



Painting

Lesson Three: Buying Paint

Student Handouts

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**PAINT ON SALE
50% OFF**



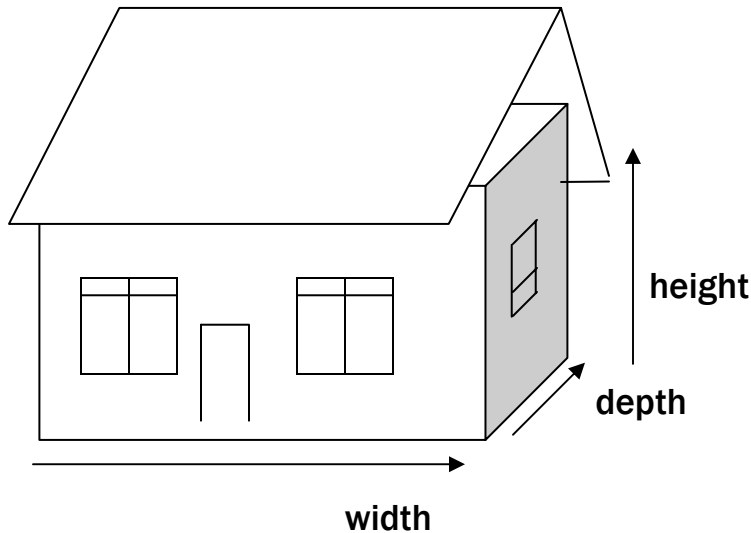
Activity #1: Reading Paint Labels

Manufacturer	Place to Use	Surface Finish	Contents	Special Use?	Color

Activity #2: Paint Calculation Practice

Practice A Instructions

To find out how much paint you need to paint the exterior of a structure, you need to know the **dimensions** of the structure. These are **the width, the depth, and the height** of the structure.



Sample Dimensions

Width	55'
Depth	30'
Height	38'

Step 1 Add the width and depth of the four sides of the structure to get the **perimeter** or the circumference of the structure.

$$\text{front width} + \text{right depth} + \text{back width} + \text{left depth} = \text{perimeter or circumference}$$

$$55' + 30' + 55' + 30' = 170'$$

Step 2 Multiply the **perimeter** by the height of the structure to get **the total surface area** of the outside walls you will paint.

$$170' \times 38' = 6460 \text{ sq ft}$$

Step 3 Count the **standard windows**. Multiply this number by 15 sq ft.

Count the **large windows**. Multiply this number by 21 sq ft.

Count the **single doors**. Multiply this number by 25 sq ft.

Count the **double doors**. Multiply this number by 40 sq ft.

Non-painted area in sq ft

standard windows	4	x	15 sq ft =	
large windows	4	x	21 sq ft. =	
single doors	2	x	25 sq ft =	
double doors	1	x	40 sq ft. =	+
	Non-painted area in sq ft			

Step 4 Add the number of square feet for all of the windows and doors.

Step 5 Subtract the **total number of square feet of non-painted areas** **from** the **total surface area** that you will paint.

Total Surface Area 6460 sq ft
Non-painted Area - _____ sq ft
Paint Surface Area

Step 6 Divide the paint surface area **by 400 sq ft.** (One gallon of paint covers about 400 sq ft.)

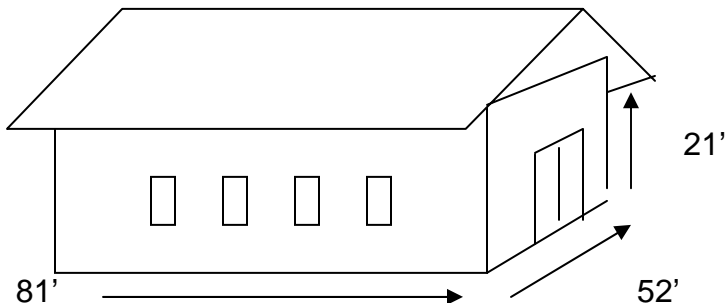
400 $\sqrt{\hspace{2cm}}$



Number of gallons of paint needed: _____ gal

Practice B Instructions

Do this practice together with your group.



Calculate the number of gallons you need to paint the sides of this building.

Step 1 Add the width and depth of the four sides of the structure to get the **perimeter** or the circumference of the structure.

front width + right depth + back width + left depth = perimeter or circumference

_____ft + _____ft + _____ft + _____ft = _____ft

Step 2 Multiply the **perimeter** by the height of the structure to get **the total surface area** of the outside walls you will paint.

_____ft x _____ft = _____sq ft

Step 3 Count the **standard windows**. Multiply this number by 15 sq ft.

Count the **large windows**. Multiply this number by 21 sq ft.

Count the **single doors**. Multiply this number by 25 sq ft.

Count the **double doors**. Multiply this number by 40 sq ft.

Unpainted area in sq ft

standard windows (left side)	8	x	15 sq ft =
large windows (right side)	2	x	21 sq ft. =
single doors (right side)	1	x	25 sq ft =
double doors (front & back)	2	x	40 sq ft. = +
	Unpainted area in sq ft		

Step 4 Add the number of square feet for all of the windows and doors.

Step 5 Subtract the **total number of square feet of unpainted areas** from the **total surface area** that you will paint.

$$\begin{array}{r} \text{Total Surface Area} \qquad \qquad \qquad \text{sq ft} \\ \text{Unpainted Area} \qquad \qquad \qquad - \quad \text{sq ft} \\ \hline \text{Paint Surface Area} \end{array}$$

Step 6 Divide the paint surface area **by 400 sq ft.** (One gallon of paint covers about 400 sq ft.)

$$400 \sqrt{\quad}$$



Number of gallons of paint needed: _____ gal

Activity #3: How Much Paint Will You Need?

Handout A



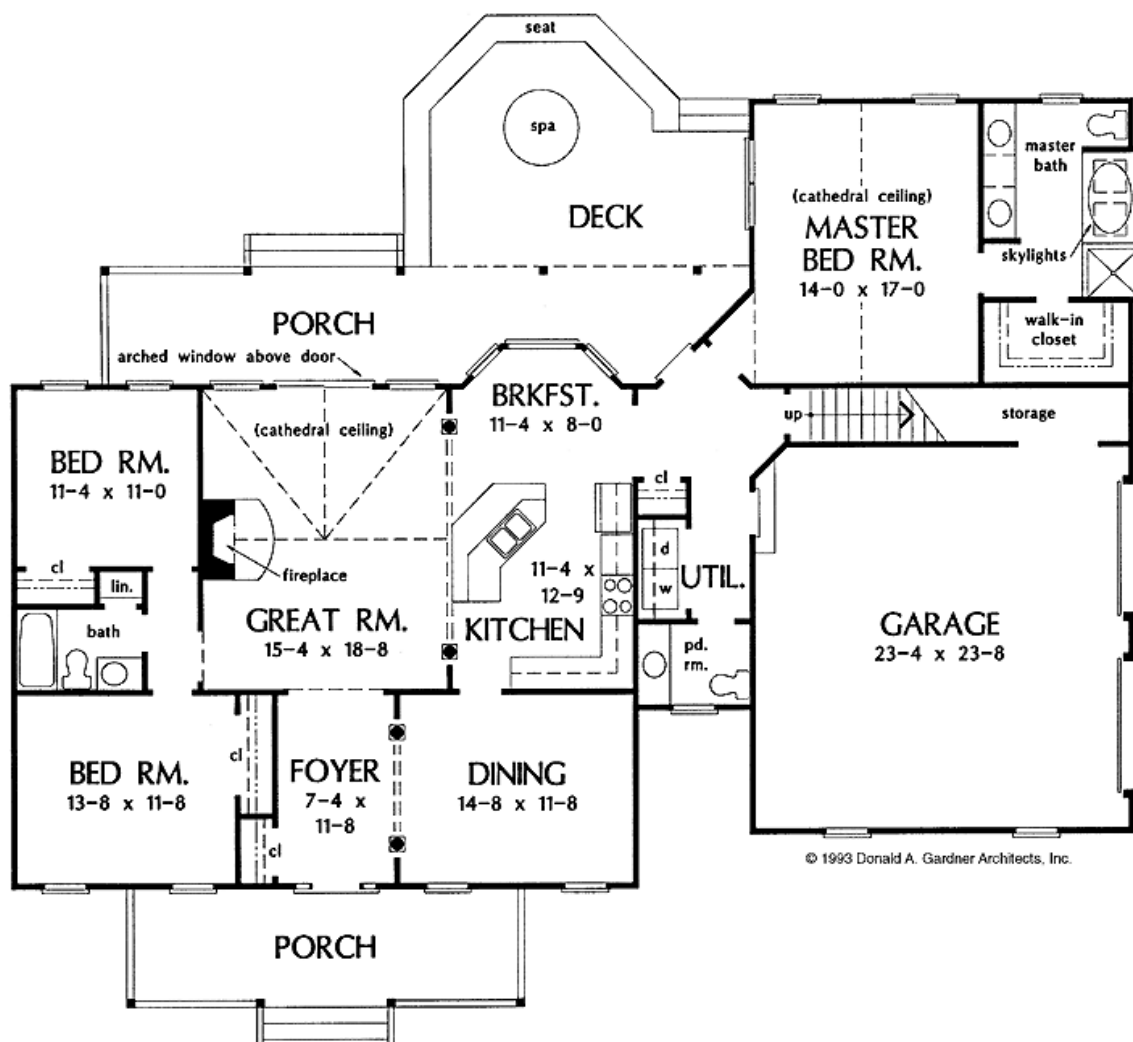
House #1 "Simply the Best"



front view



rear view



Plan HWEPL06999

<http://www.eplans.com>

Used with permission from eplans.com

Instructions: Estimate the number of gallons of paint you will need to paint the walls in these rooms. The ceiling height in these rooms is 9.0 ft.

- the three bedrooms
- the dining room
- the foyer

Room	Total room area in sq ft	Unpainted areas in sq ft	Room area to be painted in sq ft	Number of gallons needed
Bedroom #1				
Bedroom #2				
Bedroom #3				
Foyer				
Dining room				
			Total gallons	

Activity #3: How Much Paint Will You Need?

Handout B

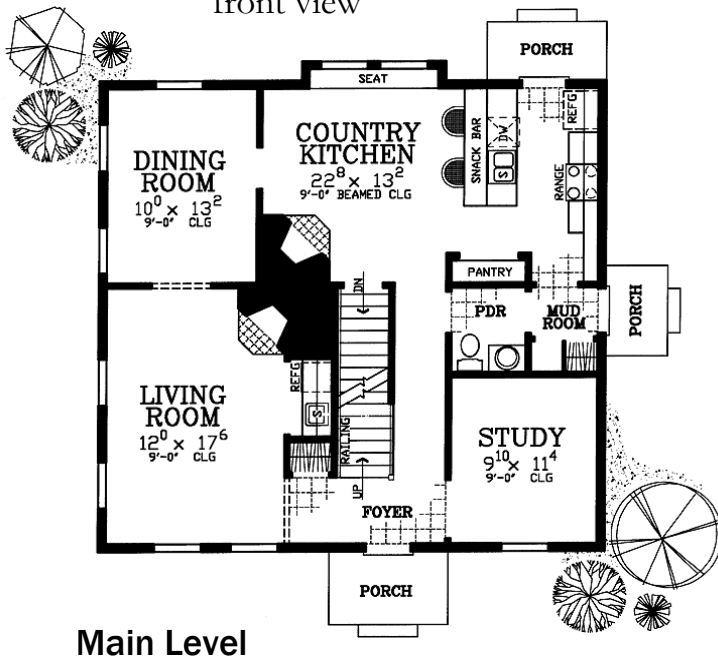


House #2 Cape Cod Charmer

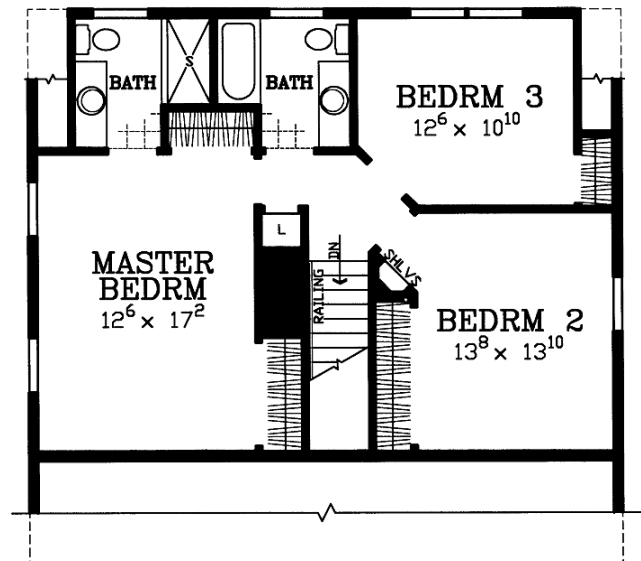


front view

rear view



Second Level



Plan HWEPL00515
<http://www.eplans.com>
 Used with permission from eplans.com

Instructions: Estimate the number of gallons of paint you will need to paint these rooms. The ceiling height in each room is 9.0 ft.

- the living room
- the three bedroom
- the study
- the dining room

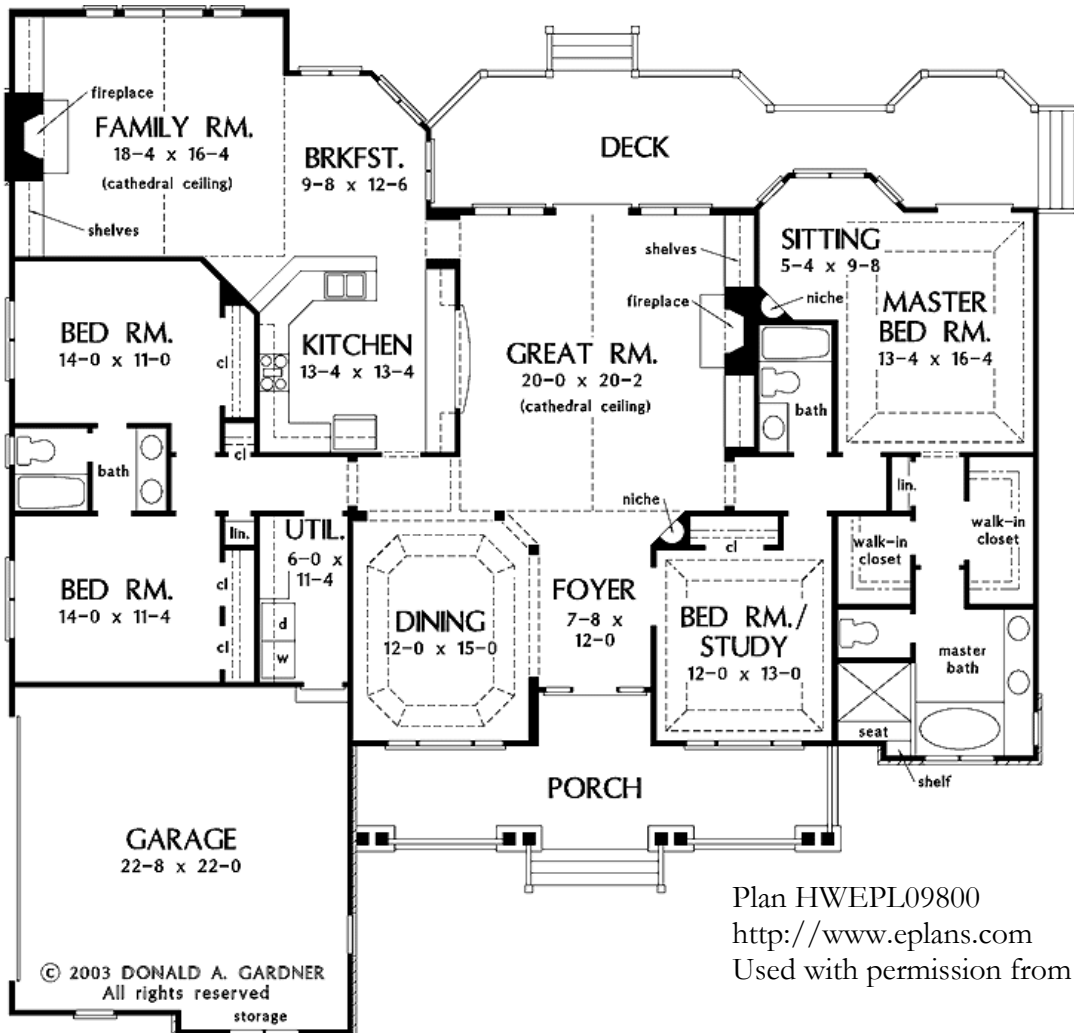
Room	Total room area in sq ft	Unpainted areas in sq ft	Room area to be painted in sq ft	Number of gallons needed
Living room				
Bedroom #1				
Bedroom #2				
Bedroom #3				
Study				
Dining room				
			Total gallons	

Activity #3: How Much Paint Will You Need?

Handout C



House #3 Craftsman Character



Instructions: Estimate the number of gallons of paint you will need to paint the walls in these rooms. The ceiling height in each room is 9.0 ft.

- the living room (great room)
- two bedroom
- the bedroom/study
- the dining room

Room	Total room area in sq ft	Unpainted areas in sq ft	Room area to be painted in sq ft	Number of gallons needed
Living room				
Bedroom #1				
Bedroom #2				
Master Bedroom				
Bedroom/Study				
Dining room				
			Total gallons	