

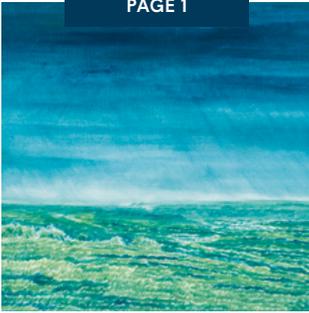
TEACHER RESOURCE GUIDE  
FOR GRADES 7–11

LEARN ABOUT  
**PERSPECTIVE DRAWING,  
SLOPE & EQUATIONS  
OF LINES**  
*through the art of*  
**KAZUO NAKAMURA**

ART CANADA INSTITUTE | INSTITUT DE L'ART CANADIEN

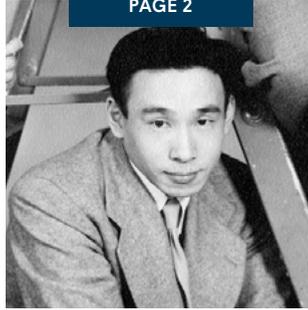
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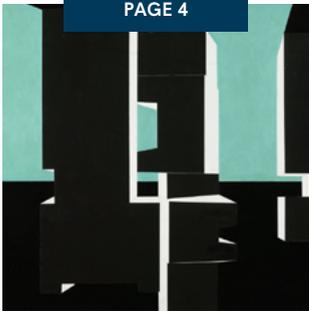
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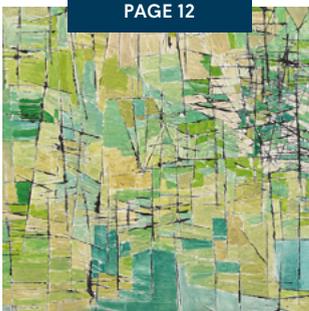
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**ADDITIONAL RESOURCES**

READ ONLINE



**KAZUO NAKAMURA:  
LIFE & WORK  
BY JOHN G. HATCH**

DOWNLOAD



**KAZUO NAKAMURA  
IMAGE FILE**

## RESOURCE OVERVIEW

This teacher resource guide has been designed to complement the Art Canada Institute online art book [Kazuo Nakamura: Life & Work](#) by John G. Hatch. The artworks within this guide and images required for the learning activities and culminating task can be found in the [Kazuo Nakamura Image File](#) provided. These activities were prepared with Laura Briscoe & Jeni Van Kesteren of Art of Math Education.

A Japanese Canadian and a leading midcentury painter, Kazuo Nakamura (1926–2002) was passionately interested in art and mathematics, and the activities in this guide connect these subjects. The goals of this resource are to introduce the art of Nakamura to students and inspire a creative approach to understanding the mathematical concepts of slope and equations of lines. Students will develop confidence in their skills and understanding and awareness of the artist as they learn about perspective and experiment with new materials.

### Curriculum Connections

- Grades 7–10 Mathematics
- Grades 8–11 Visual Arts

### Themes

- Elements and principles of design
- Equations of lines
- Perspective drawing
- Slope

### Teaching Exercises

Through the exercises in this guide, students will create artworks using perspective techniques, analyze lines and slopes, and express the mathematical equations of lines.

- Learning Activity #1: Introduction to One-Point Perspective Drawing and Slope ([page 4](#))
- Learning Activity #2: Two-Point Perspective and the Equations of Lines ([page 6](#))
- Culminating Task: Creative Investigations of Lines and Patterns ([page 8](#))

### A Note on Using This Guide

This guide explores different forms of perspective in art, and some background knowledge of perspective drawing is beneficial. It also addresses equations of lines and slopes, and while definitions are provided, experience with these mathematical concepts is advantageous for students and essential for educators.

Although this guide does not focus on the internment of Japanese Canadians during the Second World War, Kazuo Nakamura was imprisoned in Tashme Internment Camp, an experience that deeply affected his life. Teachers may wish to consider discussing this period in Canadian history with their students with reference to Nakamura's experiences.

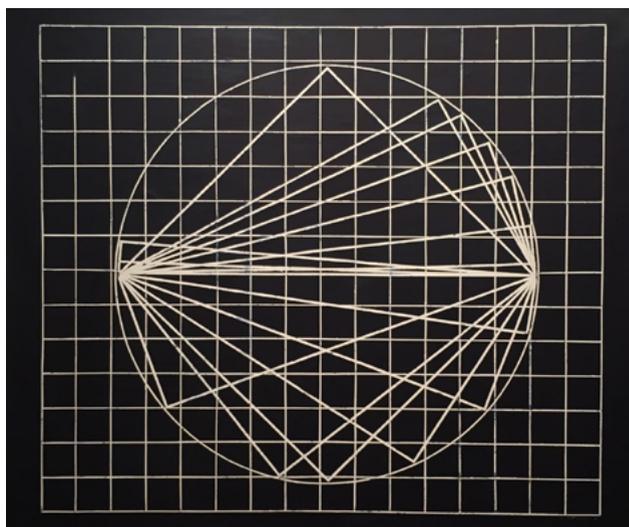


Fig 1. Kazuo Nakamura, *Geometric Suspension*, 1969. This painting reflects Nakamura's longstanding interest in geometry.

## WHO WAS KAZUO NAKAMURA?



Fig 2. Kazuo Nakamura in 1953.

**Born October 13, 1926**, in Vancouver, Kazuo Nakamura was a second-generation Japanese Canadian (*Nisei*). He completed grade school in 1939 and went on to attend Vancouver Technical High School, where he studied drafting, mechanical drawing, and design—the last a course taught by noted modern artist Jock Macdonald (1897–1960). As a teenager, Nakamura considered becoming a scientist, but he was also interested in art. He was inspired by his uncle’s art books and magazines, particularly on the French Impressionists and Japanese art.

**Following the bombing of the US Naval base** in Pearl Harbor on December 7, 1941, both the United States and Canada quickly declared war on Japan. Similar to actions taken in the U.S.A., in 1942, the Canadian government announced that it would be relocating people of Japanese descent on the West Coast to internment camps in the interior of B.C. Nakamura and his family were sent to

Tashme Internment Camp in the Fraser Valley, in October 1942. There Nakamura was forced to work on a lumber crew during the day, but he attended high school at night and continued to paint, ordering art supplies through the mail.

**Nakamura left the camp in November 1944**, to move east.

After a brief period in Hamilton, he settled in Toronto, where he went to the Central Technical School to study art. He also took classes with Albert Franck (1899–1973), who introduced him to the Toronto art scene and helped him submit his work to exhibitions. In 1953 Nakamura participated in a group show called *Abstracts at Home* at the Simpson’s department store. The event inspired the exhibiting artists to work together and in February 1954 they held a meeting and established a new group:

[Painters Eleven](#).

**Committed to exhibiting abstract art together**, the Painters Eleven had several shows, and Nakamura became increasingly well-known. Although his style was quite different from that of the other group members, he was intensely loyal to them, and they remained friends after disbanding in 1960. By that time Nakamura was at the height of his career, known both for radical experiments with abstraction and for delicate, muted landscapes painted in blues and greens.

**After 1974**, Nakamura rarely exhibited new works. Instead, he chose to focus his energies on exploring mathematical patterns in an attempt to better understand the order of the universe. He is most famous for his role in Painters Eleven and the extraordinary works he created in the 1950s and 1960s, but in the years before his death in 2002, he created numerous drawings and paintings inspired by numbers.



Fig 3. Kazuo Nakamura, *Block Structure*, 1956. Nakamura created several paintings representing block-like forms.



Fig 4. Kazuo Nakamura, *Four Plants*, 1958. With his still life paintings, Nakamura explored patterns in nature.



Fig 5. Kazuo Nakamura, *Blue Reflections, B.C.*, 1964. In the 1960s Nakamura was well-known for distinctive blue-green landscapes.

## NATIONAL & WORLD EVENTS

## KAZUO NAKAMURA'S LIFE



Fig 6. Men from the Japanese Embassy touring Stanley Park, Vancouver, c.1890.

The Canadian and Japanese governments negotiate an agreement that limits Japanese immigration to Canada. . . . . **1908**

**1926** . . . . Kazuo Nakamura is born in Vancouver.

The Great Depression begins. . . . . **1929**

In the middle of the Second World War, shortly after declaring war on Japan, the Canadian government begins interning Japanese Canadians. . . . . **1942** . . . . The Nakamura family is interned at Tashme Internment Camp.

The United States drops atomic bombs on the Japanese cities of Hiroshima and Nagasaki, and the Second World War ends. . . . . **1945**

**1944** . . . . In November, Nakamura and his father are released from the camp; by the spring of 1945, the entire Nakamura family resettles in Ontario.

**1948** . . . . Nakamura begins studying art at the Central Technical School in Toronto.

**1954** . . . . With ten other artists, Nakamura is one of the founders of Painters Eleven.

**1964** . . . . Nakamura completes his first public commission, a sculpture called *Galaxies*, for the Toronto international airport.

**1967** . . . . Nakamura marries Lillian Y. Kobayakawa; they later have two children.

With the Apollo 11 mission, humans land on the moon. . . . . **1969**

**1974** . . . . Nakamura has an important retrospective at The Robert McLaughlin Gallery in Oshawa.

Over forty years after the internments, Prime Minister Brian Mulroney apologizes to Japanese Canadians. . . . . **1988**

**2001** . . . . Nakamura has a major exhibition at The Robert McLaughlin Gallery.

**2002** . . . . Nakamura dies in Toronto.



Fig 10. Tashme Camp under construction, 1942.



Fig 7. Men reading evacuation notice in B.C., 1942.



Fig 11. Kazuo Nakamura reading an issue of *Scientific American*, 1957.



Fig 8. Japanese Canadians being relocated to camps in the interior of B.C., 1942.



Fig 12. Kazuo Nakamura, *Untitled Abstract in Blue*, n.d. Nakamura painted several works similar to this one in the mid 1950s.



Fig 9. Prime Minister Brian Mulroney and Art Miki, the president of the National Association of Japanese Canadians, signing the agreement of redress in 1988.



Fig 13. Kazuo Nakamura with one of his paintings.

## LEARNING ACTIVITY #1

# INTRODUCTION TO ONE-POINT PERSPECTIVE DRAWING AND SLOPE

Throughout his life, Kazuo Nakamura was interested in science, time, and space, and he explored these themes in his art. In this activity, students explore concepts of space and depth through one-point perspective. The class will compare Nakamura's artworks *Inner Structure*, 1956, and *Prairie Towers*, 1956, and discuss their sense of depth (or lack thereof). Focusing on one-point perspective and slope, students will create a drawing and analyze their work to make mathematical connections.

### Big Idea

One-point perspective and slope

#### Learning Goals

1. I understand the rules of one-point perspective.
2. I can draw a one-point perspective sketch.
3. I can calculate the slope of a line.
4. I understand the difference between lines with a positive slope and a negative slope.

#### Materials

- Access to computers and/or a projector
- Calculator
- Erasers
- Graph paper, 8.5 × 11 inches
- [Kazuo Nakamura Image File](#)
- Pencils
- Rulers
- “Who Was Kazuo Nakamura?” biographic information sheet ([page 2](#))

#### Process

1. Introduce students to Kazuo Nakamura using the biographic information sheet, and show them the artworks *Inner Structure*, c.1956, and *Prairie Towers*, 1956. Compare these paintings and consider the sense of depth or lack of depth created. As a class, discuss the following question: how did Nakamura create depth through the placement of colours, lines, and shapes?



Fig 14. Kazuo Nakamura, *Inner Structure*, 1956. This painting represents the artist's interest in atomic motion.



Fig 15. Kazuo Nakamura, *Prairie Towers*, 1956. Through its title, this work alludes to the tall grain elevators common in the prairies.

*Learning Activity #1 Continued*

2. Define one-point perspective and review the requirements of one-point perspective drawing. Remind students that, in drawing with one-point perspective, all receding lines head toward a single vanishing point, horizontal lines must stay parallel to the horizon line, and all vertical lines should be perpendicular to the horizon line.
3. Using graph paper, pencils, and rulers, draw a one-point perspective drawing with three square boxes: one above the horizon line, one on it, and one below it. The steps for creating the drawing are as follows:

- Draw a horizon line.
- Draw a vanishing point.
- Draw one square above the horizon line, one below the line, and one above the line.
- Draw lines from your squares that recede toward the vanishing point to create a sense of depth.
- Check your lines. All lines should be horizontal, vertical, or receding toward the vanishing point.

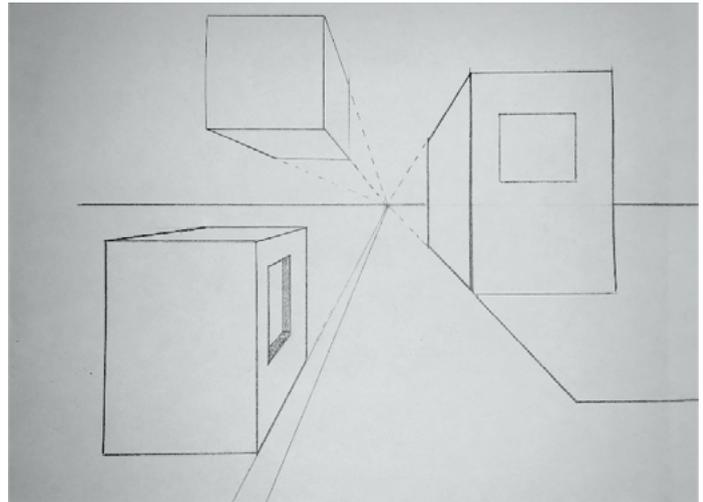


Fig 16. This drawing illustrates key lines in one-point perspective.

For more guidance on creating this type of drawing, see the Additional Resources ([page 14](#)) for a link to an Art of Math tutorial video.

4. Review the definition of “slope” with students and lead a discussion about how it changes the characteristics of a line. Slope is a comparison of the rise of a line (the amount that it goes up or down) to the run of a line (the distance it extends in a positive direction). It is calculated as rise divided by run, and it can be determined by using two points on a graph or by using an algebraic formula. Lines with a larger slope are steeper and increase more quickly. Lines with a negative slope are decreasing and fall to the right.
5. Have students add coordinate axes to their drawings by marking the horizon line as the x-axis and drawing a vertical line through the vanishing point as the y-axis. The vanishing point will now have the coordinates (0,0), and students should add numbers along the axes.
6. Ask students to select one of their lines that recedes to the vanishing point. On this line, have students identify two coordinate points and use the points to determine the slope of their line. As noted in step 4, slope is calculated using the rise and run between two points on the line. Slope is rise divided by run. When finding the rise and run, it is often easiest to read the points from left to right on the graph. The rise of the line can be determined on the graph by counting how many units “up” or “down” there are between the two points. This can also be calculated by subtracting the two y-coordinates. The run can be determined on the graph by counting how many units there are between the point on the “left” and the point on the “right”. This can also be calculated by subtracting the two x-coordinates.
7. When students have completed their calculations, review their results as a class.

## LEARNING ACTIVITY #2

## TWO-POINT PERSPECTIVE AND THE EQUATIONS OF LINES

In this activity, students will be introduced to Kazuo Nakamura's paintings *Suspension*, 1956, *Prairie Towers*, 1956, and *Two Horizons*, 1968, to facilitate a discussion about the use of perspective, lines, and slope. Students will learn about two-point perspective, contrast, and equations of lines. Students will create two-point perspective drawings, and they will analyze their drawings to express sample lines as linear equations.

## Big Idea

Two-point perspective drawing and equations of lines

## Learning Goals

1. I can describe the characteristics of two-point perspective and how it is different from one-point perspective.
2. I can create a two-point perspective drawing.
3. I can create a sense of value using shading techniques.
4. I can describe a linear relation on a coordinate plane.
5. I understand how slope and the y-intercept are used to express the equation of a line.



Fig 17. Kazuo Nakamura, *Suspension*, 1956. In this painting, the blocks appear to float.

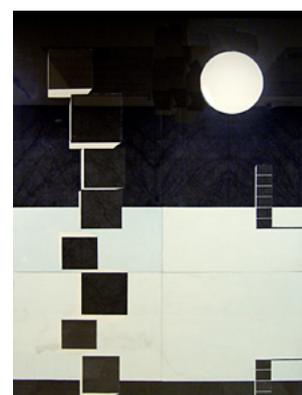


Fig 18. Kazuo Nakamura, *Two Horizons*, 1968. This work was a special commission from the government of Ontario.

## Materials

- Colour medium of choice (e.g., pencil crayons)
- Erasers
- Graph paper photocopied onto acetate sheets OR access to computers and Desmos (cameras or cellphones will be required for uploading images)
- [Kazuo Nakamura Image File](#)
- Paper
- Pencils
- “Who Was Kazuo Nakamura?” biographic information sheet ([page 2](#))

## Process

1. Introduce students to Kazuo Nakamura using the biographic information sheet and show them the artworks *Suspension*, 1956, *Prairie Towers*, 1956, and *Two Horizons*, 1968. Discuss the use of perspective, lines, and slope in these compositions (see [Learning Activity #1 \[page 4\]](#)).



Fig 19. Kazuo Nakamura, *Prairie Towers*, 1956. Although this image is abstract, Nakamura has also created the impression of a landscape.

*Learning Activity #2 Continued*

2. Have students lightly draw a horizon on a blank piece of paper, add two vanishing points, extend lines from the vanishing points, and use the lines to draw boxes in relation to the two vanishing points. For this drawing, the only horizontal line is the horizon; the other lines must be vertical (perpendicular to the horizon) or receding toward one of the vanishing points. (For more on two-point perspective, see the Art of Math videos in Additional Resources [\[page 12\]](#).)

3. Give students time to shade in the boxes to demonstrate contrast. For example, in his painting *Suspension*, Nakamura uses black and white to differentiate between the sides of each box. Students could use warm vs. cool colours or bright vs. dark colours.

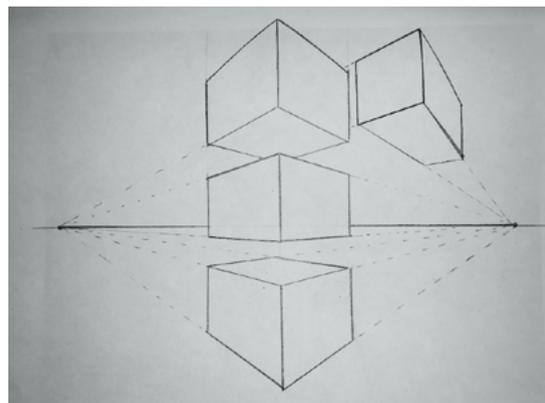


Fig 20. Illustration of key lines in two-point perspective.

4. Ask students to describe and compare the lines on their drawings. For example, encourage them to comment on slope of lines and position. Which lines have steep slopes? Which do not? Which lines slope up to the right? Which slope up to the left? Which lines are above the horizon line and which are below? Which lines are vertical?

5. Ask students what would be an easy and efficient way to describe the “location” and “direction” of a line. Make the conclusions that lines are described mathematically using the y-intercept on a coordinate plane and the slope.

6. Using a coordinate plane, review how to calculate slope using the rise and run between two points on the line. Slope is rise divided by run, and when finding the rise and run, it is often easiest to read the points from left to right on the graph. The rise of the line can be determined on the graph by counting how many units “up” or “down” there are between the two points. This can also be calculated by subtracting the two y-coordinates. The run can be determined on the graph by counting how many units there are between the point on the “left” and the point on the “right”. This can also be calculated by subtracting the two x-coordinates.

7. Show students on a drawing the x-axis, the y-axis, one line that passes over the y-axis, and the y-intercept (the point where the line intersects, or crosses, the y-axis). Point out the y-intercept and calculate the slope. For example, if the line crosses at the point (0,2), then the y-intercept is 2.

8. Pull it all together! Show students how they can use the slope and y-intercept of a line to write the equation of the line in the form  $y = mx + b$ . In this equation,  $m$  is the slope,  $b$  is the y-intercept, and  $x$  and  $y$  represent the coordinates of any point on the line. (For more information on equations of lines, see the supporting lesson “Equations of Lines” in Additional Resources [\[page 12\]](#).) For example, if the line has a slope of  $\frac{1}{2}$  and a y-intercept of -5, the equation of this line would be:

$$y = \frac{1}{2}x - 5$$

9. Have students each choose two lines in their images, one with a positive slope and one with a negative slope. Ask students to place acetate graph paper overtop of the artwork or use Desmos in order to do the following for each line:

- Identify the y-intercept for the line.
- Calculate the slope of the line.
- Write the equation for the line.

## CULMINATING TASK

# CREATIVE INVESTIGATIONS OF LINES AND PATTERNS

In this task, students will use their own personalized approaches to draw a creative two-point perspective artwork inspired by Kazuo Nakamura's experiments with two-point perspective, patterns, and abstraction. Students will use online graphing software (such as Desmos.com) or graph paper copied onto acetate to determine the equations of lines in their work.

### Big Idea

Getting creative with two-point perspective and equations of lines

#### Learning Goals

1. I can accurately create a two-point perspective artwork.
2. I can explain the effective use of the elements and principles of design behind the placement choice of my boxes.
3. I can determine the equations of lines in my work.
4. I can explain to my peers the components of each equation and how they are connected to the visual representation of the line.

#### Success Criteria

To be added to, reduced, or changed in collaboration with students.

1. Artwork effectively demonstrates and follows the rules of two-point perspective.
2. Composition successfully uses contrast, space, and proportion to create an interesting design.
3. An image of the artwork is successfully uploaded into Desmos.
4. Artist statement clearly communicates the process used to determine the equation of a line.
5. Written work is clear, polished, and edited.

### Materials

- Calculator
- Colour materials (e.g., pencil crayons)
- Erasers
- Graph paper photocopied onto acetate sheets  
OR access to computers and Desmos (cameras or cellphones will be required for uploading images)
- [Kazuo Nakamura Image File](#)
- Paper
- Pencils
- Ruler
- "Who Was Kazuo Nakamura?" biographic information sheet ([page 2](#))



Fig 21. Kazuo Nakamura, *Forest*, 1953. In this work, Nakamura created a rich texture of brushstrokes reminiscent of a dense forest.

*Culminating Task Continued*

**Process**

1. Introduce students to Kazuo Nakamura using the biographic information sheet and show them the paintings *Block Structure*, 1956; *Hillside*, 1954; *August, Morning Reflections*, 1961; and *Reversed Image*, 1965. Explain that, while many artists choose to create either representational art or abstract art, Nakamura experimented with both approaches. As author John G. Hatch explains, for him these modes “were entwined at a fundamental level as simply different ways of expressing the same thing, namely the underlying structure of the universe and its visible manifestations.” Lead students in a discussion about Nakamura’s use of patterns in these paintings, from the structural patterns and two-point perspective in *Block Structure* to the patterns of textures in the background in *August, Morning Reflections*.



Fig 22. Kazuo Nakamura, *Block Structure*, 1956. Nakamura sometimes painted with crisp, pristine lines.

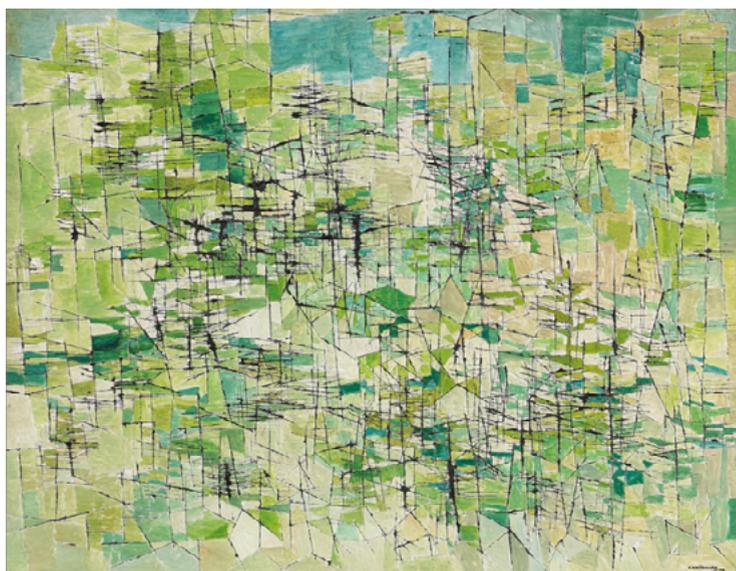


Fig 23. Kazuo Nakamura, *Hillside*, 1954. An abstracted image of trees on a hillside, this work is dominated by an intense pattern of greens.



Fig 24. Kazuo Nakamura, *August, Morning Reflections*, 1961. The exceptional delicacy shown in this landscape was critical to Nakamura’s unique style.



Fig 25. Kazuo Nakamura, *Reversed Image*, 1965. With this composition, Nakamura experimented with mirroring his subject.

*Culminating Task Continued*

2. Have students brainstorm and plan a two-point perspective drawing that incorporates a subject of their choosing. It may be abstract, surreal, or realistic. For example, one potential subject might be a cityscape set against the sky.
3. Give students time to work on their drawings and encourage them to create a sense of depth with overlapping of images, shading techniques, and the introduction of patterns and tonal variations in colours.
4. Have each student take a photo of their artwork and upload it to [Desmos](#) OR photocopy their artwork and attach the acetate over top.
5. Ask students to identify at least two lines in their images and label the coordinates of two points on each line.
6. Have students determine the equation for their lines and include the lines on their Desmos image or acetate. If using Desmos, have students print a screenshot of their work.
7. To conclude, give students time to write artist statements sharing their effective use of the elements and principles of design and perspective. Students should also communicate the process used to determine the equations of their lines.

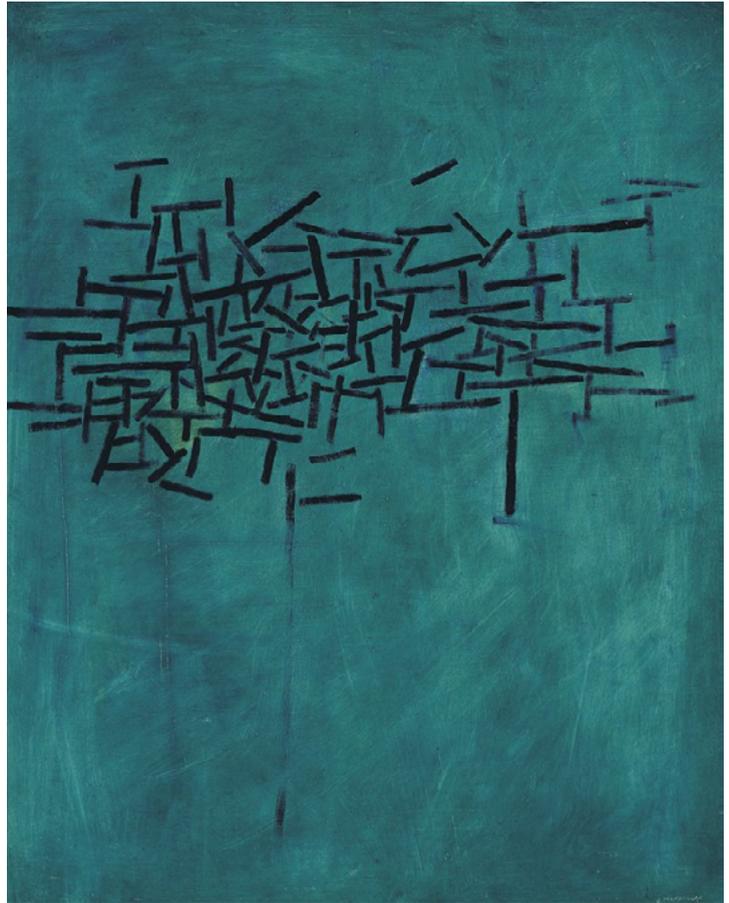


Fig 26. Kazuo Nakamura, *Inner Structure*, c.1956. For this painting, Nakamura worked with subtle shades of turquoise.

## HOW KAZUO NAKAMURA MADE ART: STYLE & TECHNIQUE

Here are a few of the important artistic concepts that characterize the art of Kazuo Nakamura.

### LINEAR PERSPECTIVE AND GEOMETRY

As a teenager, Nakamura learned the basics of linear perspective from his younger brother. In his early works, he experimented with using linear perspective to depict the city of Vancouver, and this may have been the beginning of his interest in using geometry as a tool for representing and understanding nature. As a mature artist, he sometimes used grids in his paintings, as can be seen in *Spatial Concept, Geometry*, 1968.

### EXPERIMENTS WITH ABSTRACTION

In the 1950s, Nakamura experimented with different approaches to abstract painting. His Block Structure paintings are notable for their rigid structures, with the compositions being reduced to crisp distinct shapes; these works may have been inspired by his experiments with creating geometric sculptures. With the Inner Structure works, he painted patterns of lines against coloured backgrounds, creating compositions that were inspired by the concept of perpetual motion at the atomic level. He had a lifelong interest in science, and this is also associated with his string paintings, which are abstract works that have been interpreted as representations of waves. These works were created with a novel technique: Nakamura glued strings to his canvases to create patterns and then painted on top of them.

### PAINTING LANDSCAPES

Even while he experimented with abstraction, Nakamura continued to paint landscapes and he became famous for a very distinctive style. His landscapes are not intended to be recognizable places, but he did prefer certain types of scenes: vast open spaces, lakes, and forests. He regularly painted scenes with high horizon lines and reflections, elements that were characterized by delicate patterns of trees and ripples in water. Perhaps most notably, he often chose to work with blue and green tones, and to create relatively monochromatic compositions, an approach that may have been inspired by Japanese art.

### INSPIRED BY NUMBERS

Late in his life, Nakamura chose to focus on exploring numbers. Inspired by mathematical patterns such as the Fibonacci sequence and fractals, he created paintings to illustrate numerical progressions, often working in blue and white, as can be seen in *Number Structure and Fractals*, 1983. Although many people have seen these works as extreme forms of abstraction, for Nakamura they represented the ultimate step in his continuing interest in looking for patterns in the universe. In his words, despite his interest in theoretical patterns, “you might just say that I am actually a realist.”

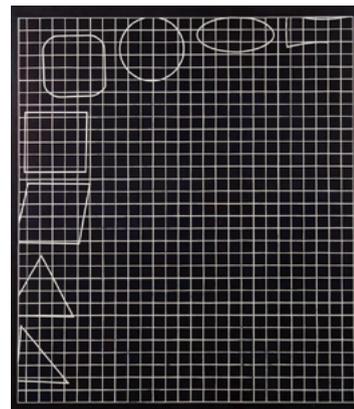


Fig 27. Kazuo Nakamura, *Spatial Concept, Geometry*, 1968. The shapes in this work symbolize the progress of art and science through history.



Fig 28. Kazuo Nakamura, *Morning*, 1982. In this late landscape, Nakamura captures the glow of early morning light.



Fig 29. Kazuo Nakamura, *Number Structure and Fractals*, 1983. In one of the most ambitious series in his career, Nakamura painted highly structured compositions representing numerical patterns.

## ADDITIONAL RESOURCES

### Supplementary Materials Provided by the Art Canada Institute

- The online art book *Kazuo Nakamura: Life & Work* by John G. Hatch: <https://aci-iac.ca/art-books/kazuo-nakamura>
- [Kazuo Nakamura Image File](#) with artworks and images related to this lesson
- “Who Was Kazuo Nakamura?” biographic information sheet ([page 2](#))
- Timelines of national and world events and Kazuo Nakamura’s life ([page 3](#))
- “How Kazuo Nakamura Made Art: Style & Technique” information sheet ([page 11](#))

### GLOSSARY

Here is a list of terms that appear in this resource guide and are relevant to the learning activities and culminating task. For a comprehensive list of art-related terms, visit the Art Canada Institute’s ever-growing [Glossary of Canadian Art History](#).

#### linear perspective

A visual strategy for depicting three-dimensional space on a two-dimensional surface, linear perspective uses lines converging on a vanishing point or series of vanishing points to create an illusion of depth on a flat surface. One-, two-, and three-point perspective are different forms of linear perspective.

#### one-point perspective

A style of perspective drawing in which parallel lines converge at a single vanishing point. An image of a road or hallway disappearing into the distance is an example of one-point perspective.

#### Painters Eleven

An artists’ group active from 1953 to 1960, formed by eleven abstract expressionist Toronto-area painters, including Harold Town, Jack Bush, and William Ronald. They joined together in an effort to increase their exposure, given the limited interest in abstract art in Ontario at the time.

### EXTERNAL RESOURCES

*The following external resources can be used to augment the learning activities and materials provided by the Art Canada Institute. They are to be used at the teacher’s own discretion.*

#### Art of Math Education

<http://artofmathed.ca/>

#### Step-by-Step Perspective Videos:

[https://www.youtube.com/watch?v=Jn0SnDh\\_WTo](https://www.youtube.com/watch?v=Jn0SnDh_WTo)

[https://www.youtube.com/watch?v=MCLhUqF\\_HvY](https://www.youtube.com/watch?v=MCLhUqF_HvY)

#### Art of Math Resources on Linear Relations

<https://artofmathed.wixsite.com/educate/linear-relations>

#### Desmos (Online Graphing Calculator)

<https://www.desmos.com/calculator>

#### Instructions on How to Upload an Image to Desmos

<https://www.aci-iac.ca/education/teacher-resource-guides/perspective-drawing-slope-and-equations-of-lines-through-the-art-of-kazuo-nakamura/>

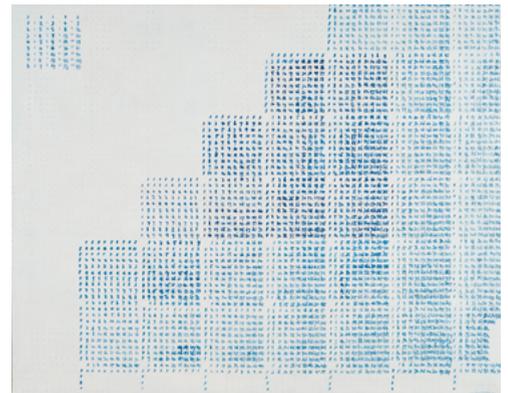


Fig 30. Kazuo Nakamura, *Number Structure No. 9, 1984*. For this work, Nakamura painted hundreds of tiny numbers.

## FIGURE LIST

*Every effort has been made to secure permissions for all copyrighted material. The Art Canada Institute will gladly correct any errors or omissions.*

Cover: Kazuo Nakamura, *Number Structure No. 9* (detail), 1984, oil on canvas, 81.5 x 101.5 cm. Estate of the artist. Courtesy of Christopher Cutts Gallery, Toronto.

Fig 1. Kazuo Nakamura, *Geometric Suspension*, 1969, oil on canvas, 78.7 x 94 cm. Estate of the artist. Courtesy of Christopher Cutts Gallery, Toronto.

Fig 2. Kazuo Nakamura, seen in a photograph of members of the Painters Eleven during the Simpson's department store *Abstracts at Home* display, 1953. Collection of The Cahén Archives.

Fig 3. Kazuo Nakamura, *Block Structure*, 1956, oil on Masonite, 123.2 x 97.8 cm. Estate of the artist. Courtesy of Christopher Cutts Gallery, Toronto.

Fig 4. Kazuo Nakamura, *Four Plants*, 1958, oil on board, 57.1 x 74.2 cm. Courtesy of Sotheby's.

Fig 5. Kazuo Nakamura, *Blue Reflections, B.C.*, 1964, oil on canvas, 127 x 160 cm. Collection of MacLaren Art Centre, Barrie. Gift of Ron McQueen, 2002.

Fig 6. Men from the Japanese Embassy touring Stanley Park, Vancouver, c.1890. Courtesy of Major James Skitt Matthews/Vancouver Archives/AM54-54-2--CVA 371-1365.

Fig 7. Evacuation Notice in B.C., 1942. Courtesy of *Province Newspaper/Vancouver Public Library/1343*.

Fig 8. Japanese Canadians being relocated in British Columbia, 1942. Courtesy Library and Archives Canada/C-057250.

Fig 9. Prime Minister Brian Mulroney and Art Miki, the president of the National Association of Japanese Canadians, signing the agreement of redress in 1988. Courtesy of Ron Poling/Canadian Press.

Fig 10. Tashme Camp under construction, 1942. Courtesy of UBC Library.

Fig 11. Kazuo Nakamura reading an issue of *Scientific American*, 1957. Courtesy of The Robert McLaughlin Gallery, Oshawa.

Fig 12. Kazuo Nakamura, *Untitled Abstract in Blue*, n.d, oil on Masonite, 87.6 x 58.4 cm. Courtesy of Artnet.

Fig 13. Kazuo Nakamura with one of his paintings, photograph by Yusuke Tanaka.

Fig 14. Kazuo Nakamura, *Inner Structure*, 1956, oil on hardboard, 60.8 x 78.8 cm. Collection of Art Gallery of Ontario, Gift of Mr. Charles McFaddin, Toronto, 1985, 85/115. © Estate of Kazuo Nakamura.

Fig 15. Kazuo Nakamura, *Prairie Towers*, 1956, oil on Masonite, 86.5 x 122.4 cm. Collection of National Gallery of Canada, Ottawa, purchase (6465). Courtesy of National Gallery of Canada.

Fig 16. Example of one-point perspective.

Fig 17. Kazuo Nakamura, *Suspension*, 1956, oil and graphite on Masonite, 120.1 x 91.3 cm. Collection of The Robert McLaughlin Gallery, Oshawa. Purchase 1971 (1971NK43). Courtesy of The Robert McLaughlin Gallery.

Fig 18. Kazuo Nakamura, *Two Horizons*, 1968, oil on canvas, 261.6 x 196.9 cm. Collection of Government of Ontario Art Collection, Toronto (619763).

Fig 19. Kazuo Nakamura, *Prairie Towers*, 1956. (See Fig 15. for details.)

Fig 20. Example of two-point perspective.

Fig 21. Kazuo Nakamura, *Forest*, 1953, oil on Masonite, 48 x 60.9 cm. Collection of The Robert McLaughlin Gallery, Oshawa, Gift of Charles E. McFaddin (1974NK79). Courtesy of The Robert McLaughlin Gallery.

Fig 22. Kazuo Nakamura, *Block Structure*, 1956. (See Fig 3. for details.)

Fig 23. Kazuo Nakamura, *Hillside*, 1954, oil on Masonite, 59.8 x 78.4 cm. Collection of National Gallery of Canada, Ottawa, purchase (6361). Courtesy of National Gallery of Canada.

Fig 24. Kazuo Nakamura, *August, Morning Reflections*, 1961, oil on canvas, 93.7 x 121.5 cm. Collection of National Gallery of Canada, Ottawa, purchase (9525). Courtesy of National Gallery of Canada.

Fig 25. Kazuo Nakamura, *Reversed Image*, 1965, oil on canvas, 81.9 x 86.4 cm. Courtesy Galerie d'art Michel Bigué.

Fig 26. Kazuo Nakamura, *Inner Structure*, c.1956, oil on untempered hardboard, 61.1 x 48.4 cm. Collection of Art Gallery of Ontario, Toronto, purchase with the assistance of the Estate of Christian Claude, 2001, 2000/1152. © Art Gallery of Ontario.

Fig 27. Kazuo Nakamura, *Spatial Concept, Geometry*, 1968, oil on linen, 127 x 106.7 cm. Estate of the artist. Courtesy of Christopher Cutts Gallery, Toronto.

Fig 28. Kazuo Nakamura, *Morning*, 1982, oil on canvas, 45.7 x 55.9 cm. Courtesy of Sotheby's.

Fig 29. Kazuo Nakamura, *Number Structure and Fractals*, 1983, oil on canvas, 71 x 101.7 cm. Collection of National Gallery of Canada, Ottawa, purchase (39855). Courtesy of National Gallery of Canada.

Fig 30. Kazuo Nakamura, *Number Structure No. 9*, 1984. (See cover figure for details.)