Year 3 Holiday Homework					
Spelling	Reading	English	Maths	Science	Creative Project
Practice these words using the following technique: **Write, cover, write** Accident Address Answer Believe Breathe Business Calendar Complete Decide Describe Experience Experiment February Grammar Height History Imagine Learn Material Occasion **Extension:** How many spellings can you learn from the Y3/Y4 spelling list? (on the reverse)	Write a book review either on the book that you have borrowed from school or on the Oxford Owl story that you have been assigned by your teacher. https://www.oxfordowl.co.uk/ 	Next half term we will be looking and learning about portal stories. Read the story (Elf Road - attached) and answer the following questions: • What does 'curious' mean? • Give two reasons to explain why Billy picked up the apple. • Which words suggest that the apple was amazing? • How do we know how Billy felt once he had eaten the apple? • How has the adventure changed Billy? • What do we know about Billy's mother that might suggest what happened?	Complete the multiplication and division questions (see attached). **Useful websites:** https://www.bbc.co.uk/bitesize/topics/z36tyrd/articles/zwghk2p https://www.bbc.co.uk/bitesize/topics/z36tyrd/articles/zgxdfcw	Next half term we will be studying finishing off our plant topic and be learning about forces and magnets. **Experiment:** Complete the Iron Hidden In Your Food experiment (see attached). Take pictures of your experiment to show how it was conducted. **Useful websites:** https://www.bbc.co.uk/bitesize/topics/zvpp34j/articles/zywcrdm https://www.bbc.co.uk/bitesize/topics/zyttyrd/articles/zpvcrdm	Next half term we will be learning about Ancient Egypt. **Your task is to design and make your own pyramid using the recycled material you have at home.** House points to those children who produce and design the best pyramids. **Useful websites:** https://www.bbc.co.uk/bitesize/topics/zg87xnb/articles/z6x2382/ https://www.bbc.co.uk/bitesize/topics/zg87xnb/articles/zr7qy9q/ https://www.youtube.com/watch?v=Xtc0LQuA3z4 https://www.youtube.com/watch?v=yfL_KwJQr5k 

Year 3 and 4 Statutory Spellings

accident	caught	eighth	heard	minute	possible	strange
accidentally	centre	enough	heart	natural	potatoes	strength
actual	century	exercise	height	naughty	pressure	suppose
actually	certain	experience	history	notice	probably	surprise
address	circle	experiment	imagine	occasion	promise	therefore
answer	complete	extreme	increase	occasionally	purpose	though
appear	consider	famous	important	often	quarter	although
arrive	continue	favourite	interest	opposite	question	thought
believe	decide	February	island	ordinary	recent	through
bicycle	describe	forward	knowledge	particular	regular	various
breath	different	forwards	learn	peculiar	reign	weight
breathe	difficult	fruit	length	perhaps	remember	woman
build	disappear	grammar	library	popular	sentence	women
busy	early	group	material	position	separate	
business	earth	guard	medicine	possess	special	
calendar	eight	guide	mention	possession	straight	

Billy had always been curious. One sunny afternoon, he was walking down Elf Road when he saw an unusual wooden door in the brick wall. The metal handle was shaped like a dragon's mouth. Gently, he turned it and the door creaked open. Inside, there was a huge, dark hall.

On an enormous table, someone had set out a great feast with slices of chicken, bowls of salad, jars of fruit and plates of sweet puddings. Hundreds of tiny people were serving steaming pies, fresh strawberries like gleaming embers and glasses full of creamy drinks. They were dressed in rainbow coloured clothes with scarlet cloaks, pointed mustard yellow shoes and crimson caps. Billy tried to talk to the tiny people but they did not say a word!

In the middle of the table was a glittering dragon carved out of ice and in its beak there was a folded piece of paper.

"Look where you wish, but don't touch a dish."

So, Billy wandered further into the hall, walked past a great fireplace and, at the end, he found a golden cupboard.

Amazed, he opened the door and inside was a golden apple sitting on a silver plate. It smelt so sweet and his mouth was so dry that he picked it up and took a bite. The glistening apple tasted of sunlight! At that very moment, Billy gasped because he had remembered what he had been told.

Instantly, he could hear a thousand mocking voices ringing in his ears like sharp, clanging bells. Billy shuddered and ran from the echoing sound. Clutching the apple, he dashed through the dark hall, past the great table with the tiny people running behind him. Just in time, he found the wooden door that led him back to his own world.

Amazingly, two very strange things happened after Billy reached home. First, Billy planted the apple pips. One grew into a beautiful tree with blossoms of silver and apples of gold that glowed like tiny suns. His mother said that the fruit tasted sweeter than starlight itself. Second, poor Billy never saw the door again, even though he walked up and down Elf Road many times. At school, they said that Billy was always lost in his daydreams. He dreamed of dark halls, fantastic feasts and golden cupboards. Sadly, that other world had disappeared. Well, at least, Billy never found his way back…

Name: _____

FUN WITH MAGNETS

Learn how to reveal IRON HIDDEN IN YOUR FOOD

You may think of it largely in terms of lawn furniture and vitamins, but iron is everywhere. Not only is iron the fourth most common element in the earth's crust, it's also an essential part of our own blood!

Many foods contain iron, which blood cells need in order to carry oxygen. A molecule called heme contains the iron ion at its center. The hemoglobin protein is made up of four heme groups. Blood vessels in the lungs, where oxygen concentration is high, allow the hemoglobin to bond to the oxygen molecule to create oxyhemoglobin, which is then transported to oxygen-hungry tissues throughout the body.

Because iron is so important to your body, you need to make sure you get enough in your diet. You may have heard about meat and spinach being rich in iron (what do you think made Popeye so amazingly buff?) but it's found in many other foods, including most breakfast cereals.

Iron is naturally magnetic, and even though your blood contains iron, you can't get a refrigerator to stick to you. That's because the iron in your blood is spread out into particles too small to get the magnet to react. You can, however, use a magnet to separate the iron contained in some iron-rich foods. Who knew breakfast cereal could be so delicious and so magnetic?

WHAT YOU NEED:

A strong (neodymium) magnet

Cereal or other food with iron*

A Ziploc® bag

A plastic, see-through cup

A little water

* Crunchy, high-iron foods are best; we suggest using Total® cereal or Gerber Graduates® Arrowroot cookies.

WHAT YOU'LL DO:

1. Pour some of the food into a plastic bag. Seal the bag with as little air in it as possible, then mash the food until you make a powder.

2. Fill the bag with some water and mix.
3. Let the mixture sit for at least one hour.

FUN WITH MAGNETS

FIND IRON IN YOUR FOOD

4. After the cereal mixture has been allowed to sit, pour some into a plastic cup.
5. Move a strong (neodymium) magnet against the side of the cup for about a minute. You should observe iron particles collecting on the side of the cup!

Did you know?

- People without enough hemoglobin in their bloodstream are called anemic. The most common symptoms of anemia are weakness and fatigue.
- All of the blood in your whole body contains about 2.5 grams of iron — about the weight of a single penny. It's amazing that such a small amount can be so important!

- How much iron you need in your diet depends on your age and gender. Teen and adult women need about 15 milligrams a day. Teen and adult men need about 10 milligrams a day.
- Breathing carbon monoxide (such as car exhaust) is dangerous because it binds to the iron in the heme molecule about 200 times tighter than oxygen does. This kicks those needed oxygen molecules out of the way, possibly leading to suffocation.

Multiply by 4

1 Complete the sentences.

a)

There are ☐ bags of pears.

There are ☐ pears in each bag.

There are ☐ pears in total.

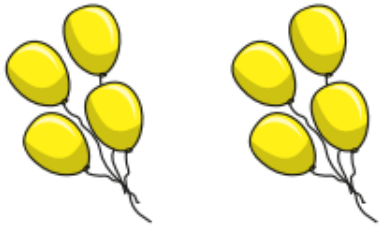
b)

There are ☐ plates.

There are ☐ doughnuts on each plate.

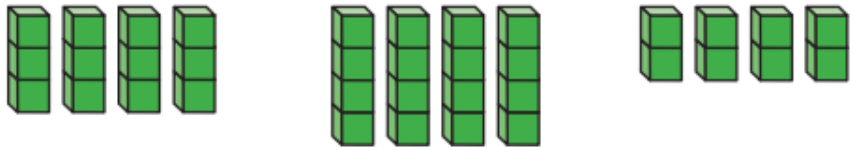
There are ☐ doughnuts in total.

2 Write a multiplication sentence to match the picture.



3 Match the representations to the number sentences.

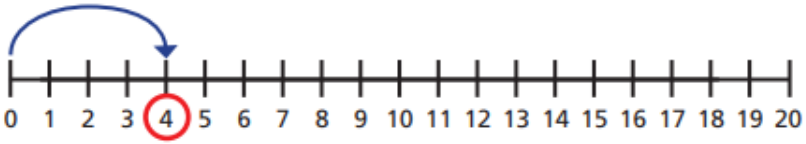
Complete the number sentences.



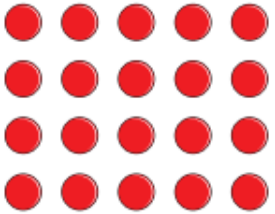
$4 \times 2 =$ ☐ $4 \times 3 =$ ☐ $4 \times 4 =$ ☐

4 Starting from zero, circle the numbers in the 4 times-table.

The first one has been done for you.



5 Esther makes this array.

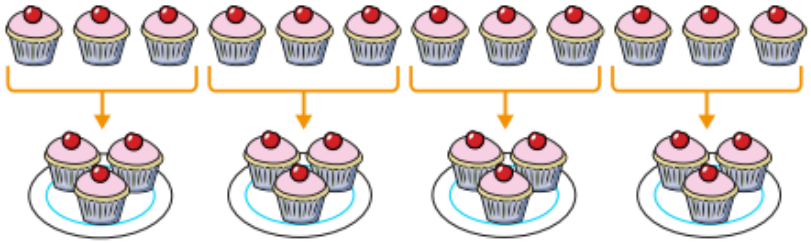


What multiplication facts does the array represent?

Complete the multiplications.

Divide by 4

1 Here are 12 cakes.



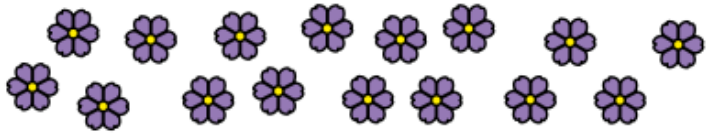
Complete the sentences.

There are ☐ plates.

Each plate has ☐ cakes.

12 shared into ☐ equal groups is ☐

2 Circle groups of 4 flowers.



a) How many groups of 4 flowers did you make?

b) Complete the sentence.

There are ☐ groups of 4 in 16

3 Eva makes an array with 32 counters.

a) How many groups of 4 are in the array?

b) Use this to work out 32 ÷ 4

4 A farmer has 24 apples.

He wants to pack the apples equally into 4 bags.

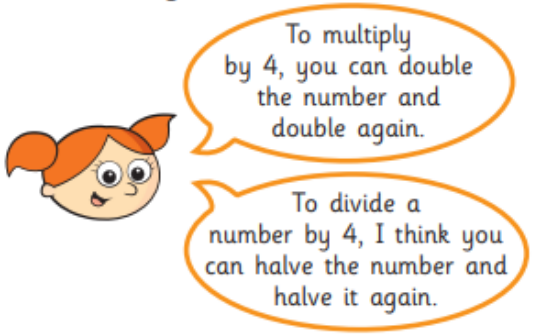
How many apples will be in each bag?

5 There are 20 muffins.

4 muffins fit in 1 box.

Use a number line to work out how many boxes can be filled.

6 Alex is trying to divide 48 by 4



Use an array to show that Alex's method works.

Does Alex's method always work?