Name: _____

Unit 4 Geometry
Real World Experience

DESIGNING A FOLDABLE NESTING BIRD BOX

1. Which type of bird is your nesting box designed to house?

2. What shapes are composed to make your nesting box?

3. What is the total surface area of your nesting box? _____
    a. How did you calculate the area?

4. If you were going to paint your nesting box, how much paint would you need to cover it completely? _____

5. What is the volume of your nesting box? _____
    a. How did you calculate the volume?

6. Explain some of your design choices for the bird box below. For example, why is it the size it is? How did you decide which shapes to use?

Name: _____

DIRECTIONS FOR ASSEMBLY

Write the directions for folding your nesting box together, so another person could assemble it. Make sure to use precise mathematical language when talking about the shapes in the net.

Name: _____

Unit 4 Geometry RWE RUBRIC

Extending – 100%

- Student has completed all 6 indicators below and has created a nesting box with more complex shapes than covered in class

Meeting – 95%

- Student has completed 4/6 of the indicators below:
    - Student has completed bird nesting box net to require dimensions (based on bird choice)
    - Student demonstrates understanding of how to calculate the total surface area for the nesting box
    - Student demonstrates understanding of how to calculate the volume for the nesting box
    - Student can accurately identify how much paint would be needed to paint the outside of the nesting box
    - Student can explain design choices using mathematical terminology and reasoning
    - Student demonstrates perseverance through project completion.

Developing – 80%

- Student has completed 3/6 of the above indicators

Beginning – 65%

- Student has completed less than 4 of the above indicators