



# Dream House

Your architectural firm named \_\_\_\_\_  
is going to design a dream house for the **Super Design Prize!!!**

First you should discuss what makes a house a "Dream House" with your colleagues.

**The floor plan for last year's winner (shown below) will help with the discussion:**

1. How many bedrooms does it have? \_\_\_\_\_
2. How many people could live in this house? \_\_\_\_\_
3. How big is this house? \_\_\_\_\_ \*
4. How many light bulbs would you need for this house? \_\_\_\_\_
5. How would you heat and cool this house? \_\_\_\_\_  
\_\_\_\_\_
6. What would you change about this house? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*Note: the measurements are in feet and inches. The measurement 14'4" is fourteen feet and four inches. A foot is about 30cm and an inch is about 2.5cm.





# Go Green Dream House

Architectural firm \_\_\_\_\_

## CONTEST RULES

1. This year, there's a big twist in the contest -- the house design has to be 100% "Green"! The house will be built in a forest and will not have any electricity, nor any gas or oil heating.
2. A wood burning stove will provide heat for the house, heat to cook and bake food, and heat to warm up water for bathing. The stove will only heat a space of 100m<sup>2</sup> (or about 1076 square feet). No electric air conditioning in the summer.
3. No electricity making equipment is allowed (solar, wind or human power).
4. You can use as many walls, doors, and windows as you want. Windows can also provide light and heat during the day, but they may lose heat during the night.
5. You can use any materials that you want as long as they are provided by nature and not made by humans (i.e. no plastics). The only exception is the glass for windows and metal pipes for water or heating/cooling.
6. There is a well to provide water, but with no electricity. Your house will need a hand pump, or a water tower, to get water to different parts of the house.
7. The **Go Green Prize** is a prize that everybody on the planet wins. By figuring out that we don't need BIG houses which contribute to climate change, we are helping to save our planet for future generations.

8. \_\_\_\_\_.

9. \_\_\_\_\_.

- ✓ **NOTE: You can modify, add, or delete any of the contest rules as long as all the competitors agree with the changes.**





## Dream **Go Green** House

### Teacher's Notes

1. The students should be placed into pairs or small groups. Explain that each group will be an architectural firm competing to design a dream house. Each group has to come up with a creative name for their firm. For example, "Home Suite Home Inc." or "Heavenly Habitats Co.".
2. Start by discussing dream homes and if possible bring in photos of dream homes. Discuss how much they cost, figure out their size compared to the classroom or school, etc. Introduce any new vocabulary.
3. Look at the floor plan on the first worksheet. Ask the students if they like the design. Give the groups an appropriate amount of time to write down the answers. When the groups are done take up the questions with the whole classroom.
4. When taking up the questions, shift the focus of the discussion from a "Dream" house to a "Green" house. Explain that if everybody in the world wanted a dream house, there wouldn't be enough resources to build the houses, or enough land to put them on, or enough energy to run the houses. Also note things like the social contact in such a big house, the fun of going to a small cottage for vacation, the complexity of living in a huge house, the simplicity of living in a smaller house. The children should have a shift in thinking and will come up with many reasons to prefer a greener house.
5. Explain that this year instead of a prize for a "Dream" house there will be a challenge to build a "Green" house. The contest rules are on the second worksheet and you should go over each rule with the full class. Rules can be modified, removed, or added as long as everybody agrees to the same rules.
6. Give the students plenty of time to come up with a plan for the house. Float from group to group and remind them of the rules and give some hints to building a green house. Alternatively, you could give the full class some basic ideas before they start designing. [Note: There is a scale of one square is equal to 20 centimeters. This forces the houses to be smaller to fit within the graph paper.]
7. Each firm presents their house to the teacher or a panel of judges (parents, students, or teachers). The presentations can be oral, in the form of a booklet, or a science fair type 3-panel display. You can present a trophy or certificate to the winning group.
8. Feel free to change any of the parameters and don't forget to have lots of fun!!!