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 [illegible]ivity. However, a quick summary is included on the 'Crime Scene Investigation' pa[illegible] if y[illegible] do not have time to read the entire short story. Also included with this resour[illegible] vi[illegible]o – please check it out before showing it to your class to judge whethe[illegible] app[illegible]r them. It can be used as a video hook to get your students intere[illegible]d in t[illegible] but I take no responsibility for the video, [illegible]ds are fright[illegible]t[illegible]

Li[illegible]k to [illegible]o:
[https://www.youtube[illegible]m/w[illegible]v=02XQX31pRiM]

Included in this activity yo[illegible] will [illegible]nd:

Four math clues which [illegible] stude[illegible] will n[illegible] to so[illegible]e in order to un[illegible]cover [illegible]who the skeleton bride's fian[illegible] The clues a[illegible]

- **Hidden [illegible]ssage** Students us[illegible]eir basic facts, mai[illegible] multiplication, in order to [illegible]ove[illegible] message left by the witch.
- **[illegible]asic [illegible]dina[illegible]rections and long addition:** Studen[illegible]s map the [illegible]itch[illegible] flight [illegible]th.
- **D[illegible]ition** [illegible]udents figure the [illegible]eig[illegible]t of the ingr[illegible]edien[illegible] in magic vials.
- **[illegible]ract[illegible]s** – S[illegible]nts work out how [illegible]uch pizza each cre[illegible]tu[illegible]e ate.

After the [illegible]dents have [illegible]ound out which [illegible]eat[illegible]re is the sk[illegible]ton [illegible]ride's fiancé they can complete th[illegible]st activity to find out [illegible]hic[illegible] r[illegible]om is the w[illegible]tch's [illegible]pell room. To make this activity shorte[illegible]u don't have to [illegible]nclude this sheet.

Two early finisher activities are also included. [illegible]eep th[illegible]e on hand to give to your students who finish early. One of the extra activities is a sh[illegible]rt 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 pierces the air. A shudder runs down your spine. What was that? It sounded like pure evil. A sicking 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 bone arm is holding yours. The moon gleams off that arm…. Wait a minute, that's not just an arm, it's an arm bone!

You gulp and look up to see a hastily made skeleton face. The skeleton starts to move and as it does 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 it's mouth and speaks in a wailing voice, "Help me! Heeeelp me!" You find yourself mustering up some courage and whispering out one quiet word – "How?"

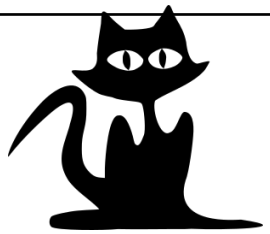
The wailing voice of the skeleton starts to speak again. "On this day five years ago I was getting ready to be married to my lifelong love. Our wedding ceremony was to take place at the castle. Unknown to me however, there was a wicked witch who lived in the castle. She was jealous of the love that we 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 us 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 in a hall 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. 6x10 = 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	0
0	1	1	1	2	3	4	3	4	6	6	7	7	8	8	9	9	0	11	11	12	12	12	0
0	13	1	2	2	3	4	3	4	6	7	7	7	8	9	0	1	10	11	11	12	26	0	
0	13	14	15	15	16	16	16	17	18	18	19	19	20	0	21	0	0	24	24	25	26	0	
0	13	14	15	15	16	17	16	17	18	19	19	19	0	21	0	2	0	24	24	25	26	0	
0	13	14	15	15	16	17	16	17	18	18	19	0	20	20	21	2	0	24	24	25	26	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	27	28	28	28	29	29	30	30	31	31	0	32	0	33	34	35	36	38	40	40	40	41	0
0	27	27	28	29	29	30	31	31	31	0	31	0	33	0	0	35	36	39	40	41	41	41	0
0	42	44	45	46	46	48	48	47	47	47	0	49	0	50	51	51	51	53	0	54	55	55	0
0	43	44	45	46	47	47	0	48	0	47	0	49	50	50	51	52	51	53	0	55	55	55	0
0	43	45	45	45	47	0	48	48	47	0	0	0	50	50	51	0	51	0	54	54	54	55	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
0	55	55	55	0	0	0	0	58	59	59	60	61	62	62	62	64	64	64	0	65	65	65	0
0	55	55	55	0	57	0	57	0	0	59	60	61	0	0	63	64	65	0	65	65	65	65	0
0	66	0	0	72	0	73	0	75	75	75	75	0	0	80	81	82	83	83	84	85	85	86	0
0	66	0	70	0	73	0	74	75	76	77	75	0	0	81	81	0	83	84	84	85	86	86	0
0	69	69	0	72	72	72	74	75	76	77	0	79	80	0	80	0	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

6x10 =	4x4 =	12÷12 =	5x4 =	4x8 =
8x5 =	9x5 =	8x10 =	7x2 =	21+13 =
7x7 =	11x2 =	8x8 =	45+6 =	60÷6 =
45+13 =	6x6 =	7x8 =	3x4 =	2x4 =
5x5 =	90-7 =	60+12 =	6x5 =	9x6 =
9÷3 =	7x4 =	6x8 =	100-25	73-11 =
6x3 =	2x3 =			

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

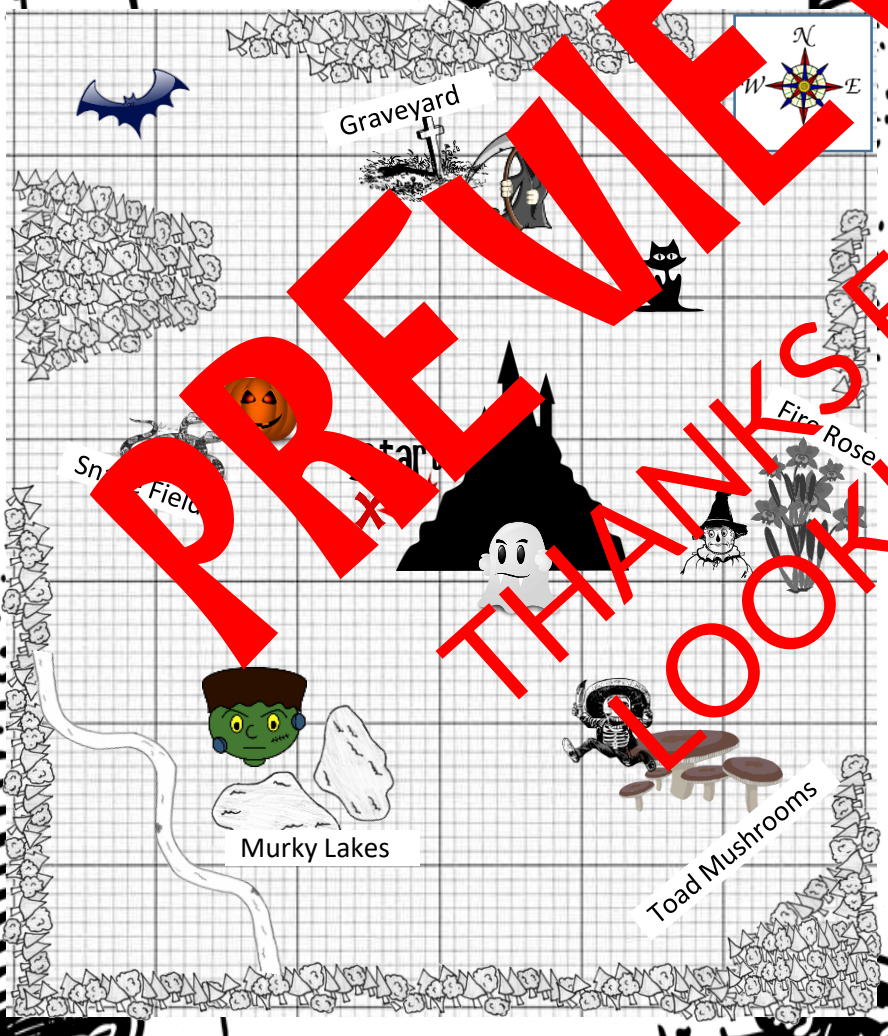
THE WITCH'S FLIGHT PATH

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.



Scale 100m

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 wei[illegible]he LEAST.

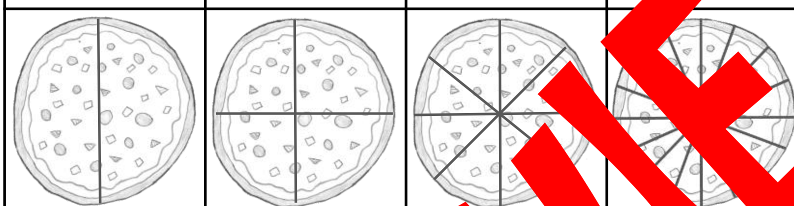
Vampire Bat 2.2 kg of worm brain 2.5 kg of rabbit heart 0.5 kg of owl tears Total weight =	**[illegible]Head** 3.7 kg [illegible] 0.[illegible]g of [illegible] [illegible] kg of worm [illegible] Total [illegible]eight [illegible]
Skull Cowboy 3.1 kg of fire rose pe[illegible] 1.2 kg of dragon h[illegible] 1.4 kg of snake sk[illegible] Total [illegible]	**Friendly Ghost** 0.8 [illegible] of purple hare feet 1.9 kg of toad mush[illegible]oom 2.2 kg of owl tea[illegible]s Total weight =
Gri[illegible]Reap[illegible] 1.8 kg [illegible]f [illegible]ad mus[illegible]oom 2.6 kg of [illegible]e rose petal Total weight =	**Scarecrow** 3.4 kg of dragon herb 2.8 kg of rabbit heart Total weight =
Frankenstein 4.4 kg of owl tears 0.5 kg of dragon herb 1.4 kg of fire rose petal Total weight =	**Black Cat** 1.4 kg of rabbit heart 1.8 kg of snake skin 2.7 kg toad mushroom Total weight =

 THE WITCH'S SPELL BOOK

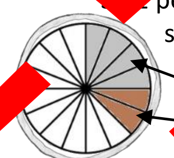
As you creep forward you notice an old bookcase covered in cobwebs. When you blow away the cobwebs you notice an old book. You realise as you open it up that it is the witch's spell book. Upon opening the book you find hand drawn notes explaining how the witch turned everyone into horrid creatures – 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. Sh[illegible]e in the pizza fraction circles to help you. Cross off the 2 creatures who ate t[illegible]ast [illegible]mount of pizza.

Chicken 2 slices per pizza	Pepperoni 4 slices per pizza	Vegetarian 8 slices per pizza	Chee[illegible] 16 sl[illegible]per pizz[illegible]



[illegible] are the size of the [illegible]th each other. [illegible] slice is the same s[illegible]he[illegible]se slices. [illegible] pepperoni plus 2 cheese slices looks like this.



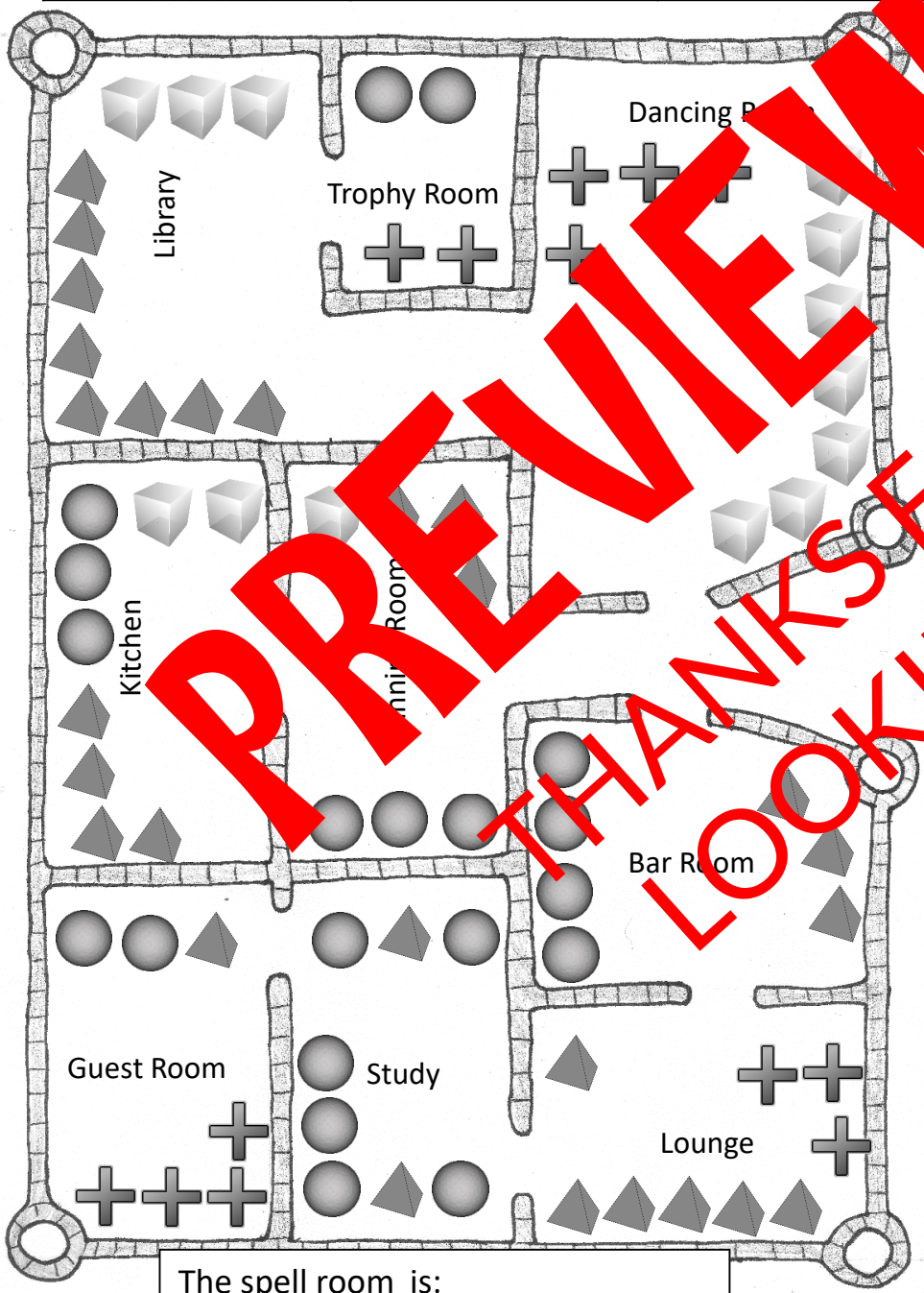
Recipe for Vampire Bat	[illegible]pe fo[illegible]mpki[illegible] Head	Recipe for Skull Cowboy	Recipe for Friendly Ghost
1 slice of Chicken 2 slices of Veg[illegible]	[illegible]f Pepperoni 2 [illegible]es of Cheese	2 slices of Vegetarian 3 slices of Cheese	1 slices of Pepperoni 2 slices of Vegetarian

Recipe for Grim Reaper	Recipe for Scarecrow	Recipe for Frankenstein	Recipe for Black Cat
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



Library:

y Room:

Dancing Room:

Kitchen:

Dining Room:

Bar Room:

Lounge:

Study:

Guest Room:

The spell room is: _____

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?

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:_____

CRIME SCENE INVESTIGATION

Yesterday a terrible thing happened – Santa's sleigh was stolen!

Santa needs your help to find out who stole his sleigh – he needs it back before Christmas. You must succeed or else there will be no Christmas this year.

The most likely suspects were gathered up and are shown below, one of these suspects committed the crime. Use the evidence on the following pages to find out which one.

			
RUDOLPH	GINGERBREAD MAN	SANTA'S ELF	MRS CLAWS
			
FROSTY	CHRISTMAS GHOST	PENGUIN PAUL	CHRISTMAS BEAR

THE POLICE HAVE FOUND FOUR CLUES WHICH CAN BE SEEN ON THE FOLLOWING PAGES

AFTER YOU HAVE SOLVED EACH CLUE COME BACK HERE TO CROSS PEOPLE OFF THE SUSPECT LIST UNTIL YOU HAVE FOUND THE CRIMINAL

HIDDEN MESSAGE

At the scene of the crime Santa found a note with a hidden math message.

Solve the problems, then fill in the message spaces with the letters that match the correct answers to read the secret message. This will let you cross off one person from the suspect list.

A 4X5 ____	**B** 3X2 ____	**C** 7X2 ____	**D** 4X3 ____	**E** 5X5 ____	**F** 9X3 ____	**G** 6X4 ____
H 8X2 ____	**I** 7X3 ____	**J** 4X8 ____	**K** 5X6 ____	**L** 7X8 ____	**M** 6X3 ____	**N** 8X5 ____
O 9X6 ____	**P** 6X6 ____	**Q** 7X9 ____	**R** 2X8 ____	**S** 3X3 ____	**T** 9X9 ____	**U** 3X5 ____
V 8X8 ____	**W** 2X2 ____	**X** 6X8 ____	**Y** 9X10 ____	**Z** 4X7 ____		

9 54 8 21 54 81 16 25

9 56 25 32 24 16 21 40 25 25 12 25 12 21 81

8 15 12 54 56 36 16 16 20 12 40 54 81 16 21 40 24

81 54 12 54 4 21 81 16 21 81

CROSS THIS PERSON OFF YOUR SUSPECT LIST.

MAGIC TO FLY

The sleigh requires magic to fly. Whoever stole the sleigh must have had enough magic power to get it flying. None of the suspects has any magic power within them – however they all have magic objects which could be used to make it fly. Each magic object has magic points and the sleigh requires at least 30 magic points to fly.

Cross off any suspect who has a total of less than 30 magic points off the suspect list.

Magic lollipop	**Candy Cane**	**Magic cookie**	**Toy**	**Magic coat**
1 magic point	2 magic points	3 magic points	4 magic points	5 magic points

Hint: To calculate magic points multiply number of object by amount of magic points it has.
e.g. Three candy canes = 3 x 2 = 6 magic points.

Rudolph had:
9 magic lollipops = _____ magic points
5 magic cookies = _____ magic points
2 magic coats = _____ magic points
Total magic points _____

Gingerbread Man had:
5 candy canes = _____ magic points
2 magic cookies = _____ magic points
4 toys = _____ magic points
Total magic points _____

Santa's Elf had:
7 magic lollipops = _____ magic points
2 candy canes = _____ magic points
3 magic coats = _____ magic points
Total magic points _____

Mrs Claws had:
1 magic cookie = _____ magic points
2 toys = _____ magic points
4 magic coats = _____ magic points
Total magic points _____

Frosty had:
8 candy canes = _____ magic points
4 magic cookies = _____ magic points
2 toys = _____ magic points
Total magic points _____

Christmas Ghost had:
13 magic lollipops = _____ magic points
3 candy canes = _____ magic points
3 magic cookies = _____ magic points
Total magic points _____

Penguin Paul had:
5 magic lollipops = _____ magic points
3 magic cookies = _____ magic points
2 toys = _____ magic points
1 magic coat = _____ magic points
Total magic points _____

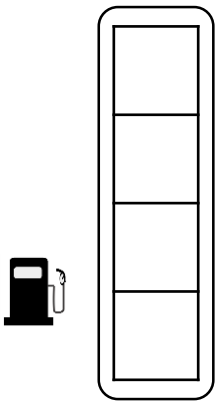
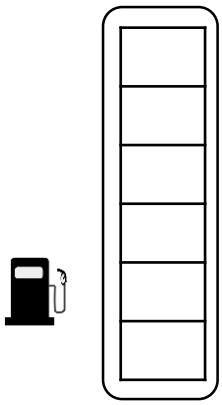
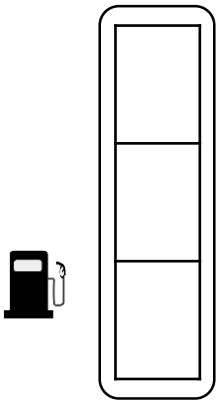
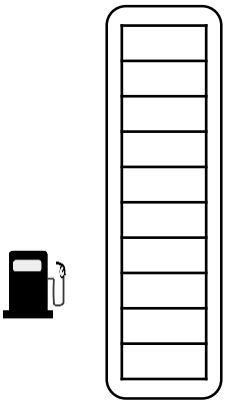
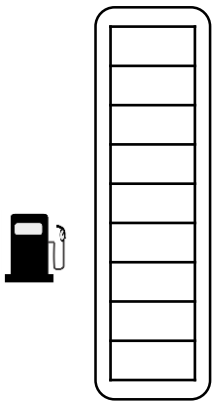
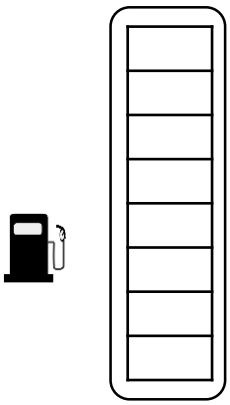
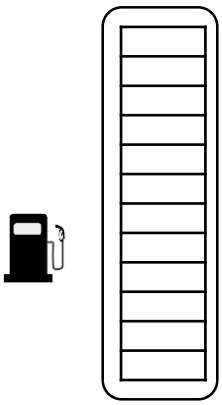
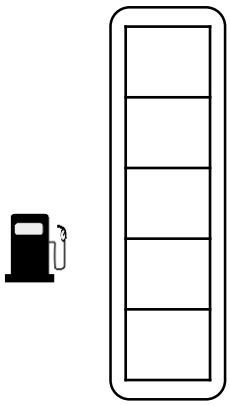
Christmas Bear had:
8 magic lollipops = _____ magic points
3 magic cookies = _____ magic points
6 toys = _____ magic points
2 magic coat = _____ magic points
Total magic points _____

Cross off any suspect who has less than 30 magic points off the suspect list.

Fractions – Snowmobile Fuel

All the residents of North Pole use snow mobiles to get around. Santa keeps his sleigh in a cave far away from the other residents of North Pole. The person who stole the sleigh would have used up a lot of petrol/gas in their snowmobile so any suspect with a lot of gas in their tank can be taken off the suspect list.

CROSS THE SUSPECT OFF THE LIST WHO HAS THE MOST AMOUNT OF FUEL LEFT IN THEIR SNOWMOBILE.

Rudolph	**Gingerbread Man**	**Santa's Elf**	**Mrs Claws**
$\frac{2}{4}$ Fuel left in tank	$\frac{4}{6}$ Fuel left in tank	$\frac{2}{3}$ Fuel left in tank	$\frac{6}{10}$ Fuel left in tank
			
Frosty	**Christmas Ghost**	**Penguin Paul**	**Christmas Bear**
$\frac{7}{9}$ Fuel left in tank	$\frac{4}{8}$ Fuel left in tank	$\frac{7}{12}$ Fuel left in tank	$\frac{3}{5}$ Fuel left in tank
			

Shade in the amount of fuel each suspect has left in their snowmobile.
Cross off the suspect with the most amount of fuel left in their tank.

BRIBE THE GUARD

The guard who looked after the sleigh vanished after the sleigh was stolen. It was found that the sleigh thief paid the guard a bribe to help them with the robbery. The sleigh thief must therefore have a lot of spare money. The **two** suspects with the least amount of money wouldn't have had enough to bribe the guard so can be crossed off the suspect list.

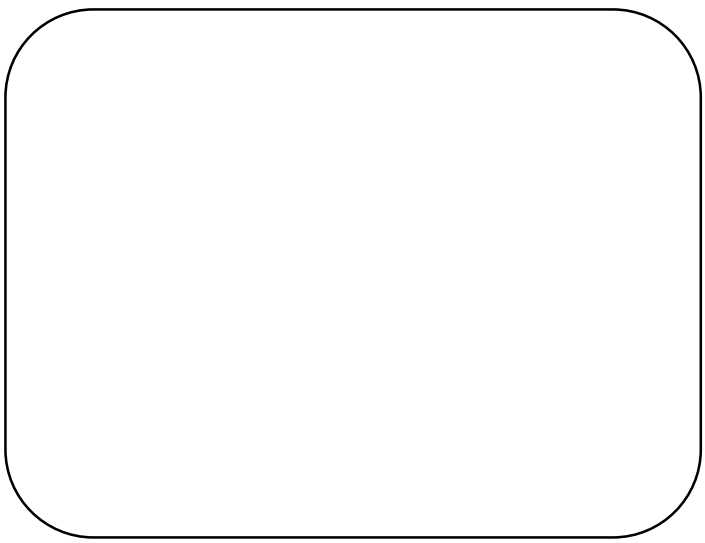
CROSS OFF THE **TWO** SUSPECTS WITH THE LEAST AMOUNT OF TOTAL MONEY

	Money in Bank	**Cash in Wallet**	**Cash in Piggy Bank**	**Total money**
Rudolph	$110.50	$30	$47.20	
Gingerbread Man	$120.10	$25.75	$16.50	
Santa's Elf	$80.75	$75.20	$29.60	
Mrs Claw	$95.80	$103	$42.40	
Frosty	$143.20	$64.75	$9.50	
Christmas Ghost	$104.85	$28.20	$31.05	
Penguin Paul	$173.65	$8.40	$13.80	
Christmas Bear	$65.40	$35.05	$12.40	

FIND THE TOTAL AMOUNT OF MONEY EACH SUSPECT HAS.
CROSS THE TWO SUSPECTS WITH THE LEAST AMOUNT OF MONEY OFF THE SUSPECT LIST.

SLEIGH ADVENTURE

Imagine you had Santa's sleigh for a day. Where would you go? What would you do? Write your adventure below.



TEACHER NOTES

The activity is set up with 8 made-up staffroom raider suspects. The first page can be modified using PowerPoint – which means if you want to be creative then you can change the suspects. Perhaps you could change the photos to teachers from your school – and put in their likes instead. Be warned, however, that not all your teacher colleagues might like being in the suspect list! – You know them best so the decision is up to you. ☺ *(Just keep the suspect numbers in the description because the math clues point to suspect numbers – not teacher names).*

Included in this activity you will find:

Five math clues which your students will need to solve in order to uncover who the staffroom raider is. The clues are:

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

Graph: Students uncover a picture using a given set of coordinates.

PEMDAS/BEDMAS – Activity using a clue from the raider.

Run, Teacher Run! – A basic division clue.

Who has the pens? – A basic algebra activity.

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 student interview – a great way to get to know your new students a bit better.

Also included with this product is Prezi presentation with a video hook to get your students engaged with the activity:

CRIME SCENE INVESTIGATION

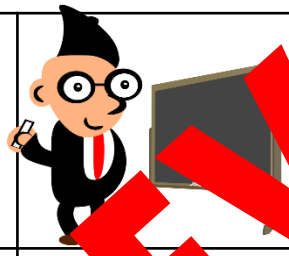
Dear Student, we need your help!

A terrible thing has happened –yesterday the teachers staffroom was raided. The chairs were overturned, and all the teachers' notes were scattered or taken.
The worst part was that the year's supply of cookies in the staffroom were taken as well!

Now the teachers are all upset. They need their notes back so they know they are teaching you the right things!
We need your help to find out who did this so we can find the teachers' notes… and cookies.

Luckily, the culprit left clues around the school, which we have gath ed up and put in the next few pages. These clues are all math related. It is known that th ulprit was a teacher because they had a key to the staffro

The most likely suspects were gathered up and are sho elo hese suspects committed the crime. Use the evidence on the fol ing p find ut which one committed this ter act

			
Suspect 1: Miss Red: Likes – Color Re	**2** r. K ds – Wi nds	**Suspec 3** Mrs. Classy Likes – n rooms	**Suspect 4** Sir Proper: Likes – On task students
			
Suspect 5 Miss Happy: Likes – Happy thoughts	**pect 6** Madam Caring: Likes – To care for your hurts	**Suspect 7** Mrs. Sporty: Likes – Sports and keeping fit	**Suspect 8** Mr. Principal: Likes – A well run school!

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

AFTER YOU HAVE SOLVED EACH CLUE COME BACK HERE TO CROSS PEOPLE OFF THE SUSPECT LIST UNTIL YOU HAVE FOUND THE RAIDER.

HIDDEN MESSAGE

A hidden math message was left behind in the staffroom. The person who raided the staffroom must be challenging us and have a love of math!

Solve the problems, then fill in the message spaces with the letters that match the correct answers to read the secret message. This will let you cross off one person from the suspect list.

A 6x4 ____	**B** 54+35 ____	**C** 7x3 ____	**D** 5x5 ____	**E** 12 ÷ 4 ____	**F** [illegible]x3 ____	**G** 4x4 ____
H 43-12 ____	**I** 4x8 ____	**J** 25 ÷ 5 ____	**K** 3x3 ____	**L** [illegible] ____	[illegible] ____	**N** 8X5 ____
O 9X7 ____	**P** 68-35 ____	**Q** 8x9 ____	**R** [illegible] ____	[illegible] ÷ 3 ____	**T** 4x2 ____	**U** [illegible] ____
V 8X8 ____	**W** 9x9 ____	**X** 6X8 ____	**Y** [illegible]7 ____	**Z** 168-43 ____		

___ ___ [illegible] ___ ___ ___ ___ ___ ___ [illegible] ___ ___ ___ ___ ___ ___
32 27 [illegible] 28 63 15 36 3 [illegible] 3 24 25 32 40 16

___ ___ ___ [illegible] ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
8 31 32 [illegible] 8 31 3 40 81 3 41 41 25 63 40 3

___ ___ ___ ___ ___ [illegible] ___ ___ ___ ___ ___ ___ ___ ___.
28 63 15 9 40 [illegible] 28 63 15 36 12 24 8 31

___ ___ ___ ___ ___ ___, ___ ___ ___ ___ ___ ___ ___ ___
32 8 81 24 6 40 8 6 15 6 33 3 21 8

___ ___ ___.
63 40 3

CROSS THIS PERSON OFF YOUR SUSPECT LIST.

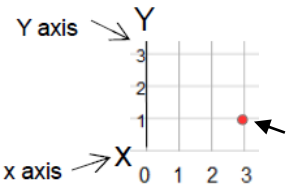
Graph for Success

A letter has just been sent to the school. In it was another clue from the raider.
This person must be arrogant and think we cannot solve their clues.

The letter says: “It was not suspect number ...” followed by a bunch of numbers.

The numbers were found to be coordinates.
In the table below the graph are a list of coordinates, use these to find the points and then connect each of the points together to uncover the clue!

It was not suspect number
(5,3) (6,6) (7,9) (6,12)
(4,14) (-3,14) (-4,15)
(-4,17) (6,17) (6,20)
(-7,20) (-7,14).....



The coordinates look like this, (3,1). The first number is always along the X line (x axis) and the second number is always along the Y line (y axis).

So for (3,1) you would put a dot here. Connect all the dots in the order below to make a picture.

It was not suspect number...

(5,2)
(6,6)
(7,9)
(6,12)
(4,14)

(-3,14)
(-4,15)
(-4,17)
(6,17)
(6,20)

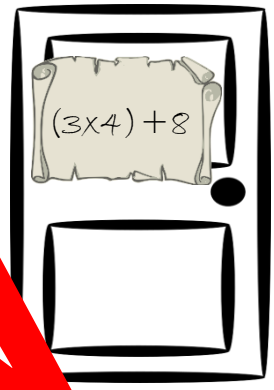
(-7,20)
(-7,14)
(-4,11)
(4,11)
(5,9)

(4,6)
(2,4)
(-2,4)
(-4,6)
(-5,8)

(-7,8)
(-7,6)
(-6,4)
(-4,2)
(5,2)

CALL IN THE NIGHT

Last night a secret phone call came through with a 'tip-off'. The mystery voice left the following message – An equation has been put on the door of the teachers classrooms. Any teacher whose equation has an answer which is over 43 did not commit the crime.



When calculating the answers remember these following tips:

1, The *P*arentheses (*Brackets*) always get calculated first

So, 2x2 + (2+3) → 2x2 + 5 = 9

Add 2+3 first since they are inside the bracket. 2+3 = 5.

2. After brackets have been calculated the multiplication comes first!

So, 4+2x5 → 4+10 = 14

Always do the multiplication before the addition. 2x5 =10.

Any suspect who has a total of more than 43 can be crossed off the list.

Suspect 1

(8+2)x3

Total _____

Suspect 2

4x4 + 21

Total _____

Suspect 3

6 + (8

Total _____

Suspect 4

(6 3)x5

Total _____

Suspect 5

4 + 6x6

Total _____

Suspect 6

3+4x8

Total _____

Suspect 7

7x4 + (3x2)

Total _____

Suspect 8

(4+2) x 3

Total _____

Cross off any suspect who has a total of more than 43 off the suspect list.

Run, Teacher – Run!

A shadowy figure was seen in the staffroom on the day of the crime. When the midday bell rang the figure was seen sprinting from the staffroom. 13 seconds later all the teachers were known to be logged into their computers in their classrooms for a compulsory web training course.

This means that the teacher who committed the crime would have been able to sprint from the staffroom to their classroom in under 13 seconds!

All the suspects were forced to run at full speed and have th[illegible]ecorded. The distance from the staffroom to their classroom was als[illegible] this information the time taken can be calculated by dividing the dis[illegible]e sp[illegible]d of the teacher.

e.g. A teacher can run at 10m/sec. The distance is 80m

Time taken = Distance / [illegible]eed

Time taken = 80/10 =8 seconds.

Calculate how long it would take eac[illegible]eache[illegible] sprint back to th[illegible]lassroom.

CROSS OFF ANY TEACHER W[illegible] C[illegible]ULD NOT HAVE MA[illegible]E IT BACK TO T[illegible]R CLASS[illegible]NDER 13 se[illegible]

Speed = 5m/s **Distance** = 40[illegible] **Time taken** = distan[illegible]ed = 4[illegible]5 =_____	**Spee[illegible]** 8m/s **stanc[illegible]** 8m **[illegible] taken** [illegible]stance ÷ speed = 48 ÷ 8 =_____	**Speed** = 4[illegible]/s **Dist[illegible]** = 36m **[illegible]me taken** = d[illegible]ce ÷ speed =_____	**Speed** = 9m/s **Distance** = 81m =_____
Suspect 1	Suspe[illegible]	Suspect 3	Suspect 4
Speed = 8m/s **Distance** = 88m =_____	**Spee[illegible]** = 7m/s **D[illegible]ta[illegible]ce** = 63m =_____	**Speed** = 10m/s **Distance** = 160m =_____	**Speed** = 6m/s **Distance** = 66m =_____
Suspect 5	Suspect 6	Suspect 7	Suspect 8

Cross off any teacher who would of taken longer than 13 seconds.

WHO HAS ALL THE PENS?

No more clues have come from the raider – they underestimated your math ability and must now be worried about getting caught. However, we have uncovered a way to still be able to figure out who the raider was.

On the night of the raid 35 pens from the staffroom were taken. Any teacher who has less than 35 pens in their classroom can be crossed off the suspect list – they wouldn't have committed the raid.

Calculate the total number of pens each teacher has.
Cross any teacher who has a total of less than 35 pens off the suspect list.

Green Pen	Red Pen	Blue Pen	Black Pen
3 Pens per Box	4 Pens per Box	5 Pens per Box	6 Pens per Box

Hint: To calculate amount of pens multiply number of boxes by amount of pens that color box has. e.g. Two boxes of green pens = 2 x 3 = 6 pens.

Suspect 1:
5 boxes of green pens = _____ pens
2 boxes of red pens = _____ pens
4 boxes of blue pens = _____ pens
Total number of pens _____

Suspect 2:
3 boxes of red pens = _____ pens
3 boxes of blue pens = _____ pens
1 box of black pens = _____ pens
Total number of pens _____

Suspect 3:
6 boxes of green pens = _____ pens
4 boxes of blue pens = _____ pens
2 boxes of black pens = _____ pens
Total number of pens _____

Suspect 4:
1 box of green pens = _____ pens
7 boxes of red pens = _____ pens
4 boxes of black pens = _____ pens
Total number of pens _____

Suspect 5:
4 boxes of blue pens = _____ pens
6 boxes of black pens = _____ pens
Total number of pens _____

Suspect 6:
9 boxes of green pens = _____ pens
2 boxes of blue pens = _____ pens
Total number of pens _____

Suspect 7:
6 boxes of green pens = _____ pens
2 boxes of red pens = _____ pens
1 box of blue pens = _____ pens
2 boxes of black pens = _____ pens
Total number of pens _____

Suspect 8:
4 boxes of green pens = _____ pens
2 boxes of red pens = _____ pens
1 box of blue pens = _____ pens
1 box of black pens = _____ pens
Total number of pens _____

Cross off any teacher who has less than 35 pens off the suspect list.

NEWSPAPER INTERVIEW

Well done – you helped find out who raided the teachers' staffroom. Now the teachers' notes have been found – which means you don't have to copy pages out from the dictionary all year.
Because of your talent in using math to help find the culprit, the newspaper has asked to interview you. First, though they need to find out a bit more information about you for their article.

The three things I like most are:

1. ________________________
2. ________________________
3. ________________________

My favorite

Subject____________________

Color____________________

Animal____________________

Food____________________

If I had one wish it would be ____________________________

Why____

____

____

Write a short paragraph about yourself – things you think the newspaper should know (your likes/dislikes/fears/hopes/goals/family etc.

____

____

____

____

____

____

____

____

____

____

____

____

____

Draw a picture here.

UNLOCK THE SAFE

The staffroom raid mystery has been solved but one problem still remains. The staffroom cookies still haven't been found!

The cookies are thought to be in the safe of the teacher who raided the staffroom – but no one knows the combination to get into the safe. However, the following clues were found in the teacher's notebook.

Solve the puzzles to find the combination for the safe! Put the answers in the correct box."

1. The number of days in June, divide by 5.
2. 56 divided by the number of days in a week
3. The number of letters in the alphabet mi[illegible]
4. (4x6) –(3x7)
5. Count up the number of stude[illegible]in yo[illegible]ass, then add the amount of weeks in the year a[illegible]d m[illegible]the[illegible]nt of hours in day. Once you have this answe[illegible]ultip[illegible]t 0, and then add [illegible]n times this number by 2.

UNLOCK THE SAFE – CREATE YOUR OWN

Now it's time to create clues for your own safe. If there is time and your teacher allows it see if your friends can uncover your secret combination using your clues!

On the following lines write the clues/puzzles giving hints to the combination for your safe!

1. _____
2. _____
3. _____
4. _____
5. _____

CRIME SCENE INVESTIGATION

Yesterday a terrible thing happened – the Easter bunny had all his chocolate eggs stolen!

The Easter Bunny needs your help to find out who stole his eggs – he needs them back before Easter. You must succeed or else there will be no Easter eggs this year.

The most likely suspects were gathered up and are shown below, one of these suspects committed the crime. Use the evidence on the following pages to find out which one.

			
Easter Bunnies Cousin	**[illegible]**	**[illegible]er Chicken**	**Mrs Easter Bunny**
			
Tooth-Fairy	**Easter [illegible]**	**Chocolate Chef Charlie**	**Little red riding hood**

THE EASTER POLICE HAVE FOUND FIVE CLUES WHICH CAN BE SEEN ON THE FOLLOWING PAGES

AFTER YOU HAVE SOLVED EACH CLUE COME BACK HERE TO CROSS PEOPLE OFF THE SUSPECT LIST UNTIL YOU HAVE FOUND THE CRIMINAL

HIDDEN MESSAGE

The thief left a note for the Easter bunny – however the message was encoded with a secret math code! The Easter bunny needs your help to crack the code.

Solve the problems, then fill in the message spaces with the letters that match the correct answers to read the secret message. This will let you cross off one person from the suspect list.

A 8X5 ______	**B** 3X7 ______	**C** 2X7 ______	**D** 7X7 ______	**E** 6X10 ______	**F** 6X8 ______	**G** 8X3 ______
H 4X7 ______	**I** 2X3 ______	**J** 9X6 ______	**K** 6X5 ______	**L** [illegible]X4 ______	**M** [illegible]9 ______	**N** 4X5 ______
O 4X8 ______	**P** 9X4 ______	**Q** 8X9 ______	**[illegible]** 7[illegible] ______	**S** 3X3 ______	**T** [illegible]X3 ______	**U** 5X3 ______
V 4X3 ______	**W** 6X7 ______	**X** 9X3 ______	**[illegible]** 5X[illegible] ______	**Z** [illegible]2 ______		

___ 6   [illegible] 8   [illegible] 12 60   ___ 14 ___ 28 ___ 32 ___ 14 ___ 32 ___ 8 ___ 40 ___ 18 ___ 60

___ 9 ___ 32 [illegible] ___ 6 [illegible] ___ 18 ___ 32 ___ 32 ___ 30 [illegible] ___ 18 ___ 28 ___ 60   ___ 60 ___ 24 ___ 24 ___ 9 .

___ 9 ___ 32 ___ 56 ___ 56 ___ 35 - [illegible] ___ 35 ___ 32 ___ 15 ___ 56   ___ 42 ___ 6 ___ 48 ___ 60

___ 28 ___ 40 ___ 49   ___ 20 ___ 32 ___ 18 ___ 28 ___ 6 ___ 20 ___ 24

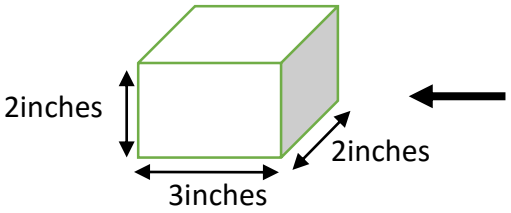
___ 18 ___ 32   ___ 49 ___ 32   ___ 42 ___ 6 ___ 18 ___ 28   ___ 6 ___ 18 .

CROSS THIS PERSON OFF YOUR SUSPECT LIST.

WHEELING AWAY THE EGGS

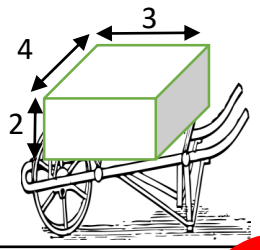
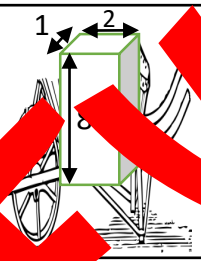
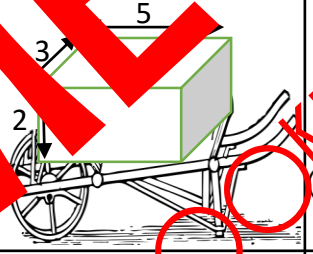
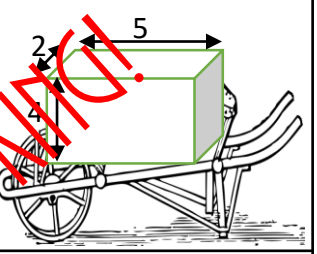
A witness said they saw someone running away from the Easter Bunnies house with a large wheelbarrow full of Easter eggs! All the suspects have wheelbarrows, however it would have taken a large wheelbarrow to steal all the eggs – this means the suspect with the smallest wheelbarrow couldn't have committed the crime and can be crossed off the suspect list.

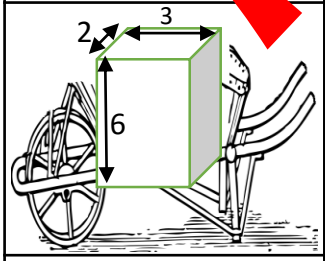
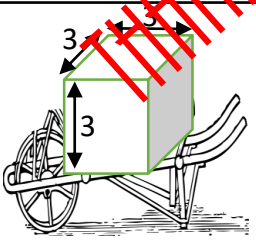
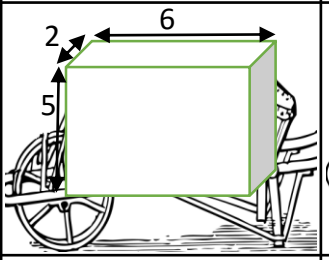
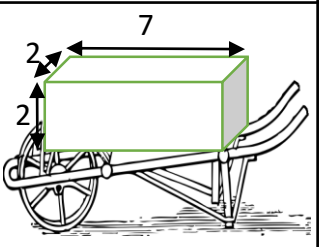
Calculate the volume of each suspects wheelbarrow and cross the suspect who has the wheelbarrow with the smallest volume off the suspect list.



To Calculate Volume = height x width x length
e.g. 2inches x 3inches x 2inches
= 12inches³

CROSS OFF THE SUSPECT WHO HAS THE WHEELBARROW WITH THE SMALLEST VOLUME.

Easter Bunnies Cousin	Cheeky Boy	Fa[illegible]r Chicken	Mrs Easter Bunny
			
Volume= height x wid[illegible] length Volume = 2 x 3 x 4 Volume =	[illegible]olu[illegible]eight x width x [illegible]ngth [illegible]olume = [illegible]	Volume =	Volume =

Tooth Fa[illegible]	Easter Duck	Chocolate Chef Charlie	Little Red Riding-Hood
			
Volume =	Volume =	Volume =	Volume =

THE CHOCOLATE ZAPPER GUN

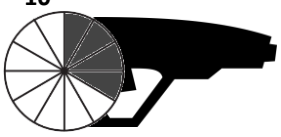
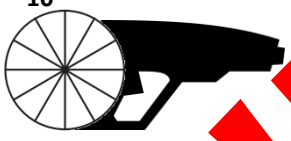
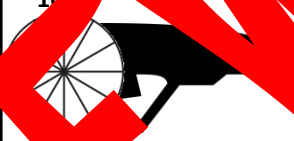
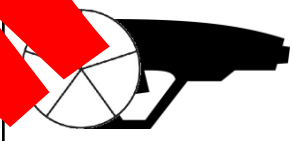
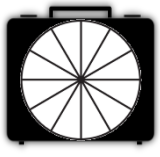
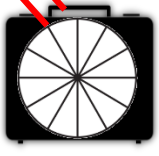
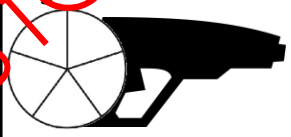
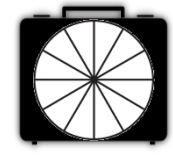
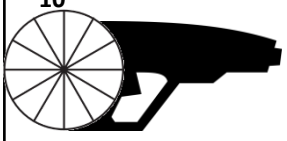
The chocolate eggs were stored in a special safe. The only way to get into the safe was to blast it open using a special chocolate zapper gun. All of the suspects had a chocolate zapper gun and a spare zapper cartridge. However to break into the egg safe would have used up a lot of zapper power. Calculate and combine the amount of zapper power in each suspects zapper gun and spare zapper cartridge. The suspect with the most amount of zapper fuel can be crossed off the suspect list as they couldn't have used their zapper.

Remember $\frac{1}{10} + \frac{2}{10} = \frac{3}{10}$

$\frac{1}{5}$ Is the same size as $\frac{2}{10}$

CROSS THE SUSPECT OFF THE LIST WHO HAS THE MOST AMOUNT OF TOTAL ZAPPER CHARGE.

(Add the charge in the gun with the charge of the spare cartridge)

Bunnies Cousin	Cheeky Boy	Easter Ch…n	Mrs Easter Bunny
$\frac{4}{10}$ Charge in gun  $\frac{3}{10}$ Charge in cartridge  **Total Charge** $\frac{4}{10} + \frac{3}{10} = \square$	$\frac{6}{10}$ Charge in gun  $\frac{2}{10}$ Charge in ca…ri…  **Total Charge** …0 = $\square$ 10	$\frac{2}{10}$ Ch…n g…  $\frac{3}{5}$ …rge in ca…tridge  **Total Charge** $\frac{2}{10} + \frac{3}{5} =$	$\frac{2}{10}$ Charge in gun  $\frac{5}{10}$ Charge in cartridge  **Total Charge** $\frac{1}{5} + \frac{4}{10} =$
Tooth Fa…	**Ea…r…uck**	**Chef Charlie**	**Red Riding-Hood**
$\frac{1}{5}$ …rge …un  $\frac{6}{10}$ Charge in cartridge  **Total Charge** $\frac{1}{5} + \frac{6}{10} =$	$\frac{1}{10}$ …arge in gun  $\frac{4}{10}$ Charge in cartridge  **Total Charge** $\frac{3}{10} + \frac{4}{10} =$	$\frac{1}{5}$ Charge in gun  $\frac{3}{10}$ Charge in cartridge  **Total Charge** $\frac{1}{5} + \frac{3}{10} =$	$\frac{5}{10}$ Charge in gun  $\frac{2}{5}$ Charge in cartridge  **Total Charge** $\frac{5}{10} + \frac{2}{5} =$

Shade in the amount of charge in each suspects zapper.

Cross off the suspect with the most amount of total zapper charge.

EATING THE EASTER-EGGS

The Easter bunny is generous and every year he gives out easter-eggs to his friends. He had given all the suspects eggs at the start of the year. All of the suspects had eaten some of the eggs – however the two suspects with the largest number of eggs still remaining can be crossed off the suspect list as they wouldn't need to steal any more eggs.

WORK OUT HOW MANY EGGS EACH SUSPECT HAS LEFT. CROSS OFF THE **TWO** SUSPECTS WITH THE **MOST** AMOUNT OF TOTAL EASTER EGGS LEFT.

	Bunnies Cousin
Eggs given	**163**
Eggs eaten	**52**
Eggs Left	_____

	Cheeky Boy
Eggs given	**143**
Eggs eaten	**61**
Eggs Left	_____

	Easter Chicken
Eggs given	**178**
Eggs eaten	**43**
Eggs Left	_____

	Mrs Easter Bunny
Eggs given	**125**
Eggs eaten	**57**
Eggs Left	_____

	Fairy
Eggs given	**132**
Eggs eaten	**22**
Eggs Left	_____

	Easter Duck
Eggs given	**138**
Eggs eaten	**24**
Eggs Left	_____

	Chef Charlie
Eggs given	**180**
Eggs eaten	**88**
Eggs Left	_____

	Red Riding-Hood
Eggs given	**172**
Eggs eaten	**123**
Eggs Left	_____

FIND THE TOTAL AMOUNT OF EGGS EACH SUSPECT HAS LEFT. CROSS THE TWO SUSPECTS WITH THE MOST AMOUNT OF EGGS LEFT OFF THE SUSPECT LIST.

TRAVEL TIME

The Easter police have the time each suspect left their house on the day of the crime, and the time they returned. The police have also measured how long it takes to get from each of the suspects house to the where the eggs where stolen from.

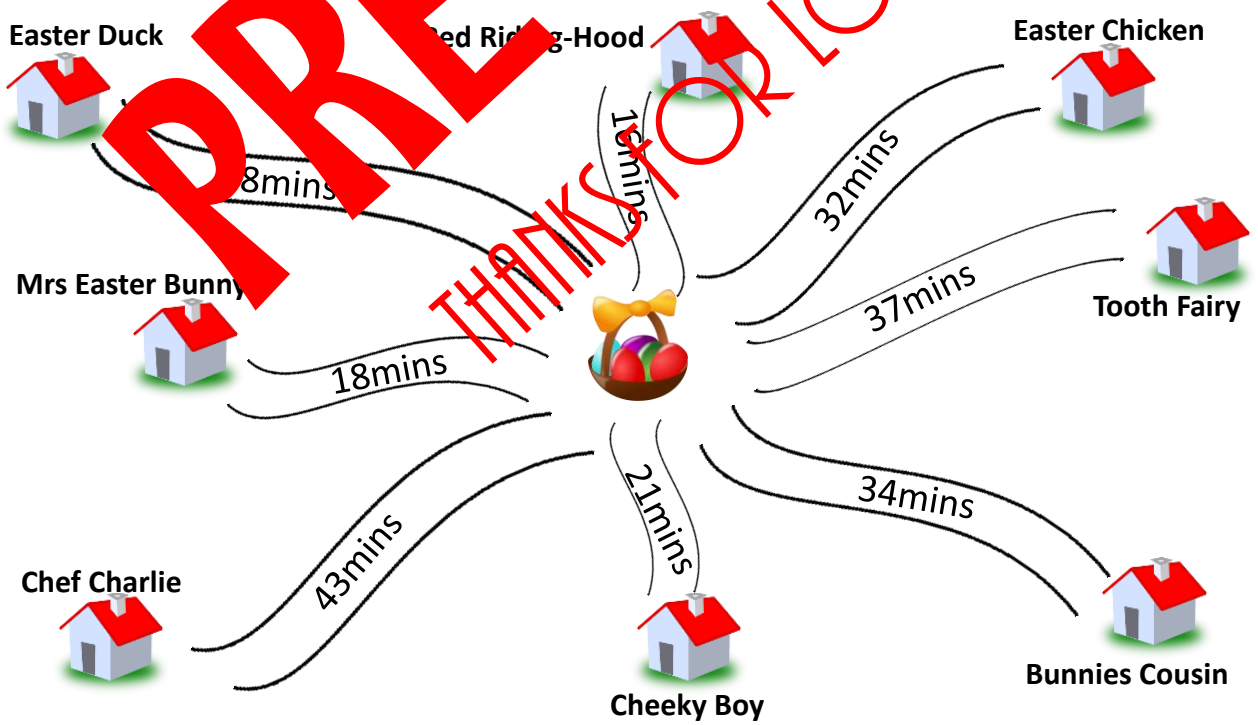
WORK OUT THE TOTAL TIME EACH SUSPECT WAS AWAY FROM THEIR HOUSE. LOOK AT THE MAP TO SEE HOW LONG IT TAKES FOR EACH SUSPECT TO WALK FROM THEIR HOUSE TO THE EASTER EGGS.

CROSS OFF ANY SUSPECT WHO WOULDN'T HAVE HAD ENOUGH TIME TO GET TO THE EGGS AND BACK.

When calculating how long it takes to eggs and back it is double the time on the path

e.g. – total time for this house would be 10mins x 2 = 20mins

	Time to walk to eggs and back	Time left house	Time returned home	Tot[illegible]me	[illegible]id they have enough time to commit crime
Easter Duck	48mins x 2 = 96mins	8:30am	10:30am	HO[illegible]	He was away for 120mins [illegible]kes 96mins to go to the [illegible]gs and back.
Red Riding-Hood	16mins x 2 =	10:03am	[illegible]48am		
Easter Chicken		9:18a[illegible]	10[illegible]		
Mrs Easter Bunny		9:5[illegible]	[illegible]0:35a[illegible]		
Tooth Fairy		10:30[illegible]	1[illegible]am		
Chef Charlie		[illegible]44am	11:55		
Cheeky Boy		9:2[illegible]	[illegible]13am		
Bunnies Cousin		10:25am	11:45am		



CONFESSION

Pretend you are the suspect who stole the eggs. Write about why you stole the eggs below, where you jealous? Where you going to sell them? Or do you just love chocolate?

THE POWER OF THE EGGS

You found the suspect and all the missing Easter eggs – congratulations! However, the Easter bunny needs to arrange his eggs in the correct way in his basket to release their magical power. If he arranges the eggs in the correct way time slows down which allows him to visit every child during Easter day. Can you help him???

DIRECTIONS: Fill in each circle with a number (Easter egg) from the number bank. Each number can only be used once. The three circles which connect to the middle star must have numbers which add up to the middle number (35).

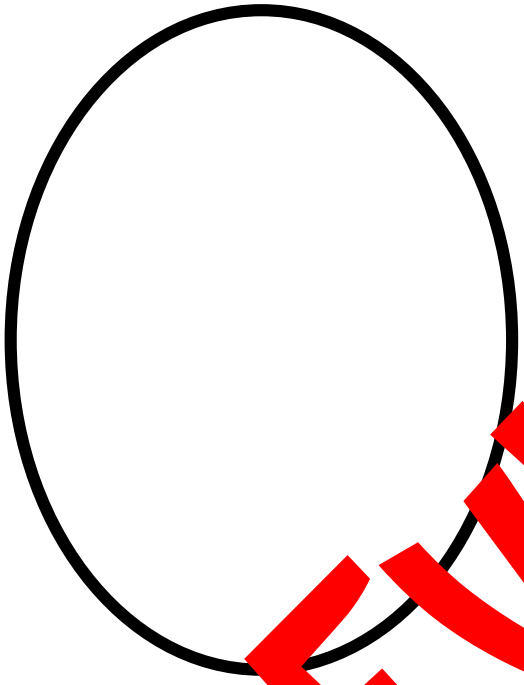
EASTER EGG NUMBER BANK

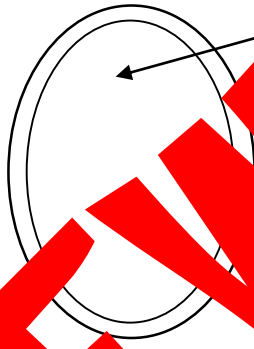
13	11	10	7	9
8	14	6	18	12

DESIGN YOUR EASTER EGG

EASTER EGG NAME: _____

Color in your Easter egg wrapping





What's inside your egg?

_____
_____
_____
_____
_____
_____

Type of chocolate: _____

Write a jingle, song, or advert to promote your egg to shoppers

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Design the box your Easter egg comes in