

GRADES SEVEN AND EIGHT

LEARNING FROM PAINTINGS 1



Figure 34:
Qur'an
Copied by Isma'il b.
'Abdallah Makassar
Sulawesi Island, Indonesia
1804
Ink, opaque watercolour,
and gold on paper
Folio: 34.5 x 21.5 cm
AKM488



Figure 34a and 34b:
Details

The impressive copy of the Qur’an (the Muslim Holy Book) in Figure 34 survives in complete form, with all of its folios and binding intact. It is one of three Qur’ans in what is called the “Sulawesi geometric style,” for its place of origin and its decorative scheme. Even more extraordinary, it mentions its exact place of production on the south peninsula of Sulawesi, one of the largest of the islands of Indonesia. It is a magnificent example of the localized artistic traditions in which Muslims chose to copy and decorate their sacred text. Although Islam reached the Indian Ocean and Southeast Asia as early as the 13th century, the earliest surviving manuscripts of the Qur’an from the region date to the 17th and 18th centuries.

Did You Know?

In the Qur’an manuscript of Figure 34, there are hundreds of flower medallions used at a full stop, but no two medallions are identical.

CURRICULUM EXPECTATIONS AND KEY UNDERSTANDINGS

VISUAL ART

OME Expectation	Key Understanding
Develop an understanding of the elements of design. Learn to use them in creative work.	Developing Creativity: Works of art are created with the elements of design as basic building blocks.
Develop an understanding of the principles of design, with a focus on unity and harmony (Grade 7) and movement (Grade 8). Learn to use them in creative work.	Developing Creativity: The principles of design are strategies to create works of art.
Understand the principle of perspective as it relates to the element of space and as a principle of design: one- and two-point perspective (Grade 7) and alternative systems for representing space such as layering of images (Grade 8).	Understanding Culture: There are different ways to portray depth and focus in painting. Muslim artists in the past have portrayed perspective differently than artists in Europe have done in landscape painting.



MATHEMATICS

OME Expectation	Key Understanding
Geometry and Spatial Sense: Apply transformations to create and analyze designs (Grades 7 and 8).	The symmetry operations of reflection, translation, and rotation are the rules according to which patterns are constructed.
Geometry and Spatial Sense: Develop an understanding of the difference between similarity and congruence (Grade 7).	Dilations create similar shapes, and symmetry operations create congruent (identical) shapes.
Geometry and Spatial Sense: Identify applications of geometric principles in the real world (Grade 8).	Artists use symmetry operations as tools to create art.

LEARNING THROUGH INQUIRY AND LEARNING BY DOING: PROMPTS AND ACTIVITIES

Visual Art

- Principles of Design: Unity and Harmony: How do you find the principles of unity and harmony represented in Figure 34a? Make your own coloured drawing or painting of a flower medallion inspired by this example, focusing on radial balance and harmony of colours.

Mathematics

- What kinds of symmetry operations are present in the medallion in Figure 34a? Design your medallion to exhibit each of the features shown in Figure 35.



Figure 35 (left to right):
Within the pink circle the motif does not exhibit any symmetry, within the blue circle the motifs exhibit horizontal and vertical reflection, and within the green circle the hooks exhibit rotational symmetry.



LEARNING FROM PAINTINGS 2



Figure 36:
Jahangir Hunting Lions
Agra, India, ca. 1610
Ink, opaque watercolour,
and gold on paper
28.6 x 21.7 cm
AKM121

In his memoirs, the Moghul emperor Jahangir (reigned 1605–27) wrote: “Since I am naturally fond of hunting lions, as long as lion hunting is possible I don’t bother with any other kind.” And, indeed, the emperor himself is at the centre of the composition in Figure 36, sitting squarely astride an elephant.



The artist may have been in fact depicting an actual event recounted in the emperor’s memoirs: in 1610, while out hunting with the emperor, the courtier Anup Rai was attacked by a lion and was only rescued after he had been severely injured. Jahangir dismounted from his horse to shoot at the lion, which was eventually killed. The painting does not illustrate an exact depiction of this event, but the artist has included other details from the anecdote: the servants who panicked and fled up a tree (at the top right of this composition); the attempt to shoot the lion with muskets (middle right); and the falconer who was the lion’s first victim (bottom left).

Did You Know?

Lion hunting is an ancient symbol of kingship from the traditions of ancient Egypt, Assyria, and Greece. In ancient Greece, lion hunting was portrayed in Heracles’s first labour. The lion hunt was used in Moghul India as a metaphor for kingly virtue, and its depiction in this painting may reflect that general theme.

CURRICULUM EXPECTATIONS AND KEY UNDERSTANDINGS

VISUAL ART

OME Expectation	Key Understanding
Develop an understanding of the elements of design. Learn to use them in creative work.	Developing Creativity: Works of art are created with the elements of design as basic building blocks.
Develop an understanding of the principles of design, with a focus on unity and harmony (Grade 7), and movement (Grade 8) Learn to use them in creative work.	Developing Creativity: The principles of design are strategies to create works of art.
Understand the principle of perspective as it relates to the element of space, and as a principle of design: one and two-point perspective (Grade 7), and alternative systems for representing space such as layering of images (Grade 8).	Understanding Culture: There are different ways to portray depth and focus in painting. Muslim artists in the past have portrayed perspective differently in Persian and Moghul painting than artists in Europe have done in landscape painting.

LANGUAGE

OME Expectation	Key Understanding
Media Literacy: Demonstrate an understanding of a variety of media texts (all grades).	A painting represents one or several points of view about what is portrayed.

SUPPORTING ENGLISH LANGUAGE LEARNERS

OME Expectation	Key Understanding
Oral Communication: Communicate orally about what you see using short words and phrases.	A painting can be described effectively using words, phrases, and sentences.
Writing: Organize information by copying words or using ready-printed word cards into a point-form report on a painting.	A written statement can describe what is happening in a painting.

LEARNING THROUGH INQUIRY AND LEARNING BY DOING: PROMPTS AND ACTIVITIES

Visual Art

- How has the artist used perspective in this painting? Colour in the greyscale version of Figure 36 in Figure 37 to show the different levels of images as different colours. Make the most important part of the painting a colour that stands out.
- How has the artist used the principle of movement in this painting? On your drawing, draw lines showing the direction of the movement. Where do the arrows point?



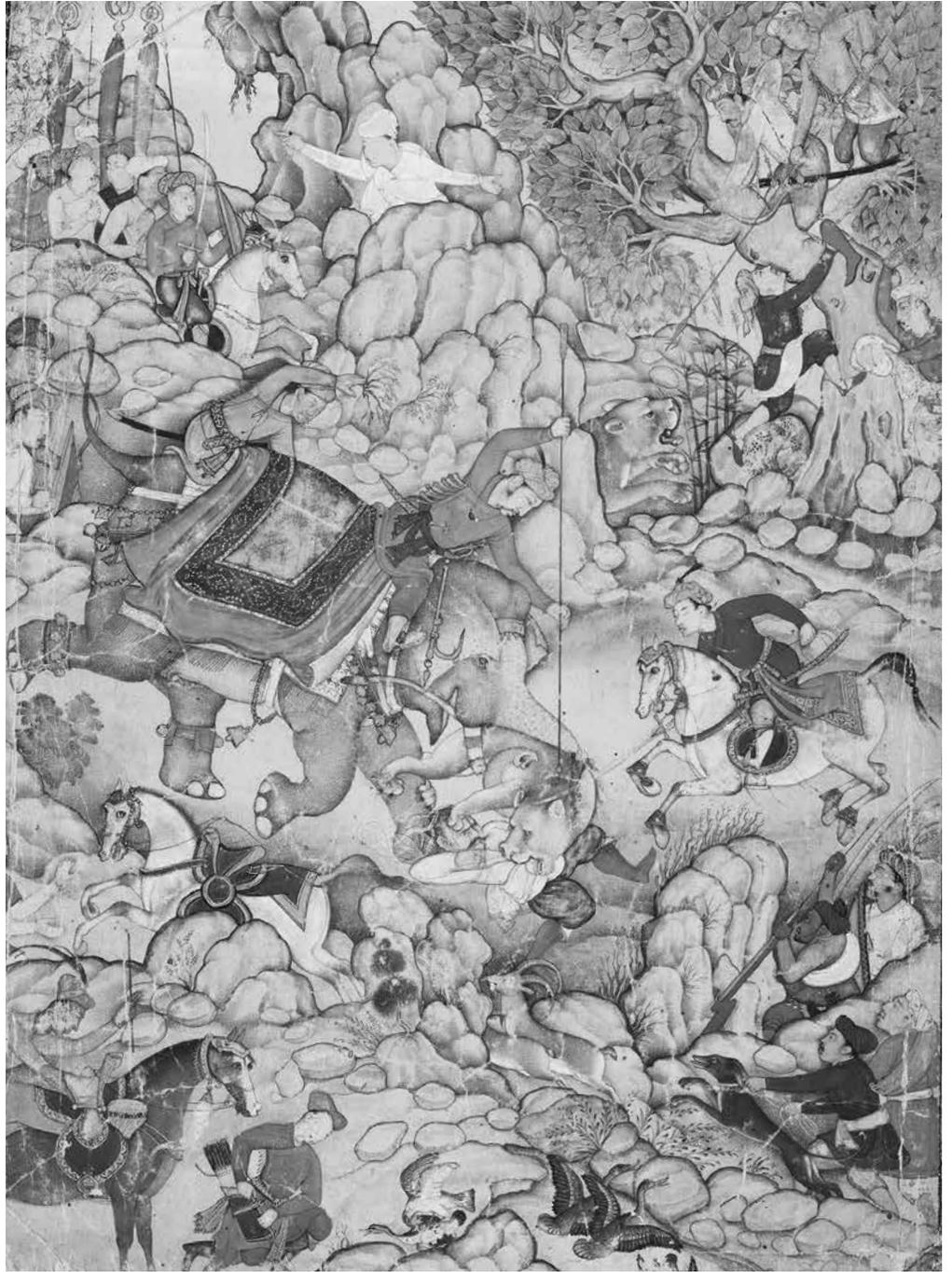


Figure 37:
Greyscale version of Figure 36.

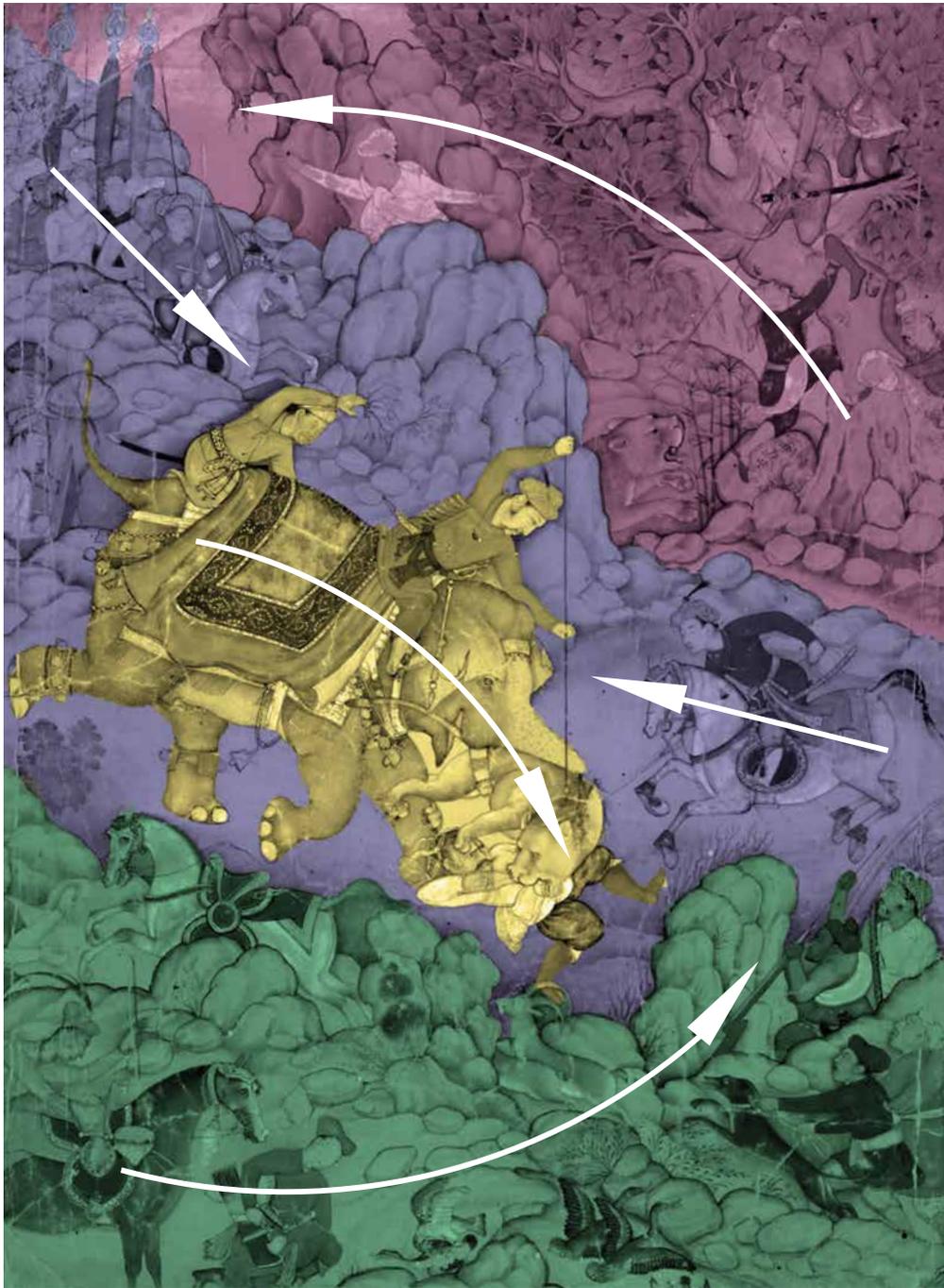


Figure 38:
Figure 37 with colours and arrows
showing foreground and background
as well as dynamics.



Language

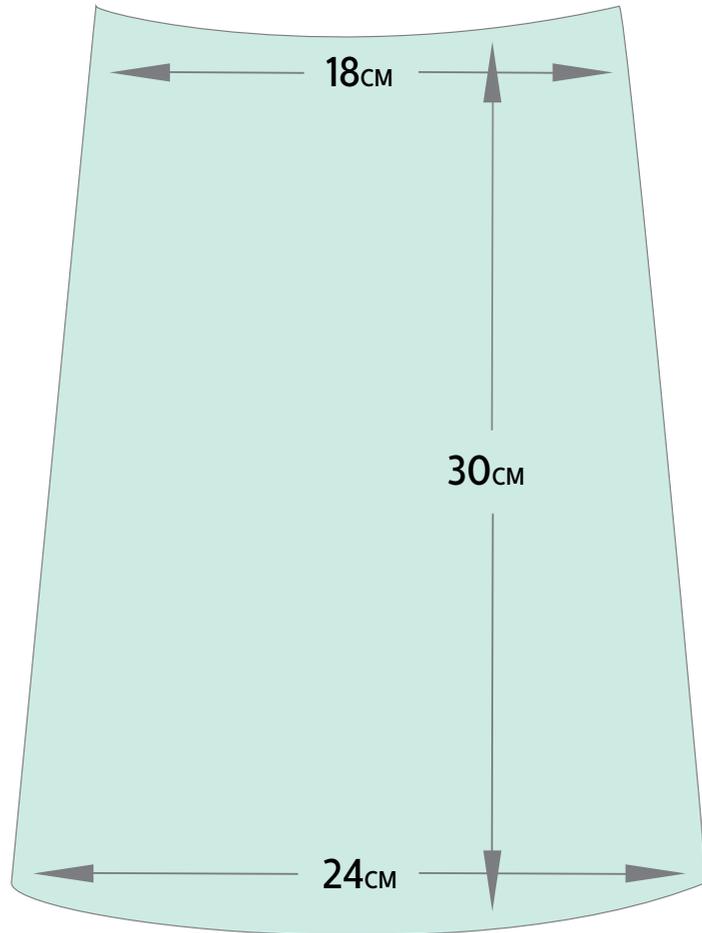
- Create a story map for your version of this painting, considering setting, characters, rising and falling action, climax, and resolution.
- Write your own version of the story in this painting, constructing a main plot and at least two subplots, and relating all the plots to the others.

Supporting English Language Learners

- Complete this cloze activity focusing on nouns and verbs:
Jahangir rode his ____ and plunged his spear into a ____ who was ____ a man. The man's
ran away while another man tried to ____ him. Prince Parviz rode his ____ in to join the rescue, ____
the ____ with a long ____ . A man in the rocks ____ at some ____ while a group chased by a ____
try to climb a ____ .



LEARNING FROM THREE-DIMENSIONAL OBJECTS 1



Figures 39a and 39b:
Candlestick
Iran, 16th century
Engraved brass
Height 43.2 cm
AKM614

The upper inscription on the candlestick (*sham'dan*) in Figure 39a may be translated, "Sometimes my heart burns with love for beloved ones, sometimes my heart bleeds; every moment my heart burns with a new mark, like the butterfly I am attracted to a candle; if I go close, I burn my wings." The inscription around the base may be translated: "In loyalty to your love I am known among the fair ones like the candle; I am the one who like a candle stays up at night where the wise ones dwell; the thread of my patience is cut with the scissors of your sorrow; I am burning in the fire of your love like the candle."



Artisans working for Timurid courtiers and princes (1370–1507) used poetry to adorn their work, and the traditions continued under the Safavid dynasty (1501–1722). The artisans almost certainly made this expensive and luxurious candlestick for a wealthy patron.

Did You Know?

A metalworker hammered this candlestick into shape from a sheet of brass, an alloy of copper and zinc. Then by engraving, removing some metal with a sharp chisel, he created intricate patterns on its surface.

CURRICULUM EXPECTATIONS AND KEY UNDERSTANDINGS

VISUAL ART

OME Expectation	Key Understanding
Develop an understanding of the elements of design. Learn to use them in creative work.	Developing Creativity: Works of art are created with the elements of design as basic building blocks.
Develop an understanding of the principles of design, with a focus on unity and harmony (Grade 7) and movement (Grade 8). Learn to use them in creative work.	Developing Creativity: The principles of design are strategies to create works of art.
Use a variety of materials, tools, techniques, and technologies to determine solutions to increasingly complex sculptural design challenges.	Developing Creativity: Choices of materials, tools, and strategies dramatically affect the completion of a work of art.

LANGUAGE

OME Expectation	Key Understanding
Media Literacy: Demonstrate an understanding of a variety of media texts (all grades).	Besides their decorative function, writing, images, or patterns on an object can carry considerable meaning through narrative or poetry.

MATHEMATICS

OME Expectation	Key Understanding
Geometry and Spatial Sense: Apply transformations to create and analyze designs (Grades 7 and 8).	The symmetry operations of reflection, translation, and rotation are the rules according to which patterns are constructed.
Geometry and Spatial Sense: Develop an understanding of the difference between similarity and congruence (Grade 7).	Dilatations create similar shapes and symmetry operations create congruent (identical) shapes.
Geometry and Spatial Sense: Identify applications of geometric principles in the real world (Grade 8).	Artists use symmetry operations as tools to create art.

SCIENCE AND TECHNOLOGY

OME Expectation	Key Understanding
Structures and Mechanisms: Form and Function (Grade 7): Demonstrate an understanding of the relationship between structural forms and the forces that act upon them.	The form of a structure is dependent on its function.
Matter and Energy: Pure Substances and Mixes (Grade 7): Investigate the properties and applications of pure substances and mixes.	Pure substances and mixes have an impact on society and the environment.
Matter and Energy: Heat in the Environment (Grade 8): Investigate ways in which heat changes substances, and describe how heat is transferred.	Heat is a source of energy that can be transformed and transferred. These processes can be explained by the particle theory of matter.



CROSS-CURRICULAR CONNECTIONS

OME Expectation	Key Understanding
Visual Art and Mathematics: Use geometric principles in a work of art to express unity and harmony (Grade 7).	An artist needs to use mathematical skills to make patterned works of art.
Visual Art, Mathematics, and Social Studies: Demonstrate an understanding of how to read and interpret signs and symbols from multiple perspectives (Grades 7 and 8).	The same signs and symbols can be interpreted from mathematical, artistic, and cultural perspectives.
Science and Mathematics: Structures and Mechanisms: Form and Function: Describe the role of symmetry in structures (Grade 7).	Symmetry is the same principle whether it is in mathematics, art, and architecture, or the human body.

LEARNING THROUGH INQUIRY AND LEARNING BY DOING: PROMPTS AND ACTIVITIES

Mathematics

- Analyze the designs on the candlestick in Figure 39a, listing the number and type of transformations and estimating the degree of dilation in the zigzags on the stem of the stand.

Visual Art

- Using the diagram in Figure 39b to guide you, make a drawing of a graduated cylinder and experiment with designs that cover it and meet smoothly when you fold the edges together.

Language

- Find a functional object in the classroom or your home and develop a short piece of imaginative writing in which you use the object as a metaphor for your feelings, as the poem on the candlestick in Figure 39a does, or your actions (e.g. "I am a flashlight that lights your way home.").

Visual Art, Mathematics, and Social Studies

- Using objects in the Aga Khan Museum's Permanent Collection as examples, investigate how calligraphy is employed in works of art. Focus on the visual effect of the calligraphy, geometric strategies the maker has used to fit it into spaces, and the significance in its specific use.



LEARNING FROM THREE-DIMENSIONAL OBJECTS 2



Figure 40:
Panel
Egypt, 15th century
Marble and stone mosaic
225 x 49 x 5 cm
AKM571

Typical of the decorative approach to stone, the triple-arched wall panel in Figure 40 uses the natural variety of stone colours to produce intricate polychrome compositions. Different stones and marble were cut according to the desired design, here forming a star-and-hexagon mosaic with knot-like interlace on the end spandrels. This panel would have decorated a reception room in a residential building in Egypt or Syria of the Mamluk period (1250–1517), where arched panels, similar to this one, separated the central hall with its gushing fountain from the two raised reception areas that flanked it.



Did You Know?

The patterns on the panel in Figure 40 are not painted on but composed of individual stone pieces meticulously cut to fit. To make the panel, artisans would have cut all the pieces from different coloured stones, laid out down all the stones in the desired pattern, poured plaster over them, let it harden, and raised the panel to its standing placement.

CURRICULUM EXPECTATIONS AND KEY UNDERSTANDINGS

MATHEMATICS

OME Expectation	Key Understanding
Geometry and Spatial Sense: Apply transformations to create and analyze designs (Grades 7 and 8).	The symmetry operations of reflection, translation, and rotation are the rules according to which patterns are constructed.
Geometry and Spatial Sense: Develop an understanding of the difference between similarity and congruence (Grade 7).	Dilations create similar shapes and symmetry operations create congruent (identical) shapes.
Geometry and Spatial Sense: Identify applications of geometric principles in the real world (Grade 8).	Artists use symmetry operations as tools to create art.

SCIENCE AND TECHNOLOGY

OME Expectation	Key Understanding
Structures and Mechanisms: Form and Function (Grade 7): Demonstrate an understanding of the relationship between structural forms and the forces that act upon them.	The form of a structure is dependent on its function.
Matter and Energy: Pure Substances and Mixes (Grade 7): Investigate the properties and applications of pure substances and mixes.	Pure substances and mixes have an impact on society and the environment.
Matter and Energy: Heat in the Environment (Grade 8): Investigate ways in which heat changes substances, and describe how heat is transferred.	Heat is a source of energy that can be transformed and transferred. These processes can be explained by the particle theory of matter.

LEARNING THROUGH INQUIRY AND LEARNING BY DOING: PROMPTS AND ACTIVITIES

Mathematics

- Geometry and Spatial Sense: The panel in Figure 40 is built entirely of geometric shapes. Identify, measure, and describe the properties of these shapes in mathematical language. Using mathematical tools, construct another set of geometric shapes that fits the panel exactly. See Figure 25a for a line diagram of the panel.

Visual Art

- Form and Function (Grade 7): Investigate the panel in Figure 40 and describe how it is constructed to support its arches. Using locking building blocks, such as LEGO, build an arch with these considerations in mind.



LEARNING FROM THREE-DIMENSIONAL OBJECTS 3



Figure 41:
Bowl
Iran, mid-18th century
Fritware, underglaze lustre-painted
Diameter 22.2 cm, height 9 cm
AKM697

The figure depicted on the bowl in Figure 41 may be Rostam, the hero of the *Shah-Nameh*, who also plays a role in the painting in Figure 16, or he may be Bahram Gur, another important *Shah-Nameh* character who appears in the painting in Figure 45. He pursues a fancifully drawn dragon around a central rosette while two sets of triangular mountain peaks appear behind the figures, setting the scene for the hunt. The artist has managed the difficult task of portraying an action scene in the round, complete with a mountainous background.

Did You Know?

Two styles of decoration in two different colours appear on this bowl, each one entirely unrelated to the other. Either one could be removed, leaving either a blue-and-white bowl decorated with floral and geometric patterns, or a brown-and-white bowl with a figural scene.

CURRICULUM EXPECTATIONS AND KEY UNDERSTANDINGS

VISUAL ART

OME Expectation	Key Understanding
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Develop an understanding of the principles of design, with a focus on unity and harmony (Grade 7) and movement (Grade 8). Learn to use them in creative work.	Developing Creativity: The principles of design are strategies to create works of art.
Use a variety of materials, tools, techniques, and technologies to determine solutions to increasingly complex sculptural design challenges.	Developing Creativity: Choices of materials, tools, and strategies dramatically affect the completion of a work of art.

LANGUAGE

OME Expectation	Key Understanding
Media Literacy: Demonstrate an understanding of a variety of media texts (all grades).	A painting on a ceramic bowl can tell a story.



MATHEMATICS

OME Expectation	Key Understanding
Geometry and Spatial Sense: Apply transformations to create and analyze designs (Grades 7 and 8).	The symmetry operations of reflection, translation, and rotation are the rules according to which patterns are constructed.
Geometry and Spatial Sense: Develop an understanding of the difference between similarity and congruence (Grade 7).	Dilations create similar shapes and symmetry operations create congruent (identical) shapes.
Geometry and Spatial Sense: Identify applications of geometric principles in the real world (Grade 8).	Artists use symmetry operations as tools to create art.

SCIENCE AND TECHNOLOGY

OME Expectation	Key Understanding
Structures and Mechanisms: Form and Function (Grade 7): Demonstrate an understanding of the relationship between structural forms and the forces that act upon them.	The form of a structure is dependent on its function.
Matter and Energy: Pure Substances and Mixes (Grade 7): Investigate the properties and applications of pure substances and mixes.	Pure substances and mixes have an impact on society and the environment.
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CROSS-CURRICULAR CONNECTIONS

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Visual Art, Mathematics, and Social Studies: Demonstrate an understanding of how to read and interpret signs and symbols from multiple perspectives (Grades 7 and 8).	The same signs and symbols can be interpreted from mathematical, artistic, and cultural perspectives.
Science and Mathematics: Structures and Mechanisms: Form and Function: Describe the role of symmetry in structures (Grade 7).	Symmetry is the same principle, whether it is in mathematics, art, and architecture, or the human body.

LEARNING THROUGH INQUIRY AND LEARNING BY DOING: PROMPTS AND ACTIVITIES

Visual Art

- What do you see first when you look at the bowl in Figure 41? Do you think it is the most important part of the design? How has the artist used unity and harmony, and/or movement, to create the composition?
- How has the artist used perspective in the treatment of the mountains? Do you think it is successful?
- How has the artist used layered images in the design? Do you think it is successful?

Language

- Describe the story in your own words and explain how the artist has incorporated landscape, plants, and the environment, as well as human and animal drama into the work.

Mathematics

- Geometry and Spatial Sense: Is there reflection, translation, and/or rotation in the composition? Using mathematical tools, create your own geometric designs showing each transformation.

Science and Technology

- Matter and Energy: Pure substances and mixes (Grade 7): Investigate the bowl in Figure 41 from the perspective of the mixes that comprise it. What would happen if the proportions were changed?
- Matter and Energy: Heat in the Environment (Grade 8): Research the firing process of pottery, using appropriate scientific vocabulary and inquiry.



LEARNING FROM PERFORMING ARTS



Figure 42:
Tambura
Northern India, ca. 1800
Teak wood, a calabash, metal, and bone
Length 126 cm
AKM700

The *tambura*, or *tempura*, is a long-necked stringed instrument made of light, hollow wood, with either a wooden or a gourd resonator. It is typically used in accompaniment, where it provides a drone pitch that comes from the flat bridge, called the *jawari*.



This *tambura* is from northern India. Similar examples from southern India often include representations of Hindu gods and use a different decorative vocabulary. The quality of the craftsmanship suggests that the *tambura* in Figure 42 may have been made as much as a decorative object as a musical instrument. It may also have been made for a woman; those made for men tend to be larger.

Did You Know?

A gourd like the one that makes the body of the instrument in Figure 42 is a giant seedpod that makes a perfect resonator when the seeds and flesh are removed and it is dried. Because of their resonating properties, gourds have been formed into musical instruments for much of human history.

CURRICULUM EXPECTATIONS AND KEY UNDERSTANDINGS

MUSIC

OME Expectation	Key Understanding
Communicating: Apply the critical analysis process to communicate feelings, ideas, and understandings in response to a variety of music and musical experiences (Grades 7 and 8).	A piece of music has meanings that can be expressed in language.
Understanding Culture: Demonstrate an understanding of a variety of musical genres and styles from the past and present, and their sociocultural and historical contexts (Grades 7 and 8).	Music is different in different places in the world, but it has the same elements and principles.

LEARNING THROUGH INQUIRY AND LEARNING BY DOING: PROMPTS AND ACTIVITIES

Music

- What kind of sound does the instrument in Figure 42 make? What are some of its variations? Investigate these questions and create a short video and sound piece to convey your findings.

Language and Music

- Express analytical and personal responses to a musical performance at the Aga Khan Museum through written work.

