

# TEACHER NOTES

Firstly, a big THANK YOU for purchasing this product. Please check out my store for more products and follow me for updates.

These CSI projects are a great way to capture your students' interest in math. This activity is also great to use as a fun Halloween math activity.

This activity has a short story at the start which sets up your class for an adventure where they have to find out which of the creatures is the skeleton bride's forgotten fiancé. You can use this short reading as an introduction to this activity. However, a quick summary is included on the 'Crime Scene Investigation' page if you do not have time to read the entire short story. Also included with this resource is a video – please check it out before showing it to your class to judge whether it appeals to them. It can be used as a video hook to get your students interested in the math that is to come but I take no responsibility for the video, if students are frightened by it.

Link to video:

<https://www.youtube.com/watch?v=02XQX31pRiM>

## Included in this activity you will find:

Four math clues which your students will need to solve in order to uncover who the skeleton bride's fiancé is. The clues are:

**Hidden message:** Students use their basic facts, mainly multiplication, in order to uncover a hidden message left by the witch.

**Basic cardinal directions and long addition:** Students map the witch's flight path.

**Decimal addition:** Students figure the weight of the ingredients in magic vials.

**Fractions:** Students work out how much pizza each creature ate.

After the students have found out which creature is the skeleton bride's fiancé they can complete the last activity to find out which room is the witch's spell room. To make this activity shorter, you don't have to include this sheet.

Two early finisher activities are also included. Keep these on hand to give to your students who finish early. One of the extra activities is a short writing activity and the other is a haunted house multiplication maze.





# THE SKELETON BRIDE

“Something doesn’t feel right. Something really doesn’t feel right”, you think to yourself.

A chill wind is blowing down the dirty narrow forest path in front of you. “What’s that putrid smell?” you ask yourself as you creep along the dark forest road. The clouds start to part above and reveal a bright full moon. The light from the moon shines into a large clearing in the forest ahead. In the middle of the clearing you notice a dark castle rising out of a curling mist – “I’m sure that castle wasn’t there before,” you think to yourself.

As you creep towards the castle a shrill cackling laugh echoes through the air. A shudder runs down your spine. What was that? It sounded evil. Like perhaps a devil. A sickening feeling starts to fill your stomach – you have to get out of here. You’re just about to turn and run when you feel something grab your arm. A gasp leaves your mouth as you look down and see what has grabbed you. A pale white arm is holding yours. The moon gleams off that arm.... Wait... that’s not just an arm... it’s an arm bone!



You gulp and look up to see a ghastly white skeleton face. The skeleton starts to move and as they do you notice that it is wearing a crumbling wedding dress. “Oh, help me,” you think to yourself – “it’s a skeleton bride!” The skeleton opens its mouth and speaks in a wailing voice, “Help me! Heeeeelp me!” You find yourself mustering up some courage and whispering out one quiet word – “How?”

The wailing voice of the skeleton starts to speak again. “On this day five years ago I was getting ready to be married to my lifelong love. Our wedding ceremony was to take place at the castle. Unknown to us however, there was a wicked witch who lived in the castle. She was jealous of the love that we shared. On our wedding night she turned myself, my handsome love, and all of our wedding guests into horrible creatures. She also took the memories of everyone except for me. No one can remember who they once were. The spell can be broken, but I need your help to do it. My love is one of these creatures and if



I can find which out which one he is and say my wedding vows to him in the witch’s magic room the spell will be broken and we will all be returned to humans. If I say it to the wrong creature in the wrong room, however, we will stay cursed like this forever. I need your help as I haven’t been able to find out which creature my love is, or which room is the witch’s magic room. Every full moon the witch flies away – which allows me to continue my search. Tonight is the only chance I will have until the next full moon – please help me...Please!”



# CRIME SCENE INVESTIGATION



“Help me... Help me..” cried the skeleton bride. “Just as I was about to marry my lifelong love an evil witch put a spell on me, my fiancé, and all of our wedding guests turning us into these horrible creatures! The worst part was that she also took the memories of everyone except for me. Now my husband to be has forgotten who he was, and I am not sure which of the creatures he was turned into. The spell can be broken but I need your help!

If I can identify my husband to be and say my wedding vows to him the spell will be broken. We must be careful though, because if I say my vows to the wrong creature we will stay this way forever.”

Clues can be found throughout the castle which will help you to identify who the skeleton bride’s husband to be is. Solve these clues and find out which creature her fiancé was turned into so the spell can be broken.



The creatures have gathered and are shown below. One of these creatures is the skeleton bride’s fiancé. Use the evidence on the following pages to find out which one it is so the spell can be broken.

			
Vampire Bat	Pumpkin Head	Skull Cowboy	Friendly Ghost
			
Grim Reaper	Scarecrow	Frankenstein	Black Cat

FOUR CLUES HAVE BEEN FOUND WHICH ARE ON THE FOLLOWING PAGES.

AFTER YOU HAVE SOLVED EACH CLUE COME BACK HERE TO CROSS CREATURES OFF THE SUSPECT LIST UNTIL YOU HAVE FOUND THE SKELETON BRIDE’S FIANCE’.

# HIDDEN MESSAGE

As you enter the castle you notice a crumpled up bit of paper. You unravel it and realise it is a note written by the witch. It reads: *Dear Witch, here is a note to yourself; remember who this creature is – it may come in handy in case you get hungry and want to turn him human again.*

After that is a jumble of numbers – it must be a hidden message!

Solve the math problems at the bottom of the page and then shade in the answers in the number jumble, e.g.  $6 \times 10 = 60$ , this means you shade all the squares which have the number 60 in them. Do this for all the math questions to reveal the hidden message.

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	1	1	1	2	3	4	3	4	6	6	7	7	8	8	9	9	10	11	11	12	12	12	0
0	13	1	2	2	3	4	3	4	6	7	7	7	8	9	10	10	11	11	12	26	0	0	
0	13	14	15	15	16	16	16	17	18	18	19	19	20	20	21	21	22	24	24	25	26	0	
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0	66	67	72	73	75	75	75	75	75	78	80	81	82	83	83	84	85	85	86	0	0	0	
0	66	67	70	72	73	74	75	76	77	78	80	81	81	81	83	84	84	85	86	86	0	0	
0	69	69	72	72	72	74	75	76	77	78	79	80	80	82	83	84	84	86	86	86	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

PRELIMINARY

$6 \times 10 =$	$4 \times 4 =$	$12 \div 12 =$	$5 \times 4 =$	$4 \times 8 =$
$8 \times 5 =$	$9 \times 5 =$	$8 \times 10 =$	$7 \times 2 =$	$21 + 13 =$
$7 \times 7 =$	$11 \times 2 =$	$8 \times 8 =$	$45 + 6 =$	$60 \div 6 =$
$45 + 13 =$	$6 \times 6 =$	$7 \times 8 =$	$3 \times 4 =$	$2 \times 4 =$
$5 \times 5 =$	$90 - 7 =$	$60 + 12 =$	$6 \times 5 =$	$9 \times 6 =$
$9 \div 3 =$	$7 \times 4 =$	$6 \times 8 =$	$100 - 25 =$	$73 - 11 =$
$6 \times 3 =$	$2 \times 3 =$			

**THIS CREATURE ISN'T HER LOVE. CROSS HIM OFF THE SUSPECT LIST.**



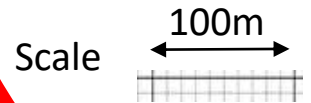
# THE WITCH'S FLIGHT PATH

Once a week the witch lets the creatures out onto the grounds surrounding the castle. Each of the creatures have a set spot to which they go. The witch then patrols the area by flying around on her broomstick so she can keep an eye on them. She follows the same flight path every time, however, the skeleton bride has noticed that the witch allows some of the creatures to roam unsupervised. Any creature that is not in the path of the witch's flight must be too unimportant for the witch to care about and therefore could not be the skeleton bride's fiancé.

Answer the math questions to find the witch's flight path and draw her path on the map below. Start at the X.

Cross off any creatures that the witch does not fly over. These creatures would not be the skeleton bride's husband to be.

Hint: Draw the flight path straight over the creatures like this.



Draw her flight path on the map

From the X (start) she flew .....

50m + 30m west, then

105m + 115m north, then

350m - 70m east, then

85m + 85m south, then

76m - 26m east, then

124m + 76m south, then

75m + 75m west, then

240m - 110m north.

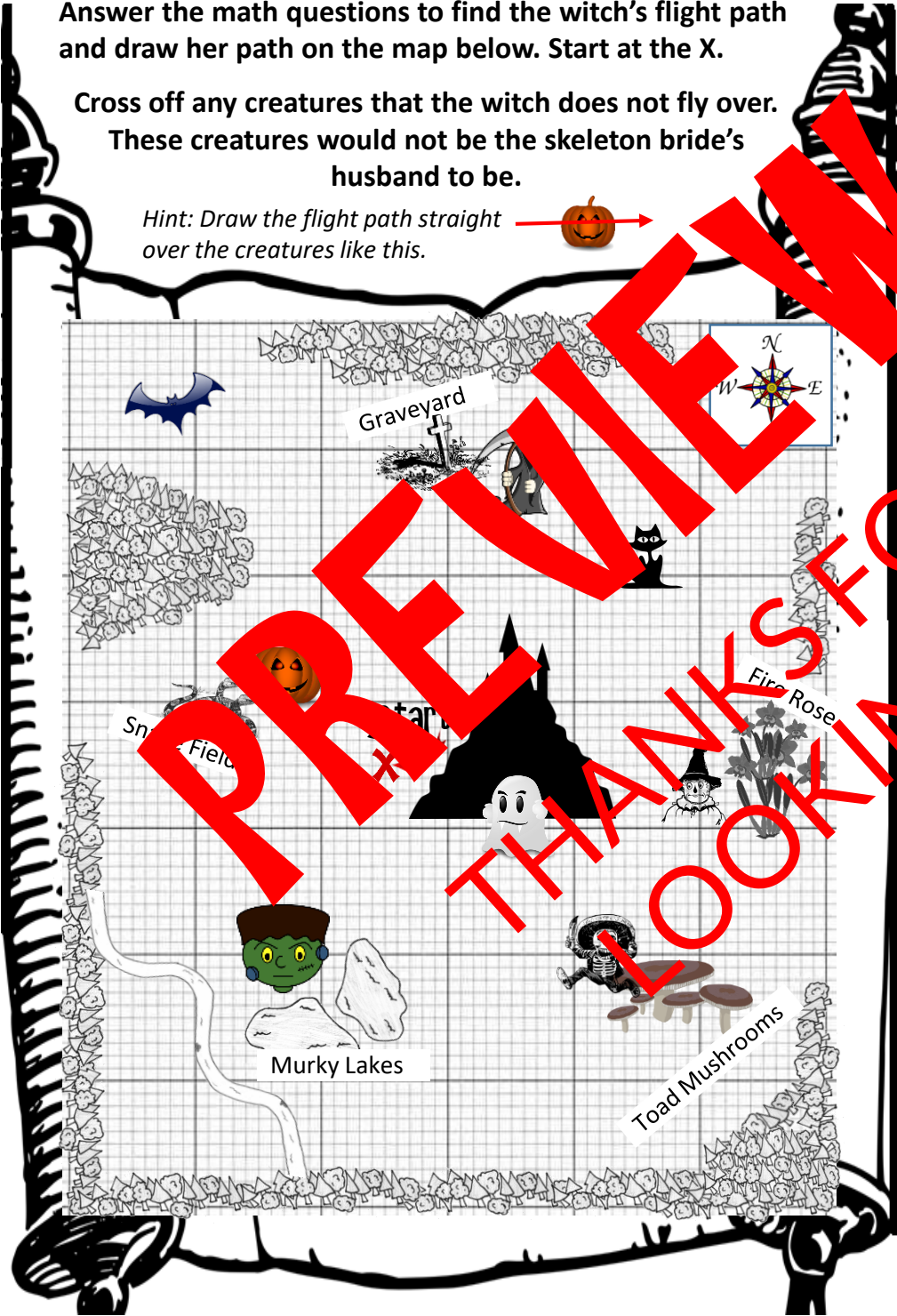
(back to her castle)

Which creatures were not on the witch's flight path?

\_\_\_\_\_

\_\_\_\_\_

Cross them off your list.



# EVIL VIALS TO FORGET

For each creature the witch has crafted a special vial filled with magical substances. This vial is attached to the creatures and keeps them from remembering who they once were. The witch only had a small number of magical substances, however, and had to divide them between the wedding guests she turned into creatures. It is presumed she used a large amount of these magical substances on the skeleton bride's fiancé. This means that the two creatures with the smallest total weight can be crossed off the creature list as they would not be the skeleton bride's fiancé.

**Work-out the total weight of each creature's vial.  
Cross off the TWO creatures whose vials weigh the LEAST.**

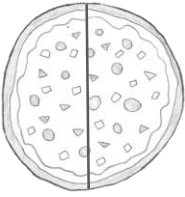
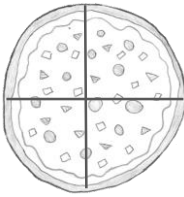
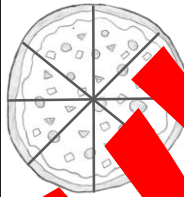

<p><b>Vampire Bat</b></p> <p>2.2 kg of worm brain 2.5 kg of rabbit heart 0.5 kg of owl tears</p> <p>Total weight =</p>	<p><b>Snake Head</b></p> <p>3.7 kg of snake head 0.7 kg of toad mushroom 1.5 kg of worm brain</p> <p>Total weight =</p>
<p><b>Skull Cowboy</b></p> <p>3.1 kg of fire rose petal 1.2 kg of dragon herb 1.4 kg of snake skin</p> <p>Total weight =</p>	<p><b>Friendly Ghost</b></p> <p>0.8 kg of purple hare feet 1.9 kg of toad mushroom 2.2 kg of owl tears</p> <p>Total weight =</p>
<p><b>Grin Reaper</b></p> <p>1.8 kg of toad mushroom 2.6 kg of fire rose petal</p> <p>Total weight =</p>	<p><b>Scarecrow</b></p> <p>3.4 kg of dragon herb 2.8 kg of rabbit heart</p> <p>Total weight =</p>
<p><b>Frankenstein</b></p> <p>4.4 kg of owl tears 0.5 kg of dragon herb 1.4 kg of fire rose petal</p> <p>Total weight =</p>	<p><b>Black Cat</b></p> <p>1.4 kg of rabbit heart 1.8 kg of snake skin 2.7 kg toad mushroom</p> <p>Total weight =</p>




# THE WITCH'S SPELL BOOK

As you creep forward you notice an old bookcase covered in cobwebs. When you blow away the cobwebs you notice an old book. You realise as you open it up that it is the witch's spell book. Upon opening the book you find hand drawn notes explaining how the witch turned everyone into horrid creatures – She put a spell on the pizzas, which were the food for the wedding! Different combinations of pizza slices turned people into different creatures. The skeleton bride gasped, – “My husband loved pizza! He insisted we have it at our wedding and said he would eat more than anyone else. By looking at the spell recipes we can figure out how much pizza each of the creatures ate. The two who ate the least can be crossed off the suspect list – those creatures would not be my fiancé.”




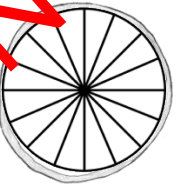




Work out how much pizza each guest would have eaten. Shade in the pizza fraction circles to help you. Cross off the 2 creatures who ate the least amount of pizza.

<b>Chicken</b> 2 slices per pizza	<b>Pepperoni</b> 4 slices per pizza	<b>Vegetarian</b> 8 slices per pizza	<b>Cheese</b> 16 slices per pizza
			

The size of the pizza is the same for each one. Each slice is the same size. A slice of pepperoni plus 2 cheese slices looks like this.







Size of 1 pepperoni slice  
 Size of 2 cheese slices

<b>Recipe for Vampire Bat</b>	<b>Recipe for Pumpkin Head</b>	<b>Recipe for Skull Cowboy</b>	<b>Recipe for Friendly Ghost</b>
1 slice of Chicken 2 slices of Vegetarian	1 slice of Pepperoni 2 slices of Cheese	2 slices of Vegetarian 3 slices of Cheese	1 slice of Pepperoni 2 slices of Vegetarian
			
<b>Recipe for Grim Reaper</b>	<b>Recipe for Scarecrow</b>	<b>Recipe for Frankenstein</b>	<b>Recipe for Black Cat</b>
1 slice of Chicken 2 slices of Vegetarian 1 slice of Cheese	3 slices of Vegetarian 8 slices of Cheese	1 slice of Pepperoni 5 slices of Vegetarian	2 slices of Pepperoni 1 slice of Vegetarian 1 slice of Cheese
			



# WHERE IS THAT SPELL ROOM?

The witch has placed magical objects in each room of the castle in order to help her with her spells. There are four kinds of magical objects in different shapes. Each shape holds a different amount of magical power. Use these shapes to work out which room holds the most magical power. This must be the main room where the witch casts her spells, and in this room is where the skeleton bride must say her wedding vows to her fiancé to break the spell.

Square	Pyramid	Cross	Sphere
 3 Magic Points	 4 Magic Points	 5 Magic Points	 6 Magic Points



**PREVIEW THANKS FOR LOOKING!**

The floor plan shows the following rooms and their magical object counts:

- Library:** 3 Squares, 4 Pyramids
- Trophy Room:** 2 Spheres, 4 Crosses
- Dancing Room:** 3 Squares, 2 Pyramids
- Kitchen:** 3 Spheres, 3 Squares, 4 Pyramids
- Dining Room:** 3 Squares, 2 Pyramids
- Bar Room:** 4 Spheres, 2 Pyramids
- Lounge:** 3 Spheres, 2 Pyramids, 3 Crosses
- Study:** 3 Spheres, 2 Pyramids, 2 Crosses
- Guest Room:** 2 Spheres, 1 Pyramid, 3 Crosses

The spell room is: \_\_\_\_\_

Library:
Dining Room:
Dancing Room:
Kitchen:
Dining Room:
Bar Room:
Lounge:
Study:
Guest Room:





## THE WITCH

Write the story of the witch. Was she always evil?  
Why did she put a spell on the skeleton bride?  
What does she do on the full moon nights?

A series of horizontal lines for writing a story.

**PREVIEW  
THANKS FOR  
LOOKING!**



# HAUNTED HOUSE MULTIPLICATION MAZE

Can you find the way out through the haunted house to rescue the princess at the top?  
**YOU CAN NOT GO THROUGH DOORS WITH ANSWERS WHICH END IN A 5 OR A 6.**  
You can go up and down both ladders and stairs.



# HAUNTED HOUSE MAZE – CREATE YOUR OWN

Create your own haunted house math maze to find the way to save the princess! Put a math problem in each of the rooms. Then decide which rooms the can be travelled through, for example you might say you can only travel through rooms with answers which end in a 4.

YOU CAN ONLY GO THROUGH ROOMS WHICH: \_\_\_\_\_

