

# ADD IT UP...

## **Math & Art Integrated Tour at Huntington Museum of Art**



Wood Inlay, detail, Damascus Room. Touma Gallery.

The Huntington Museum of Art welcomes you and your students to *ADD IT UP*, our Math and Visual Art integrated tour. During the tour, your students will be engaged with activities in four locations: Glass Gallery, Conservatory, Touma Near Eastern Art Gallery, and hands-on Education Gallery. *ADD IT UP* addresses Math and Visual Art CSOs. In addition, students will practice the 21<sup>st</sup> Century Learning Skills of problem solving, critical thinking, collaboration and communication. These worksheets will help to familiarize your students with the museum and the terminology they will hear during the tour. We look forward to seeing you soon!

### **Standards and Skills**

MA. S.1 Numbers and Operations  
MA. S.2 Algebra  
MA. S.3 Geometry  
MA. S.4 Measurement  
MA. S.5 Data Analysis and Probability

RLA S.3 Listening Speaking and Viewing  
VA. S.1 Media, Techniques and Processes  
VA. S.2 Elements of Art and Design  
VA. S.4 Art History and Diversity  
VA. S.5 Reflection and Analysis  
VA. S.6 Multi-disciplinary

Please contact Cindy Dearborn at [cdearborn@hmoa.org](mailto:cdearborn@hmoa.org) with questions. This program is presented with support from the West Virginia Department of Education and the Arts.



# ADD IT UP

Huntington  
Museum of Art

Did you know...the Huntington Museum of Art's glass collection contains more than 5,000 objects? Glass making started in ancient Egypt, more than 4,000 years ago! The main ingredient in glass is silica, which is found in sand. Would West Virginia be a good place to find silica? Why or why not?

Use your estimating skills to determine the answers – circle the correct answer:

- |                                       |     |       |       |     |
|---------------------------------------|-----|-------|-------|-----|
| *How many total pieces in the photo?  | >50 | 30-49 | 15-29 | <15 |
| *How many pieces on the bottom shelf? | >25 | 19-25 | 10-18 | <10 |
| *How many pieces with handles?        | >20 | 12-19 | 11-18 | <11 |
| *How many pieces with stripes?        | >20 | 15-20 | 9-14  | < 9 |





# ADD IT UP

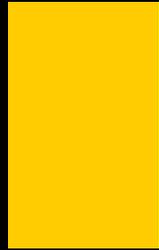
Huntington  
Museum of Art

## VOCABULARY

Match the vocabulary word with its meaning

___ conservatory	___ pattern	___ circumference	___ Celsius
___ space	___ estimate	___ shape	___ color
___ tropical	___ Fahrenheit	___ balance	___ form
___ symmetry	___ geometric	___ tessellate	___ length

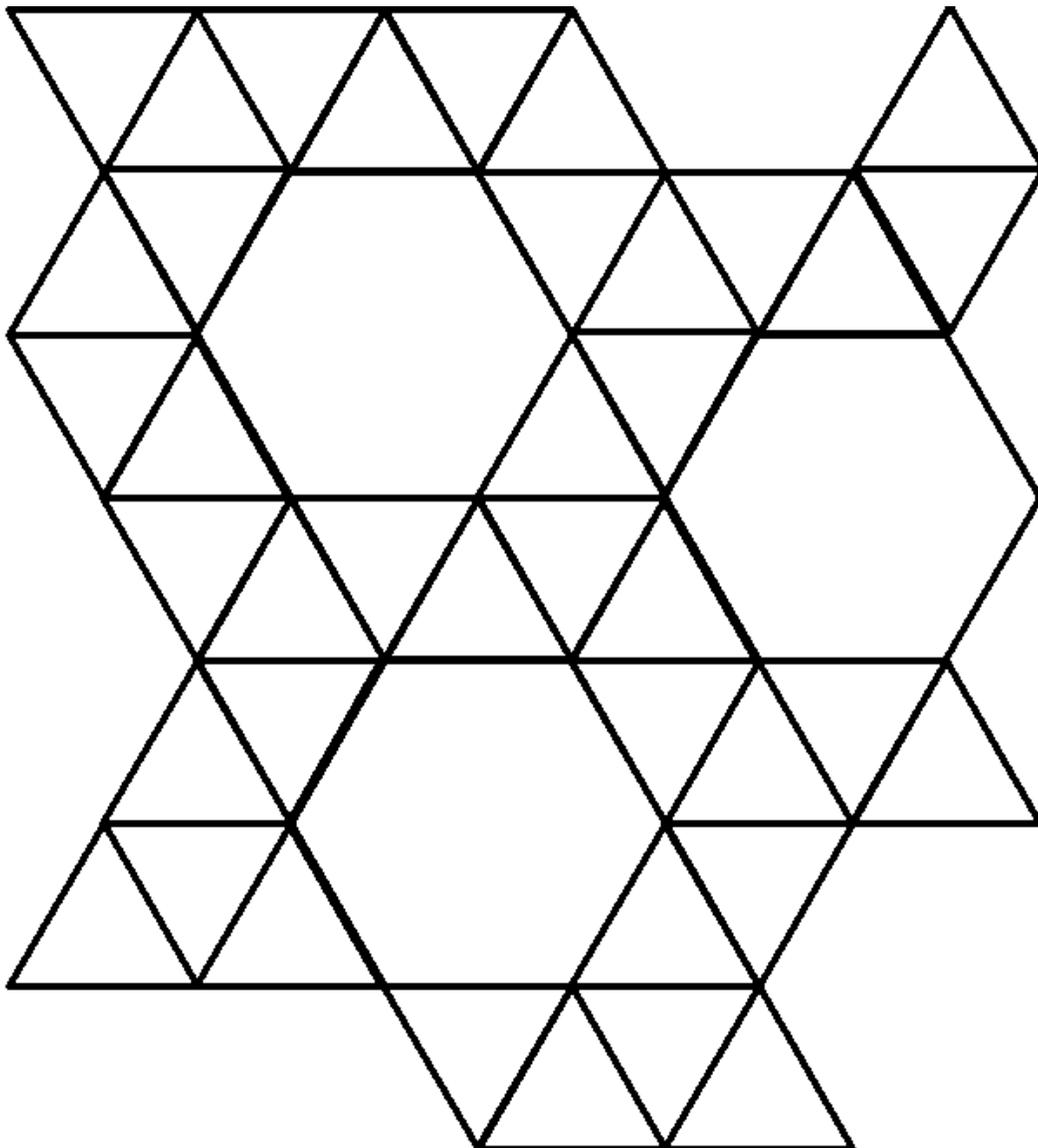
- A. To arrange things so that there is some distance between them
- B. The distance around the widest part of a circular or round object
- C. Three dimensional quality or volume
- D. To calculate approximately
- E. A principle of design concerned with the arrangements of the elements of a composition
- F. Red, blue, yellow, green, purple, etc.
- G. Related to a temperature scale that registers 32 as the freezing point of water
- H. A glass room in which plants are grown and kept
- I. Circle, square, rectangle, triangle, etc.
- J. Relating to the hottest area of the earth
- K. To fit together in a pattern with no spaces in between
- L. A design composed of a number of elements in a regular manner
- M. The quality of having two parts that match exactly
- N. Using the simple lines or figures found in geometry
- O. Related to a temperature scale that registers 100 as the boiling point of water
- P. The longest extent of anything as measured from end to end



# ADD IT UP

Huntington  
Museum of Art

Use a ruler and pencil to fill in the spaces on this tessellation.





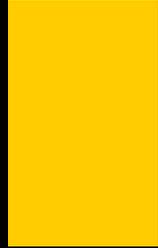
# ADD IT UP

Huntington  
Museum of Art

**Vanilla Plant.** (*right*) Vanilla is one of the world's most expensive spices. Vanilla is native to Mexico, where it is still grown commercially. Vanilla was used by the Aztecs for flavoring their royal drink *xocolatl* - a mixture of cocoa beans, vanilla and honey. Look for the vanilla plant in our conservatory!

Is the pattern made by this plant symmetrical? Is it balanced? Explain your answer below by describing the pattern.





# ADD IT UP

Huntington  
Museum of Art

**Chocolate (right)** The fruit of this tree are the large pods you see in this photo. The seeds inside them are called beans, and they are the source of chocolate, cocoa, and cocoa butter. Chocolate was used by the Aztecs to make a drink for their emperor Montezuma. Cortez brought the seeds back to Spain where the drink was then made for the nobility. Find this plant in the conservatory!



Is there a pattern on the chocolate pods? Describe it in a few sentences with these vocabulary words:

Space                  Shape                  Color                  Repetition                  Balance  
Line                  Texture                  Symmetry                  Form

# ADD IT UP...

## **Math & Art Integrated Tour at Huntington Museum of Art**

### ANSWER KEY

#### Vocabulary Worksheet:

A=Space

C=Form

E=Balance

G=Fahrenheit

I=Shape

K=Tessellate

M=Symmetry

O=Celsius

B=Circumference

D=Estimate

F=Color

H=Conservatory

J=Tropical

L=Pattern

N=Geometric

P=Length

#### Glass Gallery Estimating:

How many total pieces in the photo? 26 (only counting full pieces, not parts cut off by camera)

How many pieces on the bottom shelf? 15

How many pieces with handles? 11

How many pieces with stripes? 4