**House Project**

**Using Scale Drawings and Scale Models**

It is time to put on your architect hat. What type of home do you want to live in? This is your time to figure it out! You will create a ***scale drawing*** of your dream home and then turn that into a ***scale model***.

For this project you will ***work in groups of 3-5***. You will have some class time to complete the project but the majority will be done at home. The grading rubric used is attached to this paper. Use it as you complete your house! The project is ***due Friday, May 13th***.

**Scale Drawing:**

You are going to make a scale drawing of your house. It will be a one-storey house. Hallways and doorways need to be 48” (4 feet) wide and doors will be 36” (3 feet) wide. You will pick a reasonable scale and draw an aerial view sketch of your house (like a blueprint).

Graph paper can be helpful in the making of the drawings, but your final picture may ***not be on graph paper.*** If you do your picture on graph paper, you must trace it on to plain white paper.

On your scale drawing you must ***include the scale used*** (measurement: actual dimension) and ***the dimensions (length and width) of each room in the measurement and the actual dimension***. Use one color for the measurement and one color for the actual measurement. Do not worry about the height of the room—we will address that on your model. Make sure you label each room with its purpose (master bedroom, kitchen, living-room, bathroom, etc…).

**Scale Model:**

 Using your scale drawing you will create scale model. Use the same scale and dimensions on your scale drawing to create a 3-D model. ***Your walls will have a height of 12 feet***. You will have ***an open roof (aka no roof)***-so that you can look into your scale model! Make sure you are able to transfer your model from home to school. You may use cardboard, foam, or any other material to build your model. Place your model on a piece of cardboard or foam board as a base. Be creative! Make it look nice—this is your dream house!

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**House Project**

**Rubric and Checkpoints**

(Attach this sheet to your final scale drawing)

|  |  |  |
| --- | --- | --- |
| **Checkpoints** | **Due Date** | **Mr Standring’s Signature** |
| Rough Drawing of your house with dimensions | Wednesday, May 4th |  |
| Scale Drawing of your house with rooms labeled with their purpose (cannot be on graph paper) | Monday, May 9th  |  |
| Scale Drawing of your house with dimensions (actual and the scale measurements) | Monday, May 16th  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CATEGORY  | **4**  | **3**  | **2**  | **1**  |
| **Checkpoints**  | All checkpoints were signed off.  | 2 Checkpoints were signed off.  | 1 Checkpoint was signed off.  | No checkpoints were signed off.  |
| **Scale Drawing-Measurements**  | The measurements are correct. The scale correctly reflects the actual measurements. Both measurements (actual and scale) are included in each room.  | The measurements are mostly correct. The scale mostly reflects the actual measurements. Both measurements (actual and scale) are included in each room.  | The measurements are not correct. The scale does not reflect the actual measurements. Both measurements (actual and scale) are included in each room but incorrect.  | The measurements are not included. The scale is not included. Both measurements (actual and scale) are not included in each room.  |
| **Scale Model-Neatness**  | The scale model is presented in a neat, clear, organized fashion that is easy to look at.  | The scale model is presented in a neat and organized fashion that is usually easy to look at.  | The scale model is presented in an organized fashion but may be hard to look at.  | The scale model appears sloppy and unorganized. It is hard to know what information goes together.  |
| **Scale Model-Measurements**  | The scale model has the correct measurements.  | The scale model has the correct measurements expect for 1 room.  | The scale model has the correct measurements expect for 2 rooms.  | The scale model has the correct measurements expect for 2 or more rooms.  |
| **Scale Model-Requirements**  | The scale model followed all requirements of the project.  | The scale model followed all but 1 of requirements of the project.  | The scale model followed all but 2 of requirements of the project.  | The scale model did not follow any of the requirements of the project.  |
| **Scale Model-Neatness**  | The scale model is presented in a neat, clear, organized fashion that is easy to look at.  | The scale model is presented in a neat and organized fashion that is usually easy to look at.  | The scale model is presented in an organized fashion but may be hard to look at.  | The scale model appears sloppy and unorganized. It is hard to know what information goes together.  |

Total Points: \_\_\_\_\_ out of 24. Project Grade: \_\_\_\_\_\_\_\_\_\_

V=IR

P=VI

E=Pt

Hr→ s

W→ KW

P=E/t