

## Fourth Grade Unit 1: A Virtual Night at the Met

*The Metropolitan Museum of Art in New York City is hiring a new curator and your application has been accepted. In order to get the job, you must create a complete, interactive, virtual exhibit that will fit appropriately into one of the museum's current areas and present it to the museum's Board of Directors for approval.*

**The requirements that must be met in order to qualify for the Grand Prize are as follows:**

1. Research the Metropolitan Museum of Art and determine an area of the museum where a topic of your personal interest could make a valuable contribution.
2. Collect images and information that will thoroughly engage and inform the museum's audience about the topic of your exhibit.
3. Design and create a virtual, interactive museum exhibit using CoSpaces using blockly coding to control actions within the exhibit.
4. Develop and deliver an informational presentation that seamlessly summarizes your virtual exhibit, gives a tour of your exhibit, and convinces the Board of Directors that your exhibit would be a valuable addition to their museum.

### A Virtual Night at the Met

Project Elements	Meets/ exceeds expectations	Almost meets expectations	Misses most expectations
The virtual exhibit has at least 8 interactive elements that are activated by direct user contact or a timer feature.			
The virtual exhibit has at least 5 different objects directly related to the topic of your choice and the area it can be found within the Metropolitan Museum of Art.			
The virtual exhibit provides extensive information about each of your selected objects that is presented in an interactive way.			
Images and information are appropriately cited to prevent plagiarism.			
The presentation professionally and seamlessly summarizes the exhibit, its objects, and its value to the museum as a whole.			

**Math Standards:** While this unit has no math requirements, I will be using fraction puzzles to support grade-wide growth in the area of fractions, as that was identified as the group's weakest area in their last STAR diagnostic assessment.

- Extend understanding of fraction equivalence and ordering.
- Build fractions from unit fractions.
- Understand decimal notation for fractions, and compare decimal fractions.

**ELA Standards:** This unit is focused on Informational Reading, Writing and Presenting

- [CCSS.ELA-LITERACY.RI.4.4](#) Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*.
- [CCSS.ELA-LITERACY.RI.4.6](#) Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
- [CCSS.ELA-LITERACY.RI.4.7](#) Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- [CCSS.ELA-LITERACY.RI.4.9](#) Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
- [CCSS.ELA-LITERACY.W.4.4](#) Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
- [CCSS.ELA-LITERACY.W.4.6](#) With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

**Research to Build and Present Knowledge:**

- [CCSS.ELA-LITERACY.W.4.7](#) Conduct short research projects that build knowledge through investigation of different aspects of a topic.
- [CCSS.ELA-LITERACY.W.4.8](#) Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

- CCSS.ELA-LITERACY.W.4.9.B Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").
- CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly.
- CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- CCSS.ELA-LITERACY.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- CCSS.ELA-LITERACY.W.4.2.A Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- CCSS.ELA-LITERACY.W.4.2.B Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- CCSS.ELA-LITERACY.W.4.2.C Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*).
- CCSS.ELA-LITERACY.W.4.2.D Use precise language and domain-specific vocabulary to inform about or explain the topic.
- CCSS.ELA-LITERACY.W.4.2.E Provide a concluding statement or section related to the information or explanation presented.

**Technology Standards:** This unit requires students to use programming and image collection and placement to create a virtual, interactive museum. The images and information students will present will also be researched via technology based resources.

- Use models and simulations to explore complex systems and issues
- Organize ideas and produce digital products with assistance or independently (basic programming)

- Communicate ideas and information effectively to multiple audiences using a variety of media and forms
- Locate, organize, analyze, synthesize, and ethically use information from a variety of sources and media.
- Plan and manage activities to develop a solution to complete a project

**NGSS Standards:** This unit will encourage exploration of information technologies and instrumentation along with creative problem-solving and optimizing their designs through visual representation and coding

4-PS4-3. Generate and compare multiple solutions that use patterns to transfer information.\*

- [Clarification Statement: Examples of solutions could include drums sending coded information through sound waves, using a grid of 1's and 0's representing black and white to send information about a picture, and using Morse code to send text.]

PS4.C: Information Technologies and Instrumentation

- Digitized information can be transmitted over long distances without significant degradation. High-tech devices, such as computers or cell phones, can receive and decode information—convert it from digitized form to voice—and vice versa.

ETS1.C: Optimizing The Design Solution

- Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. (secondary)

**The Invent Washington Program also provides access to the following NGSS Practices:**

- NGSS Practice: Asking questions (for science) and defining problems (for engineering.)
- NGSS Practice: Developing and using models
- NGSS Practice: Planning and carrying out investigations.
- NGSS Practice: Using mathematics and computational thinking
- NGSS Practice: Constructing explanations (for science) and designing solutions (for engineering)

**The “I’m Not Just Gifted” Curriculum will be a resource I will be using during this unit to develop the following NAGC K-12 Gifted Standards**

1.1. Self-Understanding: Students with gifts and talents demonstrate self-knowledge with respect to their interests, strengths, identities	1.1.1. E. engage students with gifts and talents in identifying interests, strengths, and gifts
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<p>and needs in socio-emotional development and in intellectual, academic, creative, leadership, and artistic domains.</p>	<p>1.1.2. E. assist students with gifts and talents in developing identities supportive of achievement.</p>
<p>1.2. Self-Understanding: Students with gifts and talents possess a developmentally appropriate understanding of how they learn and grow; they recognize the influences of their beliefs, traditions, and values on their learning and behavior.</p>	<p>1.2.1. E. develop activities that match each student's developmental level and culture-based learning needs.</p>
<p>1.3. Self-Understanding: Students with gifts and talents demonstrate understanding of and respect for similarities and differences between themselves and their peer group and others in the general population</p>	<p>1.3.1. E. provide a variety of research based grouping practices for students with g/t that allow them to interact with individuals of various gifts, talents, abilities and strengths. 1.3.2. E. model respect for individuals with diverse abilities, strengths, and goals.</p>