



NATURE OF GLASS

MIDDLE SCHOOL SELF-GUIDED TOUR

STOP 1: NORTHWEST ROOM

Chihuly has been influenced by the Baskets of the Northwest Coast Native Americans. His glass Baskets are asymmetrical just as the woven ones are; he is also experimenting with thinness and collapsibility with these forms. The artist has also been influenced by trade blankets made by Pendleton and other manufacturers. Both the blankets' color combinations and patterns can be found on the artwork in this and other rooms at the exhibition

- Observe the organic, Native American Baskets (made from plants and dyes) and the inorganic Chihuly glass Baskets (made from silica and additives) displayed together on the shelves. In the chart below identify three similarities and three differences.

NATIVE AMERICAN BASKETS	SIMILARITIES	CHIHULY BASKETS
1.	1.	1.
2.	2.	2.
3.	3.	3.

STOP 2: PERSIAN CEILING

There is something about putting the pieces overhead, on top of plate glass, that makes you think of the sea—it's a sort of reverse of having the glass underwater. There's a feeling of water— at least there is to me. I suppose somebody else could think it's something they might have seen in the sky or in a dream. - Chihuly

- Locate a spot where the colors of glass are seen on the walls. Carefully compare the colors of the glass above to the wall colors. Observe what is happening to the light.

STOP 3: IKEBANA FLOAT BOAT

This gallery features two wooden boat installations. One contains spheres inspired by the hand-blown Japanese fishing floats Chihuly would find washed up on Washington shores when he was a child. The other boat is filled with a variety of glass forms, some of which Chihuly calls Ikebana, referring to the traditional Japanese art of flower arranging. A group of Chihuly's Burned Drawings is also on view.

- Consider the design and scale of both installations. Do you see any patterns in the way Dale Chihuly chose to place the pieces? Record your observations in the chart below.
Example: The black flooring looks like water.

STOP 4: CHANDELIERS

This gallery presents several Chandeliers and a Tower. Chihuly has said: "What makes the Chandeliers work for me is the massing of color. If you take hundreds of blown pieces of one color, put them together, and then shoot light through them, now that's going to be something to look at! When you hang it in space, it becomes mysterious, defying gravity, becoming something you have never seen before."

- On the central, colorless Chandelier and Tower, examine the base of the transparent spiral pieces. What might be holding these glass pieces together?

- Choose one Chandelier and estimate its total glass weight by filling in this chart.

Step 1: Estimate number of pieces:

Step 2: Assuming the weight of each piece is 3 pounds, what is the estimated weight of the chandelier? *Example: Number of pieces X weight of each piece = total chandelier weight.*

- **DRAWINGS:** Chihuly often uses his Drawings to communicate his ideas to the glass-blowing team. Describe at least three ways that these Drawings differ from the pictures that engineers and architects use to communicate their plan.

STOP 5: THE GLASSHOUSE

The centerpiece of Chihuly Garden and Glass is the Glasshouse. The design of the Glasshouse draws inspiration from two of his favorite buildings: Sainte-Chapelle in Paris and the Crystal Palace in London. The installation in the Glasshouse is an expansive 100-foot long sculpture in a color palette of reds, oranges, yellows and amber. Made of many individual elements, it is one of Chihuly's largest suspended sculptures. The perception of the artwork varies greatly with natural light and as the day fades into night.

- Observation uses all your senses, not just vision. Close your eyes and silently observe the Glasshouse environment for a moment. Then describe what you sense below.
- Discuss the role metal plays in this sculpture and the Glasshouse.
- Chihuly designed this avant-garde artwork to push the boundaries of glass art. List two design constraints which have been overcome by the design, creation, and location of this piece.

WASHINGTON STATE ARTS STANDARDS THROUGH VISUAL ARTS

This tour as a whole covers the below Essential Academic Learning Requirements (EALR) and Grade Level Expectation (GLE) in the Visual Arts. Each listed is applicable for High School level students.

- EALR 1** The student understands and applies arts knowledge and skills in dance, music, theatre, and visual arts.
- GLE 1.4.1** Analyzes the conventions and responsibilities of the audience and applies the conventions that are appropriate to the setting and culture.
- EALR 2** The student uses the artistic processes of creating, performing/presenting, and responding to demonstrate thinking skills in dance, music, theatre, and visual arts.
- GLE 2.3.1** Applies a responding process to a presentation/exhibit of visual arts.
- EALR 3** The student communicates through the arts (dance, music, theatre, and visual arts).
- GLE 3.3.1** Analyzes how personal aesthetic choices are influenced by and reflected in visual artworks.
- EALR 4** The student makes connections within and across the arts (dance, music, theatre, and visual arts) to other disciplines, life, cultures, and work.
- GLE 4.2.1** Analyzes and evaluates relationships between visual arts and other content areas.
- GLE 4.4.1** Analyzes and applies his/her understanding of how specific attributes of a visual artwork reflect and/or influence culture and history.
- GLE 4.5.1** Analyzes and applies understanding of how the knowledge, skills, and work habits of visual arts are needed and used in the world of work, including careers in visual arts.

NEXT GENERATION SCIENCE STANDARDS

Crosscutting Concepts

- Patterns
- Cause & effect
- Scale, proportions & quantity
- Structure & Function
- Stability & Change

Science & Engineering Practices

- Asking questions & defining problems
- Developing & using models
- Planning & carrying out investigations
- Analyzing & interpreting data
- Using math & computational thinking
- Constructing explanations & design solutions
- Engaging in argument from evidence
- Obtaining, evaluating & communicating information

Disciplinary Core Ideas

Engineering

- ETS1.A Defining & delimiting and engineering problem
- ETS1.B Developing possible solutions

Physical Science

- PS1.A Structure & properties of Matter
- PS1.B Chemical Reactions
- PS2.A Forces & motion
- PS4.B Electromagnetic radiation

Earth/Space Science

- ESS3.A Natural resources