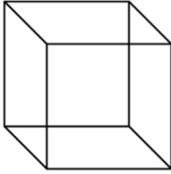
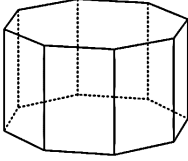

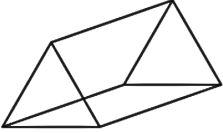
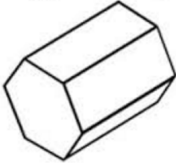
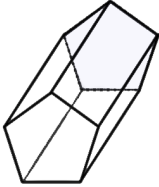


**SOLIDS FOR YOUR TORSO**

- YOU NEED 5 OF THESE FIGURES
- CHOOSE 1 FROM COLUMN A
- CHOOSE 4 FROM COLUMN B

<p>COLUMN A Choose 1 from this column</p>	<p>COLUMN B Choose 4 from this column (they must all be different.) You could also use other shapes (these are just a few) as long as all the ones you choose have a different number of sides.</p>
<p>CUBE</p> 	 <p>OCTAGONAL PRISM</p>
 <p>RECTANGULAR PRISM</p>	 <p>TRIANGULAR PRISM</p>
	 <p>HEXAGONAL PRISM</p>
	 <p>PENTAGONAL PRISM</p>

# TORSO SHAPES

✓ My 5 solids are:

Shapes I will have on my drawing:

*Example:*

*Triangular prism*

*Triangle*

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✓ Are my shapes solidly connected together? \_\_\_\_\_

✓ Dimensions of my solids:

\_\_\_\_\_ Length= \_\_\_\_\_ Width= \_\_\_\_\_

\_\_\_\_\_ Length= \_\_\_\_\_ Width= \_\_\_\_\_

\_\_\_\_\_ Length= \_\_\_\_\_ Width= \_\_\_\_\_

\_\_\_\_\_ Length= \_\_\_\_\_ Width = \_\_\_\_\_

\_\_\_\_\_ Length= \_\_\_\_\_ Width = \_\_\_\_\_

## APPENDIX 2 (cont'd)

✓ I am thinking about using my circuit to

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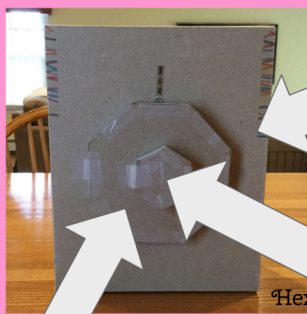
✓ And I will place the circuit:

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# SLIDE SAMPLES

## SLIDE # 1 SAMPLE

### SHAYNA SHUSTERMAN - WEEK 1 TORSO

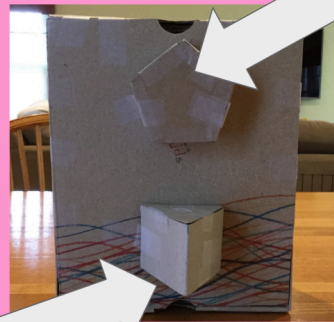


Octagonal Prism

Front of Torso

Rectangular Prism

Hexagonal Prism



Triangular Prism

Back of torso

Pentagonal Prism

Click [here](#) for the 'Little Bits' movie

I secured my solids together using tape, so they won't fall apart.

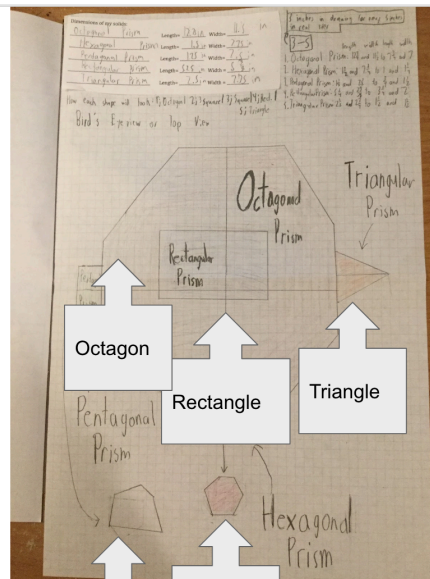
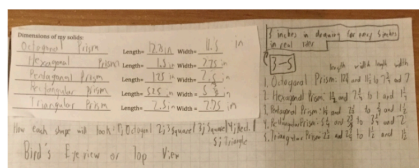
**Highlights~** Watching something that I have imagined in my head come together was very cool and exciting and taping the shapes together was very easy.  
**Hardships~** It was very hard to cut the cardboard to make my shapes, and I had to keep trying and trying to get the shapes right. Also, I couldn't figure out how to fit my torso in one picture.

## SLIDE # 2 SAMPLE

### PRANIT SHAH; WEEK 2: SCALE

My highlights for this part of the project is that it was easy and fun putting the shapes together on your graph paper, and I liked how my project looked from above so it might change how I present my project.

The hardest part of this project was when I changed my scale because my project wouldn't fit on the graph paper with the scale 4:3, I ended up changing it to 5:3.



# SLIDE #3 SAMPLE

## Kyle LeVangie: Week Three Appendages

Hardships: It was hard to make my head (which is styrofoam) stop shedding so I put a plastic bag over it.

Highlights: It was fun to see what my project became. I also enjoyed using the glue gun.



- 1. Cone
- 2. Square Pyramid
- 3. Circle 2
- 4. Circle 3
- 5. Circle 4
- 6. Circle 1
- 7. Cylinder
- 8. Sphere
- 9. Triangular pyramid
- 10. Cylinder

# FINAL SLIDE SAMPLE

SARAH CONCAGH



I am proud of my final creature because I worked really hard on it and I think it turned out well. One thing I would change is the legs. One thing that helped me practice math was the scaling. It was a good refresher on how to scale things down and then graph it. I think this project was very well run this year. I liked how it was broken up into different assignments so it wasn't overwhelming and I liked how we had our folders so we could work ahead in the weeks if we wanted. I also think that not doing that perimeter and area was a good idea. I think it would have been more rushed and stressful if we had to and it was just a review. My story is about Lucy the ladybug who tries to be helpful when planning her friends birthday party, but ends up messing up in the process.

## CALCULATIONS: ASSIGNMENT # 2

Appendix 4A

Scale factor for my project will be:

$$\underline{1'' : \frac{1}{2}''} \quad (\text{write it on your graph paper too})$$

Shape # 1 is a:  
hex prism 3 dimensional

hexagon on drawing

Dimensions of the actual shape:

Length: 3.5''

Width: 4''

Scale calculations (2 proportions below for length and width):

Length =

$$\frac{1}{.5} = \frac{3.5}{x}$$

$$x = 1.75''$$

width =

$$\frac{1}{.5} = \frac{4}{x}$$

$$x = 2''$$

Shape # 2 is a:  
Rect prism 3 dimensional

Rect on drawing

Dimensions of the actual shape:

Length: 3.2''

Width: 2''

Scale calculations (2 proportions below for length and width):

Length =

$$\frac{1}{.5} = \frac{3.2}{x}$$

$$x = 1.6''$$

width =

$$\frac{1}{.5} = \frac{2}{x}$$

$$x = 1''$$

Shape #1 is a: \_\_\_\_\_

\_\_\_\_\_ 3 – D (on my creature)

\_\_\_\_\_ as a polygon on my drawing

Dimensions of the actual shape: (in inches)

Length =

Width =

Scale Calculations: (2 proportions below: 1 for length and 1 for width):

Shape #2 is a: \_\_\_\_\_

\_\_\_\_\_ 3 – D (on my creature)

\_\_\_\_\_ as a polygon on my drawing

Dimensions of the actual shape: (in inches)

Length =

Width =

Scale Calculations: (2 proportions below: 1 for length and 1 for width):

Shape #3 is a: \_\_\_\_\_

\_\_\_\_\_ 3 – D (on my creature)

\_\_\_\_\_ as a polygon on my drawing

Dimensions of the actual shape: (in inches)

Length =

Width =

Scale Calculations: (2 proportions below: 1 for length and 1 for width):

Shape #4 is a: \_\_\_\_\_

\_\_\_\_\_ 3 – D (on my creature)

\_\_\_\_\_ as a polygon on my drawing

Dimensions of the actual shape: (in inches)

Length =

Width =

Scale Calculations: (2 proportions below: 1 for length and 1 for width):

## APPENDIX 4 (cont'd)

Shape #5 is a: \_\_\_\_\_

\_\_\_\_\_ 3 – D (on my creature)

\_\_\_\_\_ as a polygon on my drawing

Dimensions of the actual shape: (in inches)

Length =

Width =

Scale Calculations: (2 proportions below: 1 for length and 1 for width):



# Creativity and Effort Rubric

	Extending	Achieving	Developing	Beginning
<b>Effort</b>	<ul style="list-style-type: none"> <li>✓ Complete</li> <li>✓ Detailed</li> <li>✓ Great pride in work</li> <li>✓ Work is beyond what is expected</li> <li>✓ Shows personal touch</li> </ul>	<ul style="list-style-type: none"> <li>✓ Complete</li> <li>✓ Detailed</li> <li>✓ Pride in work</li> <li>✓ Work is what is expected</li> </ul>	<ul style="list-style-type: none"> <li>✓ Some part not complete</li> <li>✓ Little detail</li> <li>✓ Work is a little less than what is expected</li> </ul>	<ul style="list-style-type: none"> <li>✓ Some parts not complete</li> <li>✓ Little to no detail</li> <li>✓ Work is not what is expected</li> <li>✓ Project looks forced</li> <li>✓ Lacks accuracy and/or clarity</li> </ul>
<b>Creativity</b>	<ul style="list-style-type: none"> <li>✓ Many new and original ideas; unique</li> <li>✓ Does not look like all the others</li> <li>✓ Eye Catching</li> <li>✓ Exemplary use of color, texture, shapes and spacing of materials</li> </ul>	<ul style="list-style-type: none"> <li>✓ Some original ideas</li> <li>✓ Visually appealing</li> <li>✓ Good use of color, texture, shapes and spacing of materials</li> </ul>	<ul style="list-style-type: none"> <li>✓ Some new ideas or improvements, but most is predictable</li> <li>✓ Some parts visually appealing</li> <li>✓ Experimenting with the use of color, texture, shapes and spacing of materials</li> <li>✓ Experiments with creating a new model</li> <li>✓ Seems familiar and not new.</li> </ul>	<ul style="list-style-type: none"> <li>✓ No original ideas; relies on existing models or ideas</li> <li>✓ Not visually appealing</li> <li>✓ None or very little use of color, texture, shapes</li> <li>✓ Materials are not connected effectively</li> </ul>
<b>Neatness</b>	<ul style="list-style-type: none"> <li>✓ Patiently completed</li> <li>✓ All parts are well attached</li> <li>✓ Well organized</li> <li>✓ Clean and neat</li> </ul>	<ul style="list-style-type: none"> <li>✓ Completed</li> <li>✓ Parts are attached, but not securely</li> <li>✓ Clean and neat</li> <li>✓ Organized</li> </ul>	<ul style="list-style-type: none"> <li>✓ Completed in a hurry</li> <li>✓ Parts are wobbly</li> <li>✓ Work is a little messy</li> </ul>	<ul style="list-style-type: none"> <li>✓ Not completed</li> <li>✓ Parts are falling off</li> <li>✓ Not organized</li> <li>✓ Messy work – not clean and neat</li> </ul>

Perimeter – Polygon 1

Shape: \_\_\_\_\_

Sketch your shape here and then determine the perimeter.

Write on your drawing P = \_\_\_\_\_

Area – Polygon 1

Shape: \_\_\_\_\_

Sketch your shape here, show the formula you will use \_\_\_\_\_, and then show your work.

Write on your drawing A = \_\_\_\_\_

Perimeter – Polygon 2

Shape: \_\_\_\_\_

Sketch your shape here and then determine the perimeter.

Write on your drawing P = \_\_\_\_\_

Area – Polygon 2

Shape: \_\_\_\_\_

Sketch your shape here, show the formula you will use \_\_\_\_\_, and then show your work.

Write on your drawing A = \_\_\_\_\_

## APPENDIX 6 - part 2

Perimeter – Polygon 3  
Shape: \_\_\_\_\_

Sketch your shape here and then determine the perimeter.

Write on your drawing P = \_\_\_\_\_

Area – Polygon 3  
Shape: \_\_\_\_\_

Sketch your shape here, show the formula you will use \_\_\_\_\_, and then show your work.

Write on your drawing A = \_\_\_\_\_

Perimeter – Polygon 4  
Shape: \_\_\_\_\_

Sketch your shape here and then determine the perimeter.

Write on your drawing P = \_\_\_\_\_

Area – Polygon 4  
Shape: \_\_\_\_\_

Sketch your shape here, show the formula you will use \_\_\_\_\_, and then show your work.

Write on your drawing A = \_\_\_\_\_

## APPENDIX 6 – part 3

Perimeter – Polygon 5

Shape: \_\_\_\_\_

Sketch your shape here and then determine the perimeter.

Write on your drawing  $P =$  \_\_\_\_\_

Area – Polygon 5

Shape: \_\_\_\_\_

Sketch your shape here, show the formula you will use \_\_\_\_\_, and then show your work.

Write on your drawing  $A =$  \_\_\_\_\_

# VOLUME AND SURFACE AREA OF RECTANGULAR PRISM

All volumes and surface areas are of the actual creatures, not the scaled drawing!

Length : \_\_\_\_\_ Width : \_\_\_\_\_ Height: \_\_\_\_\_

## Surface Area

Formula:

Write on your drawing SA =

## Volume

Formula:

Write on your drawing V =

# TRIANGLES

TRIANGLE 1: TYPE OF TRIANGLE \_\_\_\_\_

SCALE CALCULATIONS:

TRIANGLE 2: TYPE OF TRIANGLE \_\_\_\_\_

SCALE CALCULATIONS:

TRIANGLE 3: TYPE OF TRIANGLE \_\_\_\_\_

SCALE CALCULATIONS:

# TRIANGLES

Perimeter of Triangle # \_\_\_\_.

Sketch it here and then compute the perimeter.

Area of Triangle # \_\_\_\_.

Sketch it here. Formula you will be using: \_\_\_\_\_. Compute the area.

## APPENDIX 9 (cont'd)

Perimeter of Triangle # \_\_\_\_.

Sketch it here and then compute the perimeter.

Area of Triangle # \_\_\_\_.

Sketch it here. Formula you will be using: \_\_\_\_\_. Compute the area.



## APPENDIX 9 (cont'd)

Perimeter of Triangle # \_\_\_\_.

Sketch it here and then compute the perimeter.

Area of Triangle # \_\_\_\_.

Sketch it here. Formula you will be using: \_\_\_\_\_. Compute the area.

# APPENDAGES

Appendage #1 will be your cylinder.

Cylinder Height = \_\_\_\_\_ Cylinder width (diameter) = \_\_\_\_\_

Scale calculations:

Height:

Width:

Appendage #2 is a \_\_\_\_\_.

If it is identical to appendage #1, you can write "same" below.

Height = \_\_\_\_\_ Width (diameter) = \_\_\_\_\_

Scale calculations:

Height:

Width:

## APPENDIX 10 (cont'd)

Appendage #3 is a \_\_\_\_\_.

If it is identical to another appendage, you can write "same as appendage # \_\_" below.

Height = \_\_\_\_\_ Width (diameter) = \_\_\_\_\_

Scale calculations:

Height:

Width:

Appendage #4 is a \_\_\_\_\_.

If it is identical to another appendage, you can write "same as appendage # \_\_" below.

Height = \_\_\_\_\_ Width (diameter) = \_\_\_\_\_

Scale calculations:

Height:

Width:

# SPHERE

Sphere – determine the diameter from the circumference. Measure the circumference and then use a formula to determine the diameter. Formula to use: \_\_\_\_\_.

Scale calculations using the diameter:

Circumference of the circle you have drawn on your graph paper to represent your sphere.

Formula:

Calculations:

Area of the circle you have drawn on your graph paper to represent your sphere.

Formula:

Calculations:

# CIRCLES

DIAMETER OF ACTUAL CIRCLE #1: \_\_\_\_\_

Scale calculations: (use the diameter and proportion)

## Circumference of scaled circle #1

Formula: \_\_\_\_\_

Work:

## Area of scaled circle #1

Formula: \_\_\_\_\_

Work:

## APPENDIX 12 (cont'd)

DIAMETER OF ACTUAL CIRCLE #2: \_\_\_\_\_

Scale calculations: (use the diameter and proportion)

### Circumference of scaled circle #2

Formula: \_\_\_\_\_

Work:

### Area of scaled circle #2

Formula: \_\_\_\_\_

Work:

## APPENDIX 12 (cont'd)

DIAMETER OF ACTUAL CIRCLE #3: \_\_\_\_\_

Scale calculations: (use the diameter and proportion)

### Circumference of scaled circle #3

Formula: \_\_\_\_\_

Work:

### Area of scaled circle #3

Formula: \_\_\_\_\_

Work:

## APPENDIX 12 (cont'd)

DIAMETER OF ACTUAL CIRCLE #4: \_\_\_\_\_

Scale calculations: (use the diameter and proportion)

### Circumference of scaled circle #4

Formula: \_\_\_\_\_

Work:

### Area of scaled circle #4

Formula: \_\_\_\_\_

Work: