دولة قطر

المجلس الأعلى للتعليم
SUPREME EDUCATION COUNCIL
هيئة التعليم

SCIENTIFIC ENGLISH

# MATHEMATICS AND SCIENCE

GRADE 3

# النشيد الوطني

قَسَمًا بِمَنْ رَفَعَ السَّمَـاءْ ● قَسَمًا بِمَنْ نَشَرَ الضِّيَـاءْ
قَطَرٌ سَتَبْقَـى حُـــرَّةً ● تَسْمُو بِرُوحِ الأَوْفِيَـاءْ
سِيـرُوا عَلَـى نَهْـجِ الأُلَـى ● وَعَلَى ضِيَاءِ الأَنْبِيَـاءْ
قَطَرٌ بِقَلْبِي سِيـرَةٌ عِـزٌّ ● وَأَمْـــجَادُ الإِبَاءْ
قَطَرُ الرِّجَـــالُ الأَوَّلِينَ ● حُمَاتُنَا يَوْمَ النِّـــدَاءْ
وَحَمَائِـــمٌ يَوْمَ السَّلَامْ ● جَوَارِحٌ يَوْمَ الْفِـــدَاءْ

**لون علم دولة قطر العنابي والأبيض ، وتفصل بين اللونين تسعة رؤوس.**

**الأبيض** : هو رمز السلام الذي يسعى له حكام قطر وأبناؤها.

**العنابي** : يرمز إلى الدماء المتخثرة، وهي دماء الشهداء من أبناء قطر الذين خاضوا معارك كثيرة في سبيل وحدة دولة قطر وخاصة في النصف الأخيرمن القرن التاسع عشر.

**الرؤوس التسعة** : ترمز إلى أن دولة قطر هي العضو التاسع في الإمارات المتصالحة من دول الخليج العربية.

علم دولة قطر

# رؤية قطر الوطنية 2030

تهدف رؤيــة قطر الوطنية 2030 التي تمت المصادقة عليها بموجب القرار الأميري رقم 44 لسنة 2008، إلى تحويل قطـر بحلـول عام 2030 إلى دولة متقدمة قادرة على تحقيق التنمية المستدامة وعلى تأمين استمرار العيش الكريم لشعبها جيلا بعد جيل. حيث تحدد الرؤية الوطنيـة لدولة قطر النتائج التي يسعى البلد لتحقيقها على المدى الطويـل كما أنها تـوفر إطارا عاما لتطوير إستراتيجيات وطنية شاملة وخطط تنفيذها.

وتستشرف الرؤية الوطنية الآفاق التنموية من خلال الركائز الأربع المترابطة التالية :

| التنمية البشرية | التنمية الاجتماعية | التنمية الاقتصادية | التنمية البيئية |
|---|---|---|---|

## الركيزة الأولى ـ التنمية البشرية
## الغايات المستهدفة :

### سكان متعلمون :

- نظام تعليمي يرقى إلى مستوى الأنظمة التعليمية العالمية المتميزة ويزود المواطنين بما يفي بحاجاتهم وحاجات المجتمع القطري، ويتضمن:
  - مناهج تعليم وبرامج تدريب تستجيب لحاجات سوق العمل الحالية والمستقبلية.
  - فرصا تعليمية وتدريبية عالية الجودة تتناسب مع طموحات وقدرات كل فرد.
  - برامج تعليم مستمر مدى الحياة متاحة للجميع.

- شبكة وطنية للتعليم النظامي وغير النظامي تجهز الأطفال والشباب القطريين بالمهارات اللازمة والدافعية العالية للمساهمة في بناء مجتمعهم وتقدمه، تعمل على:
  - ترسيخ قيم وتقاليد المجتمع القطري والمحافظة على تراثه.
  - تشجيع النشء على الإبداع والابتكار وتنمية القدرات.
  - غرس روح الانتماء والمواطنة.
  - المشاركة في مجموعة واسعة من النشاطات الثقافية والرياضية

- مؤسسات تعليمية متطورة ومستقلة تدار بكفاءة وبشكل ذاتي ووفق إرشادات مركزية وتخضع لنظام المساءلة.
- نظام فعال لتمويل البحث العلمي يقوم على مبدأ الشراكة بين القطاعين العام والخاص بالتعاون مع الهيئات الدولية المختصة ومراكز البحوث العالمية المرموقة.
- دور فاعل دوليا في مجالات النشاط الثقافي والفكري والبحث العلمي.
- استقطاب التوليفة المرغوبة من العمالة الوافدة ورعاية حقوقها وتأمين سلامتها، والحفاظ على أصحاب المهارات المتميزة منها.

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SCIENTIFIC ENGLISH

# MATHEMATICS

GRADE 3

# LET'S REVIEW! NUMBERS

Class, do you remember learning about numbers? Before we begin our year, it's important to remember our number words. Let's start with the numbers 1 to 10. Look at the board.

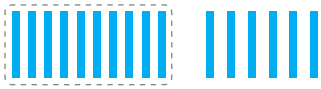
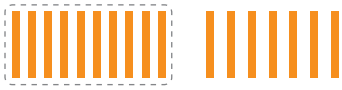
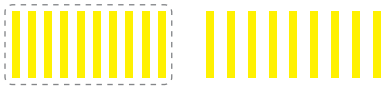
| See | Name | Number |
|---|---|---|
| | zero | 0 |
| | one | 1 |
| | two | 2 |
| | three | 3 |
| | four | 4 |
| | five | 5 |
| | six | 6 |
| | seven | 7 |
| | eight | 8 |
| | nine | 9 |
| | ten | 10 |

Mrs. Amna, I remember those. I know the numbers from 11 to 15 too!

| See | Name | Number |
|---|---|---|
| | eleven | 11 |
| | twelve | 12 |
| | thirteen | 13 |
| | fourteen | 14 |
| | fifteen | 15 |

# LET'S REVIEW! NUMBERS

Very good, Faisal! Here are the numbers 16 to 20.

| See | Name | Number |
|---|---|---|
|  | eleven | 11 |
|  | twelve | 12 |
|  | thirteen | 13 |
|  | fourteen | 14 |
|  | fifteen | 15 |

I can count by 10's to 100. Can you?

10 ten
20 twenty
30 thirty
40 forty
50 fifty
60 sixty
70 seventy
80 eighty
90 ninety
100 one hundred

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

## Task 1: COMPLETE.

**Use the words to fill in the blanks.**

thirteen fourteen seventeen thirty forty seventy

**Write the numbers in words.**

a) 17 .....

b) 70 .....

c) 13 .....

d) 30 .....

e) 14 .....

f) 40 .....

Say them to your partner in a sentence: 'I have seventy riyals in my pocket.'

## Task 2: WRITE AND MATCH.

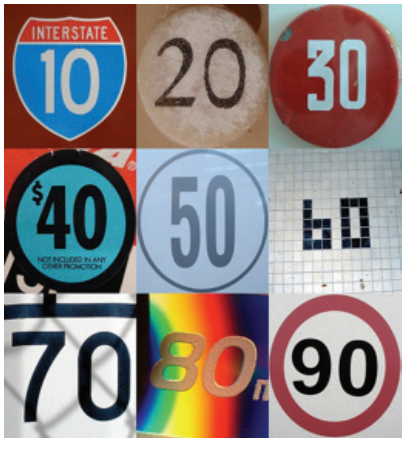
**Fill in the gaps and match the words with the numbers.**

f .....

s .....

t .....

e .....




t .....

f .....

t .....

s .....

n .....

## Task 3: MULTIPLE CHOICE.

This is easy!

**Choose a, b, or c.**

1. ten
   a) 10 b) 13 c) 44
2. nineteen
   a) 9 b) 90 c) 19
3. thirty-six
   a) 12 b) 36 c) 40
4. eight
   a) 9 b) 1 c) 8
5. one hundred
   a) 11 b) 1 c) 100

## Task 4: LET'S TALK!

**Ask and answer the questions.**

How many students are there in the classroom?

How many people are in a football team?

Can you count to fifty?

There are...

There are...

Yes I can! 1,2,3..

# GAME TIME!

Look at the **keywords** on the bottom of the page. Write **one** word in each box. Listen as your teacher calls out a number. Put an X on the box if you have that number. Three in a row is **BINGO**!

| | | |
|---|---|---|
| | | |
| | BINGO | |
| | | |

| | | | | |
|---|---|---|---|---|
| one | two | three | four | five |
| six | seven | eight | nine | ten |
| eleven | twelve | thirteen | fourteen | fifteen |
| sixteen | seventeen | eighteen | nineteen | twenty |

# NUMBERS AND PLACE VALUE

**KEYWORDS:** digit place value period ones tens hundreds thousands

Fatima, Sara, and Nouf are learning about **NUMBERS and PLACE VALUE**. Read and listen to the lesson, then do the activities.

## digits

0 1 2 3 4 5 6 7 8 9

| thousands period | | | | ones period | | |
|---|---|---|---|---|---|---|
| hundred thousands | ten thousands | thousands | , | hundreds | tens | ones |
| | | 1 | | 8 | 1 | 3 |

one thousand eight hundred thirteen

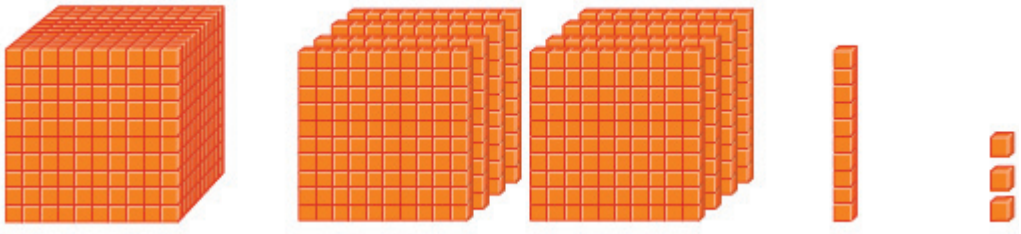
The symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 are called **digits**. They are used to write numbers.

The place that a **digit** is in tells you how much that digit stands for. This is called **place value**.

That's right, class! The **digits** in large numbers are arranged in groups of three places: **hundreds**, **tens** and **ones**.
These groups are called **periods**.

I see, Mrs. Amna. **Place value** tells us how much each **digit** in a number is worth. For example, look at the number 1,813 on the board. It has 1 **thousand**, 8 **hundreds**, 1 **ten**, and 3 **ones**.

I can show it like this...



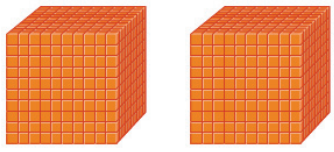
1 **thousand** 8 **hundreds** 1 **ten** 3 **ones**

## Task 1: COMPLETE.

| thousands | hundreds | tens | ones |
|---|---|---|---|
| 5 | 8 | 9 | 5 |

1. p ..... v ..... chart

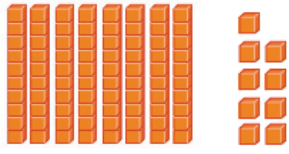
2. two t ..... →



3. d ..... →

0 1 2 3 4
5 6 7 8 9

4. eight t ..... nine o ..... →

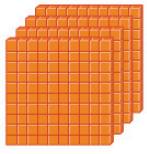


5. ones p ..... →

ONES p_____

| hundreds | tens | ones |
|---|---|---|
| 1 | 5 | 6 |

6. four h ..... →



## Task 2: LET'S TALK!

How many hundreds are in 312?

How many thousands are in 1,267?

That's easy! There are...

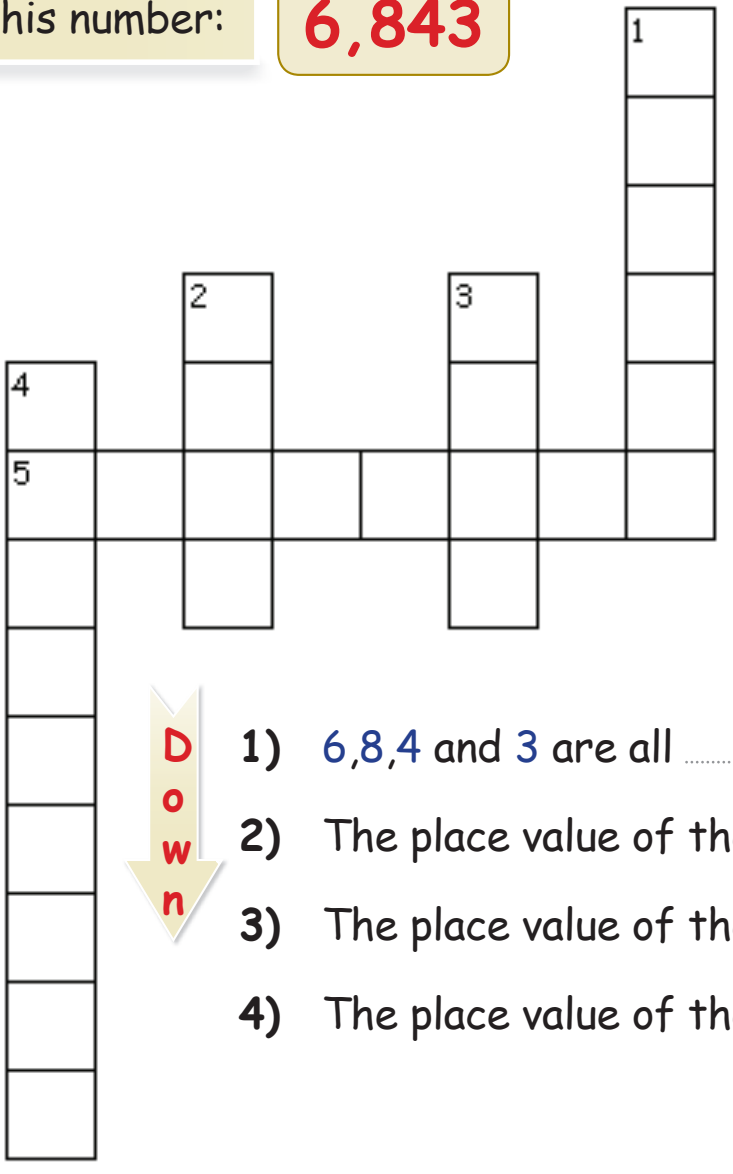
## Task 3: COMPLETE.

**Circle the place value for each digit in the number 1,923.**

| | | | | |
|---|---|---|---|---|
| 9 | thousands | hundreds | tens | ones |
| 3 | thousands | hundreds | tens | ones |
| 1 | thousands | hundreds | tens | ones |
| 2 | thousands | hundreds | tens | ones |

## Task 3: PUZZLE TIME!

Look at this number: **6,843**




**Across**

**5)** The place value of the digit 8.

**Down**

**1)** 6,8,4 and 3 are all ..... .

**2)** The place value of the digit 4.

**3)** The place value of the digit 3.

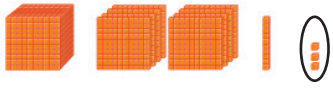
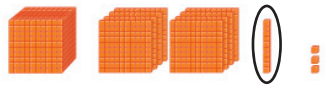
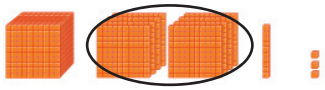
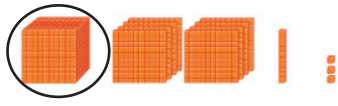
**4)** The place value of the digit 6.

## TODAY'S MATHEMATICS KEYWORDS

Complete the table. Match the keywords listed below with either the meaning, picture or example. Fill in all blanks in all columns: keywords, meaning, picture or example.

ones tens hundreds thousands
period digit place value

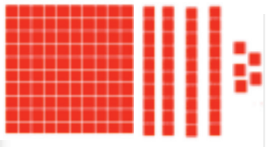
| KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|
| digit | The symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. | |
| | How much a digit is worth in a number. | thousands: 5 \| hundreds: 8 \| tens: 9 \| ones: 5<br>In the number 5,895, the place value of 8 is 800. |
| | Groups of 3 digits in large numbers. Each period has ones, tens and hundreds. | THOUSANDS Period (hundred thousands, ten thousands, thousands): 1 , ONES Period (hundreds, tens, ones): 8 1 3 |

| KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|
| | The value of the digit in the ones place. | In the number 1,813 there are 3 ones.  |
| tens | | In the number 1,813 there is 1 ten.  |
| | The value of the digit in the hundreds place. | In the number 1,813 there are 8 hundreds.  |
| thousands | | In the number 1,813 there is 1 thousand.  |

# NUMBERS AND PLACE VALUE 2

**KEYWORDS:** standard form expanded form word form

Khalid and Faisal, did you know there are different ways to write numbers? Look at the board.

| I see | I think | I write expanded form | I write standard form | I write or say word form |
|---|---|---|---|---|
|  | 7 tens 7 ones | 70 + 7 | 77 | seventy-seven |
|  | 5 tens 3 ones | 50 + 3 | 53 | fifty-three |
|  | 1 hundred 4 tens 5 ones | 100 + 40 + 5 | 145 | one hundred forty-five |

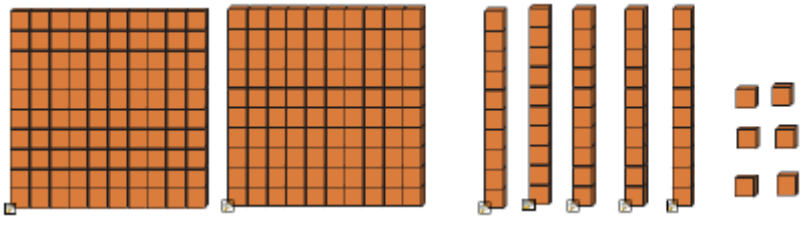
I think I understand. So I can write **256**, or **two hundred fifty-six**, or **200 + 50 + 6**.

Correct, Khalid. **Standard form** is how we write the number with digits. 256 is the number written in **standard form** .

If that's true, Mrs. Amna, **two hundred fifty-six** must be how your write the number in **word form** .

That's right, Faisal. **Word form** is how we write or say the number in words.
Khalid, can you tell us what **expanded form** means?

**Expanded form** shows us how the different place values add up to make the total number.
200 + 50 + 6 = 256.



200 + 50 + 6 = 256

## Task 1: FILL IN THE BLANKS.

standard form | expanded form | word form

| | | |
|---|---|---|
| 51 | fifty-one | 50 + 1 |
| | | |
| 1000 + 500 + 20 + 1 | 1,521 | one thousand five hundred twenty-one |
| | | |

## Task 2: MULTIPLE CHOICE!

**Complete the sentences. Choose a, b or c.**

1. The number **sixty-three** is in ..... .

   a) expanded form  b) standard form  c) word form

2. The number **one hundred sixty-eight** is in ..... .

   a) expanded form  b) standard form  c) word form

3. The number **2,463** is in ..... .

   a) expanded form  b) standard form  c) word form

4. The number **700 + 40 + 5** is in ..... .

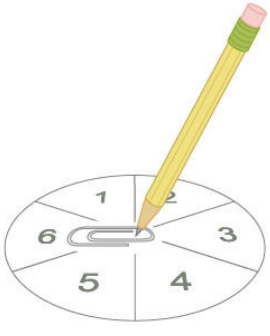
   a) expanded form  b) standard form  c) word form

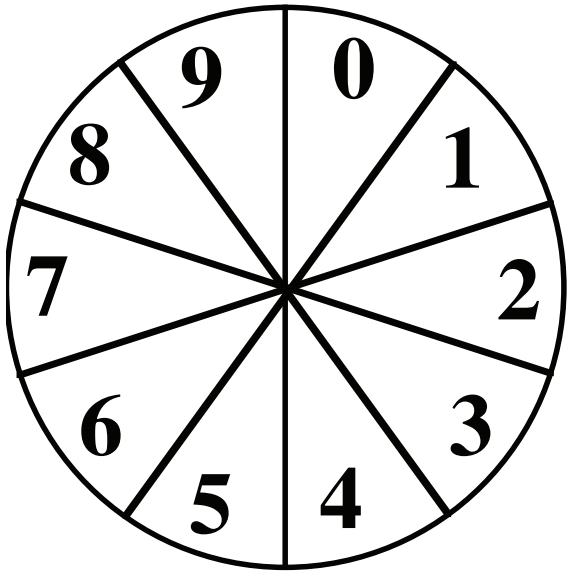
## Task 3: GAME TIME!

### Spin the number

Use the spinner at the bottom of the page to make a number. Fill in the blanks with the digits. Then, write the number in expanded form and word form. An example is done for you.

| standard form | expanded form | word form |
|---|---|---|
| 3 4 8 | 300 + 40 + 8 | three hundred forty-eight |
| ___ ___ ___ | | |
| ___ ___ | | |
| ___ ___ ___ | | |



## Task 4: LET'S TALK!

Look at these numbers:

898 2,976 65

Can you say them in word form?

That's easy! The first number is . . .

I can say them too!
The second number is...
The third number is...

## TODAY'S MATHEMATICS KEYWORDS

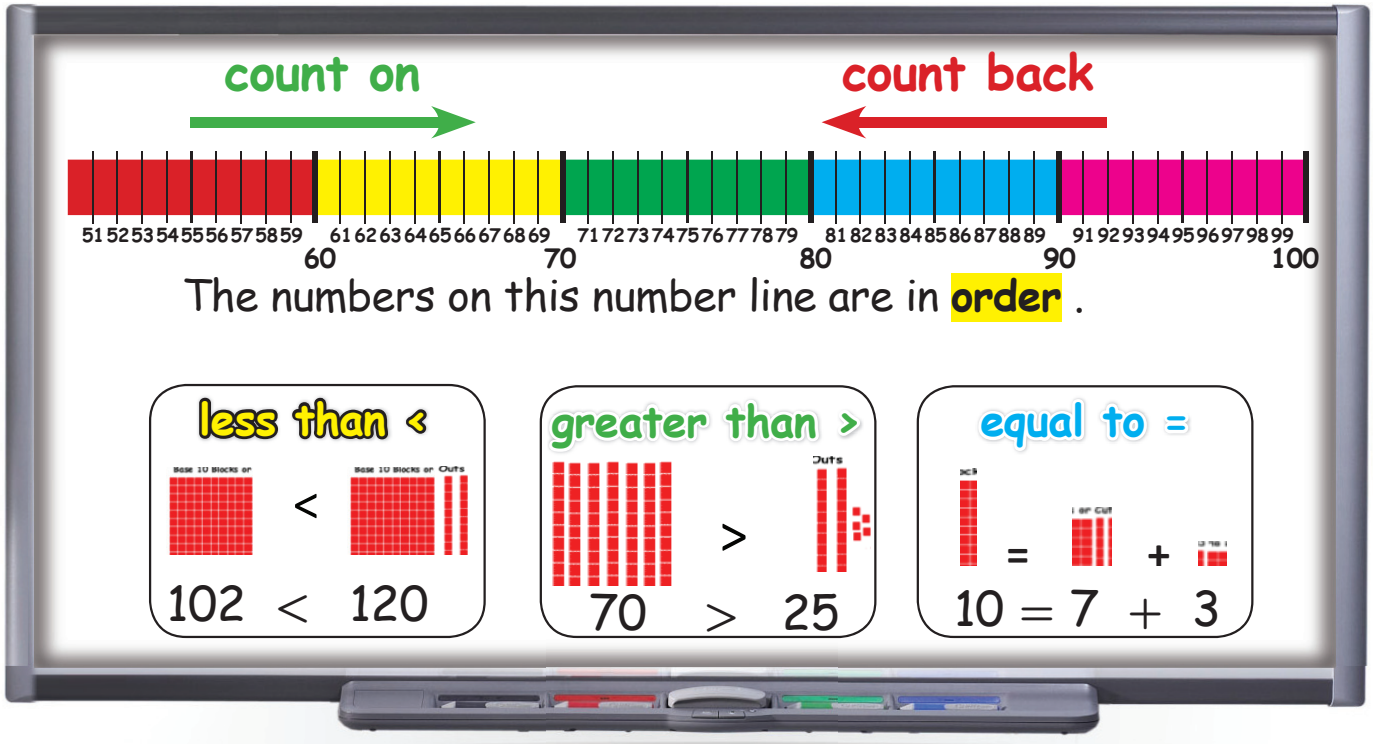
Complete the table. Match the keywords listed below with either the meaning, picture or example. Fill in all blanks in all columns: keywords, meaning, picture or example.

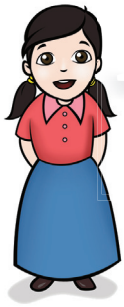
standard form  expanded form  word form

| KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|
| | How we write a number with digits. | 789 |
| | How we write a number using the place value of each digit. | |
| | How we write or say a number using words. | |

# COMPARE & ORDER NUMBERS

**KEYWORDS:** count on count back order less than < greater than > equal to =



When you **count on**, the numbers get bigger.
I can count on by 5s from 70:
70, 75, 80, 85, 90...

When you **count back** the numbers get smaller.
When I count back by 10s from 95,
I say 95, 85, 75, 65.

When we compare two numbers, we say one is **less than**, **greater than**, or **equal to** the other.
In math, we use symbols for words:
less than < greater than > equal to =
Symbols are quick and easy to write!

It is easier to work with a group of numbers if you put them in **order** following some rule. These numbers are in order from least to greatest:

14, 23, 54, 79, 81, 102, 190, 301

**(Always read the numbers from left to right.)**

## Task 1: COMPARE THE NUMBERS.

**Write the symbol < , > or = in the box.**

| | | | | |
|---|---|---|---|---|
| 1 | 12 | ☐ | 30 | Twelve is **less than** thirty. |
| 2 | 78 | ☐ | 21 | Seventy-eight is **greater than** twenty-one. |
| 3 | 45 | ☐ | 40 + 5 | Forty five is **equal to** forty plus five. |
| 4 | 100 | ☐ | 60 | One hundred is **greater than** sixty. |
| 5 | 14 + 6 | ☐ | 20 | Fourteen plus six is **equal to** twenty. |
| 6 | 15 | ☐ | 50 | Fifteen is **less than** fifty. |

**Say each number sentence to a partner.**

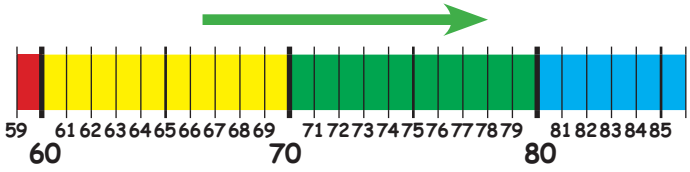
**Task 2:** MATCH.

| | | | |
|---|---|---|---|
| 1 | 30 is greater than | a) | 123. |
| 2 | When you count on | b) | the numbers get smaller. |
| 3 | 65 is less than | c) | 24 |
| 4 | When you count back | d) | the numbers get larger. |
| 5 | The numbers 100, 98, 87, 56, 12, and 10 | e) | are in order from greatest to least. |

# FUN WITH FLASHCARDS

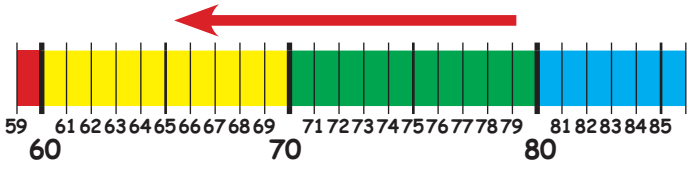
CUT ✂------- FOLD | STUDY  PLAY 

## count on



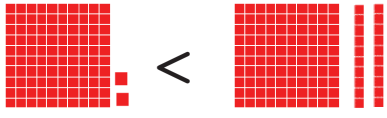

When you count on,
the numbers get bigger.

## count back




When you count back,
the numbers get smaller.

## less than <



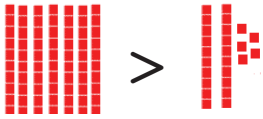
102 < 120

When one number is
smaller than another.

# FUN WITH FLASHCARDS

CUT ✂------- FOLD | STUDY  PLAY 

## greater than >



70 > 25

When one number is bigger than another.

## equal to =

10 = 7 + 3

When numbers have the same value.

## order

96 47 2

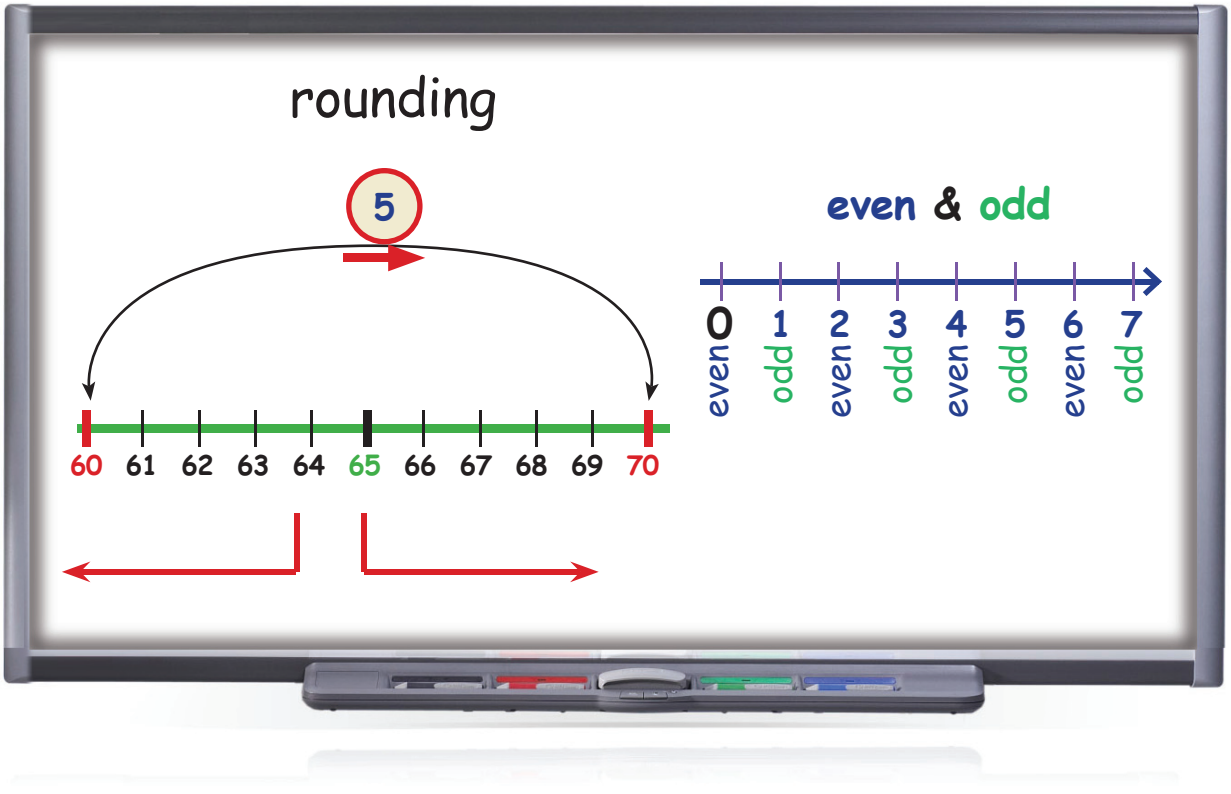
61 145

2 47 61 96 145

Arrange numbers according to a rule.

# ROUNDING, ODD AND EVEN NUMBERS, NUMBER PATTERNS

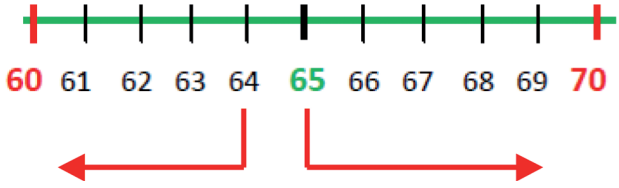
**KEYWORDS:** rounding even number odd number pattern




Today, class, we are going to learn a new way to work with numbers. We can change numbers by **rounding** them to the nearest 10.

Rounded numbers are not exact, but they are easier to work with.

To round a number to the nearest ten, you have to look at the ones place. Look at the numbers 68 and 62 on the board.




If the number in the ones place is 5 or more, you add 1 to the tens place.

| tens | ones |
|---|---|
| 6 | 8 |

I know, Mrs. Amna! By **rounding** the number 68 to the nearest ten, I get 70.

That's right, Nasser. Now look at the number 62. If the number in the ones place is less than 5, don't change the tens place.

| tens | ones |
|---|---|
| 6 | 2 |

I know the answer. 62 rounded to the nearest 10 is 60.

That was easy, Mrs. Fatima! What else are we learning today?

**Odd Numbers**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

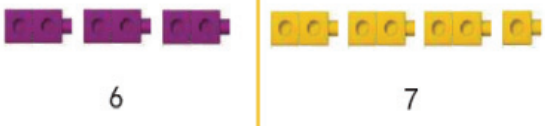
**Even Numbers**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Well Faisal, look at the numbers on these posters. Can you see a number **pattern**?

I think so, Mrs. Amna. The **odd numbers** all end in 1,3,5,7 or 9. The **even numbers** all end in 0,2,4,6, or 8.

Very good! You can also tell if a number is **odd** or **even** if you can separate it into pairs. **Even numbers** make pairs. **Odd numbers** always have one left over.



6 7

**even** **odd**

I think I understand. A number **pattern** is when numbers follow a certain rule. Here is another number pattern.

**40** **60** **80** **100**

**Task 1:**

Write the number word in the space and practise the sentences with a partner.

1. Thirty-two rounded to the nearest ten is .....

2. Sixty-seven rounded to the nearest ten is .....

3. Forty-five rounded to the nearest ten is .....

## Task 2: LABEL.

Write even or odd for each number.

48

1 _____

16

2 _____

95

3 _____

29

4 _____

72

5 _____

100

6 _____

## Task 3: Look at the hundred chart.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Start at number 1.

Add 3 to each number (1, 4, 7, 10, 13, etc.).

Color the squares.

Describe what you see.

This is a number p _____ .

## TODAY'S MATHEMATICS KEYWORDS

Complete the table. Match the keywords listed below with either the meaning, picture or example. Fill in all blanks in all columns: keywords, meaning, picture or example.

rounding  even number  odd number  pattern

| KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|
| | Changing a number to its nearest ten. | 62 rounded to the nearest ten is 60.<br><br>47 rounded to the nearest ten is 50. |
| | Numbers that end in 0,2,4,6,8. | |
| | Numbers that end in 1, 3, 5, 7, 9. | |
| | A set of numbers that follow a rule. | 5, 10, 15, 20, 25, 30 |

# CHECK WHAT YOU KNOW

**Task 1:** Can you remember these keywords?

Write the correct keyword for each definition from the box below.

rounding  equal to  less than  greater than

| | KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|---|
| 1 | | 9 is larger than 3. | $9 > 3$ |
| 2 | | 24 is smaller than 59. | $24 < 59$ |
| 3 | | 8 is the same as 4 plus 4. | $8 = 4 + 4$ |
| 4 | | Change a number to the nearest 10. | $63 \longrightarrow 60$ |

## Task 2:

**Use the keywords from the box below to label the place value chart.**

tens hundreds thousands ones

| | | | |
|---|---|---|---|
| | | | |
| 1 | 4 | 6 | 8 |

## Task 3: MATCHING.

Help us draw lines to match each word with the correct example.

| | |
|---|---|
| word form | a) 4000 + 800 + 60 + 2 |
| standard form | b) three hundred twenty-six |
| expanded form | c) 200 |

## Task 4: MULTIPLE CHOICE!

**Complete the sentences. Choose a, b, or c.**

1. 1, 2, 6, 5, 8 are all ..... .

   **a)** digits **b)** even numbers **c)** odd numbers

2. In the number 43, there are 4 tens and 3 ones.

   This describes the digits' ..... .

   **a)** order **b)** period **c)** place value

3. 20, 19, 18, 17, 16 . This is ..... .

   **a)** counting back **b)** counting on **c)** place value

4. 100, 101, 102, 103, 104. This is ..... .

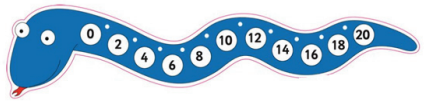
   **a)** counting back **b)** counting on **c)** place value

## Task 5: MATCHING.

Help us draw lines to match the words with the correct numbers or pictures.

1. even number
2. period
3. odd number
4. pattern

a) 13

b) 


c) 56

d)

| THOUSANDS | | | ONES | | |
|---|---|---|---|---|---|
| hundred thousands | ten thousands | thousands | hundreds | tens | ones |
| 3 | 0 | 9 | 2 | 8 | 1 |

# GAME TIME!

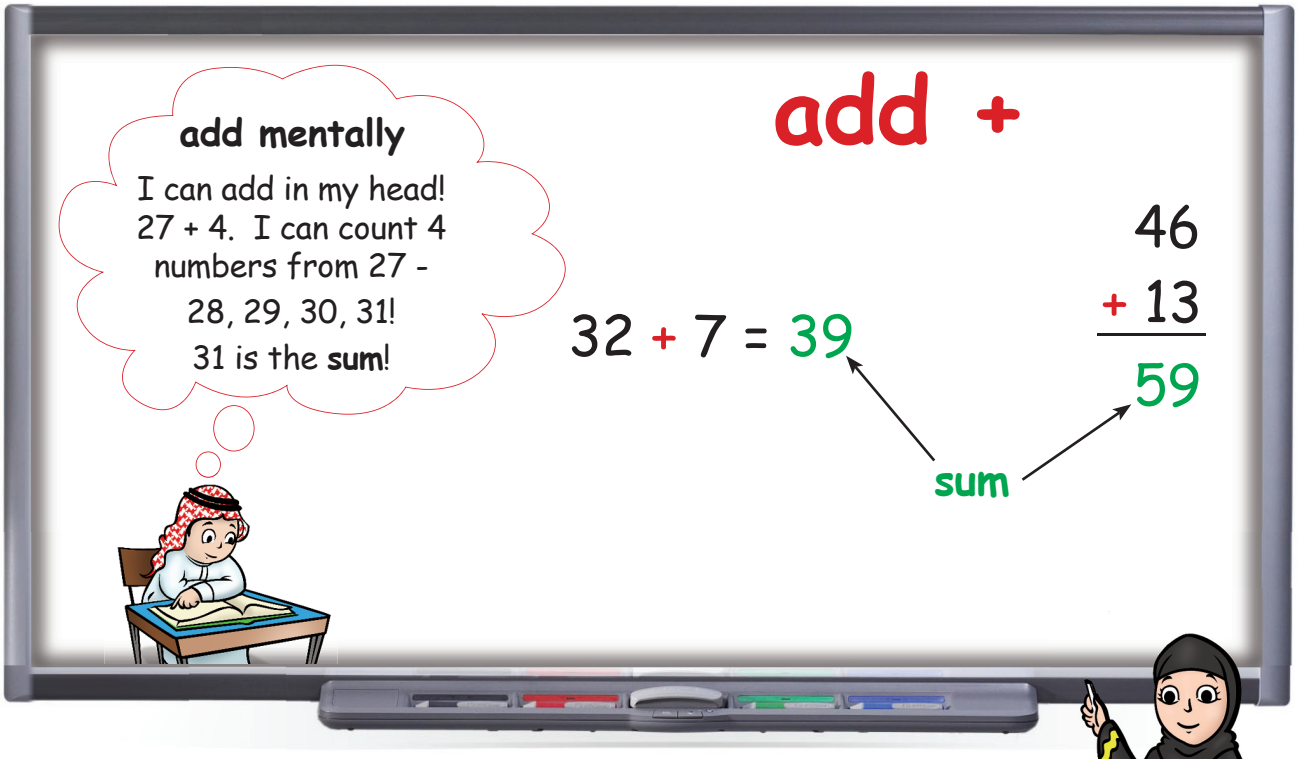
Look at the **keywords** on the bottom of the page. Write **one** word in each box. Listen as your teacher calls out a number. Put an X on the box if you have that number. Three in a row is **BINGO**!

| | | |
|---|---|---|
| | | |
| | BINGO | |
| | | |

| | | | |
|---|---|---|---|
| pattern | odd number | rounding | digit |
| ones | count back | place value | tens |
| even number | hundreds | thousands | less than |
| period | equal to | greater than | standard form |
| order | expanded form | word form | count on |

# ADDITION

**KEYWORDS:** adding sum mentally regrouping expanded form digit




When we **add** (+) we put 2 or more numbers together to make a new number.

Can you add 48 + 34?

Yes! 48 + 34 = 82. 82 is the **sum**. I did it **mentally**, in my head. First I added the **digits** in the tens place, then I added the **digits** in the ones place.

That's great, Faisal! You remembered the lessons we had before.

You used **expanded form**, the different place values that make up the numbers, to **add mentally**.

48 + 34

40 + 8 + 30 + 4

40 + 30 + 8 + 4

70 + 12 = 82

**Adding** the tens is easy, Mrs. Amna. 40 + 30 = 70. But I get confused with the ones. The **sum** of 8 + 4 is more than 10.

When that happens, we have to **regroup**. **Regrouping** is also called carrying.

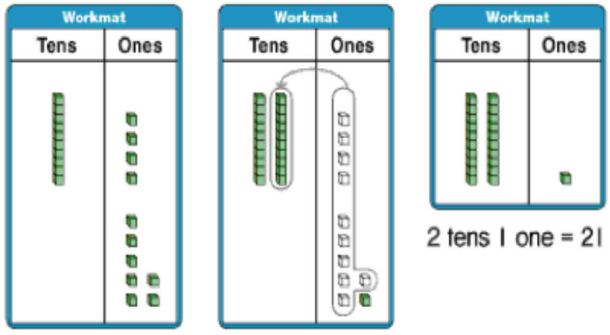
Sometimes when you add ones you get 10 or more. Then you have to **regroup** the 10 ones as 1 ten.

Who can tell us how to regroup when you add 45 and 18?

# regroup / regrouping

Think:
I have 1 ten and 4 ones, I want to add 7 ones,

Think:
I know that 4 + 7 is 11, so I can make a ten,




2 tens 1 one = 21

Do I need to regroup?

14 + 7 = 21

First, add the ones

14 ones =

1 ten + 4 ones

| H | Tens | Ones |
|---|---|---|
| | 1 | |
| | 4 | 8 |
| + | 5 | 6 |
| | | 4 |

Next, add the tens

10 tens =

1 hundred + 0 tens

| H | Tens | Ones |
|---|---|---|
| 1 | 1 | |
| | 4 | 8 |
| + | 5 | 6 |
| 1 | 0 | 4 |

I can! 45 is 4 tens and 5 ones; 18 is 1 ten and 8 ones.
When you put the ones together, you have 13 ones. Regroup the 13 ones to 1 ten and 3 ones.

| | | |
|---|---|---|
| | 1 | |
| | 4 | 5 |
| + | 1 | 8 |
| | 6 | 3 |

1
4
+ 1
6

5
+ 8
13

I understand now! Then you join the tens.
4 tens plus 1 ten plus 1 ten equals 6 tens.
The answer is 6 tens and 3 ones, or 63.

## Task 1:

**Solve these problems mentally. Write the answer in number and word form.Then say the completed number sentence to a partner.**

forty  eighteen  fourteen  seventy-four  twenty-two

4 + 7 + 3 = ..... . Four plus seven plus three equals ..... .

6 + 8 + 4 = ..... . The sum of six and eight and four is ..... .

18 + 4 = ..... . Eighteen and four is ..... - ..... .

32 + 8 = ..... . Thirty-two plus eight equals ..... .

69 + 5 = ..... . The sum of sixty-nine and five is ..... - ..... .

## Task 2: REGROUP.

**Look at the problems below.**

**Circle the problems that need regrouping.**

**Then find the sums.**

| | | | |
|---|---|---|---|
| 5 2<br>+ 3 7 | 1 8<br>+ 6 3 | 7 4<br>+ 1 9 | 5 6<br>+ 4 8 |

**Explain to a partner how to regroup the numbers in these problems.**

# FUN WITH FLASHCARDS

CUT ✂------- FOLD | STUDY  PLAY 

## adding

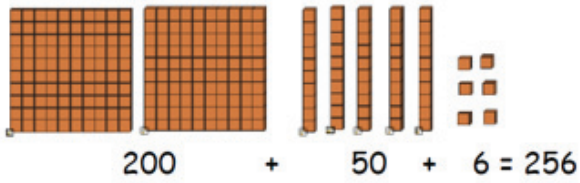
To put two or more numbers together to find a sum.

## digit

0 1 2 3 4
5 6 7 8 9

The symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9

## expanded form




Shows us how the different place values add up to make the total number.

# FUN WITH FLASHCARDS

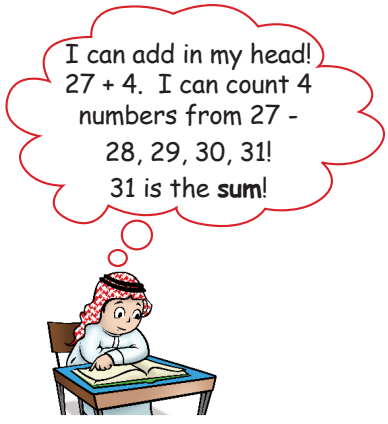
CUT ✂------- FOLD | STUDY  PLAY 

## sum

100 + 10 + 1 = 111

The answer to an addition problem.

## mentally



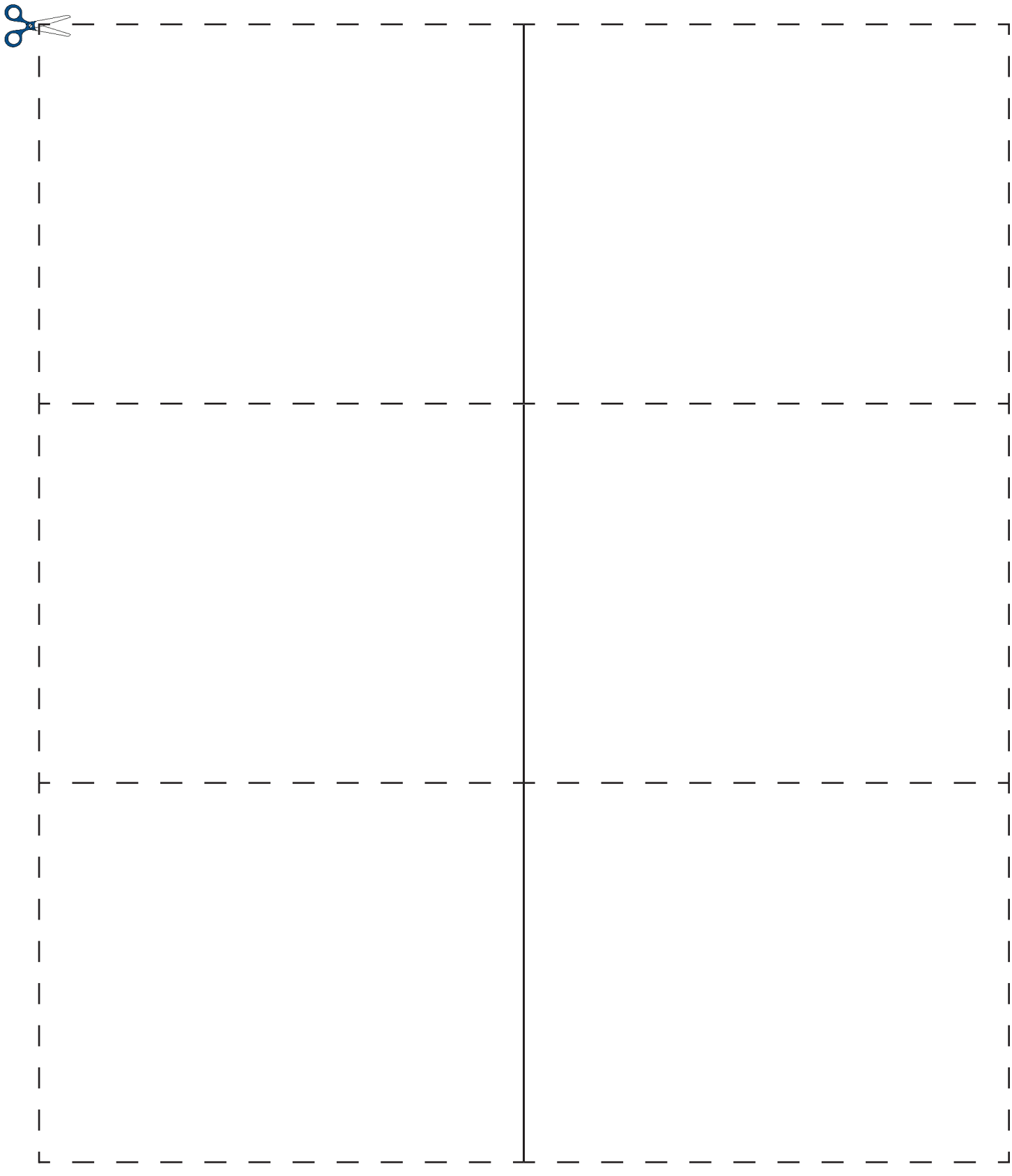

When you find the answer to a problem without having to write it down.

## regroup/regrouping

14 + 7

1 ten + 11 ones = 2 tens + 1 one

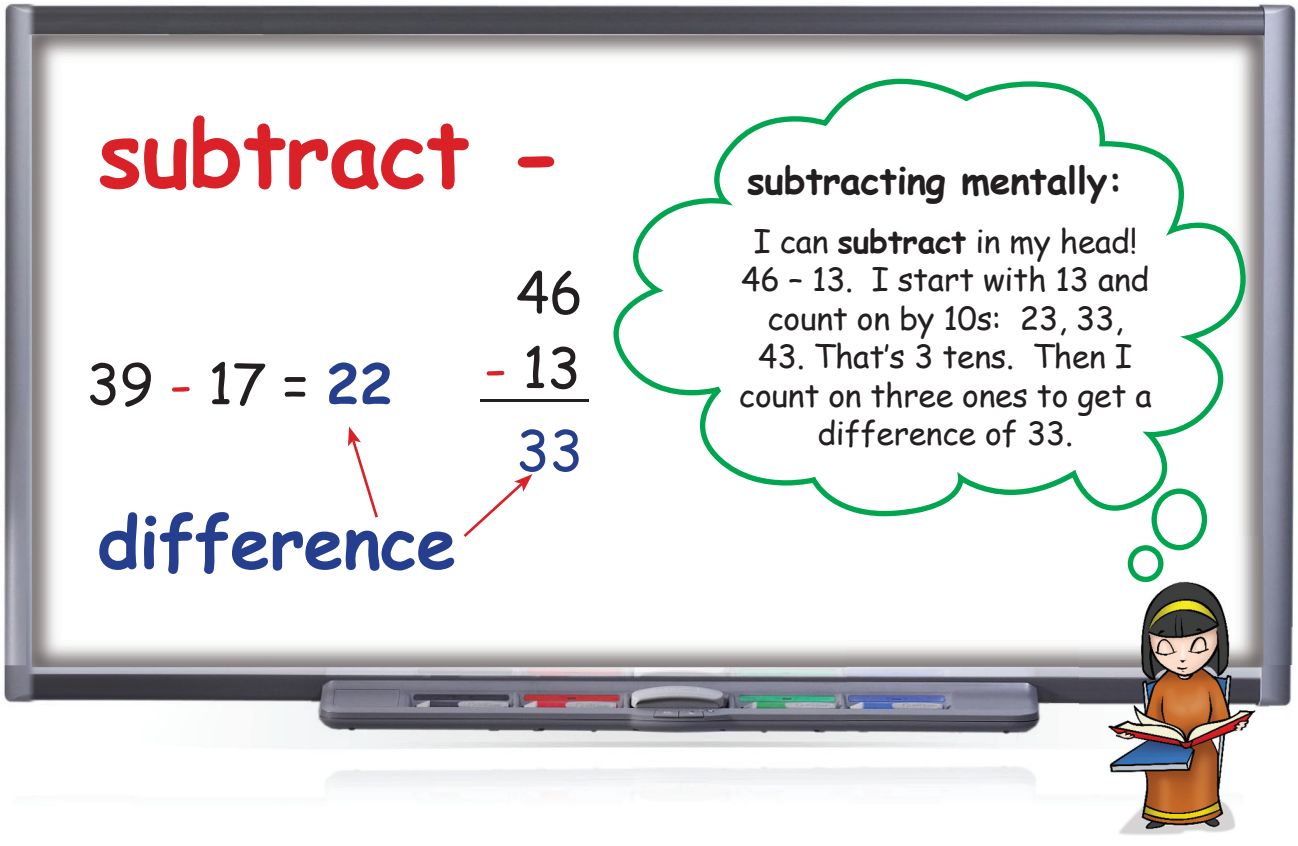
Changing 10 ones for 1 ten, 10 tens for 1 hundred or 10 hundreds for 1 thousand.



# SUBTRACTION

**KEYWORDS:** subtraction difference count on mentally

Sara and Fatima, do you remember what we studied last lesson about addition? Today, we are going to study the opposite of addition which is **subtraction**. Look at the board.




I remember our last lesson. We learned that addition is when we put 2 or more numbers together to find the sum.

That's right, Sara, and **subtraction** is when we take one number away from another to find the **difference**.

I can do **mental subtraction**. I can **count on** to find the **difference**. Look at the problem on the board. I start with 17. Then I count on by tens: 27, 37. That's two tens. Then I count by ones: 38, 39. That's two ones. Two tens and two ones is 22.

39 – 17 = ?

17 ... 27, 37 ... 38, 39!

20 + 2

39 - 17 = 22

I can **subtract mentally** in a different way. I make the same change to both numbers, so the smaller number ends in zero.

39 – 17 = ?

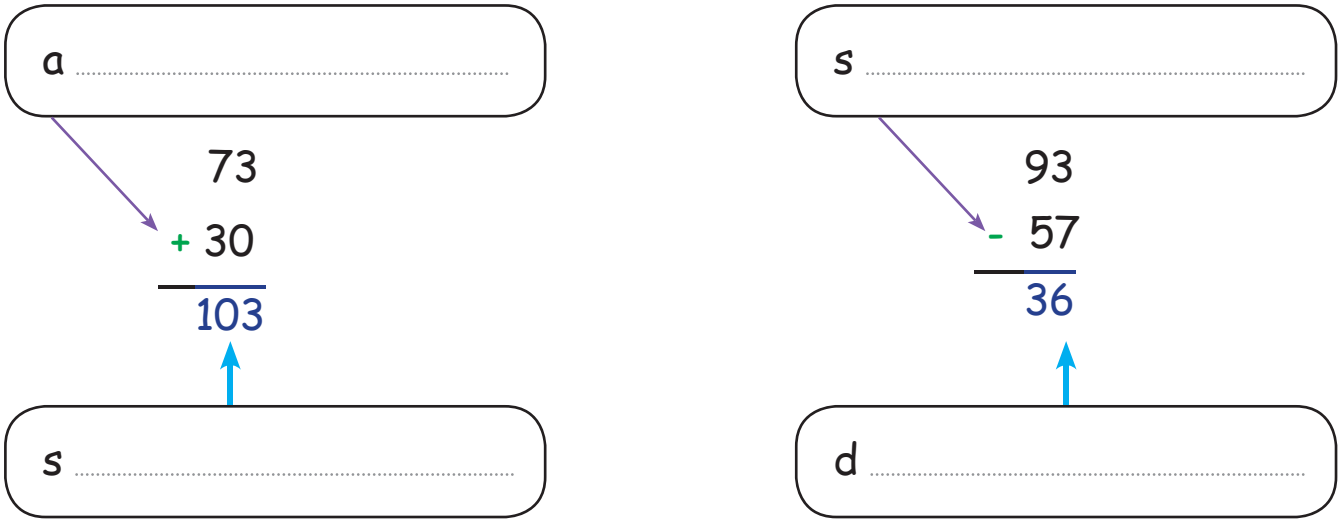
-7 -7

32 – 10 = ?

The **difference** is 22.

## Task 1: LABEL.

addition subtraction mental addition sum
mental subtraction difference




I can solve these problems in my head with ..... .

m ..... a ..... and m ..... s ..... .

## Task 2: MATCH.

**Can you make sentences? Read them to your partner.**

| | | | |
|---|---|---|---|
| 1 | In addition | a) | I find the difference. |
| 2 | I can count on | b) | to find the difference mentally. |
| 3 | In subtraction | c) | I find the sum. |
| 4 | Mental subtraction | d) | is when I subtract in my head. |

## Task 3:

**Solve these problems mentally. Write the answer in number and word form.**

forty twelve ninety six four

12 – 8 = ..... . The difference between twelve and eight is ..... .

60 - 20 = ..... . The difference between sixty and twenty is ..... .

100 - 10 = ..... . The difference between one hundred and ten is ..... .

36 - 24 = ..... . The difference between thirty-six and twenty-four is ..... .

**Say the completed number sentence to a partner.**

## Task 4: LET'S TALK!

Can you solve the problem 28 – 13?

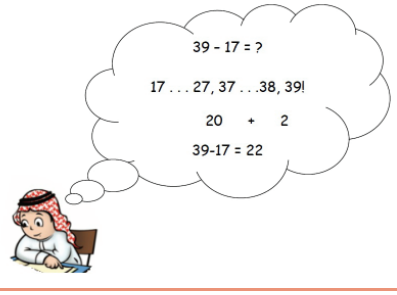
That's easy! I can do it mentally. I can count on from 13. 13, 23, ...

What's the difference?

## TODAY'S MATHEMATICS KEYWORDS

Complete the table. Match the keywords listed below with either the meaning, picture or example. Fill in all blanks in all columns: keywords, meaning, picture or example.

subtraction  difference  count on  mentally

| KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|
| | | 45 – 12 = 33 |
| count on | | |
| | To take one number away from another. | 45 – 12 |
| | |   |

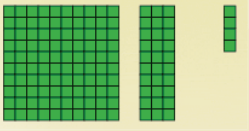
# CHECK WHAT YOU KNOW

## Task 1:

Help us draw lines to match.

1. add
2. digits
3. regrouping
4. subtract
5. difference
6. expanded form
7. count on
8. sum

a) 134 = 100 + 30 + 4



b) 9 + 14 = 23

c)

d) 13 - 9=

10, 11, 12, 13

e) 0 1 2 3 4
5 6 7 8 9

f)

g) 1148 + 153

| Thousands | Hundreds | Tens | Ones |
|---|---|---|---|

h) 9 - 3 = 6

## Task 2: MULTIPLE CHOICE!

**Choose the correct words to complete the following sentences.**

1. In addition, we find the ..... .

   **a)** difference **b)** sum **c)** expanded form

2. In subtraction, we find the ..... .

   **a)** difference **b)** sum **c)** expanded form

3. 23 + 47 = ? I think 20 + 40 and 3 +7.

   I am using ..... .

   **a)** count on **b)** digits **c)** expanded form

4. 33 – 29 = ? I start at 29 and ..... to 33.

   **a)** subtract **b)** count on **c)** regroup

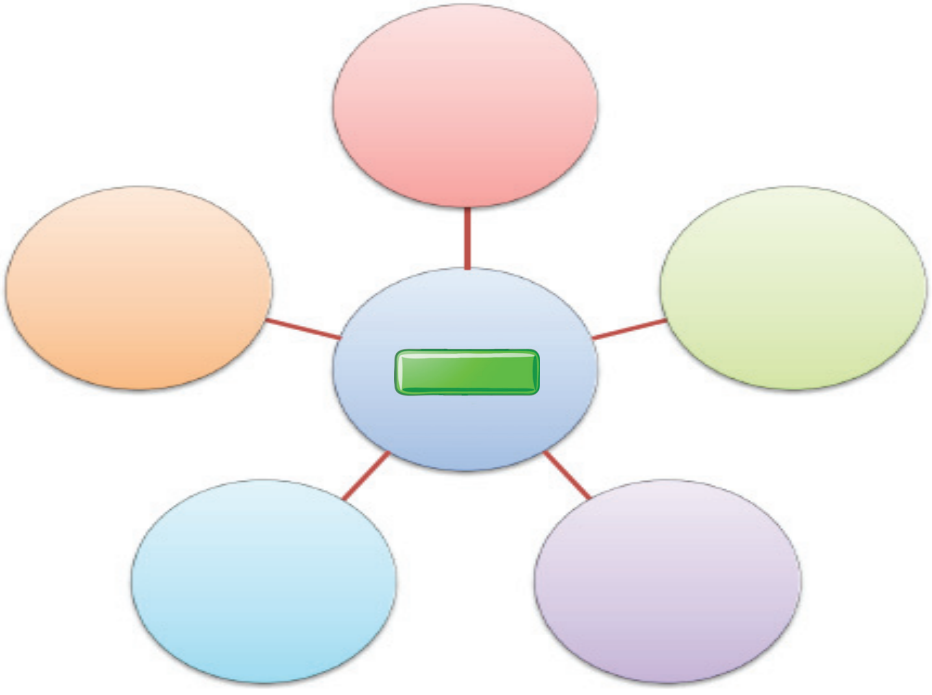
5. In addition, if I change ten ones to one ten I am ..... .

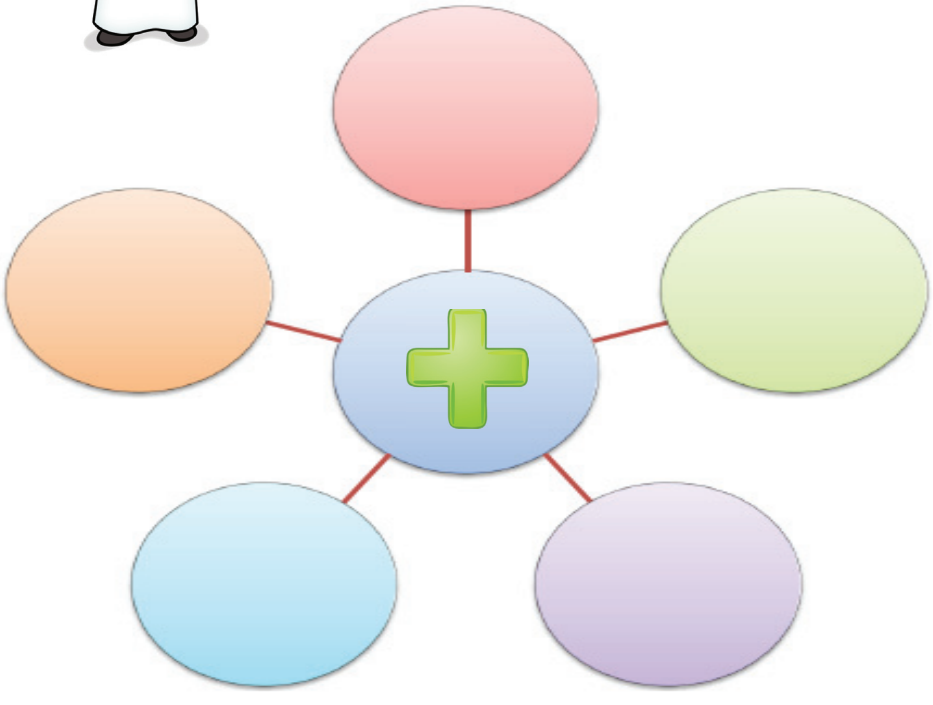
   **a)** subtracting **b)** counting on **c)** regrouping

## Task 3: WORD WEBS!

Look at the keywords in the box. Write the words in the correct web. Some words go in **BOTH** webs!

adding subtraction mentally count on regrouping
digit sum difference expanded form





## Task 4: PUZZLE TIME!

**Help Faisal, Khalid, Nasser, Sara, Fatima and Nouf complete the crossword.**

mentally addition digits

sum difference

### Across

3) The answer to a subtraction problem.

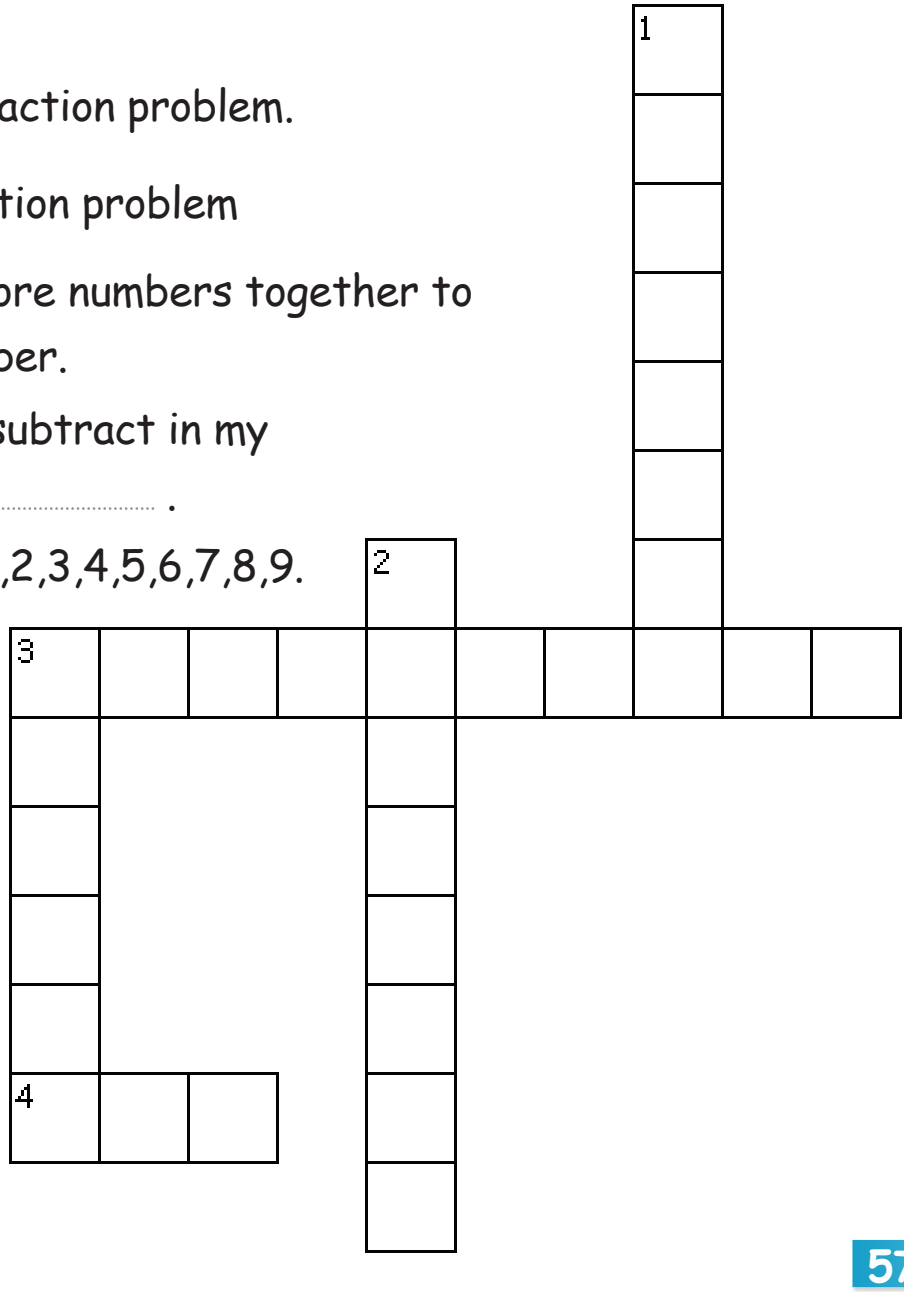
4) The answer to an addition problem

### Down

1) To put two or more numbers together to make a new number.

2) When I add or subtract in my head, I do it ..... .

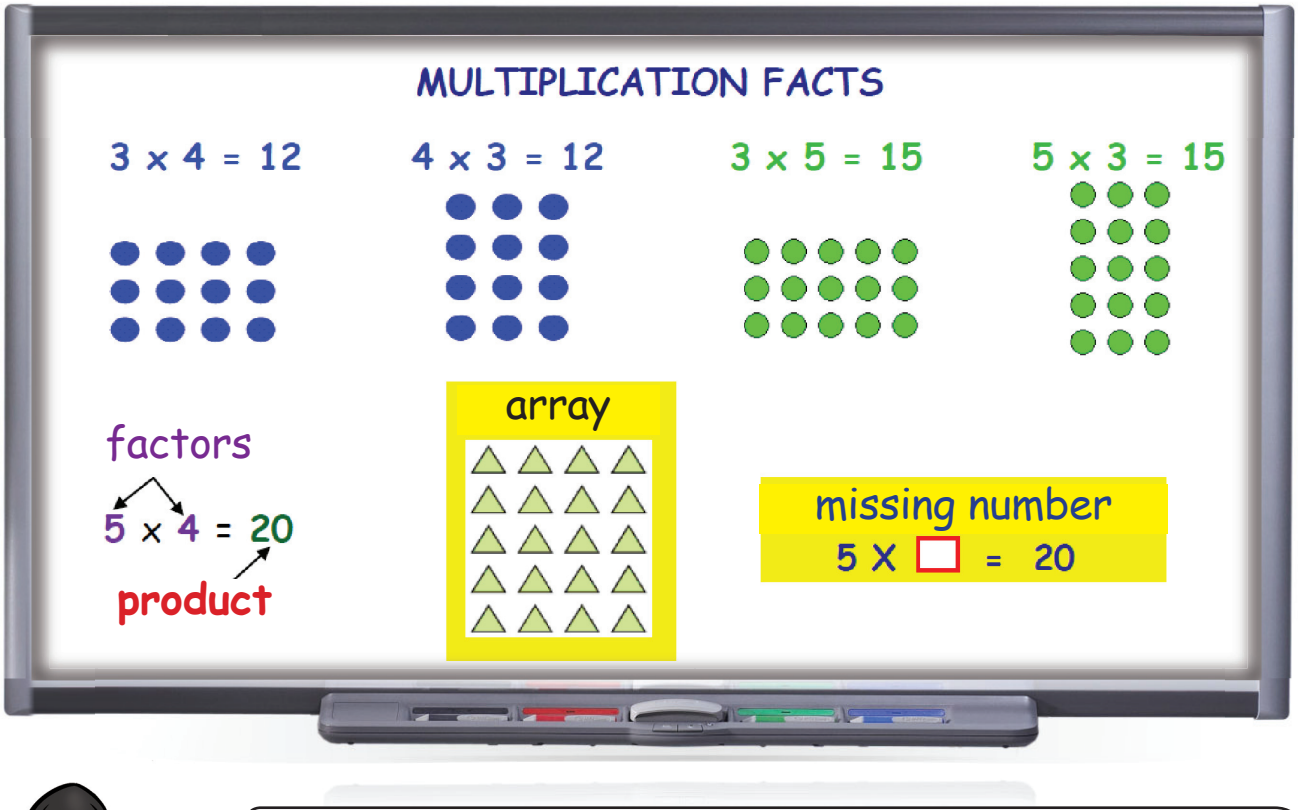
3) The symbols 0,1,2,3,4,5,6,7,8,9.



# MULTIPLICATION 1

**KEYWORDS:** multiplication, multiplication facts, array, factor, product, missing number

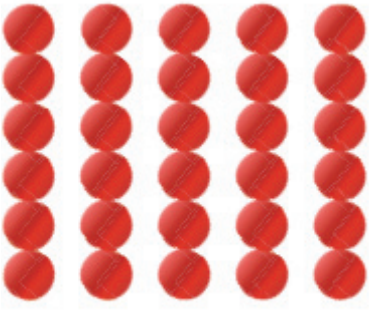
Nouf and Fatima are learning about **multiplication**. Read and listen to the lesson. Then do the activities.




**Multiplication** is repeated addition. Look at the board. 3x4 = 12. It's like adding 4 three times – 4 + 4 + 4 = 12.

We have to memorize our **multiplication facts**. We will learn to say each fact quickly, without calculating. For example, three times four is twelve. Three times five is fifteen.

We can show a multiplication fact with an **array**, which is an arrangement of things in rows and columns.



$6 \times 5 = 30$

factor factor product

The numbers we multiply are called **factors**. The answer is the **product**.

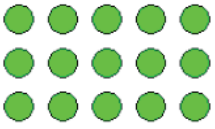
Sometimes, instead of finding the **product** in a multiplication problem, we have to find one of the **factors**. This is called the **missing number**.

$3 \times \square = 24$

## Task 1: COMPLETE!

multiplication facts  factors  array  product

1. $5 \times 3 = 15$ is one of the **m** ..... **f** ..... that I know.



2. Here is an **a** ..... of $5 \times 3$.

5X3

3. In the problem $5 \times 3 = 15$, five and three are **f** ..... .

4. In the problem $5 \times 3 = 15$, fifteen is the **p** ..... .

## Task 2: MULTIPLE CHOICE!

**Complete the sentences. Choose a, b, or c.**

1. This  is the symbol for ..... .

**a)** addition  **b)** multiplication  **c)** subtraction

2. In the problem $5 \times 6 = 30$, 30 is the ..... .

**a)** product  **b)** missing number  **c)** array

3. $2 \times 3 = 6$, $3 \times 3 = 9$, and $4 \times 3 = 12$ are all ..... .

**a)** subtraction facts  **b)** addition facts  **c)** multiplication facts

4. This  is a/an ..... for $4 \times 6$.

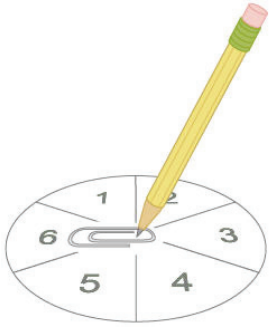
**a)** array  **b)** factor  **c)** product

## Task 3: GAME TIME!

### Spin the Number

Use the spinner at the bottom of the page to find numbers. Fill in the blanks with factors. Then draw the array and find the product.

| factor | × | factor | array | product |
|---|---|---|---|---|
| two<br>2 | × | four<br>4 |  | eight<br>8 |
| | × | | | |
| | × | | | |
| | × | | | |
| | × | | | |



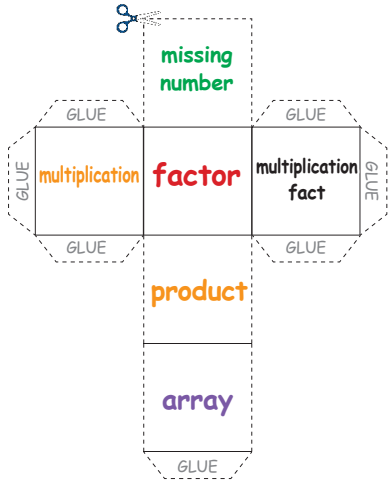

# VOCABULARY CUBE

CUT ✂------- FOLD | GLUE  PLAY 


**Make the cube using the shape on the next page.**

1. Cut on the dotted lines.

**Be careful that you do not cut off the tabs.**



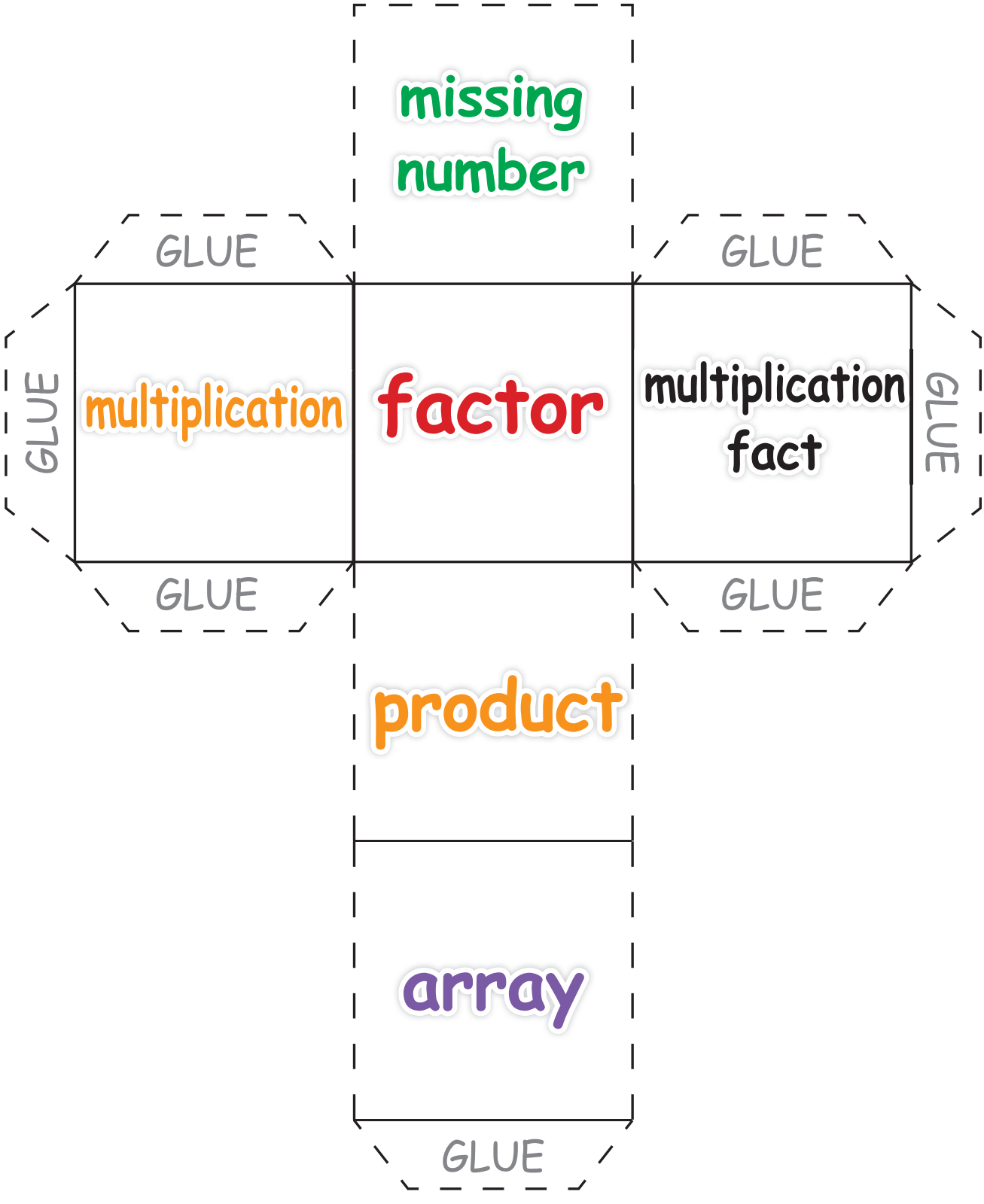

2. Fold on the solid lines.

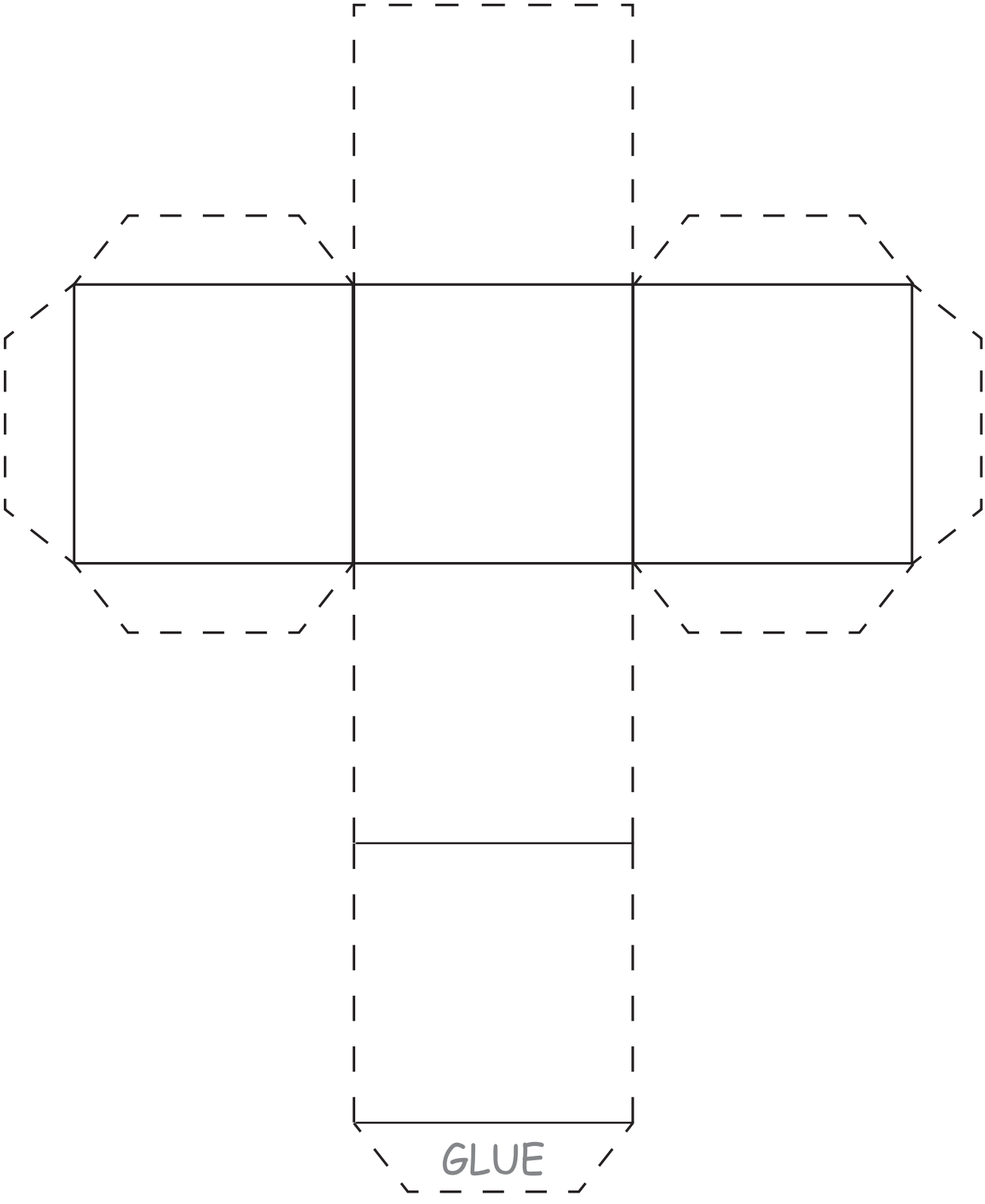

3. Put glue on the tabs to finish the cube.



## Play!

Work with a partner. Roll the cube. Look at the key word facing up. Say the word and define it, give an example, or use it in a sentence.


missing number
GLUE
GLUE
GLUE
multiplication
factor
multiplication fact
GLUE
GLUE
GLUE
product
array
GLUE

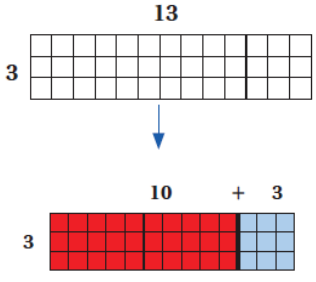

GLUE

# MULTIPLICATION 2

**KEYWORDS:** multiplication, multiply, multiplication table, partial product, mental multiplication, regrouping

Khalid and Faisal, do you remember what we studied last lesson, about **multiplication**? Today, we are going to learn more. Look at the board.

$3 \times 13 = 39$




$3 \times 10 = 30$
$3 \times 3 = 9$
$30 + 9 = 39$

**partial product**

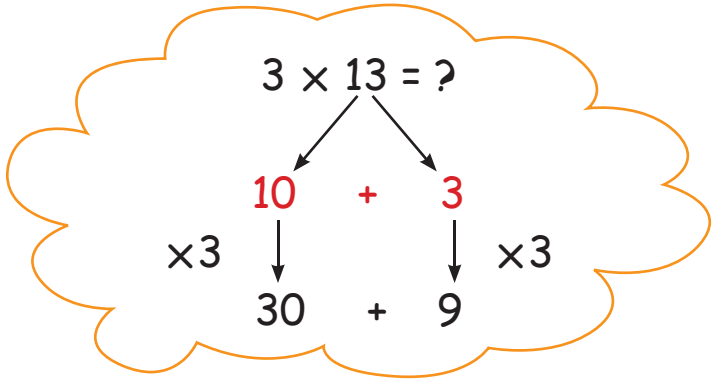
**mental multiplication:**

I can **multiply** in my head! If I **multiply** 13 by 3, I think 3×10=30 and 3×3=9. Then I add 30+9. The product is 39.

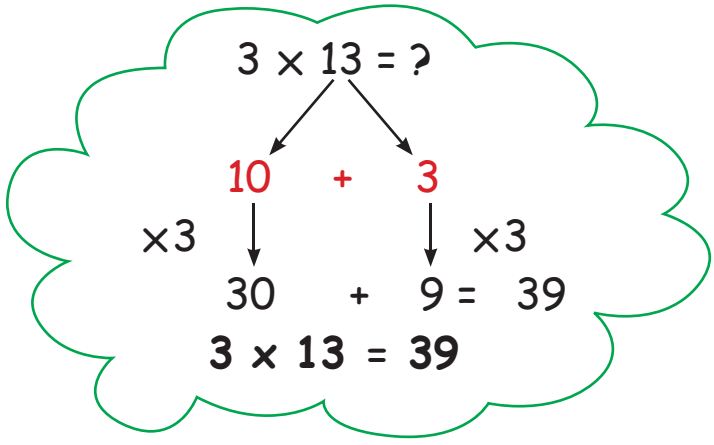
I remember our last lesson! We learned that **multiplication** is repeated addition. So, 13 × 3 is just like 13 + 13 + 13.

That's right, Faisal. You can solve **multiplication** problems with addition. Khalid used multiplication and addition to solve the problem.

I used **partial products** to do **mental multiplication**. Look at the problem on the board. 3 x 13. I know that 13 is 10+3. So, I used my multiplication facts to **multiply** 3x10 and 3x3.




30 and 9 are **partial products**. I add these to find the final answer to the problem.



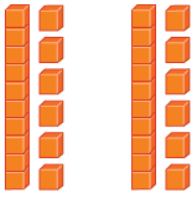
Khalid can do **mental multiplication**, because he has memorized his **multiplication** facts. He could also use a **multiplication table**.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2 | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 3 | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| 4 | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| 5 | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| 6 | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 7 | 0 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| 8 | 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 9 | 0 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| 10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| 11 | 0 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| 12 | 0 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |

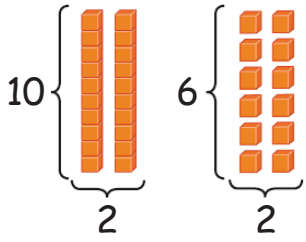
**multiplication table**

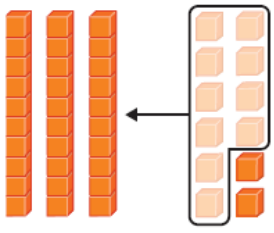
Sometimes, when you **multiply** larger numbers, you have to use **regrouping**. Look at this problem.

$$\begin{array}{r} 16 \\ \times\ \ 2 \\ \hline \end{array}$$



First, you group together the tens and the ones.



Then you **regroup** ten ones into one ten.

$16 \times 2 = 32$

## Task 1: LABEL.

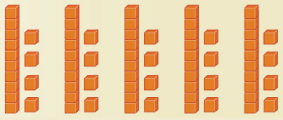
1. multiply
2. mental multiplication
3. multiplication table
4. multiplication
5. regrouping
6. partial product

**a)**

repeated addition

$5 \times 14$

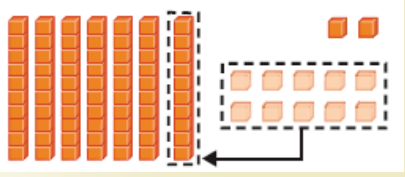
$14 + 14 + 14 + 14 + 14$



**b)**

**c)**

$6 \times 12$



**d)**

$2 \times 36 =$

$30 + 6$

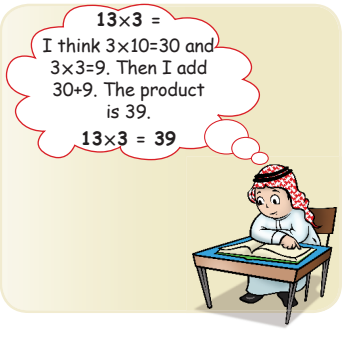
$(2 \times 30) + (2 \times 6) =$

$60 + 12 = 72$

**e)**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

**f)**



## Task 2: LET'S TALK!

I need help with my multiplication facts.

You can use...

How can I multiply 13 x 2?

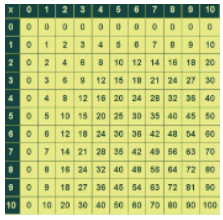
Think 10x2 and...

How can I multiply 26 x 3?

You need to...

## Task 3: MULTIPLE CHOICE!

**Complete the sentences. Choose a, b, or c.**

1. This  is a/an ..... .

| x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 0 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 0 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

**a)** addition table **b)** multiplication table **c)** subtraction table

2. In the problem 2 x 15, 2 x 10 = **20** and 2x5 = **10**. **20** and **10** are ..... .

**a)** factors **b)** odd numbers **c)** partial products

3. 4 + 4 + 4 + 4 is the same as 4x4. This is ..... .

**a)** subtraction **b)** division **c)** multiplication

4. If we change 6 tens and 12 ones into 7 tens and two ones, this is ..... .

**a)** addition **b)** regrouping **c)** multiplying

# FUN WITH FLASHCARDS

CUT ✂------- STUDY PLAY

## multiplication

5x14

14+14+14+14+14

## multiply

## multiplication table

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

## partial product

2×36 =

30 + 6

(2×30) + (2×6) =

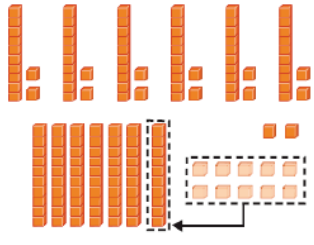
60 + 12 = 72

## mental multiplication

13×3 =
I think 3×10=30 and 3×3=9. Then I add 30+9. The product is 39.
13×3 = 39

## regrouping

6x12



## PLAY WITH FLASHCARDS

You need: 2 sets of flashcards. Play with a partner.

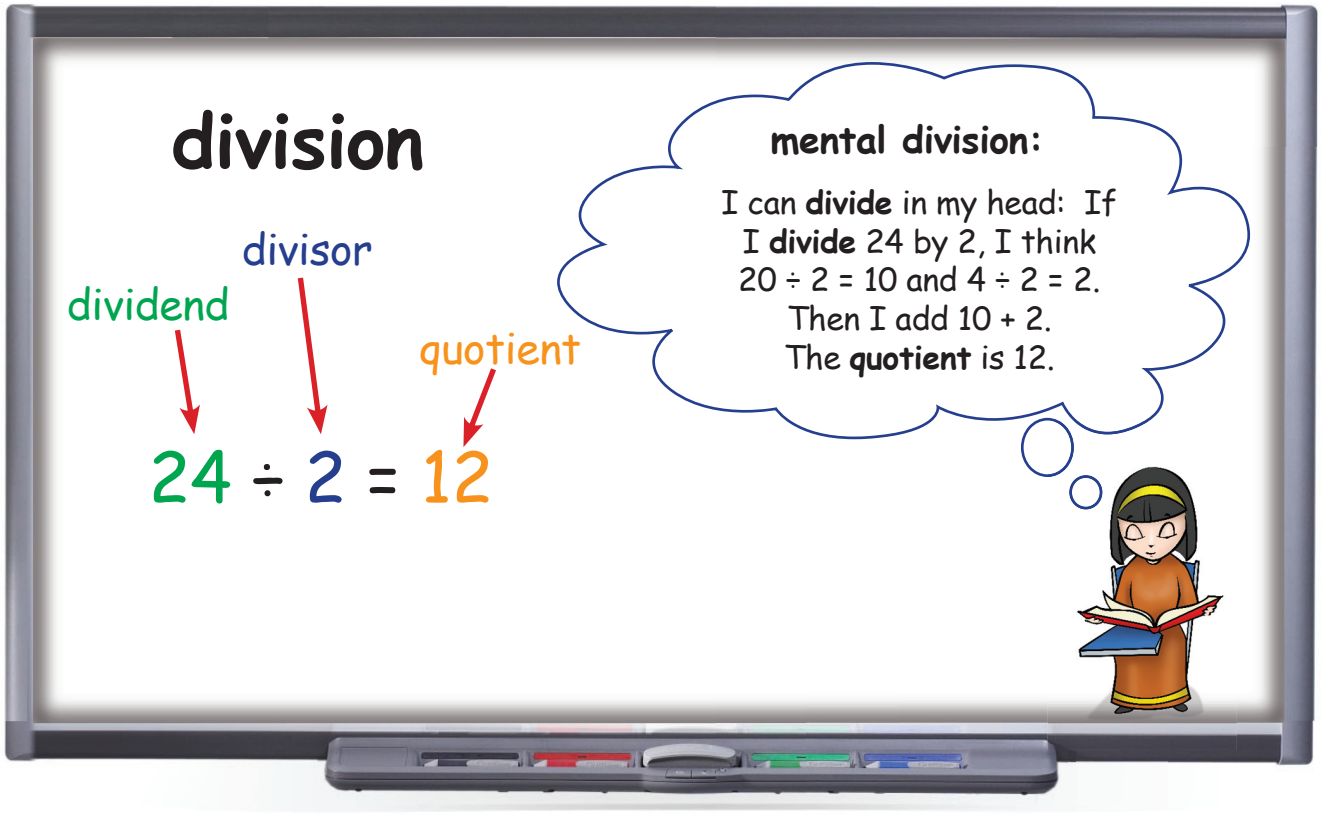
1. Put one set of cards picture side up. Put the other set definition side up.
2. Take turns. Can you match the pictures to the correct definitions?

| | |
|---|---|
| This symbol means to add one number repeatedly a given number of times. | Repeated addition |
| A way of doing mental multiplication, using expanded form. | A table showing multiplication facts. |
| To group together all the ones in a product to make sets of ten. | To solve multiplication problems in your head. |

# DIVISION

**KEYWORDS:** division, division facts, dividend, divisor, quotient, fact family, mental division

Sara and Fatima, do you remember what we studied last lesson about multiplication? Today we are going to study the opposite of multiplication – **division**.
Look at the board.




I remember our last lesson! We learned that **multiplication** is the same as repeated addition.

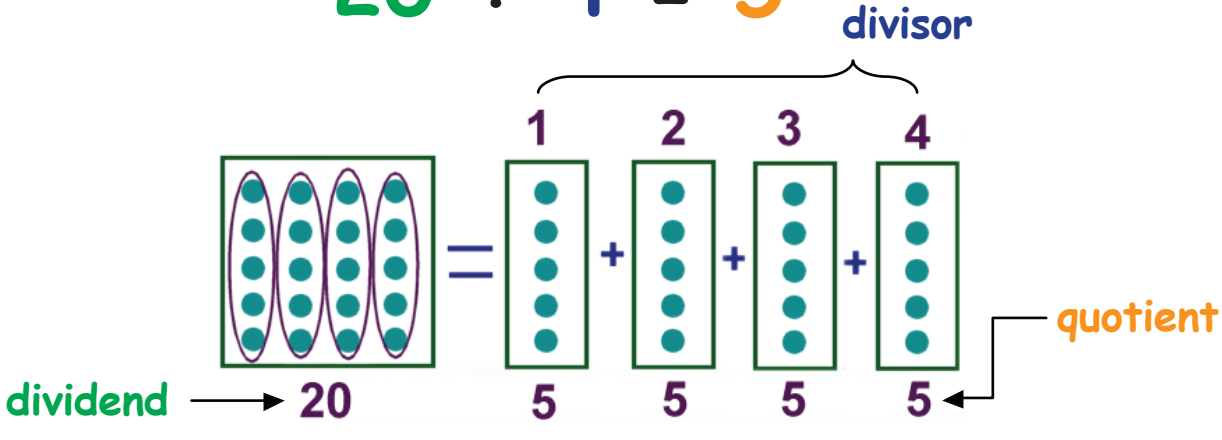
That's right, Sara, and **division** is the same as repeated subtraction.

$$20 \div 4 = 5$$

| ① | ② | ③ | ④ | ⑤ |
|---|---|---|---|---|
| 20 | 16 | 12 | 8 | 4 |
| − 4 | − 4 | − 4 | − 4 | − 4 |
| 16 | 12 | 8 | 4 | 0 |

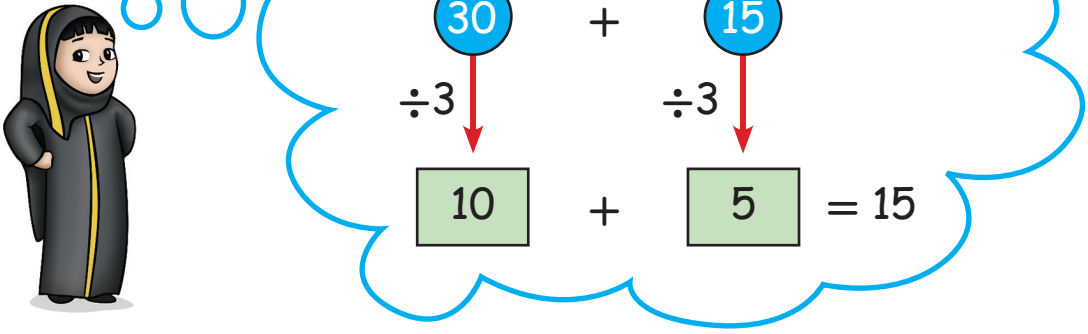
**Division** is also when you split a number into equal groups. 20 divided by 4 is 20 split into equal groups of 4. Each group has five.

$$20 \div 4 = 5$$




Yes, Sara. The number you want to divide is the **dividend**, the number of groups is the **divisor** and the number in each group, the answer, is the **quotient**.

I can do **mental division**. For example, 45 ÷ 3. I know that 45 is 30+15. So, I can use my **division facts** to find 30÷3 and 15÷3.



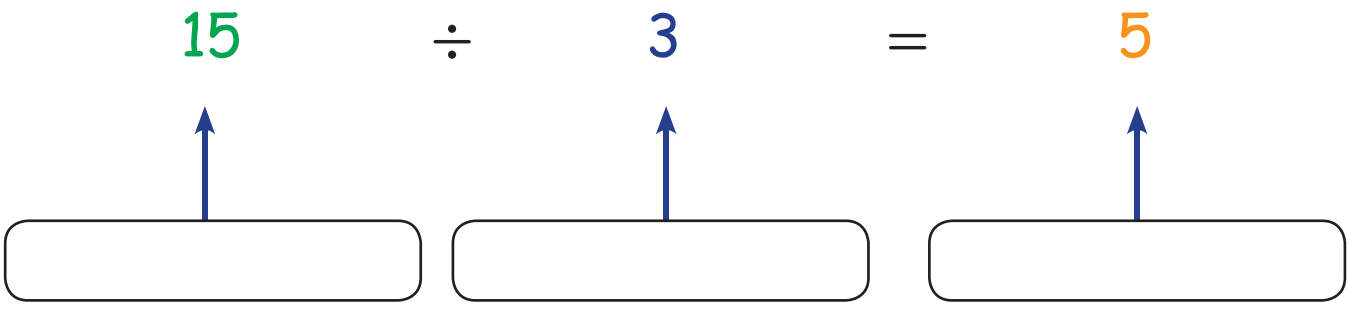

It's easier to divide when you remember **fact families**. Every three numbers can be arranged to make four math facts: two for multiplication and two for **division**.

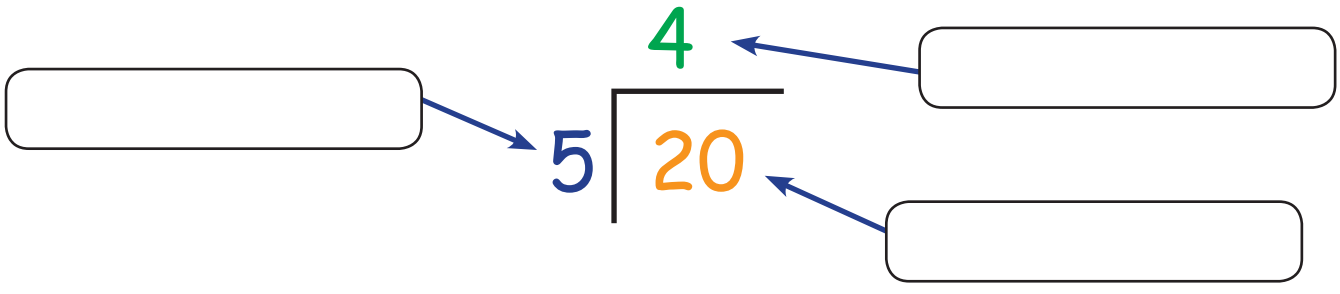
**2, 3, 6**

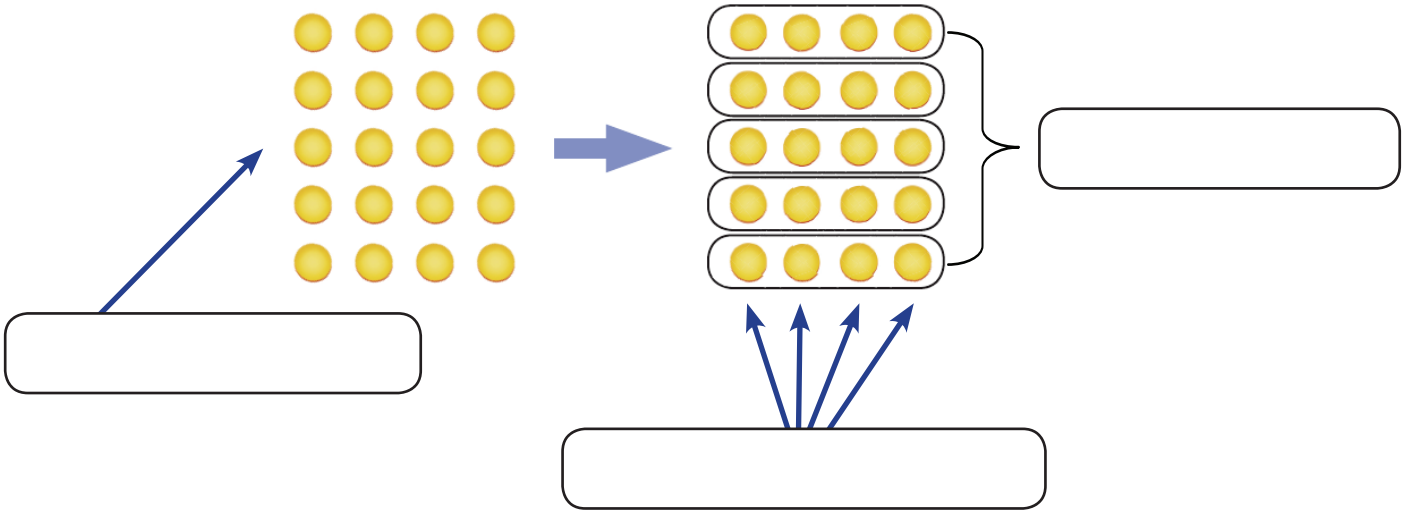
| |
|---|
| 2 x 3 = 6 |
| 3 x 2 = 6 |
| 6 ÷ 2 = 3 |
| 6 ÷ 3 = 2 |

**Task 1:** LABEL.

divisor dividend quotient



## Task 2: LET'S TALK!

**Ask and answer the questions. Make new questions for your partner.**

What is a fact family?

How many math facts can you make from a fact family?

I know that. It's ..... .

I can make ..... .

Let me ask you. Can you tell me another fact family?

## Task 3: TRUE OR FALSE.

Check with your partner!

1. 18 ÷ 6 = 3. This is a division fact. **True** **False**

2. 48 ÷ 2 = 24. 24 is the dividend. **True** **False**

3. 20 ÷ 2 = 10 and 2 x 10 = 20 are from the same fact family. **True** **False**

4. 60 ÷ 5 = 12. 12 is the quotient. **True** **False**

5. Division is the opposite of addition. **True** **False**

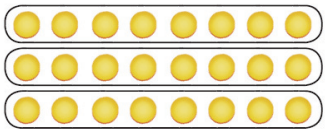
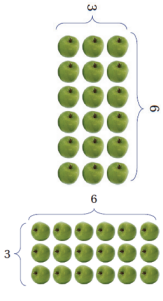
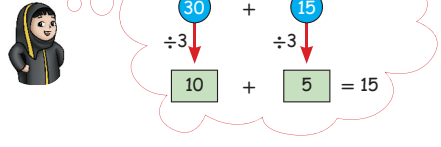
# PLAY WITH FLASHCARDS - CONCENTRATION

## Play with a partner

1 CUT 2 MIX 3 LAY face down in rows and columns 4 MATCH – Take turns





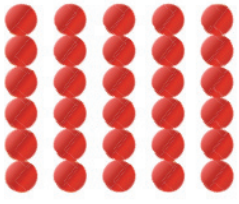
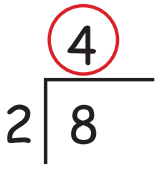
| | | |
|---|---|---|
| division | dividend | divisor |
| quotient | fact family | mental division |
| $3\overline{)24}$  | $8 \div 2 = 4$ | $20 \div 4 = 5$ |
| $2\overline{)8}^{\,4}$ |  $3 \times 6 = 18$<br>$6 \times 3 = 18$<br>$18 \div 3 = 6$<br>$18 \div 6 = 3$ |   |

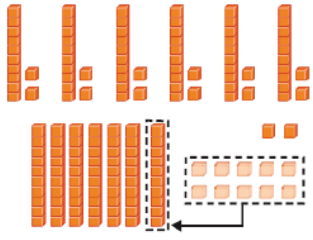
# CHECK WHAT YOU KNOW

**Task 1:** COMPLETE.

Can you remember the keywords from the last three lessons?
Look at the table below and complete each box.

array multiplication table regroup
quotient fact family product

| | KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|---|
| 1 | array | |  |
| 2 | | The answer to a multiplication problem. | |
| 3 | | The answer to a division problem. |  |

| | KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|---|
| 4 | fact family | | |
| 5 | | To change ten ones for one ten. | 6x12  |
| 6 | | | |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

## Task 2: MULTIPLE CHOICE!

**Choose the correct words to complete the following sentences.**

1. In the problem $\begin{array}{r} 3\square \\ \times\ \ 6 \\ \hline 2\square\ 4 \end{array}$ you need to find the ..... .

   **a)** dividend **b)** divisor **c)** missing numbers

2. In the problem $4 \times 21$ $\begin{array}{c|c|c} \times & 20 & 1 \\ \hline 4 & 80 & 4 \end{array}$, the numbers 80 and 4 are ..... .

   **a)** missing numbers **b)** odd **c)** partial products

3. To solve the problem $30 \times 5$, we need to ..... .

   **a)** divide **b)** add **c)** multiply

4. Two or more numbers that are multiplied together are called ..... .

   **a)** products **b)** factors **c)** quotient

5. In the problem $45 \div 9 = 5$, 45 is the ..... .

   **a)** dividend **b)** divisor **c)** quotient

## Task 3: ORGANIZE YOUR WORDS!

Look at the keywords in the box.
Help us sort the words. Some are MULTIPLICATION words, some are DIVISION words, and some are **BOTH**!

~~array~~ ~~mentally~~ ~~quotient~~ dividend
factor regrouping product missing number
fact family divisor

multiplication
and
division

array

mentally

quotient

multiplication

division

## Task 4: PUZZLE TIME!

**Help Faisal, Khalid, and Nasser complete the crossword.**

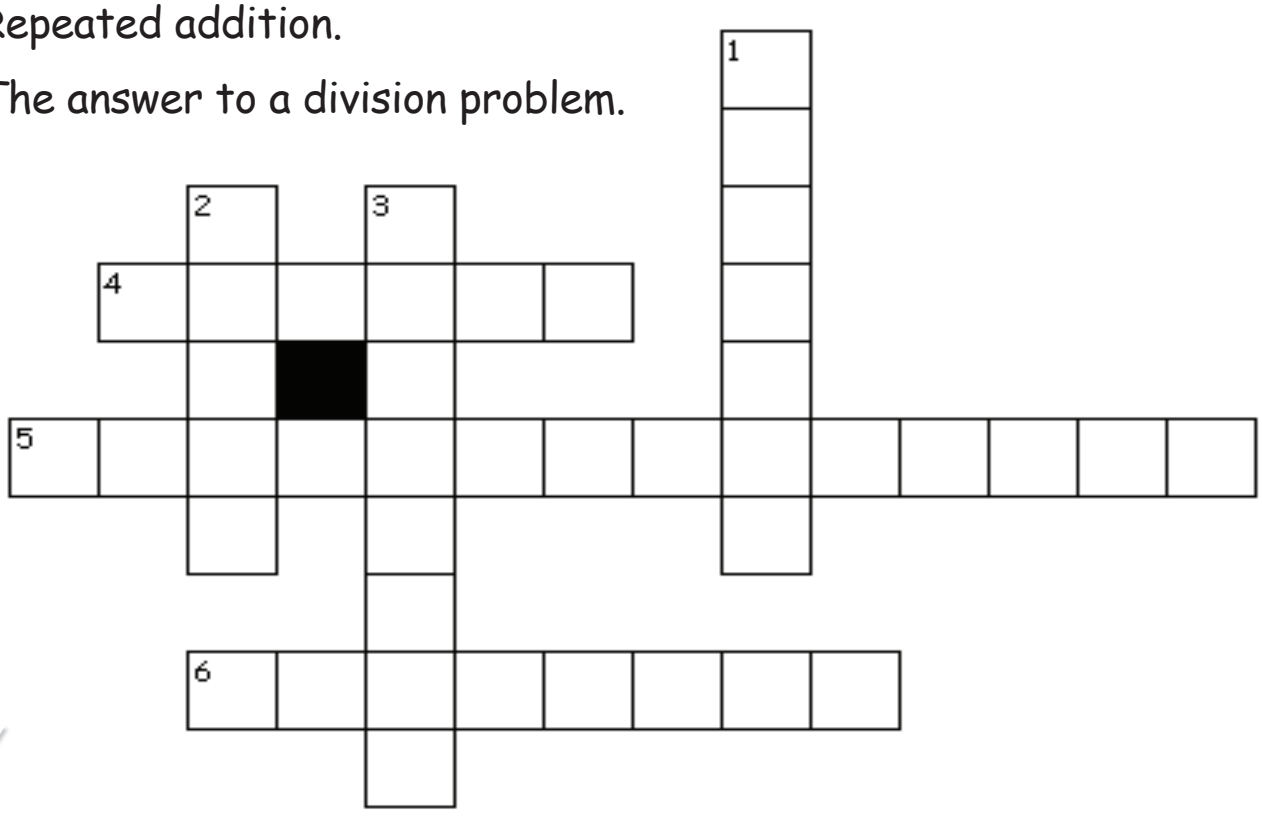
| | | |
|---|---|---|
| family | product | quotient |
| division | multiplication | table |

### Across

4) A fact ..... is a special group of numbers.

5) Repeated addition.

6) The answer to a division problem.




### Down

1) The answer to a multiplication problem.

2) A multiplication ..... is a tool to help you solve multiplication problems.

3) Repeated subtraction.

# PROBLEM SOLVING

**KEYWORDS:** understand plan solve check

Class, in this lesson we will be working on problem solving. Problem solving lets us use what we have learned in real life. Today we will use our addition skills. Look at the board.

1. understand
2. plan
3. solve
4. check

Ahmed sold all of the green peppers and all of the onions. How many vegetables did Ahmed sell?


Mrs. Amna, there are lots of words in that problem. I don't know what to do first. Can you help me?

It's easy if you follow the steps of problem solving. Step 1 is **understand**. **Understand** means to make sure you know all the information that the problem is giving you and what the question is asking you to find.

Ahmed sold **all** of the **green peppers** and **all** of the **onions**.

How many vegetables did Ahmed sell?

The second step is **plan**. **Plan** means to decide what strategy you should use.

I know! My **plan** is to act it out. I am going to use play vegetables to act out the problem.


Very good, Fatma! Now you can use your play vegetables to solve the problem . **Solve** means to find the answer.

The answer is 9!

Don't forget to **check** your answer. **Check** means to look back and make sure your answer is right.

4 green peppers + 5 onions = 9 vegetables

**Task 1:** LABEL.

**Label each problem solving step.**

understand | plan | solve | check

**5** friends came to my house. My mom gave us **10** bananas for a snack. We each ate **1** banana.

How many bananas are left?

10 - 6 = 4 bananas

5 🍌 for friends +

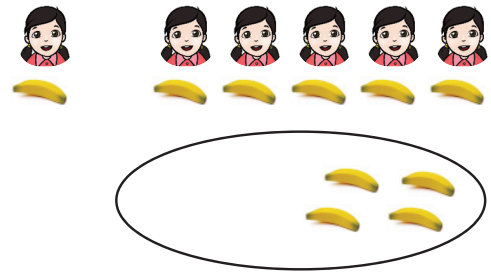
1 🍌 for me + 4 🍌 left

5 + 1 + 4 = 10

Act it Out

me

5 friends



## Task 2: LET'S TALK!

What does understand mean?

How do you make a plan?

What does solve mean?

How can you check your answer?

It means...

I...

## Task 3: MATCH.

1. understand
2. solve
3. check
4. plan

a) To decide what strategy you should use.

b) To find the answer.

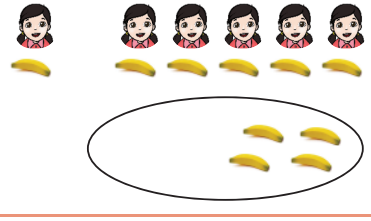
c) Making sure you know all the information that the problem is giving you, and what the question is asking you to find.

d) To look back and make sure your answer is correct.

## TODAY'S MATHEMATICS KEYWORDS

Complete the table. Match the keywords listed below with either the meaning, picture or example. Fill in all blanks in all columns: keywords, meaning, picture or example.

understand plan solve check

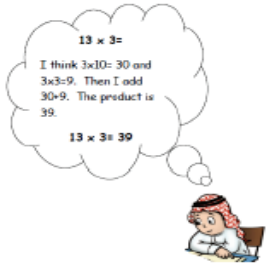
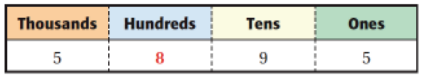
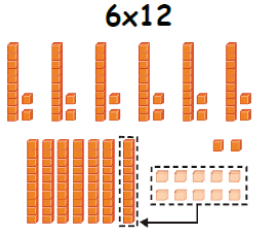
| KEYWORD | MEANING | PICTURE or EXAMPLE |
|---|---|---|
| | Making sure you know all the information that the problem is giving you, and what the question is asking you to find | |
| | | **Act it Out**<br>me 5 friends<br>  |
| solve | | |
| | To make sure your answer is right. | 10 - 4 = 6<br>1 + 5 + 4 = 10 |

# GRADE 3 SEMESTER 1 REVIEW

## Task 1: CAN YOU REMEMBER THE KEYWORDS?

**Write the correct keyword for each definition from the box below.**

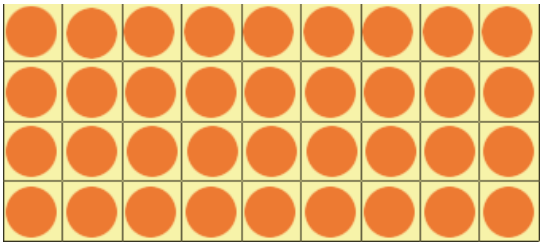
regrouping  place value  digits  mentally

| | KEYWORD | DEFINITION | PICTURE or EXAMPLE |
|---|---|---|---|
| 1 | | The symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. | 0 1 2 3 4 5 6 7 8 9 |
| 2 | | To solve problems in your head. |   |
| 3 | | How much a digit is worth in a number. | In the number 5,895, the digit 8 is worth 800.   |
| 4 | | To group together all the ones in a product to make sets of ten. |   |

## Task 2:

**Use the keywords from the box below to label these pictures.**

fact family | multiplication table | number pattern | array



| x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 0 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 0 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

.....

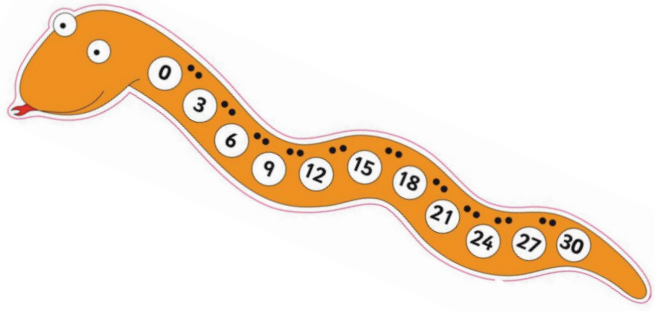
.....

$3 \times 4 = 12$

$4 \times 3 = 12$

$12 \div 3 = 4$

$12 \div 4 = 3$




.....

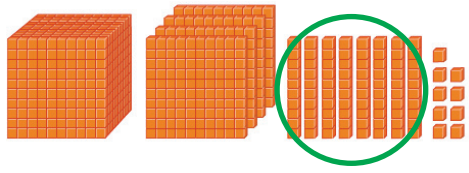
.....

## Task 3: MATCHING.

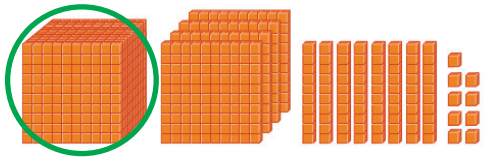
Help us draw lines to match the words with the correct numbers and pictures.

1. thousands
2. ones
3. hundreds
4. tens

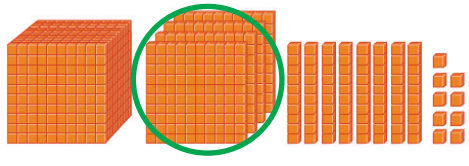
a) 1, 489



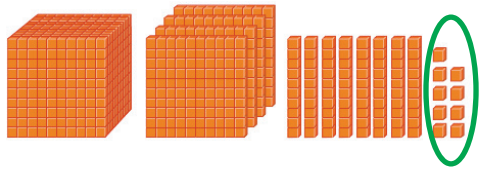
b) 1, 489



c) 1, 489



d) 1, 489






## Task 4: MULTIPLE CHOICE!

**Complete the sentences. Choose a, b, c or d.**

1. In addition the answer is called the ..... .

**a)** difference **b)** quotient **c)** product **d)** sum

2. In subtraction the answer is called the ..... .

**a)** difference **b)** quotient **c)** product **d)** sum

3. In multiplication the answer is called the ..... .

**a)** difference **b)** quotient **c)** product **d)** sum

4. In division the answer is called the ..... .

**a)** difference **b)** quotient **c)** product **d)** sum

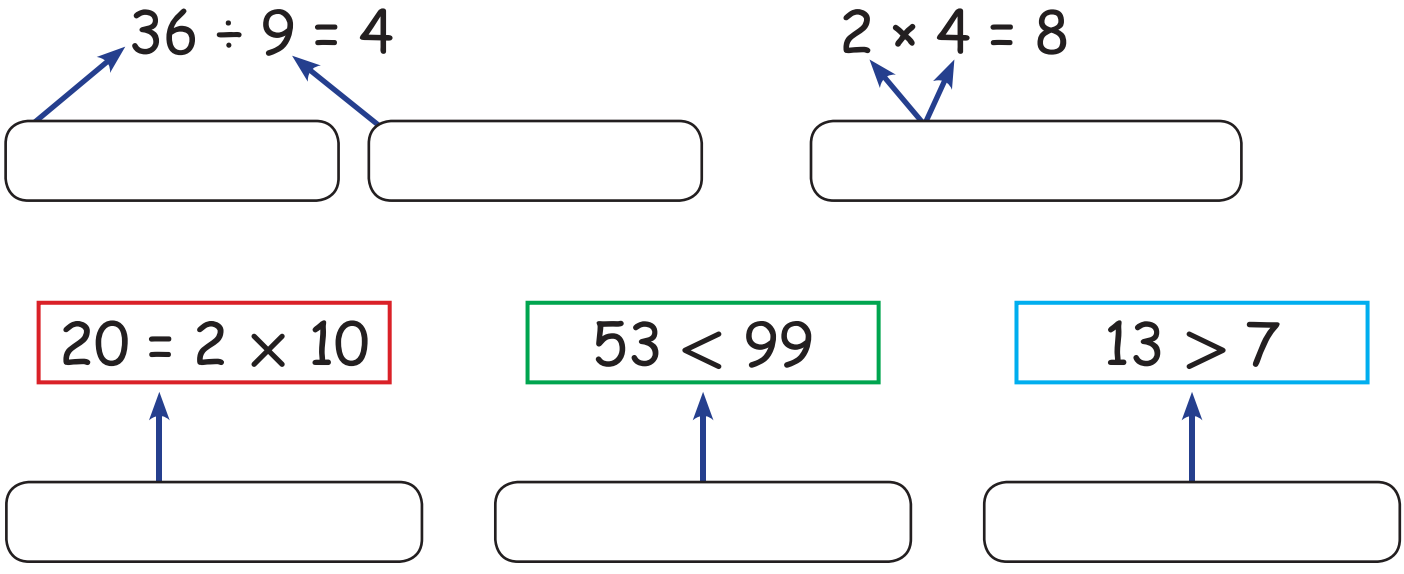
## Task 5: MATCHING.

Help us draw lines to match each word with the correct symbol.

| | | | |
|---|---|---|---|
| 1 | add | a) | − |
| 2 | subtract | b) | ÷ |
| 3 | multiply | c) | + |
| 4 | divide | d) | × |

## Task 6: LABEL.

greater than  equal to  less than
dividend  divisor  factor



# GAME TIME!

Look at the **keywords** on the bottom of the page. Write one word in each box. Listen as your teacher reads out a definition. Put an X on the box if you have the matching word. Three in a row is BINGO!

| | | |
|---|---|---|
| | | |
| | BINGO | |
| | | |

| | | |
|---|---|---|
| partial product | understand | solve |
| digit | ones | check |
| place value | tens | plan |
| hundreds | thousands | less than |
| period | equal to | greater than |
| solve | count on | missing number |
| division fact | multiplication fact | dividend |

# GLOSSARY

**sum**

32 + 7 = 39

The answer to an addition problem.

**multiply**

**hundreds**

**divisor**

$$4\overline{)24}\quad 6$$

divisor

The number of groups you want to divide a number into.

**product**

5 × 4 = 20

The answer to a multiplication problem.

**missing number**

**regrouping**

**array**

An arrangement of items in rows and columns.

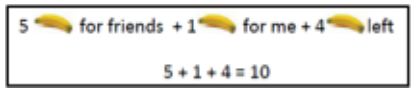

## A

**adding** 32 + 7 = 39
*(pg. 41)*
To put two or more numbers together to make a new number.

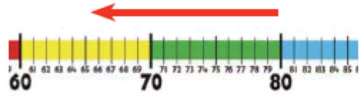
**array**
*(pg. 58)*

An arrangement of items in rows and columns.

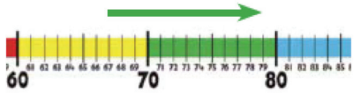
## C

**check**
*(pg. 86)*


To look back and make sure your answer is correct.

**count back**
*(pg. 23)*


To count backwards from a given number, so that the numbers are getting smaller.

**count on**
*(pg. 23, 49)*


To count forwards from a given number, so that the numbers are getting bigger.

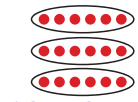
## D

**digits** 0 1 2 3 4 5 6 7 8 9
*(pg. 11, 41)*
The symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 that are used to write a whole number.

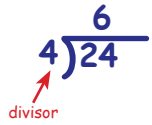
**difference** 39 - 17 = 22
*(pg. 49)*
The answer in a subtraction problem.

**dividend**
*(pg. 73)*


The number we want to divide.

**division**
*(pg. 73)*

18 ÷ 3 = 6
An operation on two numbers in which the first number is split into the same number of equal groups as the second number.

**division fact**
*(pg. 73)*
3 x 2 = 6
6 ÷ 2 = 3
The opposite of a multiplication fact.

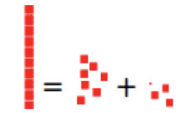
**divisor**
*(pg. 73)*


The number of groups you want to divide a number into.

# GLOSSARY

## E

### equal to (=)
*(pg. 23)*



10 = 7 + 3

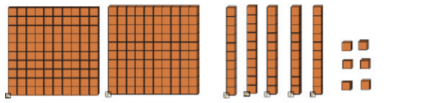
When two numbers or quantities are the same value.

### even number
*(pg. 31)*

6

Numbers that can be divided equally by 2.

### expanded form
*(pg. 17,41)*



200 + 50 + 6 = 256

A way to write numbers that shows us how the different place values add up to make the total number.

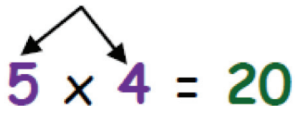
## F

### fact family
*(pg. 73)*

A group of related facts using the same numbers.

| 2, 3, 6 |
|---|
| 2 x 3 = 6 |
| 3 x 2 = 6 |
| 6 ÷ 2 = 3 |
| 6 ÷ 3 = 2 |

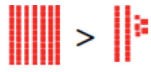
### factor
*(pg. 58)*




A number that is multiplied by another number.

## G

### greater than (>)
*(pg. 23)*

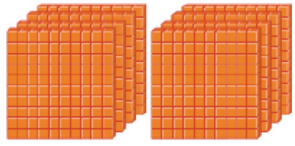


70 > 25

When one number or quantity is larger than another.

## H

### hundreds
*(pg. 11)*

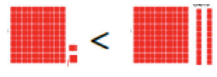


800 = 8 hundreds

The number of groups of one hundred in a number.

## L

### less than (<)
*(pg. 23)*



102 < 120

When one number or quantity is smaller than another.

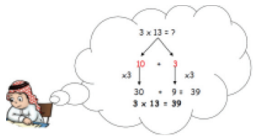
# GLOSSARY

## M

### mental division
*(pg. 73)*

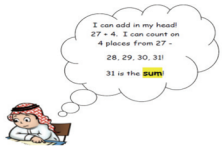

To use strategies to solve division problems in your head. For example, splitting the number you're dividing into to make it simpler.

### mental multiplication
*(pg. 65)*




To use strategies to solve multiplication problems in your head. For example, using partial products.

### mentally
*(pg. 41,49)*




In your head.

### missing number
*(pg. 58)*

5 X ☐ = 20

### multiplication
*(pg. 58, 65)*

Repeated addition.
3 x 6 = 18; 6 + 6 + 6 = 18

### multiplication facts
*(pg. 58)*

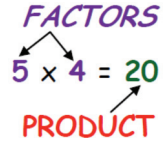
The times tables from 0 x 0 = 0 to 10 x 10 = 100.

### multiplication table
*(pg. 65)*

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

A table that shows you the results of multiplying two numbers.

### multiply
*(pg. 65)*




To find the product of two or more numbers.

## O

### odd number
*(pg. 31)*

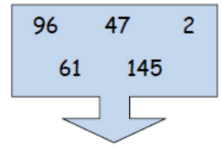

A number that cannot be divided equally by 2.

### ones
*(pg. 11)*

The number of ones in a number.

6 = 6 ones

### order
*(pg. 23)*



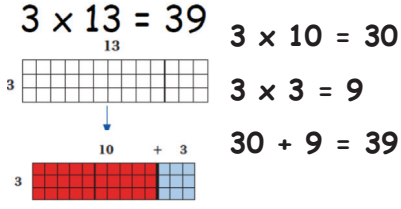

To put numbers in place according to a rule.

2 47 61 96 145

# GLOSSARY

## P

### partial products
*(pg. 65)*




Finding the products of each place value separately, and then adding the products together.

### pattern
*(pg. 31)*

40, 60, 80, 100

A sequence of numbers that follows a rule.

### period
*(pg. 11)*

| THOUSANDS Period | | | | ONES Period | | |
|---|---|---|---|---|---|---|
| hundred thousands | ten thousands | thousands | , | hundreds | tens | ones |
| | | 1 | , | 8 | 1 | 3 |

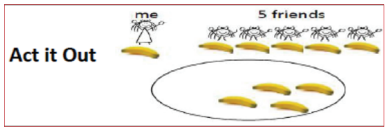
The name given to each group of three digits on a place value chart.

### place value
*(pg. 11)*

| Thousands | Hundreds | Tens | Ones |
|---|---|---|---|
| 5 | 8 | 9 | 5 |

The place of each digit in a number witch tells you how much that digit is worth.
Ex. In the number 5895 the 8 = 800. It is in the hundreds place.

### plan
*(pg. 86)*




To decide what strategy you should use to solve a problem.

### product
*(pg. 58)*

$5 \times 4 = 20$

The answer to a multiplication problem.

## Q

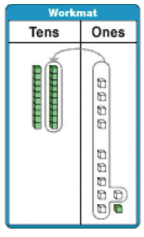
### quotient
*(pg. 73)*

$$4\overline{)24} \quad 6 \leftarrow \text{quotient}$$

The answer to a division problem.

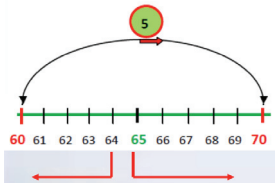
## R

### regrouping
*(pg. 41, 65)*




To use place value to exchange equal amounts to rename a number.

### rounding
*(pg. 31)*




To change a number to another number that is easier to work with.

# GLOSSARY

## S

**solve** *(pg. 86)*
To find the answer.

10 - 6 = 4 bananas

**standard form** *(pg. 17)*
The way we usually write numbers, using digits.

256

**subtraction** *(pg. 49)*
To take one number away from another.

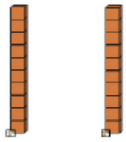
39 - 17 = 22

**sum** *(pg. 41)*
The answer to an addition problem.

32 + 7 = 39

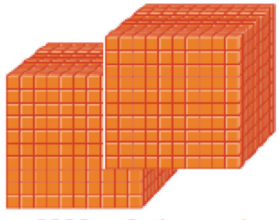
## T

**tens** *(pg. 11)*
The number of groups of ten in a number.



20 = 2 tens

**thousands** *(pg. 11)*
The number of groups of one thousand in a number.



2000 = 2 thousands

## U

**understand** *(pg. 86)*

5 friends came to my house. My mom gave us 10 bananas for a snack. We each ate 1 banana. How many bananas are left?

Making sure you know all the information that the problem is giving you, and what the question is asking you to find.

## W

**word form** *(pg. 17)*
The way we say or write numbers in words.

*two hundred fifty-six*

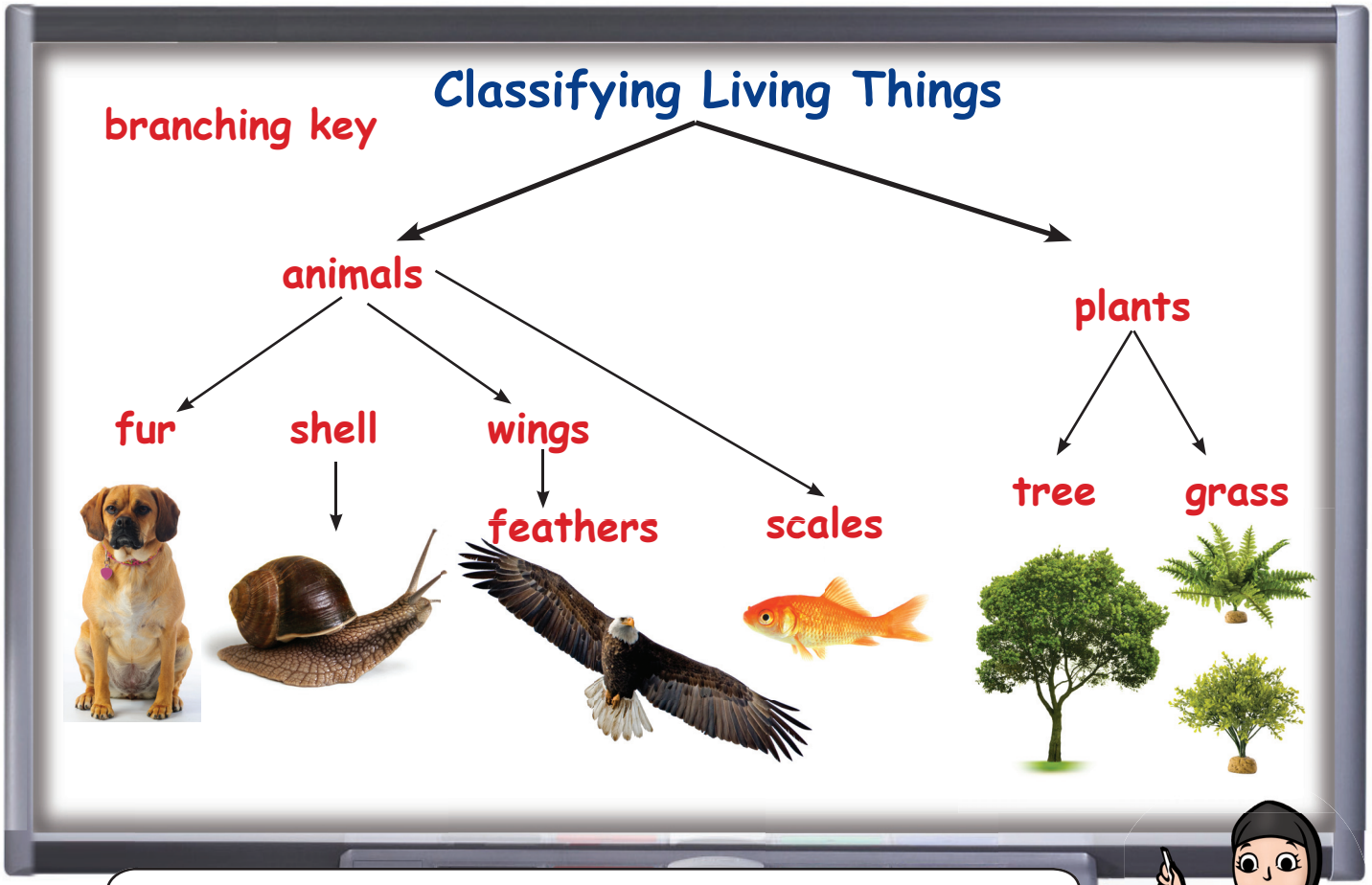
SCIENTIFIC ENGLISH

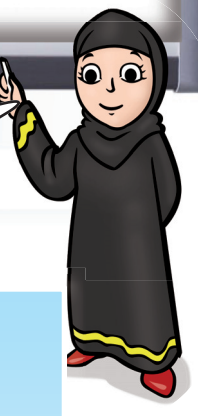
# SCIENCE

GRADE 3

# CLASSIFICATION

KEYWORDS: fur wings scales feathers group branching key classifying



Hello! Today, we are classifying things!

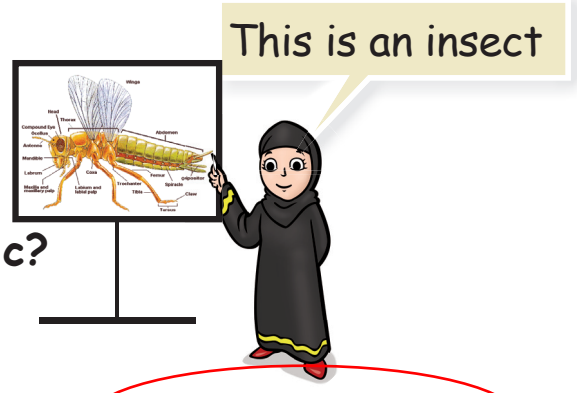
What does that mean, Faisal? How can we **classify** animals and plants?

If we **classify** something, we put it in a class or group. We can classify living things as **plants** or **animals**. If it is a plant, we classify it as having a **stem**. If it is an animal, we may see if it has **fur**, **scales**, **feathers** or **wings**. We can use a **branching key** to **classify** these in a diagram like on the board.

## Task 1: NOW IT'S YOUR TURN!

**Match the sentences.**

| | | | |
|---|---|---|---|
| 1 | We can classify living things as | a) | having fur, scales or feathers. |
| 2 | We can classify animals as | b) | cat , dog or camel. |
| 3 | We can classify plants as | c) | butterfly or a sparrow. |
| 4 | An animal with fur could be a | d) | animals or plants. |
| 5 | An animal with wings could be a | e) | trees or grass. |




## Task 2: MULTIPLE CHOICE!

**Choose the correct answer. Is it a, b or c?**

1. Living things are ..... .
   a) scales  b) feathers  c) plants or animals
2. A bird has ..... .
   a) wings  b) fur  c) scales
3. Cats are covered in ..... .
   a) fur  b) scales  c) feathers
4. A fish has ..... .
   a) fur  b) wings  c) scales

## Task 3: LET'S TALK!

**Ask and answer the questions.**

How can we classify living things?

Into....

What do plants have?

They have...

What animals have scales?

...and... have scales.

What animals have wings?

Lots of animals have wings, like... .....or....

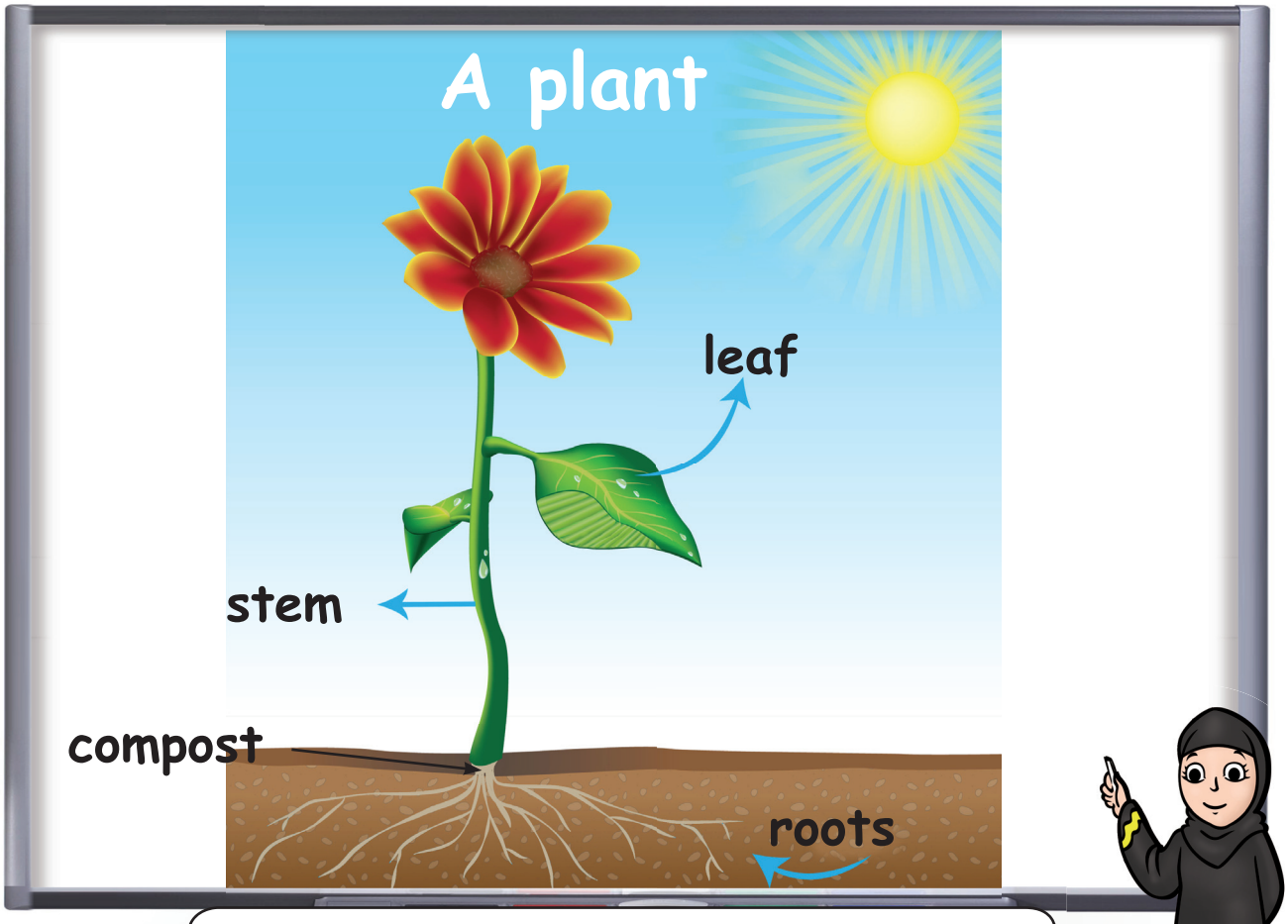
## Task 4: Listen and draw! Draw a plant or an animal.

**Describe it to your partner, so they can draw it. Compare your pictures.**

| Your animal or plant. | Your partner's animal or plant. |
| --- | --- |
| | |

# PLANTS AND THEIR PARTS

KEYWORDS: plant leaves roots water food compost stem



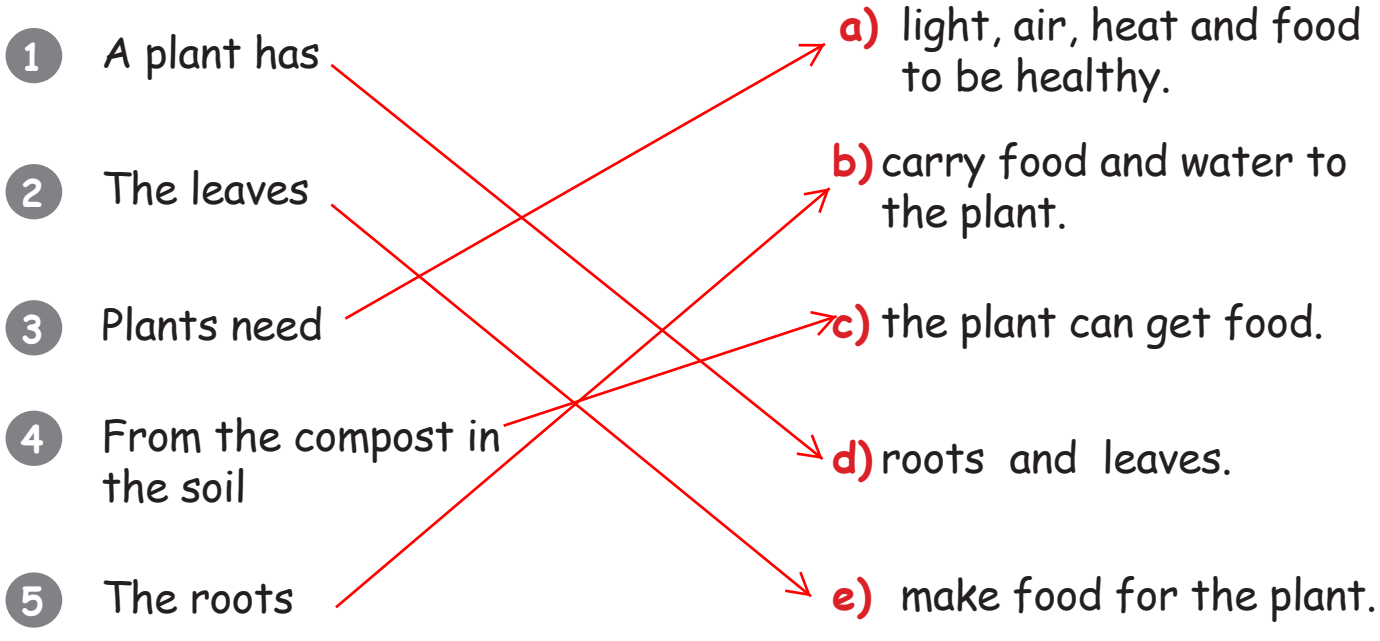

Hello! Today, we are studying plants. Tell me about the **roots**, and **leaves** please, Faisal.

The **roots** of a plant take up **water** and food from compost in the soil. The roots hold the plant upright in the soil.

The **leaves** use light from the sun, along with carbon dioxide from the air and water to make food for the plant.

## Task 1: NOW IT'S YOUR TURN!

**Match the sentences.**




## Task 2: MULTIPLE CHOICE!

**Choose the correct answer. Is it a, b or c?**

1 A/An ..... has roots and leaves

a) animal b) plant c) ant

2 The ..... take up food and water and keep the plant upright in the ground.

a) roots b) leaves c) plant

3 The ..... is got from the soil.

a) roots b) leaves c) water

4 The ..... make food for the plant.

a) roots b) leaves c) soil

## Task 3: LET'S TALK!

**Ask and answer the questions.**

What are the different parts of a plant?

Plants have...

What do the roots do?

They...

How about the soil?

It...

How does the plant make food?

The...

## Task 4: LET'S DRAW AND TALK!

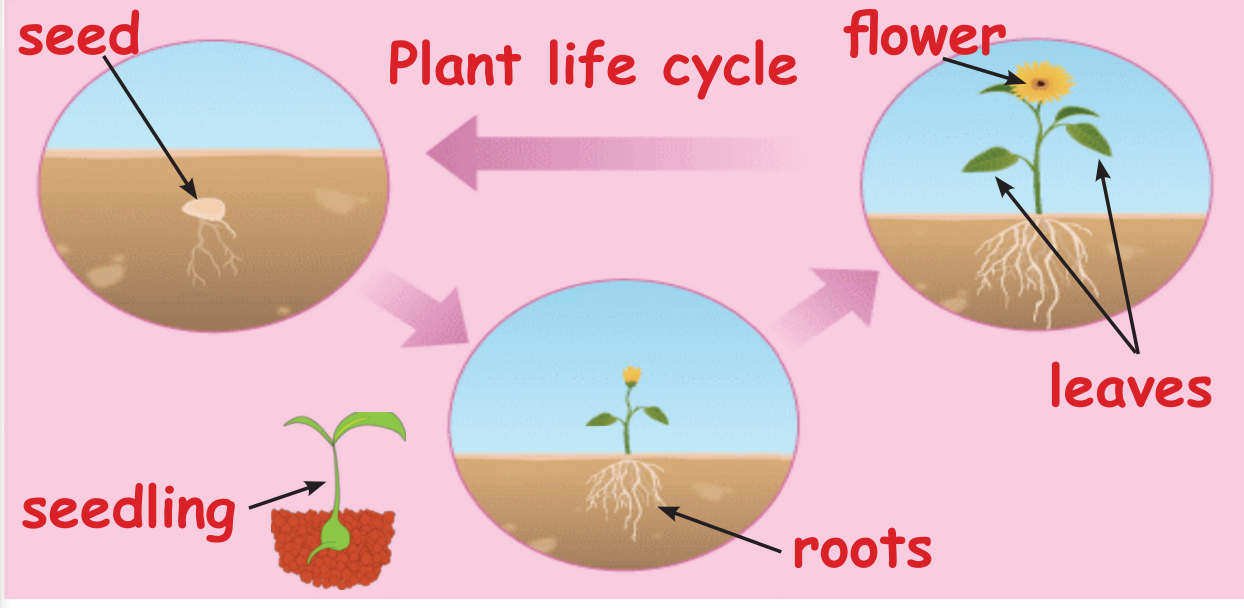
**Draw a plant, label it and describe it to your partner so they can draw it. Use sentences like 'It has a long green stem'. 'The roots are brown and very long. Compare pictures. Are they the same?**

Your plant.

Your partner's plant.

# GROWING LIVING THINGS

KEYWORDS: light heat temperature growth flower seedling air embryo leaves seed soil




A life cycle shows us how animals or plants grow. A **plant life cycle** shows us how plants grow from seeds and then make seeds themselves.

The seed in the soil will develop into an **embryo**, then grow into a **seedling** with roots and **leaves**. It must have warm **temperature**, air and **light** for its own **growth**. Then it grows into a young plant. It then grows a **flower** and makes **seeds**. This is now an adult plant. Some plants grow fruit, like apple trees. Look for the **seeds** in an apple!

## Task 1: NOW IT'S YOUR TURN!

**Match the boxes to make correct sentences.**

| | | | |
|---|---|---|---|
| 1 | A life cycle | a) | warm temperature to grow. |
| 2 | A seed needs | b) | grow fruit or vegetables. |
| 3 | A seedling grows | c) | grows a flower and makes seeds. |
| 4 | An adult plant | d) | shows us how plants or animals live. |
| 5 | Some plants | e) | into a young plant. |

I am growing a sunflower at home. It's getting bigger!

## Task 2: MULTIPLE CHOICE!

**Choose the correct answer. Is it a, b or c?**

1. A life cycle shows us how ..... grow.

   a) plants  b) animals  c) both a and b

2. All plants grow from ..... .

   a) apples  b) an embryo  c) bananas

3. Seedlings grow into young ..... .

   a) apples  b) seeds  c) plants

## Task 3: LET'S TALK!

**Ask and answer the questions.**

What is a life cycle?

Can you tell me about a plant life cycle?

A life cycle shows us..

They have.

## Task 4: LET'S DRAW!

**Fill in the gaps and draw the Plant Life Cycle. Compare with your partner.**

S.....

S.....

Y.....

A.....

# MICROORGANISMS

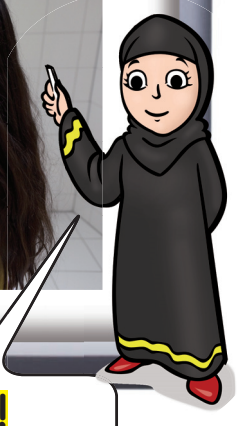
KEYWORDS: virus microorganisms Microscope bacteria fungi viruses

## Microorganisms

Bacteria and viruses can make us sick.

How do you stop harmful microorganisms from spreading?

Wash your hands before eating, before cooking and after blowing your nose.



Hello, Nasser and Faisal! Let's look at **hygiene!** Why is it important? Tell me about it, Nasser!

There are some **microorganisms** (very small living things) that we can see using a **microscope**. The three types are **bacteria**, **viruses** and **fungi**. Harmful **microorganisms** can make us ill. Look at the smart board!

To stop **microorganisms** from spreading and making you ill, we must wash our hands regularly with soap'.

## Task 1: NOW IT'S YOUR TURN!

**Fill in the gaps.**

1. We can use a ..... in order to see microorganisms.

2. Washing your hands can stop the ..... from spreading.

3. V..... and ..... can make us ill.

I'm going to wash my hands. I don't like germs!

## Task 2: MULTIPLE CHOICE!

**Choose the correct answer! Is it a, b or c?**

1. Bacteria, viruses and fungi are .....

   a) organs  b) organisms  c) microorganisms

2. Harmful microorganisms can make us .....

   a) sweets  b) ill  c) soap

3. We can stop microorganisms from spreading by washing our hands with ..... and ..... .

   a) water  b) soap and hot water  c) cold water

## Task 3: LET'S READ AND DRAW!

**Work in pairs. When do you wash your hands?**

**Fatima is drawing a poster to help her friends learn about keeping clean. Can you help?**

**Complete the gaps and draw the pictures.**

**We wash our hands …….**

after blowing your .....

after going to the .....

before .....

after .....

## Task 4: ASK YOUR PARTNER!

**Complete the answers and ask your partner.**

1. How often do you wash your hands?

   I wash my hands ..... times a day.

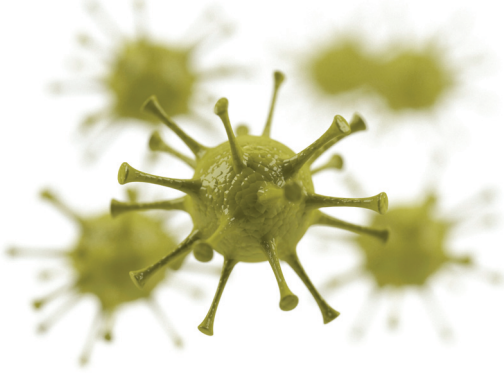
2. Do you wash your hands before eating or before cooking?

   ○ Yes, I do.

   ○ No, I don't.

3. Do you wash your hands after going to the bathroom or visiting a sick person?

   .....



# MATERIALS!

**KEYWORDS:** wood metal plastic glass rubber


Hello, Faisal! How are you? Today, we are talking about **materials**. Faisal, what materials do you know?

Hello, teacher. I'm fine, thank you. I know wood, metal, plastic, glass and rubber. I will draw them on the board. A car tyre is **made of rubber**, a frying pan is **made of metal** and many toys are **made of plastic**.

## Task 1: NOW IT'S YOUR TURN! WORK IN PAIRS.

**Complete the gaps and match the words to the material!**

1 .....

2 .....

4 .....


3 .....

5 .....

## Task 2: Multiple Choice!

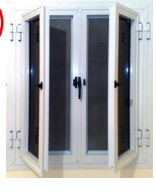
**Choose the correct answer. Is it a, b or c?**

1 A can of cola is made of ..... .

a) wood b) metal c) plastic

2 A window is made of ..... .

a) glass b) wood c) metal



3 A pencil is made of ..... .

a) metal b) glass c) wood

4 A computer is made of ..... .

a) wood and glass b) A rubber and glass c) metal and plastic

5 Sports shoes are made of ..... .

a) rubber and plastic b) wood and metal c) glass and metal

## Task 3: LET'S DRAW!

**Read the sentences and draw the pictures.**

A house made of wood.

A car made of metal.

A toy made of plastic.

A shoe made of rubber.

A bottle made of glass.

Hello. Don't forget. We can recycle these things.

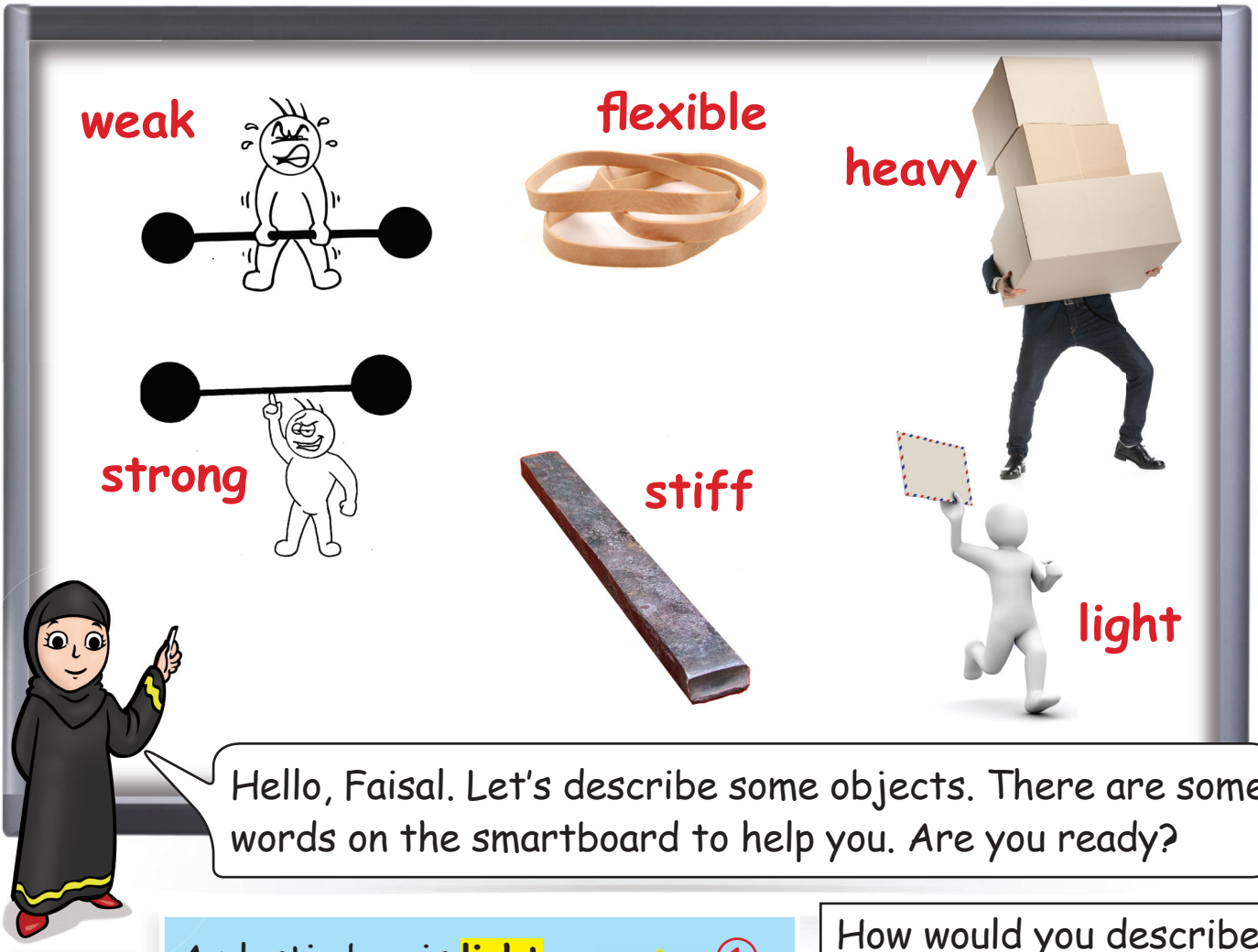
## Task 4: ASK YOUR PARTNER.

**Complete the answers and ask your partner.**

1. What is your bedroom door made of? My bedroom door is made of ..... .
2. What is your school bag made of? My ..... .
3. What is your desk made of? My ..... .

# CLASSIFYING MATERIALS

**KEYWORDS:** strong weak heavy light flexible stiff breakable




Hello, Faisal. Let's describe some objects. There are some words on the smartboard to help you. Are you ready?

A plastic bag is **light** and **flexible**.

A metal knife is **stiff** and **strong**.

A pencil is stiff and **light**. It is **weak** and **breakable**.


How would you describe these pasta sticks?

## Task 1: NOW IT'S YOUR TURN!

**Match the two parts to describe the pictures.**

1 A wooden door is

2 A balloon is

3 A plastic suitcase is

4 A metal bike is

a) stiff, strong and light.

b) flexible and light.

c) strong and heavy.

d) strong and light.

## Task 2: MULTIPLE CHOICE!

**Choose the correct answer. Is it a, b or c?**

1 A plastic football is ..... .

a) light and strong b) heavy and strong c) weak and light

2 A car is ..... .

a) light and weak b) heavy and strong c) light and flexible

3 A paper clip is ..... .

a) light and flexible b) heavy and stiff c) weak and stiff

## Task 3: LET'S DRAW!

**Read the sentences and draw the pictures.**

A light, plastic toy.

A heavy, metal knife.

A flexible, plastic toy.

A strong, rubber tyre.

A light, paper box.

## Task 4: ASK YOUR PARTNER!

**Ask your partner the following questions and write down the answers.**

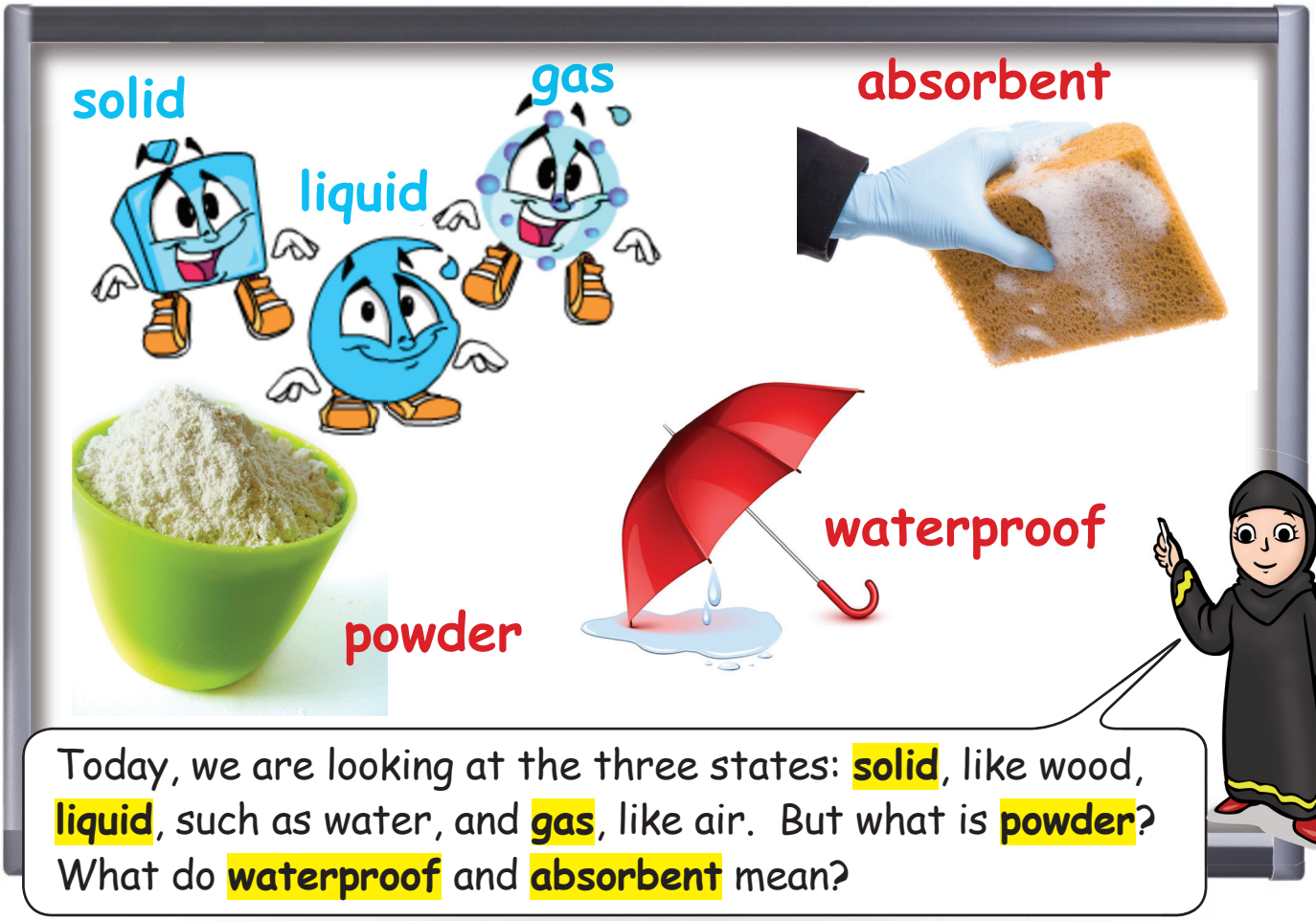
1. Is your pen flexible or stiff? It's ..... .
2. Is your desk heavy or light? It's ..... .
3. Is your notebook weak or strong? It's ..... .






# MATERIALS IN DAILY LIFE!

KEYWORDS: waterproof absorbent liquid solid gas powder




Today, we are looking at the three states: **solid**, like wood, **liquid**, such as water, and **gas**, like air. But what is **powder**? What do **waterproof** and **absorbent** mean?

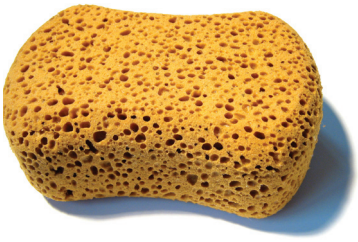
Hello! A **powder** is a solid in very small pieces.
For example, coffee or flour.

If something takes up **liquid**, it is **absorbent**. For example, a sponge. If something stops a **liquid**, it is **waterproof**. For example, plastic.

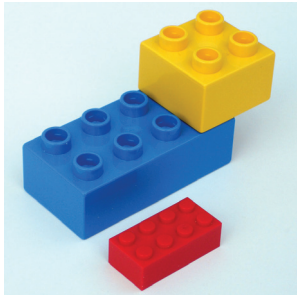
Look at the smartboard!

## Task 1: NOW IT'S YOUR TURN!

**Fill in the gaps.**



1 It is a ..... .



2 It is a s ..... .

3 It is a l ..... .

4 It is a p ..... .

5 It is a g ..... .

6 It is w ..... .

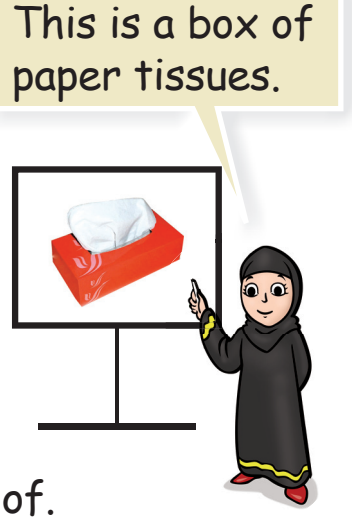
## Task 2: MULTIPLE CHOICE!

**Choose the correct answer. Is it a, b or c?**

1. Wood, plastic and metal are ..... .
   a) liquids  b) solids  c) gases
2. Water, milk and orange juice are ..... .
   a) liquids  b) solids  c) gases
3. Oxygen, air and carbon dioxide are ..... .
   a) liquids  b) solids  c) gases
4. A ..... is a solid in very small pieces.
   a) powder  b) gas  c) liquid
5. Paper tissue is ..... .
   a) a solid  b) absorbent  c) both a and b

## Task 3: LET'S TALK!

**Answer the questions. Ask your partner.**




1. How many solids, liquids, gases or powders can you see in your classroom?
   I can see ..... and ..... .
2. What is absorbent or waterproof?
   ..... is absorbent. ..... is waterproof.

## Task 4: LET'S READ AND DRAW!

**Work with your partner. Read the sentences and draw the picture.**

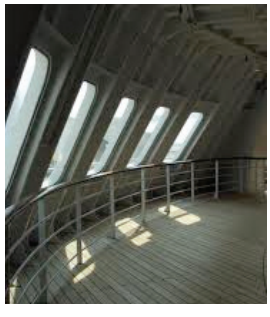
It is raining today. Wafa is wearing a waterproof coat. Her brother, Salman, is holding an umbrella and drinking juice.
The car is very dirty. There is mud on it.
The man is not happy.

# MATERIALS 2

**KEYWORDS:** float sink transparent shiny dull

The ship floats on the sea.

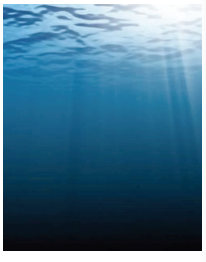
The surface of the sea is shiny .



The anchor will sink. It is heavy.

The windows on the ship are transparent. You can see through them.

The deeper you go, it becomes more dull, as the sunlight is blocked more.



Hello, Sara and Fatima. Last week, we talked about different objects and today, we will compare them.

Can you read out a sentence from the words on the board?

A ship will ..... on the sea.

An anchor is heavy and so it will .....!

The deeper down you go into the sea, it becomes more ..... since more light is blocked.

Now it's your turn!

Work with your partner. How many correct sentences can you make?

Use the words above and describe the items below.

For example, the plastic bag will float.



## Task 1: MULTIPLE CHOICE!

Choose the correct answer! Is it a, b or c?

1 A ball will ..... in the swimming pool.

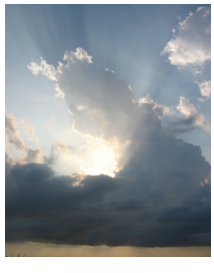
a) sink b) transparent c) float

2 A desk will ..... if it falls into the sea.

a) sink b) float c) dull

3 A glass is ..... , we can see through it.

a) shiny b) transparent c) sink



4 It looks ..... . The sun is blocked by the clouds.

a) transparent b) float c) dull

## Task 2: LET'S WRITE!

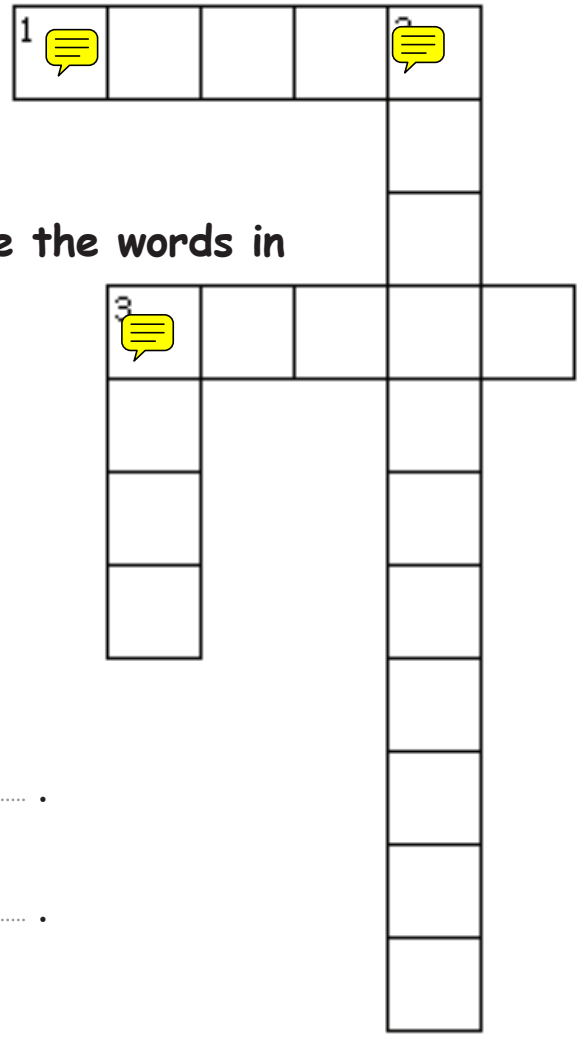
**Copy the keywords in the table below.**

shiny float transparent sink dull

| | |
|---|---|
| float | |
| sink | |
| transparent | |
| dull | |
| shiny | |

## Task 3: PUZZLE TIME!

**Can you read the sentences and write the words in the boxes?**



**Across**

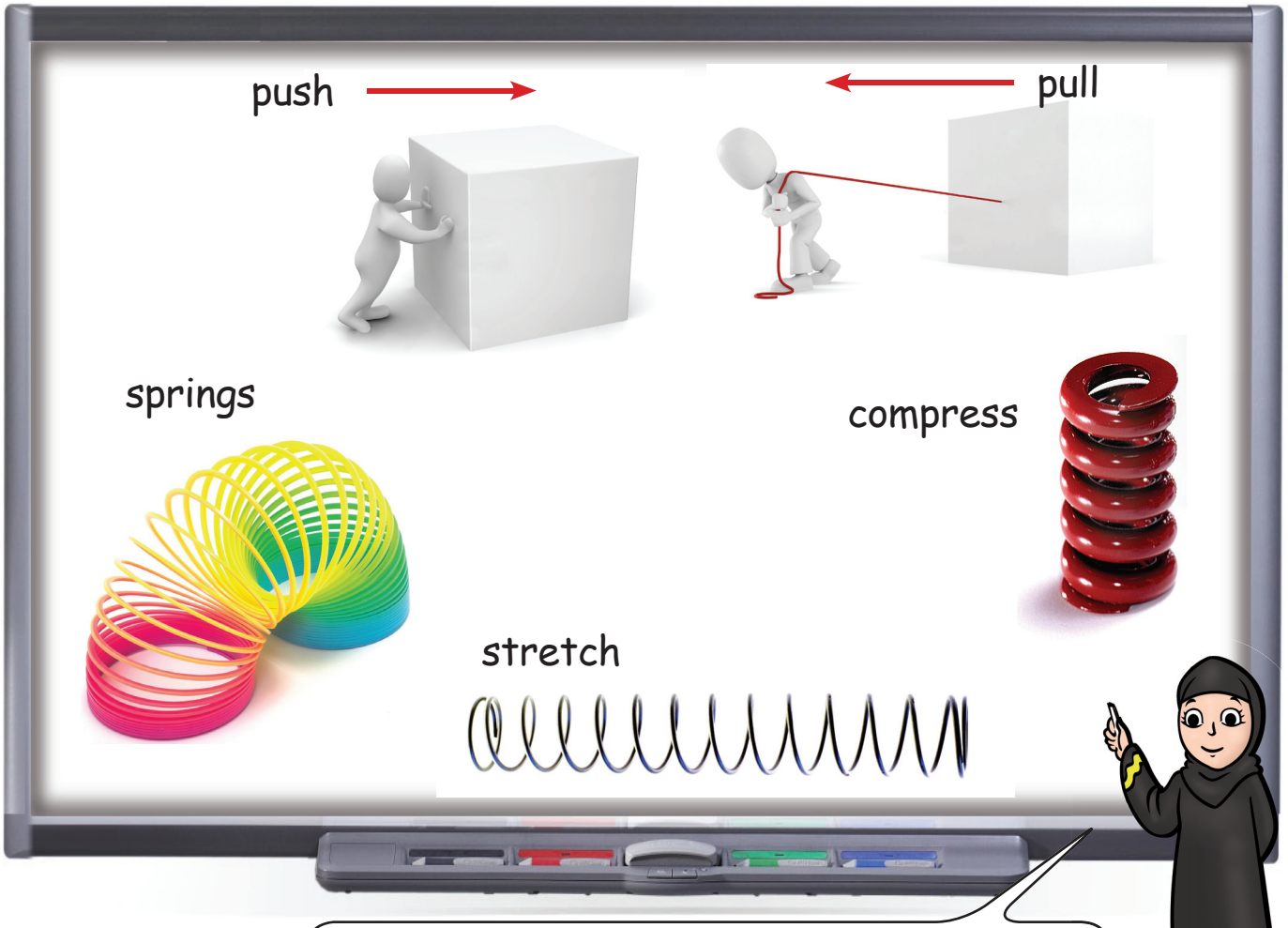
1) The ship will ..... .
3) The surface of the sea is ..... .

**Down**

2) The glass is ..... .
3) The ancher will ..... .

# FORCES!

**KEYWORDS:** force spring push pull compress stretch



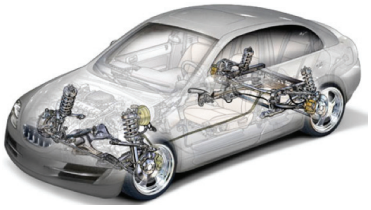

Today we are studying words related to the topic of forces.

Can you tell me more, Fatima?

A **force** is a push or a pull. **Springs** can **push** or **pull** objects. If a spring is **stretched**, it pulls inwards. If a spring is **compressed**, it pushes outwards.

## Task 1: NOW IT'S YOUR TURN!

**Complete the sentences.**



1. A force
2. If a spring compresses,
3. If a spring stretches,
4. Trampoline springs
5. Car springs

a) stretch.
b) it pulls on an object.
c) is a push or a pull.
d) it pushes out on an object.
e) compress.

I like jumping on my trampoline. It's good exercise!

## Task 2: MULTIPLE CHOICE!

**Choose the correct answer! Is it a, b or c?**

1. A ..... is a push or a pull.

   a) farm  b) forest  c) force

2. If a spring ....., it pulls on an object.

   a) stretches  b) pushes  c) compresses

3. If a spring ....., it pushes out on an object.

   a) stretches  b) pulls  c) compresses

## Task 3: LET'S TALK!

**Ask and answer the questions! Make new questions for your partner.**

What is a force?

A force is...

What does a spring do?

If a spring is...

What objects and things use springs?

Lots of things use springs, like...

## Task 4: LET'S READ AND DRAW!

**Read the sentences and draw the pictures.**
**Tell your partner about your picture.**

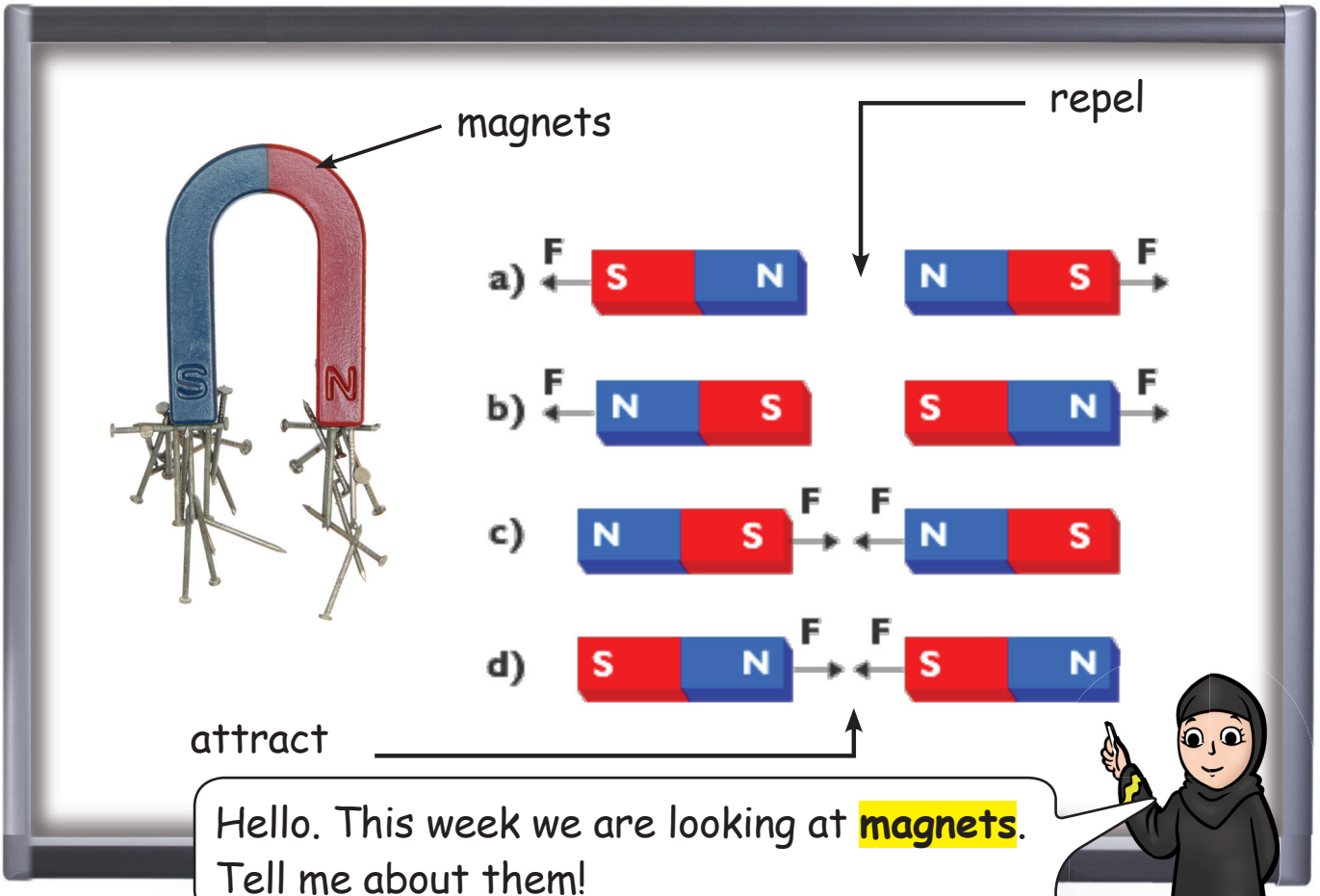
There is a bed. Draw the springs.

Do they stretch or compress?

Draw an object with a spring. Does it stretch or compress?

# MAGNETS!

KEYWORDS: magnet magnetic attract repel pole north south




Hello. This week we are looking at **magnets**. Tell me about them!

**Magnets** have **north poles** (N) and south **poles** (S). These poles attract or pull towards each other. But two north poles or two south poles **repel** or push away.

Iron is **magnetic**, so a magnet attracts any metal with iron in it. Most other metals, like aluminium or gold, are not magnetic.
A magnet does not attract wood, plastic or glass.

**Task 1:** **NOW IT'S YOUR TURN!** **Match the magnetic objects to the magnet (nails have been matched for you) and draw an example of the object below the word.**

1 knife

2 plastic bottle

3 paper

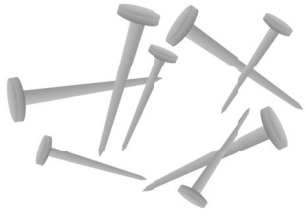
8 metal fork

4 apple

7 paper clips

6 glass

5 nails



Does a magnet attract wood? Hmmm...let me think!

## Task 2: MULTIPLE CHOICE!

**Choose the correct answer. Is it a, b or c?**

1. A magnet has two poles, north and ..... .
   a) east  b) west  c) south
2. Two poles the same will ..... each other.
   a) attract  b) eat  c) repel
3. Two different poles will ..... each other.
   a) talk to  b) attract  c) repel
4. A magnet doesn't attract ..... .
   a) wood  b) nails  c) paper clip
5. A magnet attracts ..... .
   a) iron  b) plastic  c) wood

## Task 3: LET'S READ AND DRAW!

**Work with your partner. Read the sentences and draw the pictures.**

How many poles does a magnet have?

A magnet has

Do the same poles attract?

No, they don't!

Do different poles attract?

Yes, they do!

What do magnets attract?

They attract...

## Task 4: LET'S READ AND DRAW!

**Work with your partner. Read the sentences and draw the pictures**

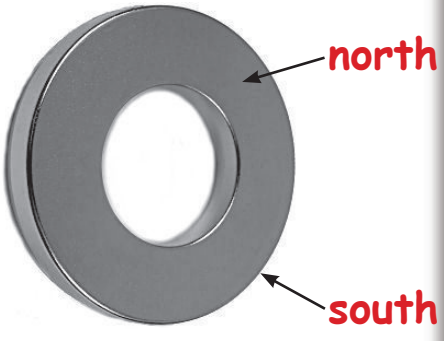
| Different poles attract. | The same poles repel. |
| --- | --- |
| | |

# DIFFERENT SHAPED MAGNETS

KEYWORDS: metal paper horse shoe magnet bar magnet ring magnet


A horse shoe magnet – Why do you think it has this name?


This is a bar magnet. One side is usually **red**, the other side is **black** or **blue**.




A ring magnet. One side is the south and the other the north.

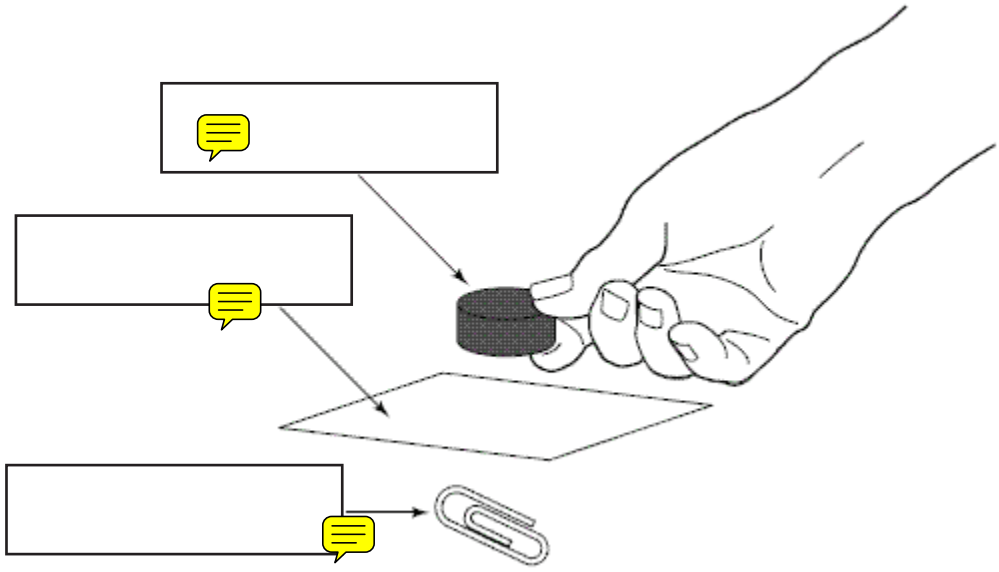
This week we are learning more about metals and magnets. Which metals are magnetic?

We can see the effect of a magnet when we put it under paper. The magnet can attract and repel through the paper.

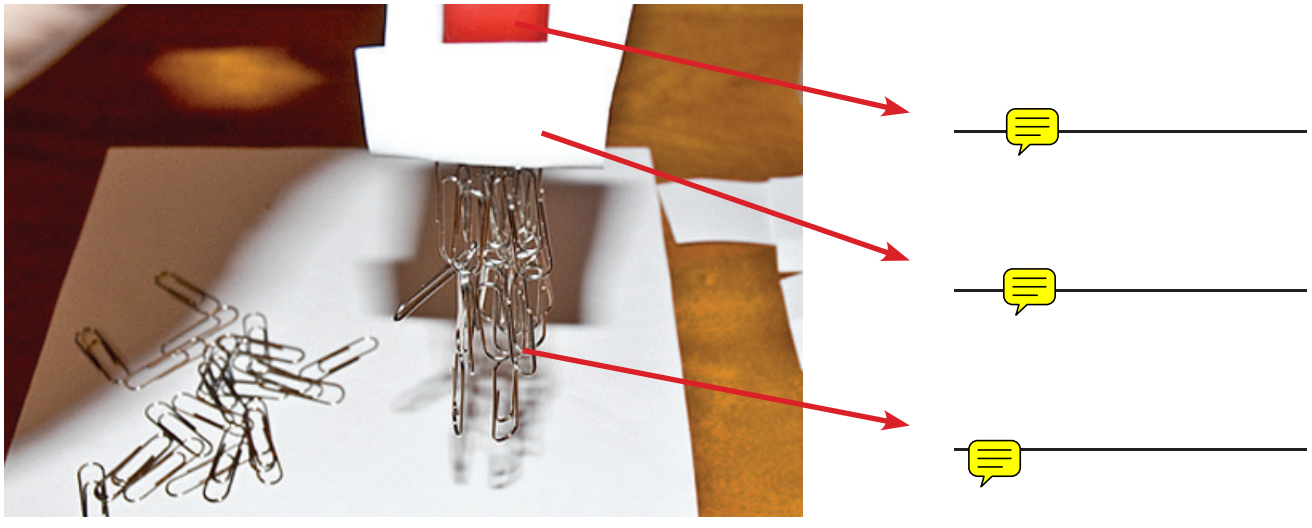
Magnets can be different shapes. Look at the board and read the names loudly.

## Task 1: NOW IT'S YOUR TURN!

Work in pairs. Can you lable the picture below using the words. Paper clip, magnet, paper.



## Task 2:



Can you describe what happens using the words above?

## Task 3: MULTIPLE CHOICE!

**Choose the correct answer. Is it a, b or c?**

1. There are 2 poles of the magnet. North and .....

   a) east  b) south  c) west

2. Magnets attract .....

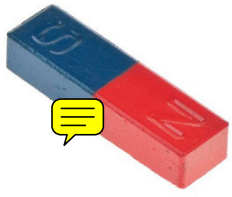
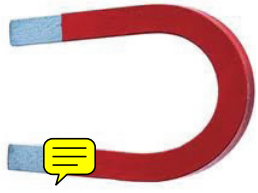
   a) plastic and iron  b) aluminium and steel  c) iron and steel

3. Magnets do not attract .....

   a) iron  b) steel  c) plastic and aluminium

## Task 4:

**Write what type of magnet it is below.**

| | | |
|---|---|---|
|  |  |  |

# *Corrections*

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