

# RESOURCE AND ACTIVITY GUIDE

## INTENT TO DECEIVE

Fakes and Forgeries  
in the Art World



\*John Myatt (British, b. 1945), *Girl with a Pearl Earring*, 2012, oil on canvas, in the style of Johannes Vermeer (Dutch, 1632-1675). Washington Green Fine Art & Castle Galleries, United Kingdom. Image © Washington Green Fine Art

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## WELCOME, EDUCATORS!

The Ringling is pleased to offer you this comprehensive resource and activity guide. Designed to accompany the special exhibition, *Intent to Deceive: Fakes and Forgeries in the Art World*, on view at The Ringling from May 23 through August 2, 2014, the following activities and resources are yours to adapt, edit, and expand upon as necessary. We hope you enjoy your foray into the world of art fraud!

## HOW TO USE THIS GUIDE

Exploring the production and detection of fakes and forgeries provides a unique opportunity to combine the study of science with the analysis of art. This guide details classroom activities that are related to the art and science of art forgery, drawn from the real and fake works of art in *Intent to Deceive*. The activities are divided into three sections, based on grade level. Following these sections, you will find an appendix containing worksheets and resources mentioned in the activity descriptions.

Unless otherwise noted, all images referred to in the activity descriptions can be viewed online at [www.intenttodeceive.org](http://www.intenttodeceive.org).

Images which are shown in this guide and which are also included in the exhibition are marked with a \*.

## ABOUT THE EXHIBITION

*Intent to Deceive: Fakes and Forgeries in the Art World* profiles five prolific forgers from the twentieth century to the present day, detailing how they beguiled the art world. Among the more than 55 works on display, *Intent to Deceive* features original works by such major artists as **Charles Courtney Curran, Honoré Daumier, Henri Matisse, Amedeo Modigliani, Pablo Picasso, and Paul Signac**, among others, interspersed with fakes and forgeries painted in the styles of these masters. The exhibition presents some of the most infamous scandals in the art world and allows museum-goers to test their perceptions of authenticity. Showcasing the materials and techniques the forgers used to create their fraudulent works, the exhibition illuminates how these individuals managed to fool the experts. *Intent to Deceive* brings to light these forgers' frustrated artistic ambitions, chaotic personal lives, and contempt for the art world, and it explores how advances in technology are aiding art professionals in ascertaining authenticity.

*Intent to Deceive* is produced by International Art & Artists, a Washington, DC non-profit arts service organization dedicated to increasing cross-cultural understanding and exposure to the arts internationally, through exhibitions, programs and services to artists, arts institutions and the public. For more information, visit [www.artsandartists.org](http://www.artsandartists.org).



## FORGERIES VS. FAKES

In the parlance of art crime insiders, *fakes* and *forgeries* refer to different (though closely related) types of artistic production. A *fake* is an exact duplicate of a work of art, which may or may not have been created for disreputable purposes. A *forgery* is a work of art that is deliberately created and sold under false attribution. The works included in this exhibition represent both types of unauthentic artworks.

### ***Intent to Deceive* Exhibition Schedule:**

January 21 – April 27, 2014, Michele and Donald D'Amour Museum of Fine Arts, Springfield, MA

May 23 – August 2, 2014, The John and Mable Ringling Museum of Art, Sarasota, FL

August 28 – October 26, 2014, Canton Museum of Art, Canton, OH

February 14 – May 10, 2015, Oklahoma City Museum of Art, Oklahoma City, OK

June 6 – September 7, 2015, Reading Public Museum, Reading, PA



## AMATEUR ARTISTS & ROOKIE COPS

Activities for Grades 2 – 5

**TERMS TO KNOW:** forgery, authentic, medium, ground

ACTIVITY 1	GOAL	<p>To investigate the effects of different materials on the apparent age of paper.</p>	ACTIVITY	<p>Explain that forged drawings are often done on paper that’s been made to look old to fool art experts.</p> <p>Show students Eric Hebborn’s <i>St. George and the Dragon</i>, a forgery done in the style of Jacopo Bellini. Discuss the signs of age that are visible on the paper.</p>
	DURATION	<p>60 minutes, over 2 class periods</p>		<p>Divide students into small groups and distribute paper aging materials – coffee, tea bags, and orange juice. Following the processes described in the <i>Aging Paper</i> worksheet, students should mix solutions and dye their squares of paper, laying each to dry in the appropriate place on their worksheet.</p>
	MATERIALS	<p>Paper cut into small squares, large trays or baking sheets, instant coffee, tea bags, orange juice, hot water, cups, image of Eric Hebborn’s <i>St. George and the Dragon</i>, <i>Aging Paper</i> worksheet (see appendix)</p>		<p>During a subsequent class period, once all papers are dry, have students glue the squares onto their worksheets. Each group should select the aging method that produced a result closest to the paper in <i>St. George and the Dragon</i>.</p>
	STANDARDS	<p>SC.2.N.1.2 / SC.2.P.9.1 SC.2.N.1.2 / SC.2.N.1.3 SC.4.N.1.2</p>		FOLLOW UP



\* Detail: John Myatt (British, b. 1945), *Girl with a Pearl Earring*, 2012, oil on canvas, in the style of Johannes Vermeer (Dutch, 1632-1675). Washington Green Fine Art & Castle Galleries, United Kingdom. Image © Washington Green Fine Art



Detail: Johannes Vermeer, *Girl with a Pearl Earring*, ca. 1665, oil on canvas. Mauritshuis, The Hague.

ACTIVITY 2	<b>GOAL</b>	<p><b>ACTIVITY</b></p> <p>Display the following pairs of paintings, either as large printed reproductions or as computer projections:</p> <ul style="list-style-type: none"> <li>• <i>Girl with a Pearl Earring</i> by John Myatt</li> <li>• <i>Girl with a Pearl Earring</i> by Johannes Vermeer (view online at <a href="http://wikipedia.org/wiki/Girl_with_a_Pearl_Earring">wikipedia.org/wiki/Girl_with_a_Pearl_Earring</a>)</li> <li>• <i>The Procuress</i> by Han van Meegeren</li> <li>• <i>The Procuress</i> by Dirck van Baburen (view online at <a href="http://wikipedia.org/wiki/The_Procuress_(Dirck_van_Baburen)">wikipedia.org/wiki/The_Procuress_(Dirck_van_Baburen)</a>)</li> </ul> <p>Have the class compare the two versions of each painting, looking for differences between the originals and the fakes. Students can use chalk (or the computer mouse, if viewing onscreen) to circle differences.</p> <p><b>FOLLOW UP</b></p> <p>Before revealing which versions are real and which are fake, ask students to select which ones they prefer. After identifying the forgeries, were there any surprises?</p>
	<b>DURATION</b>	
	<b>MATERIALS</b>	
	<b>STANDARDS</b>	
	<p>To carefully observe and compare details in works of art.</p> <p>20-30 minutes</p> <p>Large images of real works by Vermeer and Van Baburen, large images of the forgeries of those works, chalk</p> <p>VA.2.S.2.1 VA.2.H.2.1 VA.3.H.2.1 VA.4.C.1.2 VA.5.C.1.2</p>	



## ACTIVITY 3

### GOAL

To compare physical properties of art-making materials.

### DURATION

45-60 minutes

### MATERIALS

Pencils, oil paint, charcoal, pens, chalk, crayons, watercolors, acrylic paint; paper, canvas; balance scales, *Material Comparison* worksheet (see appendix)

### STANDARDS

SC.3.P.8.3 / SC.4.P.8.1

### ACTIVITY

As students explore *Intent to Deceive*, have them record each type of medium (chalk, pencil, etc.) and each type of ground (canvas, paper, etc.) they see.

In class, put out samples of these media and grounds. Working in small groups, students should select different materials and compare them using the *Material Comparison* worksheet.

### FOLLOW UP

Have students experiment with applying different media to different grounds. How many different effects can they produce?



Level

2

## PROFESSIONAL CROOKS & PRIVATE EYES

Activities for Grades 6 – 8

TERMS TO KNOW: empirical evidence, subjectivity, style, optical microscope

### ACTIVITY I

#### GOAL

To differentiate between scientific evidence and other types of knowledge in the field of art analysis.

#### DURATION

20-30 minutes

#### STANDARDS

SC.6.N.2.1 / SC.7.N.2.3  
SC.8.N.2.2  
LAFS.6-8.SL.1.1

#### ACTIVITY

As a class, view Han van Meegeren's *Head of Christ*. Have students imagine that they represent a wealthy art collector who is interested in buying a Vermeer. If they knew nothing about this painting, what types of evidence might they seek out to determine whether or not it was authentic? (Examples: opinions of experts, information provided by sellers, microscopic analysis of paint, etc.)

Once students have generated a good list, have them decide whether each type of evidence is scientific (objective, based on empirical evidence) or not scientific (subjective, based on opinion).

#### FOLLOW UP

Discuss why both scientific evidence *and* other types of evidence might both be important in determining the authenticity of works of art.

\*Han van Meegeren (Dutch, 1889-1947), *Head of Christ*, oil on canvas, in the style of Johannes Vermeer (Dutch, 1632-1675). Museum Boijmans Van Beuningen, Rotterdam, Museum Purchase





Detail: Vincent van Gogh, *Van Gogh's Chair*, 1888, oil on canvas. National Gallery, London.



Detail: Vincent van Gogh, *Church in Auvers-sur-Oise, view from the Chevet*, 1890, oil on canvas. Musee d'Orsay.



Detail: Vincent van Gogh, *The Olive Trees*, 1889, oil on canvas. Museum of Modern Art, New York.

ACTIVITY 2	<b>GOAL</b>	To analyze elements of different artists' styles.	<b>ACTIVITY</b>  Explain that every artist uses the elements of art (line, shape, form, space, color, texture, etc.) in a slightly different way, which can be considered his/her artistic style.  Have students complete the <i>Elements of Art Styles</i> worksheet. When they finish, show them the images of the three forgeries. By looking at style, can they match each forgery with the artist it is intended to replicate?  <b>FOLLOW UP</b>  Ask: Are there any "giveaways" in terms of style that might suggest that the forgeries are not, in fact, products of their purported artists?
	<b>DURATION</b>	45-60 minutes	
	<b>MATERIALS</b>	<p><i>Elements of Art Styles</i> worksheet (see appendix); printed or projected images of:</p> <ul style="list-style-type: none"> <li>• <i>Odalisque</i> by Elmyr de Hory</li> <li>• <i>Charing Cross Railway taken from the Savoy</i> by John Myatt</li> <li>• <i>Regatta</i> by Elmyr de Hory</li>   <li>• <i>The Red Studio</i> by Henri Matisse, viewable at <a href="http://www.moma.org/collection/object.php?object_id=78389">http://www.moma.org/collection/object.php?object_id=78389</a></li> <li>• <i>Charing Cross Bridge, London</i> by Claude Monet, viewable at <a href="http://www.artic.edu/aic/collections/artwork/16544">http://www.artic.edu/aic/collections/artwork/16544</a></li> <li>• <i>Regatta at Cowes</i> by Raoul Dufy, viewable at <a href="http://en.wikipedia.org/wiki/File:DufyRaoul_RegattaAtCowes.jpg">http://en.wikipedia.org/wiki/File:DufyRaoul_RegattaAtCowes.jpg</a></li> </ul>	
	<b>STANDARDS</b>	VA.68.C.3.1 / VA.68.O.1.1	



## ACTIVITY 3

### GOAL

To discuss and compare methods used in a scientific investigation involving microscopes and art materials.

### DURATION

40-50 minutes

### MATERIALS

Microscopes, microscope slides, various art media (i.e. oil paint, watercolor, chalk, pencil, oil pastel, etc.), *Microscope Drawing* worksheet (see appendix)

### STANDARDS

SC.6.N.1.4 / VA.68.F.1.3

### ACTIVITY

Divide students into small groups, and give each group a microscope and slides. Lead students in preparing slides containing samples of various art media. Every group should make the same set of sample slides. As students view the different materials under their microscopes, groups should use the *Microscope Drawing* worksheet to record what they see for each sample.

When groups have examined all the materials, post their records for others to see. Discuss: Did everyone's observations match? What are the possible reasons for any discrepancies? If another class wanted to replicate this investigation, what information would you need to give them in order for their procedure to match yours?

### FOLLOW UP

Provide a slide containing a mystery art medium. See if students can identify it based on their microscope observations and records.



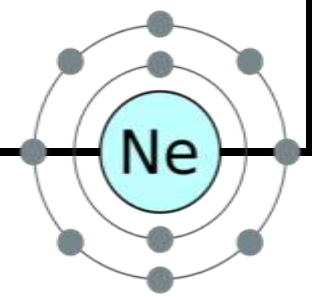
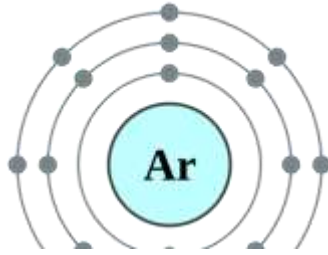
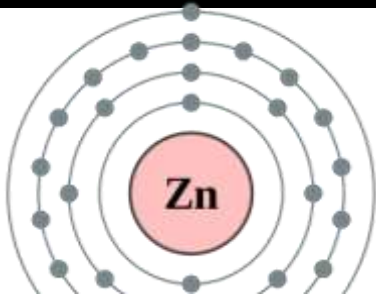


# MASTER FORGERS & ART CRIME EXPERTS

Activities for Grades 9 – 12

TERMS TO KNOW: fluorescence, photon, radiation

<b>ACTIVITY 1</b>	<p><b>GOAL</b></p> <p>To understand and describe x-ray fluorescence.</p>	<p><b>ACTIVITY</b></p> <p>View the handheld X-ray fluorescence (XRF) machine on display in the exhibition. Ask: How is this instrument used to help art experts determine an artwork’s authenticity?</p> <p>Review with students the structure of atoms and the behavior of electrons within the atom. Then, view the videos on XRF technology.</p> <p>Divide the students into small groups, and have groups work together to produce models that demonstrate the XRF process. Groups can choose to draw, sculpt, or act out their models.</p> <p><b>FOLLOW UP</b></p> <p>Discuss other applications that XRF technology might have, either in the art world or in other fields of study.</p>
	<p><b>DURATION</b></p> <p>45-60 minutes</p>	
	<p><b>MATERIALS</b></p> <p>Videos:            Excerpt from <i>Science of Telling a Real Painting from a Fake!</i>  <a href="http://www.intenttodeceive.org/videos">www.intenttodeceive.org/videos</a>            and  <i>Hoard Conservation Blog, X-Ray Fluorescence (XRF) Machine</i>  <a href="https://www.youtube.com/watch?v=iYLkU-1Q3do">https://www.youtube.com/watch?v=iYLkU-1Q3do</a></p> <p>Assorted art supplies</p>	
	<p><b>STANDARDS</b></p> <p>SC.912.P.8.4 / SC.912.P.10.9            VA.912.H.3.1</p>	





Detail: Henri Matisse, *Dishes and Fruit*, 1901, oil on canvas. State Hermitage Museum, Russia.



Detail: Claude Monet, *Charing Cross Bridge*, 1903, oil on canvas. Museum of Fine Arts, Lyon.

ACTIVITY 2	<b>GOAL</b>	<p><b>ACTIVITY</b></p> <p>Have each student select one of the artists (not a forger) whose original work appears in the exhibition. Students should use reference books, websites, and other available resources to research their chosen artist and compile a dossier on that artist's work. The dossier should include:</p> <ul style="list-style-type: none"> <li>• Materials the artist typically used</li> <li>• Time period in which the artist worked</li> <li>• Types of subject matter often depicted</li> <li>• Consistent elements of the artist's style, such as brushstrokes, composition, and color palette</li> </ul> <p><b>FOLLOW UP</b></p> <p>Students should identify a forgery in the exhibition that is purportedly by their chosen artist. Based only on their knowledge of the artist, would they identify the work in question as authentic or forged? Students should justify their response orally or in writing.</p>
	<b>DURATION</b>	
	<b>MATERIALS</b>	
	<b>STANDARDS</b>	
	<p>To research the lives and artistic practices of great artists.</p> <p>90 minutes</p> <p>Notebooks, pencils, access to the internet and reference books</p> <p>VA.912.O.1.3 VA.912.C.1.5 VA.912.C.2.4</p>	

## ACTIVITY 3

### GOAL

To create a replica of a work of art.

### DURATION

60-90 minutes

### MATERIALS

Sketchpads, pencils, painting supplies

### STANDARDS

VA.912.O.1.3  
VA.912.C.2.7  
VA.912.F.3.6

### ACTIVITY

Visit the *Intent to Deceive* exhibition and have each student select an original work of art. Then, instruct students to try their hand at making a copy of their selected work. If working in the gallery, students should use pencils and lap boards. If working in the classroom, students can refer to images of their works online and use whatever materials they choose to create the most convincing replica.

### FOLLOW UP

Have students discuss with a partner: What parts of their work did they have the most difficulty copying? Which parts of their copies did they feel were the most successful? Why might the practice of copying great works of art be an important part of an artist's training?



Elmyr de Hory, (Hungary, 1906-1976), *Portrait of a Woman*, ca. 1975, oil on canvas, in the style of Amedeo Modigliani (Italian, 1884-1920). Collection of Mark Forgy. Photo by Robert Fogt

# APPENDIX

WORKSHEETS

SUGGESTED RESOURCES

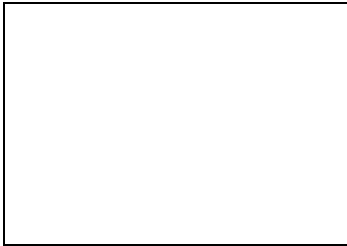
GLOSSARY



# AGING PAPER

As paper ages, its appearance changes. Dirt, grease, and smoke can darken it, and exposure to sunlight can cause it to fade. Small holes or dark spots may be made by insects or mildew.

In order to make forged artworks look authentic, forgers have developed various tricks for making new paper look old. Try out the following techniques to age your own paper.



Glue a sample of your original paper here

## PAPER AGING TECHNIQUE #1 – Coffee

Mix 2 tablespoons instant coffee grounds with 2 cups hot water. Pour the mixture into a shallow tray or dish. Lay the paper into the dish so that the paper is fully submerged. Wait for the desired length of time, and then remove the paper from the coffee. Set the damp paper square into the appropriate box below:

Soak 10 seconds	Soak 30 seconds	Soak 2 minutes	Soak 5 minutes

**PAPER AGING TECHNIQUE #2 – Tea**

Boil 1 cup of water. Dip 4 bags of regular black tea into the cup of water and wait 30 seconds. Remove one tea bag from the water and rub it over the surface of the paper for 10 seconds. Repeat with each teabag until the desired number of teabags have been used. Place each square of paper in the appropriate box below:

Rubbing with 1 teabag	Rubbing with 2 teabags	Rubbing with 3 teabags	Rubbing with 4 teabags

**PAPER AGING TECHNIQUE #3 – Orange juice**

Pour 1 cup orange juice into a small bowl. Dip a brush or rag into the orange juice and “paint” it onto your paper. Paint over the surface for the desired amount of time, and then place each paper in the appropriate box below:

Painting for 10 seconds	Painting for 30 seconds	Painting for 2 minutes	Painting for 5 minutes

# MATERIAL COMPARISON

Artists use a variety of materials when creating art. It's important for experts to understand the properties of these materials, so that they can recognize what a work of art is made of. Many times, forgeries can be identified based on the type of materials used. Examine several different art-making materials and record your observations in the tables below.

Type of medium	Mass (in grams)	Texture	Odor	State of matter	Hardness	What happens when you mix 5 mL water into it?

Type of ground	Mass (in grams)	Texture	Odor	Thickness (in mm)	Color	Flexibility (Does it return to its original state when folded or twisted?)

# ELEMENTS OF ART STYLES

Artists manipulate the elements of art (line, color, space, etc.) in different ways. By examining these elements in works of art, we can distinguish individual *styles*. Analyzing the three works below, describe each artist's use of the elements of art.

## WORK: *The Red Studio* by Henri Matisse

### Color:

What colors predominate?

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### Line:

Are the lines primarily short and thick, or long and thin? Do figures have noticeable outlines?

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### Space:

How are objects arranged in the image? Is there more positive space or negative space?

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---

### Texture:

What textures are visible? Are there noticeable brushstrokes in the work?

---

---

## WORK: *Charing Cross Bridge, London* by Claude Monet

### Color:

What colors predominate?

---

---

### Line:

Are the lines primarily short and thick, or long and thin? Do figures have noticeable outlines?

---

---

### Space:

How are objects arranged in the image? Is there more positive space or negative space?

---

---

### Texture:

What textures are visible? Are there noticeable brushstrokes in the work?

---

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## WORK: *Regatta at Cowes* by Raoul Dufy

### Color:

What colors predominate?

---

---

### Line:

Are the lines primarily short and thick, or long and thin? Do figures have noticeable outlines?

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### Space:

How are objects arranged in the image? Is there more positive space or negative space?

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### Texture:

What textures are visible? Are there noticeable brushstrokes in the work?

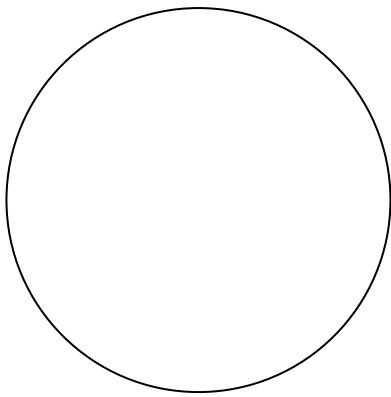
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# MICROSCOPE DRAWING

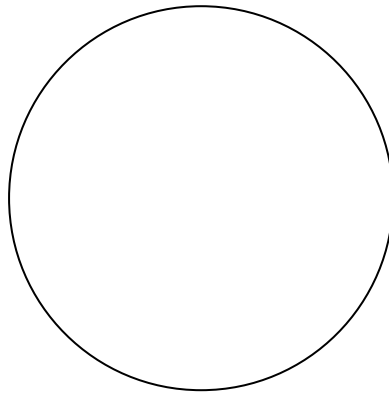
Optical microscopes can be important tools for examining works of art. Examine a variety of art-making materials under the microscope, and use the template to draw what you see.

Be sure to record the magnification used for each sample.



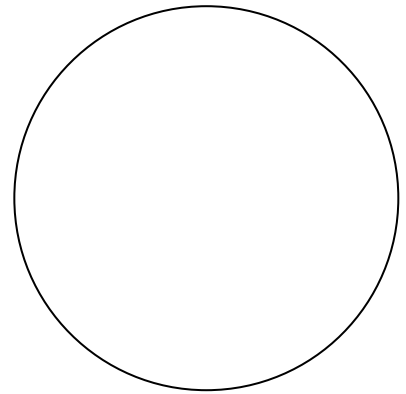
Material: \_\_\_\_\_

Magnification: \_\_\_\_\_



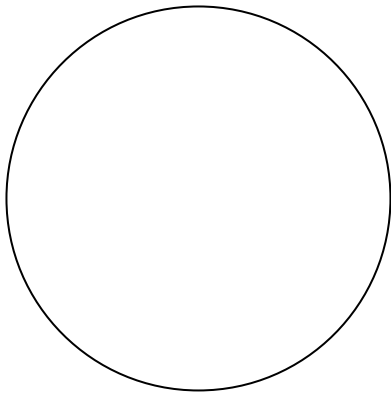
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Magnification: \_\_\_\_\_



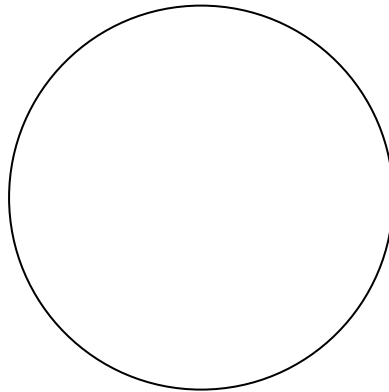
Material: \_\_\_\_\_

Magnification: \_\_\_\_\_



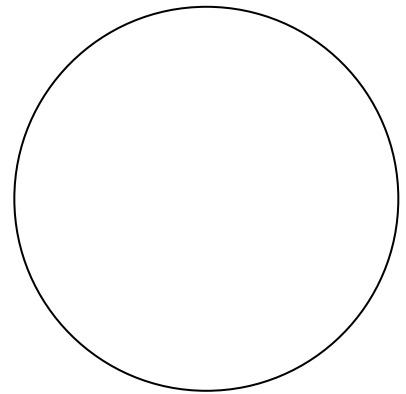
Material: \_\_\_\_\_

Magnification: \_\_\_\_\_



Material: \_\_\_\_\_

Magnification: \_\_\_\_\_



Material: \_\_\_\_\_

Magnification: \_\_\_\_\_



# GLOSSARY

## Authentic

Real or genuine; of undisputable origin

## Empirical evidence

Objective knowledge gained through direct observation or experimentation

## Fake

A copy of an original work of art

## Fluorescence

Emission of light from a substance that occurs when the substance absorbs electromagnetic radiation

## Forgery

A work of art deliberately made in the style of another artist and sold under false attribution

## Ground

The surface material on which a painting or drawing is made

## Medium

The materials used by an artist

## Optical microscope

A microscope that uses visible light and lenses to magnify objects

## Photon

An elementary particle of electromagnetic radiation

## Radiation

Electromagnetic waves traveling through space

## Style

The distinctive features of an individual's artistic production

## Subjective

Influenced by personal feelings, tastes or opinions rather than strictly on external factors

## FOR FURTHER LEARNING

### BOOKS

Eric Hebborn, *The Art Forger's Handbook*, The Overlook Press, 1997, ISBN 0-87951-767-0.

Get an insider's view on art forgery from one of the masters of the crime. This book contains detailed information on the materials artists use and the aging process artworks go through.

Anna Nilsen, *Art Fraud Detective*, Kingfisher, 2000. ISBN: 978-0753411957.

This children's book gives kids the chance to be art crime experts. A series of interactive clues leads to an art museum mystery that readers can solve.

MaryAnn Kohl and Jean Potter, *Science Arts: Discovering Science Through Art Experiences*, Bright Ring Publishing, 1993. ISBN: 978-0935607048.

Look no further for ideas on fun kids' projects that incorporate concepts from both science and art.

### WEB RESOURCES

*Intent to Deceive*  
[www.intentodeceive.org](http://www.intentodeceive.org)

An very informative site built to accompany the exhibition.

*Art & Chemistry*  
<http://www.acs.org/content/acs/en/education/students/highschool/chemistryclubs/activities/art-and-chemistry.html>

Activities and explanations related to the chemistry in art.

## **ABOUT THE RINGLING**

Located on a 66-acre estate on Sarasota Bay, The John and Mable Ringling Museum of Art was established in 1927 as the legacy of John Ringling (1866-1936) and his wife, Mable (1875-1929). Recognized as the official State Art Museum of Florida, The Ringling offers 21 galleries of European paintings, Asian art, American paintings, Astor Mansion rooms, and modern and contemporary art. The Ulla R. and Arthur F. Searing Wing hosts a variety of traveling exhibitions throughout the year. The estate features the spectacular 56-room Ca' d'Zan ("House of John"), a waterfront mansion reflecting life in the Jazz Age, and the Historic Asolo Theater, a restored 18<sup>th</sup>-century theater from Asolo, Italy. A museum highlighting the American circus is a unique part of the estate, housing circus artifacts and the world's largest miniature circus. Additionally, the Bayfront Gardens include beautiful landscapes overlooking Sarasota Bay.