



MUSEUM OF RUSSIAN ICONS

Objects in Icons

Grade 4

by Shannon Foley

About the Museum

The Museum of Russian Icons was founded in 2006 as a non-profit educational institution by Massachusetts industrialist Gordon B. Lankton. The collection includes more than 500 Russian icons, the largest collection of its kind in North America, and one of the largest private collections outside Russia. The collection spans six centuries, and includes important historical paintings dating from the earliest periods of icon painting to the present.

The Museum is a fascinating place for teachers and students to explore. It offers discussion-based tours that engage students of all ages. The study of icons and Russian culture yields rich connections to a wide variety of curriculum areas, including history and social studies, art and art history, and English Language Arts. We can customize your classroom visit to meet your instructional goals and curriculum needs.

About This Lesson

This lesson is one of a series developed by graduate students in Tufts University's Museum Studies program as assignments for the course Curriculum Development for K-12/Museum Collaborations. Special thanks to the students who created them. These lessons are works in progress intended to show educators the scope of educational opportunities that the Museum can create for students.

Some lessons are designed to take place at the Museum, while others were created for teachers to use in the classroom. They can be printed out and used as is, or they can serve as a starting point for other lessons. The Museum looks forward to working with educators to tailor the experience for their students.

If you have written or developed a lesson plan about icons, the Byzantine Empire, Russian history or culture, or any other relevant subject and you'd like us to post it on this website as a community resource, please send it to the email address below and we will be in touch to follow up.

If you have questions or feedback about these lessons, or if you'd like to make arrangements for your students to visit the Museum, please contact Tara Young at tyoung@museumofrussianicons.org or call (978) 598-5000 x 13.

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I. In-Gallery Lesson

Body Language, Expression, and Objects in Icons

Age Group: Fourth grade, 9-10 years old

Time Required: 1 hour

Subjects: Theatre, Language Arts

Lesson Overview

This lesson uses the facial expressions, body language, and objects featured in icons as teaching tools to communicate to fourth graders the methods an artist uses to represent emotion through art.

In dance, music, theatre, and the visual arts, people express ideas, feelings, and emotions that they cannot express using language alone. Artists use expressions, body language, and objects to convey emotions because the people depicted in the artwork can't tell us how they're feeling. Observing people's expressions, body language, and featured objects in art can help us to understand the context and range of emotions occurring. This lesson focuses on the curriculum connections of theatre and language arts in order for students to gain an understanding of the how the artwork of an icon can assist in inferring such meanings.

Learning Objectives

By the end of this lesson, students will be able to:

- Accurately portray body language as a method of communicating emotion and meaning
- Use and understand how facial expressions of figures represent emotion
- Improve upon social skills through group collaboration
- Accurately identify emotions portrayed in icons using the illustrated facial expressions as indicators
- Learn and apply new vocabulary (saint, minyeia, martyr)

Skills Used by Students

- Observation and interpretation of the visual arts
- Recognize and describe facial expression, body language, and objects in art
- Compare and cite differences of expression in art
- Design, construct, and produce a group performance to develop a better understanding of expression in art

Materials & Preparation

- Icon of the February Minyeia (available online for educational use only, <http://www.museumofrussianicons.org/forteachers.html>)
- Box of everyday items (notebook, pencil, lampshade, chair, book, umbrella, puzzle, cell phone, chalk, coffee mug) that can be obtained in classroom or at home.
- Scenario Activity Sheet (Appendix 1, page 12)
- Magnifying glass

Introduction for Educator

The minyeia is a calendar that uses saints and martyrs, rather than numbers, to represent each day of the week. In the Russian Orthodox religion, saints' days are very popular and are widely celebrated. The days specified are typically the days that they were martyred. The February Minyeia Calendar, which this lesson will focus on, has a large number of saints, including Theodore Stratelates (first row, far right). Theodore Stratelates was a Commander in the Army and regarded as the Protector of Soldiers. This background information is represented by him wielding a shield. The saints' expressions only have subtle differences but it is important to the lesson to note them. This is seen in Presentation of Christ in the Temple (top row, far left). The expressions of Christ and Joseph are softer and more contemplative compared to the saints surrounding them.

Introduction for the Students (3 minutes)

In the February Minyeia, the artist portrays saints as representations of certain days. In the Russian Orthodox religion, saints' days are very popular and are widely celebrated. The days specified are typically the days that they died. The saints' expressions and body positions also tell the viewer a great deal about the situation as they face one another or hold up something in their hands.

Steps for the Educator

1. February Minyeia (**15 minutes**) Explain the use of a minyeia as a calendar and the use of saints as representation for certain dates.

Explain that over time, saints and martyrs came to be represented with certain objects (Ex: Saint George and his horse, St. Nicholas and his sword) that helped to tell the stories of their lives.

Ask the students to observe what the saints and martyrs are holding. Have students use the magnifier to get a closer look.

See if the students can guess the meaning that might be associated with those objects.

Point out the saints' expressions using a magnifier. Ask the students what their expressions tell them about how the saints are feeling.

Bring the students' attention to the saints and martyrs' body language and body positions. Some are bending over, some have tilted heads, and some are standing straight up. Ask the students what emotions might be paired with these positions. Ask them how they stand when they are feeling happy or sad.

2. Instructional Activity Set Up (**12 minutes**) The students are now going to put themselves in the shoes of Russian icon artists, primarily by using images to convey emotions. Facial expression and body language are indicators of emotions in icons. The class will only be allowed to use those modes of representation in their performances. They will not be allowed to use language.

Have the students break up into equal groups of three or four. Hand each group member a handout with all the assorted scenarios (Appendix 2, page 12). Assign each group a random scenario number (1-20). Instruct the class to keep their scenarios secret from the other groups.

Allow each group to choose an object from the box provided that will best represent their situation. These objects can include everyday objects from the classroom or home. Examples include: notebook, pencil, lampshade, chair, book, umbrella, puzzle, cell phone, chalk, coffee mug, etc.

Give each group 10 minutes to discuss how they will act out their scenario without using words.

Have the groups cast the roles for their scenarios. Instruct the class to focus on the performers' facial expressions and objects during their performance.

Be sure to inform the class that the performances should be kept at 2-3 minutes long (the scenarios are designed so that they can be conveyed quickly).

3. Activity (**20 minutes**) Each group will be given 2-3 minutes to perform their scenario without using words or sound. (Students may opt to use the attached handout that gives a list of the preformed scenarios and emotions) The students will have to guess which one the group is acting out by evaluating facial expressions, body language, and the use of the chosen object.

Ask each group to form a guess of the scenario among themselves.

Have the groups wait to guess until the educator calls on them.

4. Discussion (**if any time remaining**) The students should now have a good understanding of some of the strategies an icon painter might have used to communicate meaning and emotion without the use of language. Additionally, they will understand how the use of an object can help convey meaning. Have the students discuss the representation of emotion through facial expression during their performances.

Ask the students if they knew right away what emotion was being portrayed.

Ask if the use of the object helped clue them in to the scenario.

Student Assessment

In order to demonstrate learning, please answer the following question about the student (Appendix 2, page 13):

- Was the student able to accurately use body language as a way of communicating emotion and meaning?
- Did the student comprehend the idea of how facial expressions of figures represent emotion?
- Can the student now accurately identify emotions in icons using the illustrated facial expressions as indicators?
- Did the student collaborate with the group and actively participate in the performance?
- Does the student understand and effectively apply the new vocabulary presented?

Massachusetts Standards Addressed

Arts

Topic: Purposes and Meanings in the Arts

6.1: When viewing or listening to examples of visual arts, ask questions such as, "What is the artist trying to say?" "Who made this, and why?" "How does this work make me feel?"

Language

Topic: Discussion

1.2: Follow agreed-upon rules for class discussion and carry out assigned roles in self-run small group discussion.

Theatre:

Topic: Acting

1.4: Create characters through physical movement, gesture, sound and/or speech, and facial expression.

1.6: Demonstrate the ability to work effectively alone and cooperatively with a partner or in an ensemble.

Learning Connections

10.1: Integrate knowledge of dance, music, theatre, and visual art and apply the arts to learning other disciplines.

Vocabulary

Martyr	A person who willingly suffers death rather than renounce his or her religion.
Saint	A person of great holiness or virtue.
Minyeia	A depiction of saints in particular order by Saint's days, used in the Russian Orthodox faith.

Further Information

1. Museum of Russian Icons Homepage. www.museumofrussianicons.org.
2. "Russian Icons in Detail." http://www.sras.org/russian_icons_in_detail
3. *Hidden Doorways: A Beginner's Guide to Russian Icons* by Linette Martin.
4. *Saints, Signs, and Symbols* by Ellwood W. Post.

Citations

"February Minyeia" (1569) Museum of Russian Icons.

Current Curriculum Frameworks- Massachusetts Department of Elementary Education, " last modified January 2011, <http://www.doe.mass.edu/frameworks/current.html>.

Museum Educator Bibliography & Works Cited

1. "Current Curriculum Frameworks—Massachusetts Department of Elementary and Secondary Education." Massachusetts Department of Elementary and Secondary Education. <http://www.doe.mass.edu/frameworks/current.html> (assessed April 6, 2011).
2. Martin, Linette. *Sacred Doorways: A Beginner's Guide to Icons*. Brewster, Mass., Paraclete Press, 2002.
3. Post, W Ellwood. *Saints, Signs, and Symbols*. 2d Ed. New York: Morehouse-Barlow Co., 1974.
4. "February Minyeia" (1569) Museum of Russian Icons.
5. "Russian Icons in Detail." The School of Russian and Asian Studies—Study, Research and Travel in Russia, Kyrgyzstan, and Ukraine. http://www.sras.org/russian_icons_in_detail (assessed April 4, 2011).

Academic Bibliography & Works Cited

1. "Current Curriculum Frameworks—Massachusetts Department of Elementary and Secondary Education." Massachusetts Department of Elementary and Secondary Education. <http://www.doe.mass.edu/frameworks/current.html>. (assessed April 6, 2011).
2. "February Minyeia" (1569) Museum of Russian Icons.
3. Martin, Linette. *Sacred Doorways: A Beginner's Guide to Icons*. Brewster, Mass., Paraclete Press, 2002.
4. "The Orthodox Church in America." The Orthodox Church in America. <http://oca.org>. (assessed April 6, 2011).



II. Post-Visit Extension Lesson

The Meaning of Objects in Icons

Age Group: Fourth grade, 9-10 years old

Length of Lesson: 50 minutes

Subject: Art

Lesson Overview

In this lesson, students will review what they learned at their recent trip to the Museum of Russian icons about facial expression and body language within art. They will produce a self portrait with their own special qualities, traits and interests, and have other students guess who each person is by these clues.

Learning Objectives

By the end of this lesson, students will be able to:

- Understand that objects depicted in artwork, specifically Russian icons, often have a symbolic significance
- Successfully illustrate an important personal object they feel represents themselves
- Give educated guesses based on previously-known information

Skills Used by Students

- Observe and interpret of the visual arts.
- Identify and illustrate an object of personal significance.
- Utilize the calendar and identify correct birthday.

Materials & Preparation

- Icon of the February Minyeia (available online for educational use only).
- Saints, Signs and Symbols worksheet (Appendix 3, page 14)
- Colored pencils/markers/crayons.

Introduction for Educator

This lesson uses objects in art as teaching tools to communicate to fourth graders the methods an artist uses to represent deeper significance through art. Per the in-gallery activity, students should recognize that the minyeia is a calendar that uses saints and martyrs, rather than numbers, to represent each day of the week. Each saint is pictured on his or her "feast day" and an Orthodox Christian would be able to recognize what saint corresponded to which day. The minyeia was used to help Orthodox believers keep track of important days that were essential to their prayers. The February Minyeia Calendar, which this lesson will be focusing on, has a number of saints, including Theodore Stratelates (first row, far right). Theodore Stratelates was a Commander in the Army and regarded as the Protector of Soldiers. This background information is represented by him wielding a shield. This will most likely have to be reviewed at the beginning of this lesson.

Introduction for the Students (5 minutes)

In the February Minyeia Calendar, the artist portrays the lives of the saints as representations of certain days. Each saint represented a "feast day" which is important to Orthodox Christians' prayers and celebrations. Viewers can often tell which saint is which by identifying the saint's accompanying object. This object will often illustrate the saint's traits or interests during his or her life. For example: Saint George is often depicted with a dragon because, according to legend, St. George saved the king's daughter from the beast.

Steps for the Educator

1. February Minyeia & the Saints' Objects (**10 minutes**) Go over the use of a minyeia and the use of saints as representation for certain dates. This has been explained extensively during the in-gallery activity but the students should still be reminded.

Explain that over time, saints and martyrs came to be represented with certain objects that helped to tell the stories of their lives.

An example may be St. George being depicted with a dragon.

Another example may be Theodore Stratelates (first row, far right). He was a commander in the army and represents this trait by wielding a shield.

2. **Instructional Art Activity Part I (15 minutes)** The students are now going to draw themselves with an important object that they believe represents themselves. For example: If the student loves spelling bees, a dictionary might be appropriate. Additionally, they will number the calendar on the worksheet and draw their special object on the date that is their birthday.

Have the students sit at their own desks. Hand out the Saints, Signs and Symbols worksheet (Appendix 3, page 14) Instruct the students not to write their names the worksheet. Hand out colored pencils/markers/crayons. Allow the students to draw a self-portrait with their accompanying object.

Instruct the students to number the calendar, label with their birthday month, and draw their special object on their birthday.

3. **Instructional Art Activity Part II (15 minutes)** The students will hand back their drawings to the teacher. The teacher will shuffle the papers and hand them back out randomly so that everyone has one that is not their own.

Ask the students to try and identify whose drawing they have. Instruct them to think about the object they are viewing and if they know what significance that object may have to one of their fellow classmates. Instruct the students to also look at the birthday as a clue to see if they can identify whose drawing they have.

Go around the room and ask each student whose drawing they think they have and why.

4. **Discussion (5 minutes)** Ask the students if they now understand that objects are often (always) used in symbols in Russian icons. Questions to ask:
 - Why did you choose your special object?
 - Was it easy for your classmates to identify your drawing? Why or why not?
 - Do you think you're going to look at objects in art differently from now on?

Student Assessment

Appendix 4, page 15

- Did students demonstrate an understanding that objects depicted in artwork, specifically Russian icons, often have a symbolic significance?
- Did students successfully illustrate an important personal object they felt represented themselves?
- Did students give educated guesses based on previously-known information?

Massachusetts Education Standards

Visual Arts

Topic: Drafting, Revising, and Exhibiting

4.1 Select a work or works created during the year and discuss them with a parent, classmate, or teacher, explaining how the work was made, and why it was chosen for discussion.

4.3 As a class, develop and use criteria for informal classroom discussions about art

Drafting, Revising, and Exhibiting.

Topic: Critical Responsive

5.3 Describe similarities and differences in works, and present personal responses to the subject matter, materials, techniques, and use of design elements in artworks.

Further Information

1. Museum of Russian Icons Homepage. www.museumofrussianicons.org.
2. "Russian Icons in Detail." http://www.sras.org/russian_icons_in_detail
3. *Hidden Doorways: A Beginner's Guide to Russian Icons* by Linette Martin.
4. *Saints, Signs, and Symbols* by Ellwood W. Post.

Citations

"February Minyeia" (1569) Museum of Russian Icons.



III. Cross-Curricular Lesson

The Minyeia and Mathematics

Age Group: Fourth grade, 9-10 years old

Length of Lesson: 50 minutes, at the Museum

Subjects: Mathematics, Visual Arts

Lesson Overview

Using a calendar as a means for practicing mathematics can be very successful. Keeping track of “feast days” by tracking saints on the minyeia is just one use for a calendar. For fourth graders, who are learning a range of skills such as measurement, graphing, conversion, and probability, the calendar is a unique way to tackle the new knowledge they need to acquire. Approaching math from different angles can keep the subject material fresh and relevant.

Learning Objectives

By the end of this lesson, students will be able to:

- Understand that calendars are used to track time.
- Recognize the connection of the minyeia to their academic calendars.
- Recognize different types of visual representation (e.g. a graph, academic calendar, or minyeia) and their functions.
- Learn the basic concepts of graphing data

Skills Used by Students

- Identify and engage in the best means of problem solving after evaluating the challenge.
- Carry out simple conversions (e.g. days to weeks, weeks to months, etc.)
- Assess and determine probability in fraction and decimal form.
- Record and translate data into a graph that best represents information.

Materials & Preparation

- Icon of the February Minyeia (available online for educational use only).
- “Math Warm Up” (Appendix 5a and 5b, pages 16-17) and “Birthday Tally” worksheets (Appendix 6, pages 18)
- Academic Calendar (Educator will need to photocopy their school’s academic calendar for the students. See http://www.cpsd.us/web/PubInfo/CPS_Academic_Calendar_10-11.pdf as an example).

Introduction for Educator

This lesson is designed to add variety to the students’ everyday math lessons. Using a calendar is a lifelong skill and using it as a tool in elementary school is an excellent way for students to build those skills early. The minyeia is a calendar that uses saints, rather than traditional numbers, to represent each day of the month. Each saint is represented on his or her “feast day” and an Orthodox Christian would be able to recognize what saint corresponded to which day. The minyeia was used to help Orthodox believers keep track of significant days that were important to their prayers and celebrations. Using the students’ academic calendar in comparison to the minyeia calendar will help the students to understand the range of uses for a calendar. Math areas that will be used include graphing, probability, conversion, and measurement.

Introduction for the Students (5 minutes)

The minyeia calendar is a system of tracking time and important dates. The academic calendar that schools use today is a system that keeps tracks of school days, vacations, holidays, field trips, final exams, and other important dates. The two calendars have the same essential function but use different styles to track days of the week. The students have already observed the visual representation of the minyeia in the previous lesson. Now, the students will practice their math skills by taking a look at their school’s style of representation by numbers on their academic calendar.

Steps for the Educator

1. February Minyeia in comparison with the academic calendar (10 minutes)

Explain to the students that in associated with their trip to the Museum of Russian Icons that they will be looking and learning about the calendars they learned about called minyeias.

Hand out academic calendars to the students while displaying the February Minyeia on the overhead projector.

Ask the students to look at February on their academic calendar and to note the similarities between the minyeia and their calendar.

Ask them different ways that numbers play a large role in our society today (e.g. calculating gas prices, determining if you have enough snack money, math tests, etc.).

2. Instructional “Warm up” Math Activity (15 minutes) The students are now going to practice using their academic calendars by solving math equations. This sheet is designed to get the students thinking about the measurements of time on the calendar corresponding with mathematics.

Hand out the “warm up” worksheet (Appendix 5, page 16). Have the students work independently for 15 minutes on the sheet. If necessary, consult the teacher answer key for correct answer and helpful tips for students.

3. Graphing Activity (20 minutes) The students will now learn how important dates on the calendar are added based on the month and the date. While calendars capture dates, graphs can also be used to represent several events in a particular month to measure frequency.

Hand out the “Birthday Tally” worksheet (Appendix 6, page 18). Ask the students to raise their hand when their birthday month is called out. Have students record on their worksheet, using tallies, the number of students with a particular birthday month.

Ask them what kind of graph would best represent the information they have just collected. Have them draw that graph using the graph paper on the bottom of their sheet or the back. Remind them to include a key, a title, and labels.

Remind them that, like the minyeia, they are now creating a visual tool that will help people identify important time periods.

While they are working, ask them if there could have been a better way to collect the birthday data and why?

Student Assessment

See Appendix 7, page 19

- Was the student able to understand the concept that calendars are used to track time?
- Was the student able to identify the similarities and differences between their academic calendars and the February Minyeia?
- Did the student recognize some different types of visual representation (e.g. a graph, academic calendar, or minyeia) and their function?
- Did the students successfully understand the basic concepts of graphing?

Massachusetts Education Standards

Topic: Measurement

4.M.2 Carry out simple unit conversions within a system of measurement,

e.g., hours to minutes, cents to dollars, yards to feet or inches, etc.

Topic: Number Sense and Operations

4.N.3 Demonstrate an understanding of fractions as parts of unit wholes, as parts of a collection, and as locations on the number line.

Topic: *Data Analysis, Statistics, and Probability*

4.D.4 Represent the possible outcomes for a simple probability situation, e.g., the probability of drawing a red marble from a bag containing three red marbles and four green marbles.

Topic: *Learning Connections*

10.1: Integrate knowledge of dance, music, theatre, and visual art and apply the arts to learning other disciplines.

Citations

1. "February Minyeia" (1569) Museum of Russian Icons.
2. Cambridge Academic Calendar. Web. 3 May 2011.
http://www.cpsd.us/web/PubInfo/CPS_Academic_Calendar_10-11.pdf.

Museum Educator Bibliography & Works Cited

1. Cambridge Academic Calendar. Web. 3 May 2011.
http://www.cpsd.us/web/PubInfo/CPS_Academic_Calendar_10-11.pdf.
2. "Current Curriculum Frameworks—Massachusetts Department of Elementary and Secondary Education." Massachusetts Department of Elementary and Secondary Education.
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3. Martin, Linette. *Sacred Doorways: A Beginner's Guide to Icons*. Brewster, Mass.,
4. "February Minyeia" (1569) Museum of Russian Icons.
5. Martin, Linette. *Sacred Doorways: A Beginner's Guide to Icons*. Brewster, Mass., Paraclete Press, 2002.
6. Post, W Ellwood. *Saints, Signs, and Symbols*. 2d Ed. New York: Morehouse-Barlow Co., 1974.

Appendix 1. Pre-Visit Lesson: Body Language, Expression, and Objects in Art: Scenario Activity Handout. Copy and distribute one worksheet to each student or group.

You are now going to become the artist! You've been faced with the challenge of representing emotion without using language to describe what your subjects are feeling.

Directions

1. Break into groups. Your educator will assign you a scenario number.
2. Choose an object that will help you to represent your assigned scenario.
3. Take 5 minutes with your group to elect roles for one another.
4. Act out your situation in 2-3 minutes without using words or sound.
5. *(For the audience)* Figure out which of the scenarios below the performing group is acting out.

Remember!

Be sure to focus on your facial expression and body language like artists do to show emotion in their works. Use your chosen object as best you can to explain your scenario.

Scenarios

1. You received a poor grade on a test.
2. You just won the lottery for ten million dollars.
3. You are watching a horror movie during the scariest part.
4. You were chosen to come on-stage during a concert of your favorite artist/band.
5. You just walked into a surprise birthday party for you.
6. You were caught in a sudden rainstorm.
7. You just received news that your pet goldfish has died.
8. Your soccer team has just won the league championship.
9. You spent over an hour trying to put your broken bicycle back together and you aren't getting any closer to finishing.
10. You have just received a phone call from the President of the United States congratulating you on your good grades.
11. You have just completed a puzzle that took you three hours to finish.
12. You just found out that you have a snow day.
13. Your mother just told you that you have to clean your room and do the dishes.
14. You just heard a new song that you love.
15. You have been waiting for the bus for 20 minutes during a cold morning.
16. Your teacher tells you that you have to stay inside during recess and finish your homework.
17. You have just found out that you have a surprise field trip to Six Flags.
18. Your classmate is scratching his nails on the chalkboard.
19. Your parents just told you that they're taking you to Disney World in one hour.
20. You were just told that you have to repeat the fourth grade.

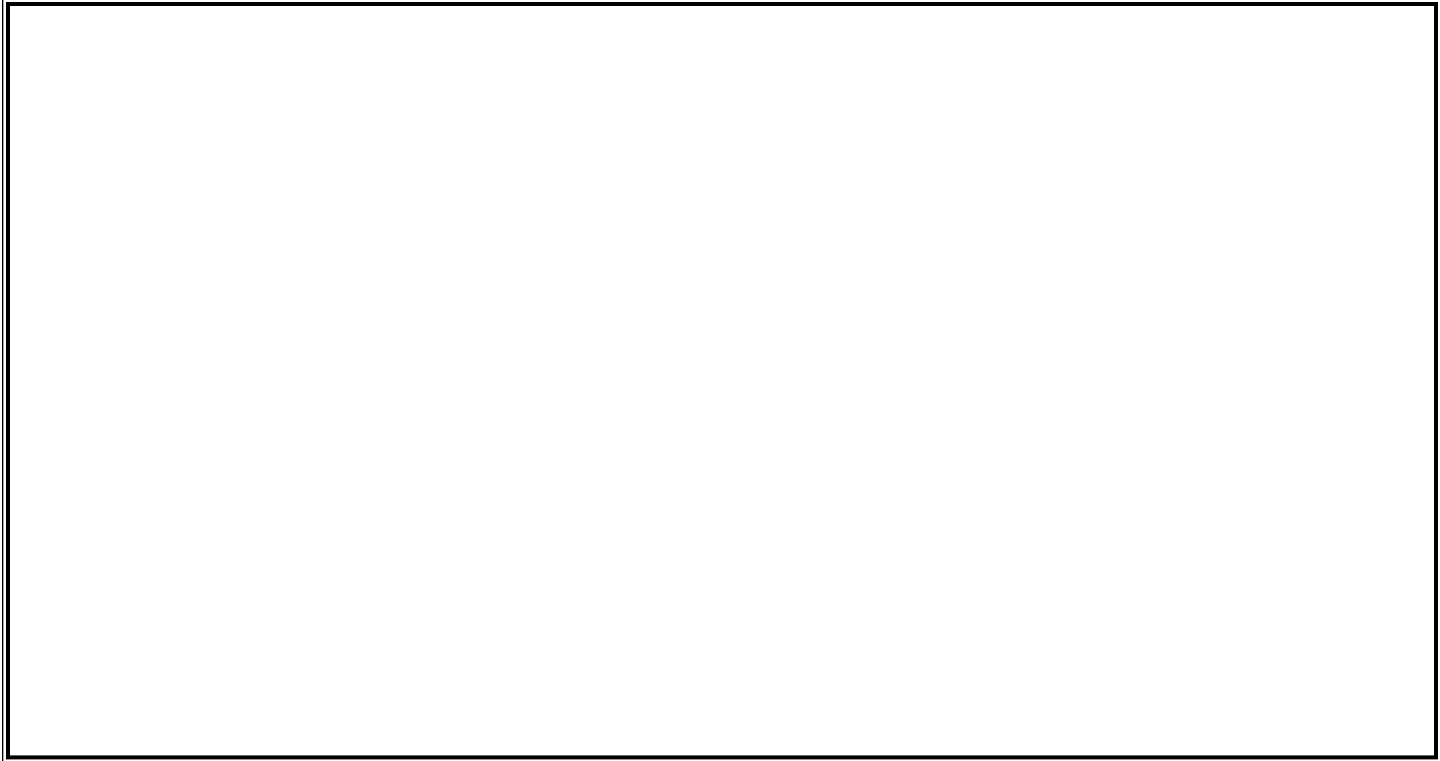
Appendix 3. Post-Visit Extension Lesson. The Meaning of Objects in Icons. Saints, Signs and Symbols.
 Copy and distribute one worksheet to each student.

Saints, Signs, and Symbols

On the minyeia calendar, each saint had a “feast” day and Orthodox Christians would know which day corresponded to whom. They used the minyeia to keep track of prayers. Saints are frequently depicted with an important object that represents their life. For example: St. George and his dragon.

Directions

1. Draw a picture of yourself with an object that represents you and your interests.
2. Number the calendar and draw your special object on your birthday so everyone can keep track of when it is.
3. Once finished, the teacher will collect and redistribute your drawings randomly. Can you guess who the drawing illustrates based on the birthday and the object?



Month:						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Appendix 5a. Cross-Curricular Classroom Lesson: The Minyeia and Mathematics: Math Warm-up.
Copy and distribute one worksheet to each student.

Math Warm Up Worksheet

Name: _____

Date: _____

Orthodox Christians used a minyeia calendar to keep track of their prayers and “feast days.” They did this by identifying the saint that was honored on each day.

Today, we keep track of daily commitments by using a calendar with dates and days of the week. Using a calendar is a good way to practice our math skills because we’re able to learn a range of skills such as measurement, graphing, conversion, and probability. Let’s try it!

First, let’s start with the basics. Please answer the following questions. Feel free to consult your attached academic calendar.

Number of weeks in a month: _____

Number of months in the year: _____

Number of weeks in the year: _____

Number of days in the year: _____

Let’s take this a little further.

Number of months in 3 years: _____

Number of days in 4 years: _____

Number of weeks in 5 years: _____



Let’s try some probability. Please answer the following in fraction form.

If the names of all the months were thrown into a hat, what is the probability of selecting September? _____

What is the probability of selecting a month that begins with the letter “J”? _____

Please answer the following as a percentage.

What percent chance do you have of randomly choosing a month that starts with “M”? _____

What percent chance do you have of choosing a month during the summer? _____

Appendix 5b. Cross-Curricular Classroom Lesson: The Minyeia and Mathematics: Math Warm-up.
Answer sheet for educator.

Math Warm Up Worksheet (ANSWERS)

Name: _____

Date: _____

Orthodox Christians used a minyeia calendar to keep track of their prayers and “feast days.” They did this by identifying the saint that was honored on each day.

Today, we keep track of daily commitments by using a calendar with dates and days of the week. Using a calendar is a good way to practice our math skills because we’re able to learn a range of skills such as measurement, graphing, conversion, and probability. Let’s try it!

First, let’s start with the basics. Please answer the following questions. Feel free to consult your attached academic calendar.

Number of weeks in a month: 4

Number of months in the year: 12

Number of weeks in the year: 52

Number of days in the year: 365

Let’s take this a little further.

Number of months in 3 years: 36

Number of days in 4 years: 1460

Number of weeks in 5 years: 260



Let’s try some probability. Please answer the following in fraction form.

If the names of all the months were thrown into a hat, what is the probability of selecting September? 1/12

What is the probability of selecting a month that begins with the letter “J”? 3/12 or 1/4

Please answer the following as a percentage.

What percent chance do you have of randomly choosing a month that starts with “M”? 17% (if rounded up)

What percent chance do you have of choosing a month during the summer? 25%

Appendix 6. Cross-Curricular Classroom Lesson: The Minyeia and Mathematics: Birthday Tally. Copy and distribute one worksheet to each student.

Name: _____

Date: _____

Month	Birthday Tally	Month	Birthday Tally
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

1. What kind of graph do you think would best represent this data? (eg. bar, circle, etc.) _____
2. Using the graph paper below, draw a graph to represent this data. Don't forget the labels, a key, and a title.

