



## 2023 AP<sup>®</sup> 3-D Art and Design

### Sustained Investigation: Analytic Scoring Rubric and Score Rationale Row

#### D–Score 3

Analytic Scoring Rubric Row D: 2-D/3-D/Drawing Art and Design Skills		
1	2	3
Visual evidence of <b>rudimentary and moderate</b> 2-D/3-D/Drawing skills.	Visual evidence of <b>moderate and good</b> 2-D/3-D/Drawing skills.	Visual evidence of <b>good and advanced</b> 2-D/3-D/Drawing skills.

#### Score Rationale

The visual evidence throughout the sustained investigation shows a range of good to advanced 3-D skills. For example, images 1, 3, 4, 5, and 6 demonstrate varying degrees of good 3-D skills. Images 2, 3, and 6 focus primarily on repetitive decorative patterns, while images 1 and 5 begin exploring space activation. All images use zip ties to explore the repetition of lines and shapes, the connection between volumes, and figure-ground interaction. However, images 7-15 demonstrate an advanced command of 3-D skills and a better understanding of the materials and their relationship to the human form. Image 7 creates a veil implying transparency for the wearer, while images 9-10 emphasize the connection between the wearer's appendages. The scale application ranges from small woven objects in images 2 and 3 to large-scale installations in image 15. The range of scale extends from a few inches across to over 4 feet tall, showcasing an extensive range of material applications. The introduction of lights in images 13 and 15 illuminates the sculptures and emphasis the forms. This sustained investigation is an excellent example of 3-D skills with accessible materials through the innovative use of zip ties, beginning with a straightforward approach to the materials and becoming more complex with each piece. Informed decision-making and an advanced understanding and manipulation of materials are why the sustained investigation achieved a score of 3 for 3-D skill and abilities.

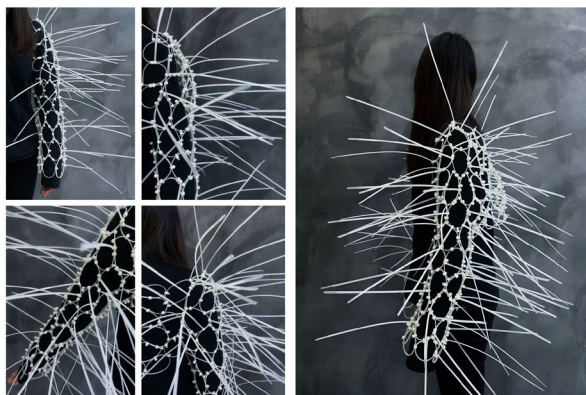


Image 9



Image 15

# Written Evidence

## Sustained Investigation

Identify the question(s) or inquiry that guided your sustained investigation.

**Response:**

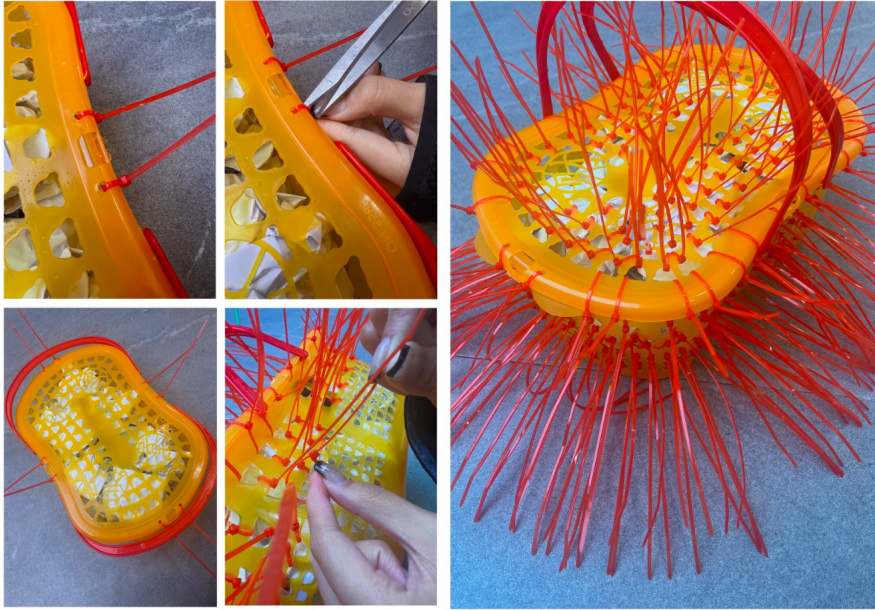
I bought a basket of fruit and noticed the plastic cable ties on the edge. It was originally a single piece, and once tied on it could not be undone, only with scissors. The plastic cable ties are colorful, elastic, and of various sizes, which can form any size of the tie circle. I explored structural possibilities, which can form loop-shaped points of different sizes. The loops can be tied into surfaces, and the excess tail of the ties can form lines with tension. Then practical design and ornamental device are made. Moreover, the light highlight the lightness and elasticity of this material.

Describe how your sustained investigation shows evidence of practice, experimentation, and revision guided by your question(s) or inquiry.

**Response:**

P1 shows the plastic ties on the basket and then I bought ties to tie the whole basket for material perception. P2-3 are small samples of construction exploration. P3-8 show some of the small items made with the ties. P9-10 show a garment tied with looped ties, the sleeves retain the excess of the elastic ties, full of tension. P11-13 show a large hemispherical device with the same structure above. The hemispheres can be turned inside out and the ties do not knot, and the light stressed the ties' elasticity. P14-15 create a group of landscape installations of varying heights and sizes and colours.





# Image 1

Sustained Investigation

Height: 9.8

Width: 17.7

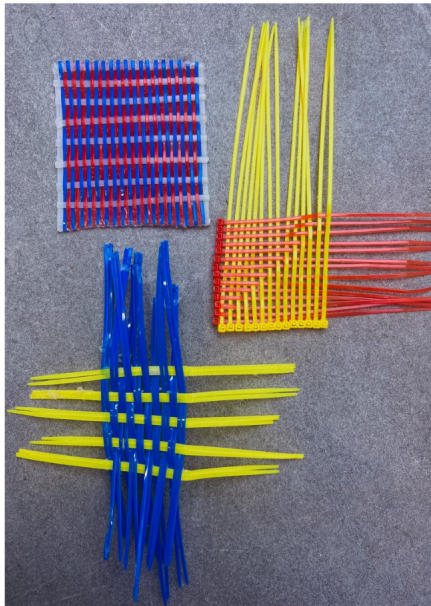
Depth: 21.7

## Materials:

Plastic fruit basket , plastic cable Zip  
Ties.

## Process(es):

I was getting a basket of fruit when I  
noticed the plastic ties around the edge  
of the basket.



## Image 2

Sustained Investigation

Height: NA

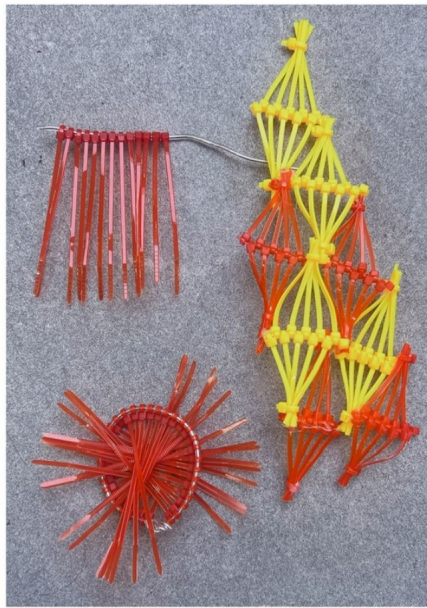
Width: 11.7

Depth: 16.5

Materials: Plastic cable zip ties.

Process(es):

I explored the many structural relationships between the ties in this project.



## Image 3

Sustained Investigation

Height: NA

Width: 11.7

Depth: 16.5

Materials: Plastic cable zip ties.

Process(es):

I explored the many structural relationships between the ties in this project.





## Image 4

Sustained Investigation

Height: 7.8

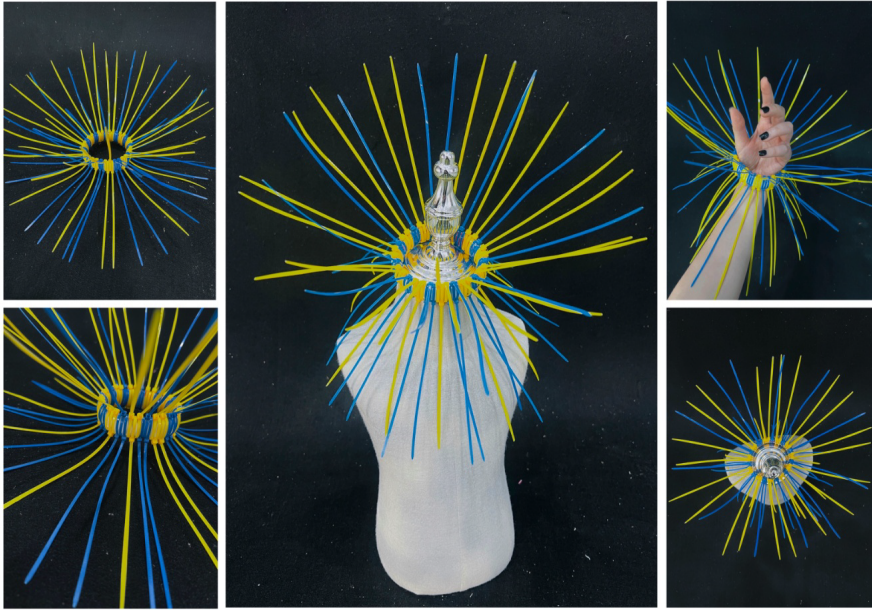
Width: 0.39

Depth: 2.36

Materials: Plastic cable zip ties.

Process(es):

They can form ring points of different sizes, and rings and loops can be tied together to form faces



## Image 5

Sustained Investigation

Height: 11.8

Width: 11.8

Depth: 11.8

Materials: Plastic cable zip ties.

Process(es):

Then I tried to make ties into jewelry.





## Image 6

Sustained Investigation

Height: 2.4

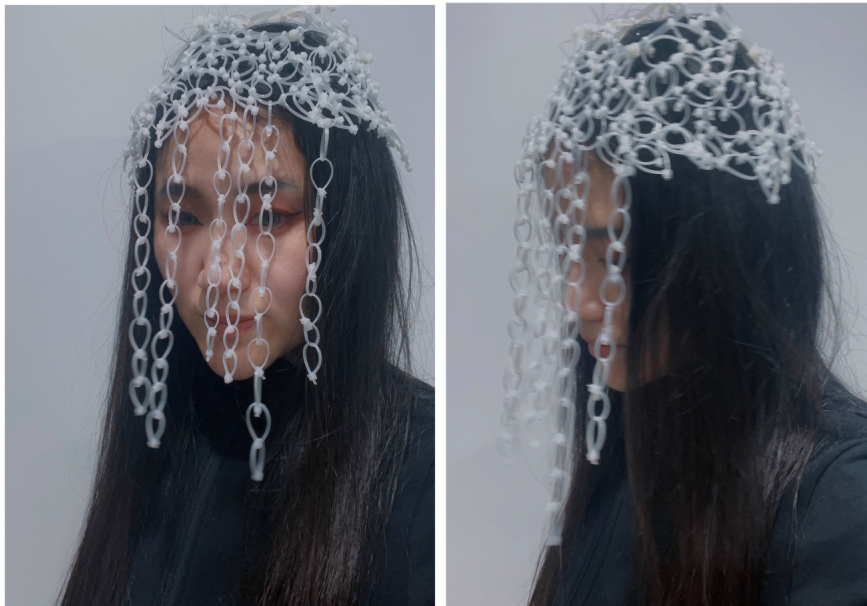
Width: 5.1

Depth: 10.2

Materials: Plastic cable zip ties.

Process(es):

Try to make it look like a slipper,  
something you see in everyday life.



## Image 7

Sustained Investigation

**Height:** 13.8

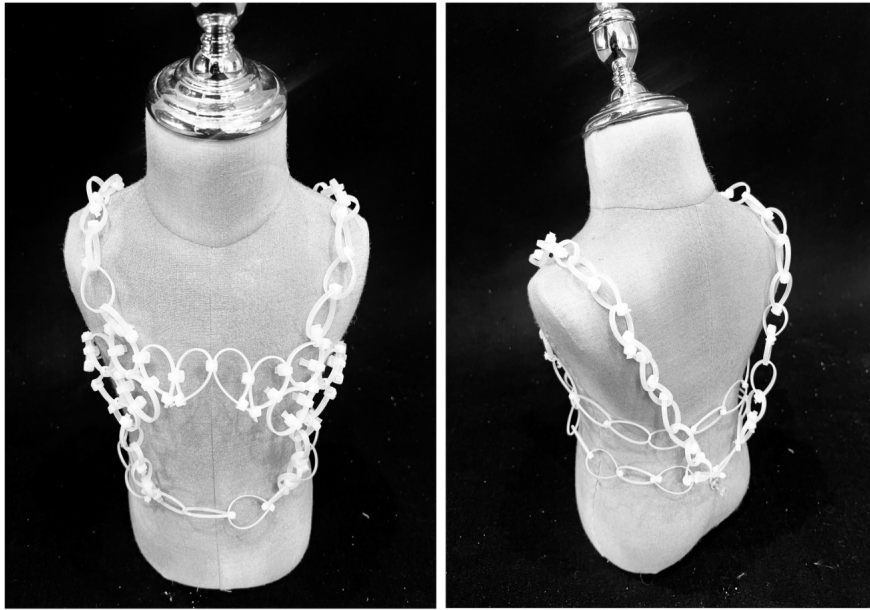
**Width:** 7.8

**Depth:** 9.8

**Materials:** Plastic cable zip ties.

**Process(es):**

And he did something new, I try to made it into a headdress.



## Image 8

Sustained Investigation

Height: 7.8

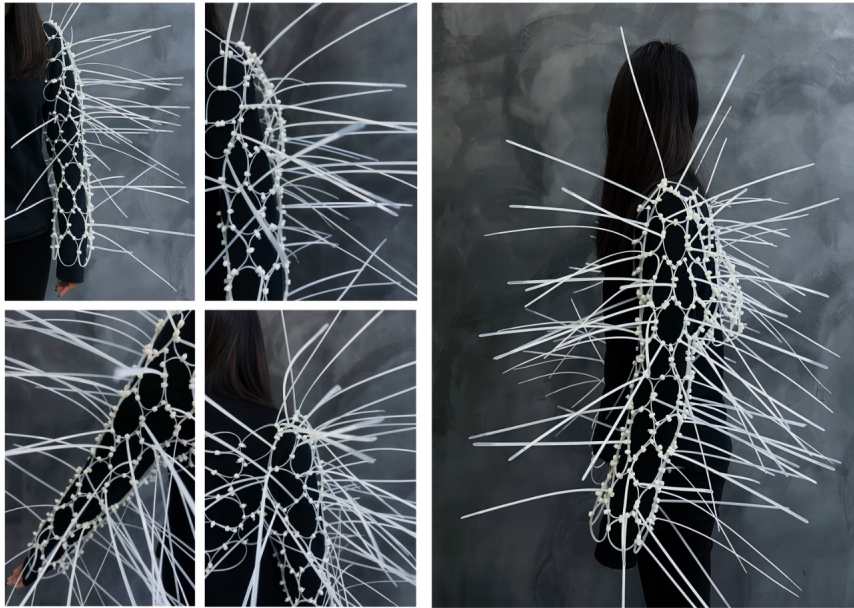
Width: 5.9

Depth: 7.8

Materials: Plastic cable zip ties.

Process(es):

An initial attempt to make a dress out of ties, starting with a dress structure.



## Image 9

Sustained Investigation

Height: 31.5

Width: 23.6

Depth: 35.4

Materials: Plastic cable zip ties.

Process(es):

After the experiment, a dress was then made that could be worn on the body.



## Image 10

Sustained Investigation

Height: 35.1

Width: 23.6

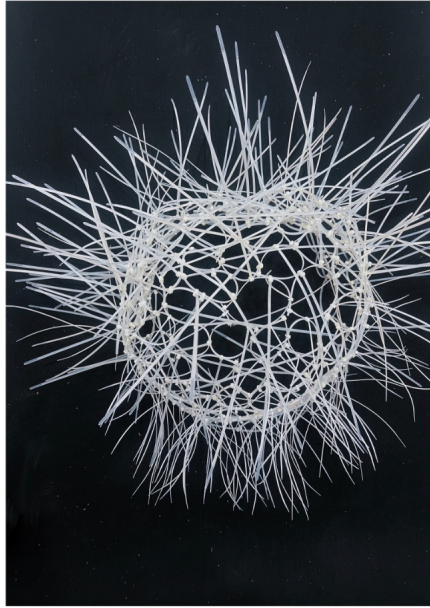
Depth: 35.4

Materials: Plastic cable zip ties.

Process(es):

The structure of the garment with the ties like spines seems like an armour.





## Image 11

Sustained Investigation

Height: 25.6

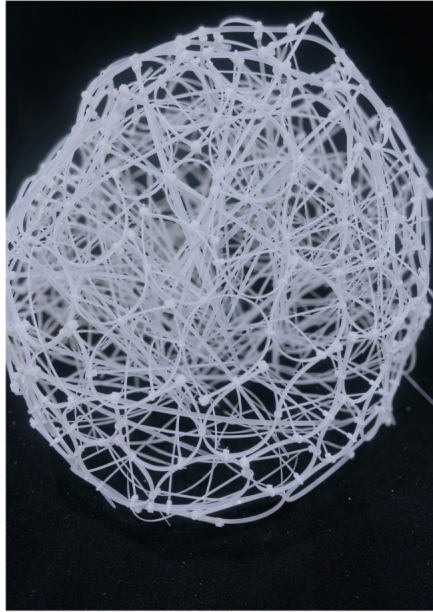
Width: 35.4

Depth: 27.6

Materials: Plastic cable zip ties.

Process(es):

After so many attempts, this material can not only be made into a flat surface, but also into a sphere



## Image 12

Sustained Investigation

Height: 25.6

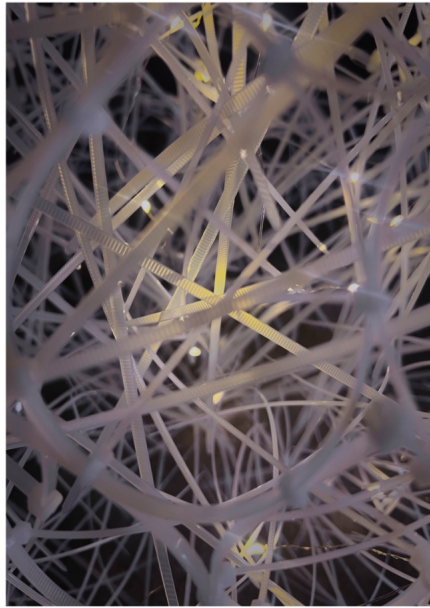
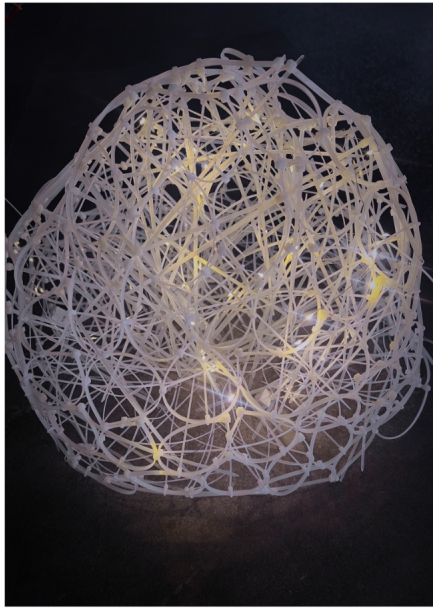
Width: 17.7

Depth: 13.8

Materials: Plastic cable zip ties.

Process(es):

It is also can to reverse the ball inwards and get a smooth surface.



## Image 13

Sustained Investigation

Height: 25.6

Width: 17.7

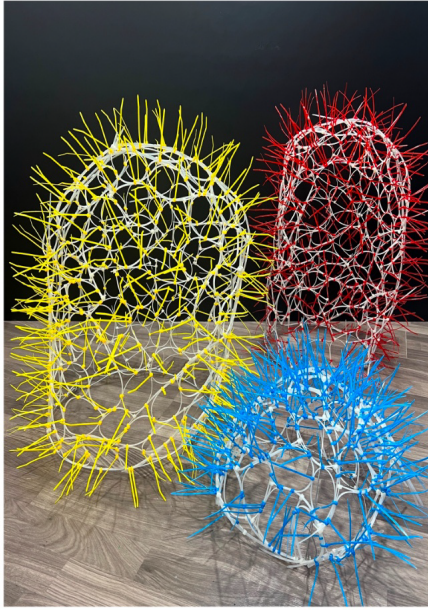
Depth: 13.8

**Materials:**

String lights , plastic cable zip ties..

**Process(es):**

The addition of light elements also emphasises the lightness and elasticity of the material.



## Image 14

Sustained Investigation

Height: 47.2

Width: 26.4

Depth: 27.6

Materials: Plastic cable zip ties.

Process(es):

Different colors of the cable ties are used to make the whole more colorful.





## Image 15

Sustained Investigation

**Height:** 47.2

**Width:** 41.3

**Depth:** 70.9

**Materials:**

String lights , plastic cable zip ties.

**Process(es):**

Finally, lighting and background are added to make the plastic ties look like a flora.