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Dream House Project

Congratulations!! You have won the contest to create your own dream home. Now you must design it. In this project you will be creating a poster sized drawing of your dream home (two dimensional) and a real house model (three dimensional). This dream home will include everything and anything you desire. It will also include some of the geometrical shapes and solids we have been studying (which is of course something you desire!!).

You will be the architect and the construction manager of this project.

## PART I: FLOOR PLAN DRAWING

The first phase of your project will be to create a plan drawing of one floor of your home. It must include distances and measurements and must also include at least one of each of these types of shapes:

* Square
* Rectangle
* Triangle
* Circle (at least a portion of a circle, for example a semi circle)

Your drawing must have these elements:

* Each of your rooms must be clearly labeled (what type of room is it, the measurements, and what type of shape it is) and neatly drawn.
  + Rooms Required (At least):
    - 2 bedrooms
    - 2 bathrooms
    - 1 kitchen
    - 1 garage
    - 1 living room
* Your picture must be large and on poster size paper.
* You must use color and make this dream home appealing.
* You will use the scale for your drawing so that your drawing is realistic and life-like (1 inch= 5 foot).
* Your home should have realistic measurements, and should be something someone would actually live in. Refer to floor plans on the internet for assistance.
* Be CREATIVE! Have fun with the design and make it very imaginative.

## PART 2: AREA CALCULATIONS

The second half of your project is to outfit your dream home. Your dream home must have some type of flooring. You must choose **at least 2 different types of flooring**, to use in your home. In order to determine how much flooring you will need you must calculate the area of each room and decide which type of flooring you will use for each room.

You will need to produce clear calculations for the area of each room. Then using these areas and the prices for flooring listed below, choose your type of flooring and calculate how much it will cost.

Carpet $2 per square foot

Linoleum $1 per square foot

Ceramic Tile $3 per square foot Hardwood flooring $5 per square foot

## PART 3: MODEL CREATION

The next portion of your project will take you into the third dimension. You will now create a 3-D model of your dream home. You may use Styrofoam, cardboard, Popsicle sticks, or anything of your choosing to create your model. Make it quality. (Note: **Your model must match your floor plan drawing** and **include furniture and flooring!)**

## PART 4: TOTAL AREA AND COST

You need to figure out the total area of your dream house. You will also need to figure out the total cost for the type of flooring.

**SUMMARY (100pts):**

Architect (50pts):

PART I: FLOOR PLAN DRAWING (25pts) PART 2: AREA CALCULATIONS (25pts)

Construction Manager (50pts):

PART 3: MODEL CREATION (25pts) PART 4: TOTAL AREA AND COST (25pts)

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Home Makeover! Geometry Edition

OBJECTIVE: You will design your dream house with a floor plan drawing, area calculations, model creation, and totals.. You are to incorporate what we have learned about geometry with houses.

GUIDING QUESTIONS: Here are some questions that will help you: creativity (Is this done with flare?) visual (grabbing the attention of audience?), accuracy (going in the right direction?), evidence (obvious steps?)

| **Team Members:** | **MAX**  **points** | **Points Received** | **Comments** |
| --- | --- | --- | --- |
| PART I: FLOOR PLAN DRAWING | +25 |  |  |
| PART 2: AREA CALCULATIONS | +25 |  |  |
| PART 3: MODEL CREATION | +25 |  |  |
| PART 4: TOTAL AREA AND COST | +25 |  |  |
| EXTRA CREDIT (include Technology and Media) | +10 |  |  |
| Late (-10 a day) | -10 |  |  |
| **TOTAL** | **100** |  |  |

Grading Scale

1. 90-100 Excellent work. Definitely start a business! The next Google company?
2. 80-89 Good work. Possible future business?
3. 70-79 Average work. You might go bankrupt?
4. 60-70 Below average work. Next time, I might find a business partner.

F < 60 No work. Run away!

Area of Rooms

| Room | Area |
| --- | --- |
| Bedroom 1 |  |
| Bedroom 2 |  |
| Bathroom 1 |  |
| Bathroom 2 |  |
| Kitchen |  |
| Living Room |  |
| Garage |  |
| 1. |  |
| 2. |  |
| 3. |  |
| **TOTAL AREA:** |  |

Types and Cost of Flooring

| Flooring | Cost per square foot | Cost for each Type of Flooring |
| --- | --- | --- |
| Carpet | $2 per square foot |  |
| Linoleum | $1 per square foot |  |
| Ceramic Tile | $3 per square foot |  |
| Hardwood Flooring | $5 per square foot |  |
| 1. |  |  |
| **TOTAL COST:** | |  |

Dream House Project Checklist

Part 1

* Floor plan includes shapes
  + Square
  + Rectangle
  + Triangle
  + Circle/Semicircle
* Floor Plan includes these rooms
  + 2 bedrooms
  + 2 bathrooms
  + 1 kitchen
  + 1 garage
* Rooms are labeled with name, measurements, area, and flooring
* Floor plan is colorful and appealing
* Floor plan is to scale (1 unit = 5 ft)

Part 2: Area Calculations

* Calculated area for each room on SEPARATE sheet of paper (turn in)
* Choose AT LEAST 2 different types of flooring from the following
  + Carpet
  + Linoleum
  + Ceramic Tile
  + Hardwood Flooring
* Figure out how much it will cost you for each of your types of flooring

Part 3: Model Creation

* Create a 3d model of your home
* Should match your floor plan
* I should see the INSIDE of your house
* BE CREATIVE!

Part 4: Total Area and Cost

* Total area of dream house
* Total Cost of flooring

**Part 1: Floor Plan**

**Points Used to Grade**

Shapes (circle, triangle, square, rectangle) 4 points

Required rooms 7 points

2 bedrooms

2 bathrooms kitchen garage living room

Color and Appealing 5 points

Rooms labeled (measurement, name, area, floor) 4 points Scale 5 point

TOTAL 25 points

**Part 2: Area Calculations**

-2 types of flooring 2

-area of each room 10

-Cost of flooring for each 10

-work 3

TOTAL 25 points

**Part 3: 3D Model**

-match floor plan 15 points

-creative 10 points

TOTAL 25 points

**Part 4: Total Area and Total Cost**

-Total Area

Work 6 points

Answer 7 points

-Total Cost

Work 5 points

Answer 7 Points

TOTAL 25 points