ARTS IMPACT INSTITUTE LESSON PLAN - Core Program Year 2 Art-Infused

VISUAL ARTS LESSON – **Sculpture in Balance**

Arts-Infused Disciplines: Visual Art/Math/Writing/Science Arts-Infused Concepts: Verbs, Balance, Observation Process

Artist-Mentor: Meredith Essex Grade Levels: Third – Fifth Grade

Examples:

Enduring Understanding

Counter-weighting forms can create a balanced sculpture.

Target: Discovers and describes a paper construction technique.
Criteria: Selects a verb describing alteration of paper.

Target: Uses a range of paper sculpture techniques transforming a 2-D material to a 3-D form.
Criteria: Chains, clips, crumples, folds, knots, rolls, and/or threads, etc. (3+techniques).

Target: Constructs a model that illustrates balance.
Criteria: Securely suspends 3-D forms weighted equally on either side of a balance point in a mobile.

Target: Constructs an abstract sculpture in balance.
Criteria: Creates a simplified or exaggerated animal/human/plant in a stable, 3-D form.

Teaching and Learning Strategies

1. Teacher: **Discusses two-dimensional vs. three-dimensional art. Asks students to identify sculpture in galleries and outdoors at TAM and SAM and talk about different kinds of sculpture.** *Do all sculptures sit on the floor or the ground? If not, describe the types of sculptures you have seen. (No! They can be suspended, they can move, they can make sounds, they can hang on the wall, they can surround us.) What does 3-D mean? (height, width and depth) What are the concerns of the artist in creating an effective work of sculpture? (Point of view is important since sculpture can be viewed from many different places. Also the physics of a sculpture are essential: It needs to be stable and supported—balanced--so it does not tip over, fall down, crash or suspend lopsided.)*
Student: Participates in discussion.

2. Teacher: **Distributes practice paper** (8 x 8 in. tag). **Asks students to experiment with manipulating paper in order to transform it** from being flat to having dimension in space.
Prompts: I am demonstrating some of the ways that I can change paper from being flat (2-D), to having form or dimension (3-D). Let's first try some cutting, folding, curling and twisting...As you practice, think of an action word/verb that describes how you changed the paper...Lets share our discoveries and list all the different verbs describing our techniques on the board.
Student: Practices altering paper and shares verbs.
Embedded Assessment: Teacher checklist

3. Teacher: **Reviews the concept of symmetry/balance in art, math, and science.** References Nancy Mee's *Hanging Healing* from TAM collections. *Prompts: A mobile is a system of balanced beams and objects. We are going to balance our mobile by creating 3-D paper forms which will be suspended on either side of a balance point using string and sticks. Balance is a physics concept: When we talk about balance or symmetry in art and math what does it mean? Formal balance or symmetry means the same on either side of a line of symmetry: how would that translate into a mobile in balance? The exact same forms suspended on either side would create balance of weight physically and visually. Note Nancy Mee's sculpture: is it symmetrical? How would I create informal balance in a mobile? I would need to construct and suspend forms that are asymmetrical—that are not the same on either side of a balance point, but equally balanced physically and visually.*
Student: Identifies examples of symmetry and asymmetry.

4. Teacher: **Demonstrates constructing and balancing/counter-weighting** (with help from a partner) **a symmetrical and an asymmetrical mobile.** Introduces the art of Alexander Calder. *Prompts; Alexander Calder created large scale sculptures, mobiles and stabiles (sculptures which had a stable base and moving parts) throughout his career. Jean Paul Sartre, well known existential writer, described Calder mobiles in this way: "...they are nevertheless at once lyrical inventions, technical combinations of an almost mathematical quality, and sensitive symbols of nature..." Watch as I construct 3-D paper forms to create a mobile in symmetry; note I am making identical 3-D sculpture forms, punching holes at identical places on each form. I have hung up the main "beam" of my mobile: I am asking a helper to stabilize it as I attach one form on one end. Now, I am switching to the other side of my beam and counter-weighting with my. Notice how the strings need to be about the same length and tied at the same place on either side on my balance point (the string that supports the main beam).*

In this asymmetrical mobile example, I am creating three-dimensional paper sculpture forms: each different (3+). I hung up the main "beam" of my mobile: I am punching holes and tying string to each of my 3 parts: I have a long stick and a short stick: I am thinking about weight and balance and am hanging my heaviest piece on one end of the long stick (beam) and again asking my helper to stabilize the other end. Now I am working on the counter-weights with the help of my helper: tying and suspending a short stick to the other end of my long stick, then suspending my other two forms at the ends of my short stick. Notice how I am sliding the strings along the sticks until I balance the sculpture forms asymmetrically.
Student: Observes demonstration.

5. Teacher: **Facilitates process of students pairing up** with a helper and choosing symmetrical or asymmetrical balance for their mobile (or students construct one symmetrical, and one asymmetrical). **Helps students construct a model in balance.** *Remember that you are working to create forms which are interesting to look at from multiple points of view: don't forget to check our list of verbs for ideas for altering paper! Remember that if you are working with symmetrical balance, you will have 2 forms which are the same. If you are working with asymmetrical balance, you will have 3 forms which are different, and you will need to adjust, along with your helper, to find a balance point.*

Ask for help from your helper to stabilize the mobile while you tie the strings to the wooden sticks/beams Look at your mobile and check for balance. Do you need to slide the strings to make it balance (the same on each side of the suspending string) or to counterweight it? When

your mobile is in balance, take a glue stick and just lightly go over the area where your strings surrounds the stick(s) to help strings stay in place.
Student: Constructs mobile in balance.
Embedded assessment: Criteria-based peer reflection (teacher and student pairs check for range of paper sculpture techniques and balance)

6. Teacher: **Shows Alexander Calder sculpture, *Eagle*, from the SAM Olympic Sculpture Park, and *Sea Forms* by Dale Chihuly from TAM collections. Introduces concept of abstraction.** *Prompts: Abstraction refers to the artist working from a recognizable subject matter, yet exaggerating and/or simplifying that subject. How has Calder simplified or exaggerated an Eagle? In what ways are Dale Chihuly's Sea Forms abstract? Again we will be transforming, manipulating, and joining flat paper surfaces to create height, width, and depth in space. Let's sketch some ideas for an abstract sculpture of a plant, animal or human. Visualize and sketch your idea for a sculpture from multiple points of view just to warm-up. Remember that you are simplifying—that is, removing detail, or exaggerating by enlarging or emphasizing some part of the abstracted animal, plant, or human you are creating. Your experience with paper construction techniques will help you make a workable plan. Also remember to think about creating a stable base for the sculpture since this time we are balancing a sculpture on a surface. Every point that touches the surface needs to be counterweighted for balance (note Eagle). One way is to create a cylinder form that sits flat (think of a paper crown), and then notch and attach forms to it. Another way is to notch two rectangular papers and then attach in a cross form and attach additional forms to that.*

Experiment! As I now start to translate these flat paper pieces into the 3-D form I have visualized, you can see that I am cutting, folding, twisting, and notching papers on both surfaces where they will attach to create points of intersection that are strong. Notching is tricky: when two notches slide into each other, they can form a very strong joint. Notches need to be at least ½ of an inch long. They also need to be at right angles approximately to the paper edge they are being cut into. Practice notching and attaching several pieces of paper and notice what works best. Again I am using a range of paper construction techniques (3+), and considering all points of view that my sculpture will be viewed from.
Student: Observes demonstration, sketches and creates an abstract paper sculpture balanced on a flat surface.
Embedded Assessment: Criteria-based self-assessment

7. Teacher: **Facilitates criteria-based critique/reflective assessment:** Suspends/displays all mobiles and sculptures. Asks students to view. *Prompts: Find a paper sculpture technique in one of the sculptures that is interesting to you and describe it for the class—ask the artist how they did it. Find an example where a paper sculpture is very different when viewed from different places. Share your challenges in creating balance in mobiles and sculpture: what did you need to do create balance? How is your mobile formally or informally balanced (symmetrical/asymmetrical)? How is your sculpture formally or informally balanced (symmetrical/asymmetrical)?*
Student: Participates in critique.
Embedded Assessment: Criteria-based critique

Vocabulary	Materials	WA Essential Learnings & Frameworks
Arts-Infused: balance, observation process Visual Art: 2-D, 3-D, abstraction, balance point, formal and informal balance, mobile, point of view sculpture Math: asymmetry, symmetry Science: balance, balance point, beam, counterweight, mobile Writing: verbs	**Museum:** Tacoma Art Museum **Hanging Healing** *Nancy Mee* **Sea Forms** *Dale Chihuly* Seattle Art Museum **Eagle**, 1971 *Alexander Calder* 2000.69 **Fifteen Planes**, 1957-1958 *David Smith* 74.1 **Bunyon's Chess**, 1965 *Mark di Suvero* T2004.104 (on loan) **Bala Krishna, dancing**, ca. 15th century *Indian* 51.117 **Art:** black or white tag board; scissors, hole punches, string, bamboo sticks, glue sticks	**Essential Learnings** *AEL 1.1 concepts:* 2-D, 3-D, abstraction *AEL1.1.2 principles of organization:* balance, point of view *AEL 1.2 skills and techniques:* mobile construction, paper construction *AEL 4.2 connections between arts and other content areas:* math, geometry, writing *MEL 1.4 probability and statistics*: understands and uses experiments to investigate uncertain events *MEL 2.3 constructs solutions*: applies processes to construct a solution *WEL 1.4 word choice:* verbs *SEL 2.1 principles of scientific inquiry:* implement scientific investigations **Arts State Frameworks** *Grade 4:* identifies and demonstrates symmetrical and asymmetrical balance in three dimensional forms **Math State Frameworks** *Grade 4:* determines what events are more likely, less likely, or equally likely to happen given a model **Writing State Frameworks** *Grade 1:* uses descriptive words *Grade 2:* uses descriptive words *Grade 3:* selects interesting and effective words from various sources *Grade 4:* uses specialized vocabulary in informational writing **Science State Frameworks** *Grades K-5: Wonder and ask questions about events based on observations; create a simple physical model*

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ASSESSMENT WORKSHEET

Students	Paper Construction Techniques			Balance			Abstraction	Total 7
	WRITING Selects a verb describing alteration of paper	**VISUAL ART** Chains, clips, crumples, folds, knots, rolls, and/or threads, etc. (3+techniques)		**VISUAL ART** Securely suspends 3-D forms weighted equally on either side of a balance point	**VISUAL ART** Creates a stable 3-D form with height, width and depth	**SCIENCE AND MATH** Creates a balanced physical model	**VISUAL ART** Creates a simplified or exaggerated animal/ human or plant	
		In mobile	In sculpture					
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23.								
Total								
Percentage								

Criteria-based Reflection Questions: (Note examples of student reflections.)

Self-Reflection:

Share your challenges in creating balance in mobiles and sculpture. What did you need to do create balance?

How Is your mobile formally or informally balanced (symmetrical/asymmetrical)? How Is your sculpture formally or informally balanced (symmetrical/asymmetrical)?

Thoughts about Learning:

Which prompts best communicated concepts? Which lesson dynamics helped or hindered learning?

Lesson Logistics:

Which classroom management techniques supported learning?

Teacher: _____ Date: _____

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STUDENT SELF-ASSESSMENT WORKSHEET

Student Name:	Paper Construction Techniques			Balance			Abstraction	Total 7
	WRITING Selects a verb describing alteration of paper	**VISUAL ART** Chains, clips, crumples, folds, knots, rolls, and/or threads, etc. (3+techniques)		**VISUAL ART** Securely suspends 3-D forms weighted equally on either side of a balance point	**VISUAL ART** Creates a stable 3-D form with height, width and depth	**SCIENCE AND MATH** Creates a balanced physical model	**VISUAL ART** Creates a simplified or exaggerated animal/ human or plant	
		In mobile	In sculpture					

Criteria-based Reflection Questions:

Self-Reflection:

Share your challenges in creating balance in mobiles and sculpture.

What did you need to do create balance?

How Is your <u>mobile</u> formally or informally balanced (symmetrical/asymmetrical)?

How is your <u>sculpture</u> formally or informally balanced (symmetrical/asymmetrical)?

ARTS IMPACT FAMILY LETTER

VISUAL ARTS LESSON – **Sculpture in Balance**

Dear Family:

Your child participated in a series of **sculpture** lessons.

- We talked about the differences between **2-D art** and **3-D art**, and identified examples of many kinds of sculpture: sculpture that sits on the ground, floor or table; hangs from the wall or ceiling, and moves or makes sound.
- We explored altering paper and selected a **verb** that described what we did to paper: cut, notched, curled, punched.
- We talked about **symmetry, asymmetry and balance in art, math and science.**
- We constructed a paper sculpture forms with **height, width, and depth** which we suspended in a **mobile: a system of balanced beams and objects**. We created symmetrical mobiles and/or asymmetrical mobiles.
- We looked at ***Eagle* by Alexander Calder** and ***Sea Forms* by Dale Chihuly**. We talked about how the artist took a real subject (animal/human/plant) and abstracted it through simplification and/or exaggeration.
- We constructed an **abstract** human/animal or plant paper sculpture in balance. We were sure to **counter-balance** forms so that the sculpture was stable and did not tip over.

At home you could conduct a scientific, mathematical and visual arts process of creating a balanced paper sculpture. You could make a: **stabile**—a sculpture with a stable base balanced on a surface with moving parts like a mobile.

Enduring Understanding

Counter-weighting forms can create a balanced sculpture.