Honey, I Shrunk the Artifacts!

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#NCSS2018

https://tinyurl.com/y6v4rvbd
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**Location:** North of Chicago. Students reside in portions of the Villages of Skokie and Morton Grove

**Student Enrollment:** 1800+ (PreK-8th)

**Schools:** 3 Attendance Centers

**English Learners:** 25.6%. Over 70 different languages represented
Agenda

- Share the development of an idea
- The student experience
- Reflections and hopes
- Tips & resources for getting started
- Questions
The Idea
Practical Ed Tech Tip of the Week – View and Print Museum Artifacts in 3D

In This Issue...
- Practical Ed Tech Tip of the Week – View and Print Museum Artifacts in 3D
- More Recent Articles

It doesn't replace the experience of being inside the museum. The British Museum's 3D objects collection X 3D from Smithsonian and gives students the chance to see some artifacts in more than a flat 2D view.

Smithsonian X 3D (SIX3D) offers a neat way for students to learn about artifacts from the Smithsonian museums. The site is the result of a collaboration between Autodesk and the Smithsonian Institution. More than 50 artifacts are currently featured on Smithsonian X 3D. The artifacts can be viewed as 3D models that you can virtually manipulate. Many of the artifacts have accompanying fact sheets through which you can learn about the artifact's history and significance.

The British Museum collection on Sketchfab contains 216 3D models of artifacts in The British Museum’s collections. You can view these models in 3D in your web browser or in a virtual reality viewer. (To view the models in your browser your browser needs to support WebGL, you can test your browser here). If you have a 3D printer, you can print the models yourself by downloading the corresponding files from Sketchfab. You can also embed the models into a webpage.
Investigating

Smithsonian DIGITIZATION 3D
Engaging Ourselves in the Inquiry Process

Does this align to our curriculum? How?

What would be the benefits for students?

What would we need? And need to learn?

What do we have?

Who has access and can help?
Curricular Connection

- Ancient Civilization Curriculum
- C3 Framework Inquiry
- New IL Social Science Standards that emphasize inquiry skills
Resource

- The Impact of Technology on History & Archaeology
Materials
Learning to use a 3D printer and software

Horus - Sketchfab/The British Museum

Horus - Makerbot Software

Horus and friend after printing
What We Created
The Student Experience
Engaging Students in Inquiry with Question Formulation Technique (QFT)

1. Create a Question Focus (QFocus)
2. Rules for Producing Questions
3. Producing Questions
4. Categorize
5. Prioritize
6. Next Steps
7. Reflection
Rules for Producing Questions

- Ask as many questions as you can
- Do not stop to answer, judge or discuss the questions
- Write down every question exactly as it was stated
- Change statements in questions
Categorize the questions

- Mark CLOSED questions with a C
  Questions that can be answered Yes or No or a one-word answer

- Mark OPEN questions with a O
  Questions that require more of an explanation
Prioritize the Questions

Criteria for prioritizing reflects the next steps planned by the teacher

Some examples:

Choose 3 questions that...

...most interest you

...you consider most important

...will best help you create a research project

...you need/want to answer first
Question Formulation Technique (QFT)

Contextualize and corroborate sources

Exploration
Reflection & Hopes for the Future

- Interdisciplinary
- Rethink Pedagogy
- College & career ready; 21st Century Success
Considerations for Getting Started...

- How might this connect to your existing curriculum?
- How could your students benefit from such an experience?
- What equipment already exists in your school/district?
- What funding support would you need for materials and resources?
- Who can help champion your idea at your school/district?
Resources

**Articulated Woolly Mammoth Manga**
(https://dpo.si.edu/blog/articulated-woolly-mammoth-manga)

**Illinois Social Science Learning Standards**

**Impact of Technology on History and Archaeology**

**Smithsonian 3D** (3d.si.edu/)

**Practical Ed Tech** (practicaledtech.com/)

**Sketchfab/The British Museum** (sketchfab.com/britishmuseum)

**The Right Question Institute** (rightquestion.org/)

**Participant Copy of Slide Deck** - https://tinyurl.com/y6v4rvbd
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Lincoln Junior High Social Studies Department Colleagues

Mr. Steven Mijajlovic, former STEM Coach
Thank you for joining us!

We are honored that you chose to be here.

We hope you enjoy the rest of the conference!