

Lesson Plan Format WITH Descriptions

Teacher's Name: Kenny Sprinkle

UNIT TITLE: The Art of Quantum Physics

GRADE LEVEL: High School

LESSON:	1. Introduction to Julian Voss-Andreae	7. Cutting and AQOTW
	2. Facial Proportions: Portraits	8. Forming and Assembling
	3. Facial Proportions: Profiles	9. Forming and Assembling and AQOTD
	4. Quantum Woman	10. Continue Sculpture Construction
	5. Measuring & Labeling	11. The Final Details and Preparing for Skype
	6. Measuring & Labeling part 2	12. Conclusion: Skype with Julian Voss-Andreae

LESSON OBJECTIVES:

Art History Objective: NA

(H.6.4) **Art Criticism Objective:** Students will be able to critique and reflect on why they feel that using BB's is beneficial to the sculptures compared to other materials such as beads.

H.6.4: Demonstrate thoughtful revision and refinement of original work based upon reflection, critique, practice, and research.

(H.5.2) **Aesthetics Objective:** Students will be able to express their opinion on the use of BB's in their sculptures and suggest possible alternative media.

H.5.2: Identify subtle problems in works of art, form theories about these works, and evaluate alternative hypotheses.

(H.7.3) **Art Studio objective:** Students will be able to start the construct of their sculpture by assembling the pieces of shaped poster board together using tacky glue and BB's.

H.7.3: Create artworks that demonstrate skill and understanding of different media, processes, and techniques

Vocabulary:

Quantum Physics- describes a moving object as having waves set up perpendicular to the direction the object is going.

Perpendicular- at an angle of 90 degrees to a given line, plane, or surface.

Wave- Energy that moves from one place to another, without the transfer of matter

Portrait- the frontal view of a face

Profile- the side view of a face

Advance Preparation: Prepare AQOTD half sheet for the students to fill out

Materials: Poster board
BB's
Aleene's Tacky Glue

Tools: Pencil

Scissors

Equipment: NA

Day 9: AC AP AH Aesth (50 minutes)

The vital concept(s): Students will continue to work on forming and constructing their quantum sculptures. Students will answer an Aesthetic Question of the Day about the use of BB's in our sculptures.

1. **35 minutes – Workday**
 - a. Students will continue round out their rectangles as they are assembling their quantum sculptures using BB's and Aleene's Tacky glue.
 - b. As they are working and their sculptures are starting to take form, I am going to go around and do mini individual critiques on their progress and see if they are struggling. Those students who are struggling will be able to opt out of creating any facial features such as the nose or the ears.
2. **5 minutes – Clean up**
 - a. Students will put their remaining rectangles in their plastic Ziploc bag and carefully set their sculpture in the middle of the table so that it can set up and dry.
 - b. They will throw their scrap paper away and return the scissors and the Aleene's Tacky glue to their correct location.
3. **10 minutes – AQOTD**
 - a. Students will write a few sentences answering the following Aesthetic Question: Why do you think we are using BB's to separate the poster board instead of other objects such as beads? Are there any benefits to using the BB's? What other material could be used in place of the BB's and why would that be a better choice?

Resources:

“Quantum Objects”: Physics-inspired art by Julian Voss-Andreae. (2009). *Symmetry Breaking*, Vol. 6.
<<http://www.symmetrymagazine.org/breaking/2009/11/30/quantum-objects-physics-inspired-art-by-julian-voss-andreae/>>

Julian Voss-Andreae. (2005-2010). *German American Artists*
<<http://www.germanamericanartists.com/index.php/julian-voss-andreae>>

Jones, A.Z. (2009). Julian Voss-Andreae's “Quantum Objects”: Sculptures capture essence of quantum physics.
<<http://physics.about.com/od/quantumphysics/ig/Julian-Voss-Andreae/>>

Patton, V. (2008). Oregon Art Beat: Quantum Sculptures with Julian Voss-Andreae
<<http://www.opb.org/programs/artbeat/segments/view/767>>

Personal email from Julian with attached word document (unfinished article that has not been published yet) 3 February 2010