the environment with rubbings (Art, environmental studies)
Students can make rubbings of unusual objects and textures that they find around school, at home or in their neighborhoods—leaves, brick walls, fence posts, tires, etc. They can then present their rubbings to their classmates and have them guess what objects the rubbings come from.

Printmaking

History of printing and printmaking (History, art history)
As a class, you can research the history of book printing (beginning with letter printing in Asia and then Gutenberg) or methods of art printmaking such as woodcut, engraving, etching, etc. The websites listed in the "Resources" section are a good starting point.

Layering

Layers in the world (Science)
Integrate your science studies with the Emil Lukas curriculum by learning about something in the world that has layers. Possible topics are archaeology (study how archaeologists look at layers to determine the history of a site and how past civilizations have left their traces), earth science (learn about the layers of the

earth's crust or of the atmosphere), or ecology (study the different layers of the forest or rainforest canopy).

Layers in the kitchen (Life skills)
As a class, prepare a layered dish, such as lasagna, layered bean dip, sandwiches or a layer cake. Discuss how it is necessary to follow certain steps sequentially as part of a process to achieve a desired result.

General

Making a book (Art, language arts)
Students can work as a class to write, illustrate and bind a book. This could be a story that the class writes or retells together, or a non-fiction work about something else they are learning (history, science, etc.). The book can be illustrated with prints, drawings, paintings, collages, or rubbings, and then bound.

Poetry extension (Language arts)
Poetry, like abstract art, can communicate ideas, feelings or themes without telling a specific story. Read out loud and discuss some poems in which the speaker's thoughts or feelings are not explained, but only hinted at through metaphor and symboics imagery. Students can also write their own poems and read them to the class. Help students to write poems that create a mood or image without the use of narrative.

Relationships in the environment (Science, environmental studies)
Much of Emil Lukas's art deals with how different materials affect and act on each other, especially through natural processes. Discuss how, throughout the natural world, all things have an effect on all other things: for example, a change in the population of a plant will affect all the animals that feed on it or live in it, thus affecting the animals that eat those animals, and so on. This discussion can help tie your study of art to the study of the environment.

Looking at abstract art

What:
Students will look closely at a representational and an abstract work of art.

Why:
This exercise will accustom students to looking at abstract art, and help them understand why an artist might choose to create abstract work.

When:
Before your visit to Kidspace at MASS MoCA

Materials:
Transparencies of [Image A] and [Image B] (provided by Kidspace)

Image A: Dutch still life? I can find one by a woman artist. Or one with bugs.
Image B: something abstract: Eva Hesse (205 in Rosenthal), Olga Rozanova collages (12-14 in Fer book), Miro (38 in Fer), Mondrian (2 in Rosenthal)

Tell students that they will be looking at some works of art. Their job (as investigators?) is to write down everything they notice about the work of art. They will have two (three? Five? One?) minutes in which to do this [should teacher announce how long they have? Maybe not]. Tell them that it is okay if they do not get all their thoughts down in that time; they should just write whatever they observe in roughly the order it occurs to them.

Put Image A on the projector and allow students to write. When the time is up, remove the image and immediately show Image B. When time is up, have students put down their pencils. Discourage them from going back to Image A once they have begun Image B.

Now have students discuss what they observed with each work (don't know if Image A should be discussed right after looking, or after the whole activity). First list the things they noticed with each work. Then ask students if there were any differences in the kinds of things they noticed with each work. (The answer should be something like: in Image A they noticed the things represented: flowers, dishes, bugs. In Image B it will be elements like color, line, shape, pattern, textural effects).

If desired, you can put both images up side by side. Talk about how, even though Image A has just as many (if not more!) colors, shapes, lines etc. as Image B, you noticed them sooner in image B. Suggest that an artist who really likes certain colors or shapes might be more likely to put them in an abstract work, where people would notice them sooner.

Somehow, tie this to the earlier discussion of abstraction. And talk some about representation.

Glossary of Key Terms

abstract/abstract art
art that contains no representational imagery. Some abstract art draws forms from reality, but treats them only as shapes, and does not attempt to imitate visible reality.

abstracted/abstraction
derived from a representational form; bearing a relationship to visible reality without imitating it

accumulate
to build up or gather over time

alternative
other, unconventional

archaeologist
a scientist who studies the material remains of past human life and culture

background see entry for **foreground**

collaborate
to work together or with others

collage
an artistic composition made of various materials glued on or incorporated into a picture surface

complementary colors
the pairs of colors that fall opposite one another on the color wheel: red/green, yellow/violet, blue/orange

composition
in visual arts, the combination and arrangement of shape, color, line, texture and space

discolor
to fade, stain or otherwise change color

edition
the set of prints pulled from a plate in one session of printing (decided in advance by the artist)

evidence
materials, signs or traces left behind by someone or something

foreground, middle ground, background
layers of space or planes in a work of art—illusionary or real. The foreground is closest to the viewer, then the middle ground, and, most distant, the background.
free association
the verbal, written, or artistic expression of the content of consciousness without censorship or control, or an image or idea expressed in this way

geometric shape
a rectilinear or simple curvilinear motif or outline, such as a circle, square, hexagon

illusion
something that appears to be something other than what it is. In art, an **illusionistic** representation appears to replicate aspects of reality, fooling the eye into believing that the painted or sculpted object is real and not a representation (I.e., that it has volume or exists in three-dimensional space, etc.).

impression
one instance of the meeting of a printing surface and material being printed, or a single print or copy so made

to ink
to coat with ink in preparation for printing

to investigate
to study, examine, look into

layer
an object or thickness that lies under or over another

marks that make themselves
an expression Emil Lukas uses in reference to marks that are made by phenomena or processes that are not a direct result of the artist's hand

medium
a mode of expression or communication (painting, sculpture, video, etc.) or a material used in making art (watercolors, wood, clay, etc.). The plural is **media**.

memory
the power or process of recalling or reproducing something experienced in the past; a particular act of recall

memory layer jar
in the Emil Lukas curriculum, a sculpture incorporating layers of materials that the artists encounter in their lives and that evoke memories of past experiences for them

moment of process

for Emil Lukas, the point in the making of his art in which his efforts become secondary to the behavior of his materials or the inherent characteristics of his method (e.g., a characteristic of printmaking is that it applies pressure to materials)

mood
the predominant emotion or state of mind expressed in a work of art

organic shape
an irregular shape or one that might be found in nature

to observe
to watch or study carefully

plate
a surface from which one prints (in the print project, Styrofoam trays)

primary colors
the three colors from which all other colors are derived: red, yellow and blue

process
in art, the series of actions or operations—unintentional as well as intentional—that go into making an artwork. Also, a natural phenomenon marked by gradual changes that lead toward a particular result

process art
Emil Lukas's work shows the influence of the Process Art movement, which flourished in the late 1960s and early 1970s. Artists including Eva Hesse, Barry Le Va, Joseph Beuys and Lynda Benglis subjected materials to natural processes. They poured, puddled, and scattered their materials on the floor; hung them up and let them respond to gravity; allowed them to dry up or ferment over time. They considered these very processes to be the central subject matter of their art. The Process artists often used unconventional materials, including rubber, felt, fiberglass, latex, rope, and cheesecloth.

to pull
to print an image or images. E.g.: "I was able to *pull* 4 prints from my plate."

representational art
art that seeks to portray things seen in the visible world (see also **illusion**)

rubbing
an image of a raised or textured surface obtained by placing paper over it and rubbing the paper with a colored material or other instrument

secondary colors
the three colors that result from combining two of the primary colors: orange, green and violet

to seep

to flow or ooze through

senses
the five faculties of perception through the sense organs: hearing, touch, smell, taste, and sight
shadow
a dark figure or shape cast when an object interferes with rays of light

sketch
a quick drawing, often made as a preliminary study

sound portrait
in the Emil Lukas curriculum, a collection of detailed observations of sounds heard at a particular time and place

trace
a mark or line left by something that is no longer present; evidence or a sign of some past thing

value
the lightness or darkness of a color, or gradations of black, grays, and whites

visual diary
in the Emil Lukas curriculum, a stacking sculpture made of collages, rubbings and found objects that reveals something about the maker's life without employing a traditional, linear narrative

Sources:
Yenawine, Philip. *How to Look at Modern Art*. New York: Harry N. Abrams, Inc., 1991.

"Key Terms in Visual Arts," Massachusetts Arts Curriculum Framework, 1999.
http://www.doe.mass.edu/frameworks/Arts1099.pdf

Webster's Ninth New Collegiate Dictionary. Springfield, Mass.: Merriam Webster, Inc., 1991.

Resources on the World Wide Web

General resources for learning about art

- KinderArt has ideas for a wide variety of art projects at www.kinderart.com. The site includes sections on printmaking and on integrating art with other subjects.
- Learn more about the history of art at www.arthistory.about.com. "Art History 101" offers an overview of movements and developments in art, as well as a glossary and capsule biographies of major artists. An excellent starting point for older students to do research.
- The Getty Museum and Trust has a great selection of lesson plans at www.getty.edu/artsednet. These lessons focus on looking at and talking about art. Although some plans are specific to Los Angeles museums, they can be adapted for use in local museums or in the classroom.
- Find general lesson plans at www.teachnet.com/lesson. Many of the plans on this site incorporate art into other areas of the curriculum.

Printing and print technique

- For information on different methods of printmaking, see www.oldmasterprint.net and/or www.philaprintshop.com/whataprt.html. These in-depth sites are too advanced for most students, but you can use them for reference or adapt their content to your grade level.
- A glossary of printmaking terms can be found at www.philaprintshop.com/diction.html.

Science sites (for use in extensions to layering project)

- The University of California at Berkeley hosts a comprehensive paleontology site, including several online exhibits, at www.ucmp.berkeley.edu.
- Links to sites about the rainforest are available at http://edtech.kennesaw.edu/web/rforest.html.

- The Society for American Archaeology offers a guide to teaching archaeology to grades 3-12 at www.saa.org/pubedu/sampler/teachingarch.pdf. Lesson plans incorporate archaeology into other areas of the curriculum.

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