

An ornate, golden-brown frame with intricate floral and scrollwork designs surrounds the central text. The background is a dark, textured surface with repeating floral motifs.

Haunted Mansion

Halloween Math Project

Haunted Mansion design task with letter, room info, & map

Dear Students,



We are the owners of the Haunted Mansion Company and are working on a new Haunted Mansion design. Right now, we are in the planning stages and could use your help. We want this mansion to be the spookiest and most fun possible. Would you design a layout for the rooms in the mansion and make a map showing your design?

Here is the information you will need.

1. The new mansion will be 19 yards long, 20 yards wide, and one story high.
2. All the rooms are rectangular and are 5 yards wide, but their lengths vary. Look at the room details for the length of each room.
3. All the rooms must fit on one floor.
4. Every room must have at least 1 yard of hallway around its entire perimeter. No rooms can share a wall and there must be a hallway around the entire floor.
5. The mansion will have only one entrance and one exit. On your map, use arrows to show the way people will enter the mansion, walk through all the exhibits, and leave the mansion.
6. Use a scale of 1 box or 1 inch = 1 yard when drawing your map.

We are sending you a list of rooms that includes names and lengths of every room. If you have room on your map, you can create some haunted rooms of your own. Just remember that we want this mansion to be spooky and fun.

Thank you in advance for your kind help! We look forward to seeing your designs.









Spookily yours,

Ima Werewolf & Jack O. Lanterns

Name _____

ROOM INFORMATION

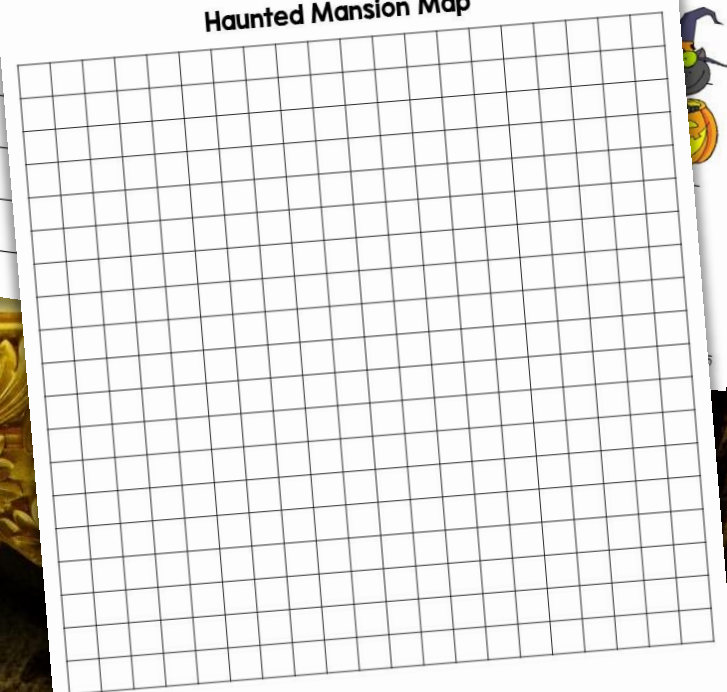
These rooms must be in the Haunted Mansion. Remember, every room is 5 yards wide. You may add rooms of your own with any extra space. Be creative, and have fun!

1. Bats in the Belfry (Length: 5 yards) 
2. Zombie Zoo (Length: 10 yards) 
3. I Want my Mummy (Length: 4 yards) 
4. Sticky Spider Web (Length: 6 yards) 
5. Ghosts in the Graveyard (Length: 3 yards) 
6. Vampire's Castle (Length: 8 yards) 

My CREATIONS

Name _____

Haunted Mansion Map



Teacher Notes & Day by Day Details



Notes and Instructions

There are 2 versions of this activity included plus an extra challenge for students who need something more difficult. The letter and room dimensions on pages 3-6 are the ones I use with my third grade. A simpler activity with smaller floor and room dimensions is included on page 8-12. The math challenge can be found on page 13. Everything in all projects is the same except the dimensions of the floor and rooms, so you can use them simultaneously to differentiate for students.

Preparing the Activity:

1. Copy one letter and room information sheet for every student.
2. Decide which type of paper you want to use for students to show their work. You can use the included graph paper or plain construction paper. Using the graph paper makes this project much simpler. Try using plain construction paper for more advanced students or groups (the paper will need to be cut to the dimensions in the letter). There are two versions of graph paper included with each of the projects. One is length x width, the other is width x length. The width x length version fits best on 8.5 x 11 paper.

Activity Instructions:

This activity typically takes 3-4 days if students use the included graph paper. If you choose to have them use blank construction paper it can be up to a week long activity.

Day 1

Students read the letter and brainstorm ideas for additional rooms. They can also start a sketch to help them plan how they might like to arrange the required rooms for the floor. Most students will want to talk about all their amazing ideas for new rooms in the mansion.

Day 2

Have blank art paper (much more difficult!) or graph paper available for students. They can start arranging and labeling the required rooms. You will want more than one graph paper per student. Some students might want to cut out the rooms on one graph page and try a variety of arrangements on the second.

Day 3•

Have students share how they have decided to place the required rooms and how much room they have left for their own ideas. Did students randomly place rooms or organize them in equal rows of 5 squares (for the first version) or 4 squares (for the second version) to maximize space?

My students always want to decorate every room with spooky creatures, gravestones, and cobwebs. Before they do this we talk about how architects draw their plans as a bird's eye view.

Have students find the perimeter and/or area of each of the rooms if time allows.
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Version 1 at Grade level


Name _____

ROOM INFORMATION

These rooms **must** be in the Haunted Mansion. Remember, **every room is 5 yards wide**. You may add rooms of your own with any extra space. Be creative, and have fun!

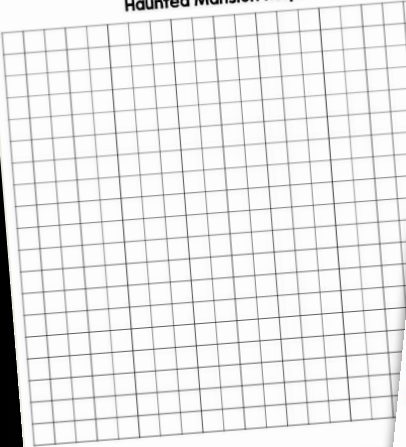
1. Bats in the Belfry (Length: 5 yards) 
2. Zombie Zoo (Length: 10 yards) 
3. I Want my Mummy (Length: 4 yards) 
4. Sticky Spider Web (Length: 6 yards) 
5. Ghosts in the Graveyard (Length: 3 yards) 
6. Vampire's Castle (Length: 8 yards) 

My CREATIVE ROOM IDEAS:



Name _____

Haunted Mansion Map



A large grid of 20 columns and 20 rows for drawing a map.

Haunted Mansion Map
Possible Solution for 19x20 design

Vampire's Castle
5x8

Ghosts In the Graveyard
5x3

Zombie Zone
10x5

I Want my Mummy
5x4

Extra space for own ideas

Bats in the Belfry
5x5

Sticky Spider Web
5x6

Extra space for own ideas

Blue squares must be blank for hallway space

Dimensions: 19 x 20

www.twinkl.co.uk

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Version
Easier

Dear Students,

We are the owners of the Haunted Mansion Company and are working on a new Haunted Mansion design. Right now, we are in the planning stages and could use your help. We want this mansion to be the spookiest and most fun possible. Would you design a layout for the rooms of the mansion and make a map showing your design?


Here is the information you will need.

1. The mansion will be 14 yards long, 17 yards wide, and one story high.
2. All rooms are rectangular and are 4 yards wide, but their lengths vary. Look at the room details for the length of each room.
3. No room must fit on one floor.
4. Every room must have at least 1 yard of hallway around its entire perimeter. No rooms can share a wall and there must be a hallway around the entire floor.
5. The mansion will have only one entrance and one exit. On your map, use arrows to show the way people will enter the mansion, walk through all the exhibits, and leave the mansion.
6. Use a scale of 1 box or 1 inch = 1 yard when drawing your map.

We are sending you a list of rooms that includes names and lengths of every room. If you have room on your map, you can create some haunted rooms of your own. Just remember that we want this mansion to be spooky and fun.

Thank you in advance for your kind help! We look forward to seeing your designs.





Spookily yours,
Ira Wolfowitz & Jack O. Lefkowitz




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ROOM INFORMATION

These rooms must be in the Haunted Mansion. Remember, every room is 4 yards wide. You may add rooms of your own with any extra space. Be creative and have Fun!

1. Bats in the Belfry (Length: 4 yards) 
2. Zombie Zoo (Length: 7 yards) 
3. I Want my Mummy (Length: 5 yards) 
4. Sticky Spider Web (Length: 2 yards) 
5. Ghosts in the Graveyard (Length: 3 yards) 
6. Vampire's Castle (Length: 6 yards) 

My CREATIVE ROOM IDEAS:


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Name _____

Time _____

www.thefairyprintmaker.com ©

Haunted Mansion Map



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Haunted Mansion Map
Possible Solution for 14x7 design

Vampire's Castle
4x6

Ghosts In the Graveyard
4x3

Zombie Zoo
7x4

I Want my Mummy
4x5

Bats in the Belfry
4x4

Sticky Spider Web
2x4

Extra space for own ideas

This must be blank for hallway space

Haunted Mansion Map

www.teacherspayteachers.com/@2016











Version 3 Challenge

Name _____

MANSSION CHALLENGE ROOM INFORMATION

These rooms **must** be in the Haunted Mansion. The hallways around the perimeter of every room must be **exactly** one square yard. You will not have extra space once all of these rooms are in the correct place.

1. Bats in the Belfry (Length: 5 yards) 
2. Zombie Zoo (Length: 10 yards) 
3. I Want my Mummy (Length: 4 yards) 
4. Sticky Spider Web (Length: 6 yards) 
5. Ghosts in the Graveyard (Length: 3 yards) 
6. Vampire's Castle (Length: 8 yards) 
7. Black Cat Alley (Length: 6 yards) 
8. Haunted Pumpkin Patch (Length: 7 yards) 

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Name _____

Haunted Mansion Map

Dimensions: 20 x 30

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Haunted Mansion Map
Possible Solution for 14x20
challenge design

Zombie Zoo
5x10

Haunted
Pumpkin Patch
5x7

I Want my
Mummy
5x4

Sticky
Spider Web
5x6

Black Cat
Alley
5x6

Vampire's
Castle
5x8

Bats in the
Belfry
5x5

Ghosts
In the
Graveyard
5x3

Blue squares must be blank for hallway space

Dimensions: 14 x 20

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