Grade 1 Mathematics

رياضيات الصف الأول

A Bilingual Learning Guide for Absolute Beginners

دليل تعلّم ثنائي اللغة للمبتدئين تمامًا

From Zero to Ready-to-Teach

من الصفر إلى الاستعداد للتدريس

Covers All 6 Units and 18 Modules

يغطي جميع الوحدات الست والموديولات الثمانية عشرة

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Introduction / مقدمة

Welcome to your Grade 1 Mathematics Bilingual Learning Guide! This guide is specially designed for people who have never studied math before, or who haven't studied it in a very long time. We start from the absolute beginning and build up step by step, so that by the end, you will fully understand each concept and be ready to teach it to others.

مرحباً بكم في دليل تعلّم رياضيات الصف الأول الثنائي اللغة! هذا الدليل مصمم خصيصًا للأشخاص الذين لم يدرسوا الرياضيات من قبل، أو الذين لم يدرسوها منذ فترة طويلة جدًا. نبدأ من الصفر تمامًا ونبني خطوة بخطوة، بحيث في النهاية ستفهم كل مفهوم بالكامل وستكون جاهزًا لتدريسه للآخرين.

How to Use This Guide / كيف تستخدم هذا الدليل

1. Read each section in order — each concept builds on the previous one.
2. Green boxes contain Arabic translations of key terms and concepts.
3. Purple boxes contain teaching tips and cross-curricular connections.
4. Blue boxes contain real-life examples from everyday Egyptian life.
5. Orange boxes contain important warnings and key points to remember.
6. Take your time with each module. There is no rush!

1. اقرأ كل قسم بالترتيب — كل مفهوم يبني على الذي قبله.
2. المربعات الخضراء تحتوي على الترجمات العربية للمصطلحات الرئيسية والمفاهيم.
3. المربعات البنفسجية تحتوي على نصائح التدريس والروابط بين المواد.
4. المربعات الزرقاء تحتوي على أمثلة من الحياة اليومية المصرية.
5. المربعات البرتقالية تحتوي على تحذيرات مهمة ونقاط رئيسية للتذكر.
6. خذ وقتك مع كل وحدة. لا داعي للاستعجال!

Unit 1: Ways to Add and Subtract

الوحدة الأولى: طرق الجمع والطرح

Module 1: Addition Strategies

الموديول الأول: استراتيجيات الجمع

What is Addition? / ما هو الجمع؟

Addition is the process of putting things together. When you have some items and you get more items, you use addition to find the total number. The symbol for addition is the plus sign (+). We read it as 'plus'. The result of addition is called the 'sum'. For example, if you have 3 apples and someone gives you 2 more apples, you add them: 3 + 2 = 5. You now have 5 apples in total.

Arabic Translation / الترجمة العربية

الجمع هو عملية جمع الأشياء معًا .عندما لديك بعض الأشياء وتحصل على المزيد، تستخدم الجمع للعثور على العدد الإجمالي .رمز الجمع هو علامة الجمع

(+)

.نتيجة الجمع تُسمى المجموع .

Key Vocabulary / المفردات الرئيسية

Add أضف — to put together

Plus (+) (+) زائد — the addition symbol

Sum المجموع — the result of addition

Addend العدد المضاف — each number being added

Equals (=) (=) يساوي — the result symbol

Equation معادلة — a math sentence with = sign

Everyday Example / مثال من الحياة اليومية

إذا كان عندك 5 جنيهات وأعطاك أبوك 3 جنيهات أخرى، كم عدد الجنيهات التي لديك؟ الجواب: 5 +3 =8 جنيهات .هذا هو الجمع!

Addition Strategies Step by Step

There are several strategies to help you add numbers. Each strategy gives you a different way to think about addition. Try all of them and find the one that works best for you.

Strategy 1: Counting On / العد من بعد

This is the simplest strategy. Start with the bigger number, then count forward. For example, to solve 5 + 3: Start at 5, then count 6, 7, 8. You counted 3 numbers forward, so the answer is 8. Always start with the larger number because it means less counting.

Step 1: Find the bigger number. In 5 + 3, the bigger number is 5.

Step 2: Say that number. Say '5'.

Step 3: Count forward the smaller number of times. Count 6, 7, 8.

Step 4: The last number you say is the answer: 8.

Strategy 2: Using Objects / استخدام الأشياء

Use real objects like coins, buttons, or stones. For 4 + 3: Put 4 coins in one group and 3 coins in another group. Push them together and count all of them. You get 7. This strategy is very helpful for beginners because you can see and touch the numbers.

Strategy 3: Making a Ten / صنع العشرة

This strategy helps when one number is close to 10. For example, 8 + 5: Think, '8 needs 2 more to make 10.' So take 2 from the 5, making 10. Then you have 3 left from the 5. So 10 + 3 = 13. This strategy works because 10 is an easy number to add to. You will use this strategy a lot as numbers get bigger.

Step 1: Find which number is closer to 10. In 8 + 5, that's 8.

Step 2: Ask: How many more to make 10? 8 + 2 = 10.

Step 3: Take that amount from the other number. From 5, take 2, leaving 3.

Step 4: Add: 10 + 3 = 13. So 8 + 5 = 13.

Strategy 4: Using Doubles / استخدام الأضعاف

Doubles are when you add a number to itself: 1+1=2, 2+2=4, 3+3=6, 4+4=8, 5+5=10, etc. Memorizing doubles helps you solve nearby problems. For 6+7, think: 6+6=12, so 6+7=13 (one more than the double). For 5+6, think: 5+5=10, so 5+6=11 (one more than the double).

Teaching Tip / نصيحة للتدريس

في الفلسفة، الجمع يشبه فكرة التكامل — أجزاء منفصلة تأتي معًا لتشكل كلًا أكبر. عندما تُعلّم الأطفال الجمع، أخبرهم أنه مثل فريق يعمل معًا: كل عدد هو لاعب، والمجموع هو الفريق بأكمله. فلاسفة الكل أكبر من مجموع أجزائه تطبق هنا بالضبط.

Module 2: Subtraction Strategies

الموديول الثاني: استراتيجيات الطرح

What is Subtraction? / ما هو الطرح؟

Subtraction is the opposite of addition. It means taking away. When you have some items and some are removed, you use subtraction to find how many are left. The symbol for subtraction is the minus sign (–). We read it as 'minus'. The result of subtraction is called the 'difference'. For example, if you have 7 candies and you eat 3, you subtract: 7 – 3 = 4. You have 4 candies left.

Arabic Translation / الترجمة العربية

الطرح هو عكس الجمع. يعني الأخذ بعيدًا. رمز الطرح هو علامة الطرح
(–)
نتيجة الطرح تُسمى الفرق .

Key Vocabulary

Subtract اطرح — to take away

Minus (–) ناقص (–) — the subtraction symbol

Difference الفرق — the result of subtraction

Subtraction Strategies

Just like addition, there are several strategies for subtraction. Each gives you a different way to think about taking away.

Strategy 1: Counting Back / العد للخلف

Start with the bigger number and count backward. For 9 – 3: Start at 9, then count 8, 7, 6. You counted back 3 numbers, so the answer is 6. This works well when the number you subtract is small (1, 2, or 3).

Strategy 2: Counting On to Subtract / العد للأمام للطرح

Think of subtraction as a missing addition problem. For 12 – 9, ask yourself: '9 plus what equals 12?' Start at 9 and count on: 10, 11, 12. You counted 3 numbers, so 12 – 9 = 3. This strategy is very powerful because it connects subtraction back to addition.

Strategy 3: Add to Subtract / الجمع للطرح

This is the most important subtraction strategy! It uses the fact that addition and subtraction are opposites (inverse operations). For 15 – 9, think: 'What do I add to 9 to get 15?' 9 + 6 = 15, so 15 – 9 = 6. If you know your addition facts well, this strategy makes subtraction easy.

Strategy 4: Use 10 to Subtract / استخدام 10 للطرح

Break the number you are subtracting into parts that reach 10 first. For 14 – 5: First subtract 4 from 14 to get 10 (because 14 – 4 = 10). Then subtract the remaining 1 from 10 to get 9. So 14 – 5 = 9. This works because 5 = 4 + 1, and you subtract in two easy steps.

مثال من الحياة اليومية / Everyday Example

كان عندك 10 قرصان خبز وأكلت 4 منها. كم بقي؟ 10 – 4 =6 قرصان بقيت. هذا هو الطرح!

Module 3: Properties of Operations

الموديول الثالث: خصائص العمليات

What Are Properties? / ما هي الخصائص؟

Properties are rules that always work in mathematics. They are like the laws of nature — they never change. Understanding properties helps you solve problems faster and with more confidence. In this module, we learn two very important properties of addition.

The Commutative Property / خاصية التبديل

The Commutative Property of Addition says: you can add two numbers in any order and get the same answer. In symbols: a + b = b + a. For example: 3 + 5 = 8 and 5 + 3 = 8. The order does not matter! This is very useful because it means you only need to learn half the addition facts. If you know 2 + 7 = 9, then you also know 7 + 2 = 9.

الترجمة العربية

خاصية التبديل في الجمع :يمكنك جمع عددين بأي ترتيب وستحصل على نفس الإجابة
رمزياً:

$$a + b = b + a$$

The Associative Property / خاصية التجميع

The Associative Property of Addition says: when you add three or more numbers, you can group them in any way and get the same answer. In symbols: (a + b) + c = a + (b + c). For example: (2 + 3) + 4 = 5 + 4 = 9, and 2 + (3 + 4) = 2 + 7 = 9. Same answer! The parentheses show which numbers you add first. This is helpful because you can choose to add the numbers that are easiest first.

الترجمة العربية

خاصية التجميع في الجمع :عندما تضيف ثلاثة أعداد أو أكثر، يمكنك تجميعها بأي طريقة وستحصل على نفس الإجابة
رمزياً:

: (a + b) + c = a + (b + c)

Equal and Not Equal / مساوي وغير مساوي

An equation is true if both sides have the same value. For example: 3 + 4 = 7 is TRUE because both sides equal 7. But 3 + 4 = 8 is FALSE because 3 + 4 = 7, not 8. The equal sign (=) means 'is the same as'. It does not mean 'the answer is'. This is a very important idea to understand and teach correctly.

Philosophical Connection / رابط فلسفي

:خاصية التبديل تشبه فكرة التساوي في الفلسفة
سواء أضفت
2 + 3 أو
3 + 2،
النتيجة واحدة .في الفلسفة، الحقيقة لا تتغير بغض
النظر إليها
.والعمليات الرياضية لها قوانين ثابتة مثل الحقائق الفلسفية

Module 4: Apply the Addition and Subtraction Relationship

الموديول الرابع: تطبيق العلاقة بين الجمع والطرح

Inverse Operations / العمليات العكسية

Addition and subtraction are inverse operations. This means they undo each other. Think of it like a door: addition opens the door, and subtraction closes it. If you add 3 to 5, you get 8. If you then subtract 3 from 8, you get back to 5. They are connected like two sides of the same coin. Understanding this relationship is the key to mastering both operations.

Related Facts / الحقائق المرتبطة

Related facts are a set of equations that use the same numbers. For the numbers 5, 4, and 9: 5 + 4 = 9, 4 + 5 = 9, 9 – 4 = 5, 9 – 5 = 4. All four equations are related. They all use the same three numbers. If you know one of these facts, you can figure out the other three. This is why learning addition facts helps you with subtraction, and vice versa.

Finding Unknown Addends / العثور على المضافات المجهولة

Sometimes in an equation, one number is missing. For example: ? + 3 = 8. To find the missing number, you can use subtraction: 8 – 3 = 5. So the answer is 5. Or you can think: '3 plus what equals 8?' and count on from 3: 4, 5, 6, 7, 8. You counted 5, so 5 + 3 = 8. Both methods work because of the inverse relationship between addition and subtraction.

نقطة مهمة / Key Point

Addition and subtraction are like a family. If you know one fact, you know all four related facts. For 6 + 3 = 9, you also know: 3 + 6 = 9, 9 – 3 = 6, and 9 – 6 = 3. This is the most important idea in this entire unit!

Unit 2: Addition and Subtraction Situations and Data

الوحدة الثانية: مواقف الجمع والطرح والبيانات

Module 5: Add To and Take From Problems

الموديول الخامس: مسائل **أضف إلى** و**أخذ من**

Add To problems are about getting more of something. The story goes like this: you start with some, then more comes, and you want to know the total. For example: 'Ahmed has 6 books. His teacher gives him 3 more. How many books does Ahmed have now?' This is 6 + 3 = 9. Take From problems are the opposite: you start with some, then some goes away. For example: 'Sara has 8 pencils. She gives 2 to her friend. How many pencils does Sara have left?' This is 8 – 2 = 6.

Module 6: Put Together and Take Apart Problems

الموديول السادس: مسائل جمع وتفكيك

Put Together problems are about combining two groups. The story goes: there are two separate groups, and you want the total. For example: 'There are 5 red flowers and 4 yellow flowers. How many flowers in all?' This is 5 + 4 = 9. Take Apart problems are the reverse: you know the total and one part, and you need to find the other part. For example: 'There are 9 flowers. 5 are red. How many are yellow?' This is 9 – 5 = 4. Both Addends Unknown is a special case: 'There are 9 flowers. Some are red and some are yellow. How many of each could there be?' The answers vary: it could be 5+4, 6+3, 7+2, 8+1, etc.

Everyday Example / مثال من الحياة اليومية

في المدرسة، هناك 7 أولاد و 5 بنات. كم عدد الطلاب في الفصل؟ 7 +5 =12 طالبًا.

هذا مثال على مسألة

'Put Together'

(جمع).

Module 7: Compare Problems

الموديول السابع: مسائل المقارنة

Compare problems are about finding the difference between two quantities. There are three types: (1) Difference Unknown: 'Ahmed has 8 marbles. Sara has 5. How many more does Ahmed have?' Answer: 8 – 5 = 3. (2) Bigger Unknown: 'Sara has 5 marbles. Ahmed has 3 more than Sara. How many does Ahmed have?' Answer: 5 + 3 = 8. (3) Smaller Unknown: 'Ahmed has 8 marbles. He has 3 more than Sara. How many does Sara have?' Answer: 8 – 3 = 5.

More أكثر — greater in number

Fewer / Less أقل — smaller in number

Compare قارن — to find the difference between

Module 8: Data

الموديول الثامن: البيانات

Data means information we collect and organize. In Grade 1, we learn three ways to show data: Picture Graphs, Tally Charts, and Bar Graphs. These are tools that help us see information clearly and answer questions about it.

Picture Graphs / الرسوم البيانية بالصور

A picture graph uses pictures or symbols to show data. Each picture stands for one item. For example, if you ask 10 friends what fruit they like, you can draw an apple for each person who likes apples, a banana for each who likes bananas, etc. Reading a picture graph is easy: just count the pictures in each row.

Tally Charts / جداول العد

A tally chart uses marks to count. You make one vertical line (|) for each item. After 4 marks, the 5th mark goes across them (diagonal). This makes groups of 5, which are easy to count. For example: 'How many students like each color?' Blue: |||| (4), Red: ||| (3), Green: |||| / (6). The slash through 4 marks means 5.

Bar Graphs / الرسوم البيانية بالأعمدة

A bar graph uses bars of different lengths to show data. Each bar represents a category, and the length of the bar shows how many. The taller the bar, the more items in that category. Bar graphs make it easy to compare amounts at a glance. You can quickly see which category has the most and which has the least.

Everyday Example / مثال من الحياة اليومية

اسأل زملاءك: ما هو وجبتك المفضلة؟ كشري /فول /ملوخية.
سجل الإجابات في جدول عد، ثم حوّله إلى رسم بياني بالأعمدة.
الأطول عمودًا هو الوجبة الأكثر شعبية!

Unit 3: Numbers to 120

الوحدة الثالثة: الأعداد حتى 120

Module 9: Understand Place Value

الموديول التاسع: فهم قيمة المنزلة

Place value is one of the most important ideas in all of mathematics. It tells us that the position of a digit in a number determines its value. In our number system, every place is worth 10 times more than the place to its right. A two-digit number like 35 has two places: the tens place and the ones place. The 3 in 35 means 3 tens (30), not just 3. The 5 means 5 ones (5). So 35 = 30 + 5. This is why 35 is not the same as 53, even though they use the same digits!

Key Vocabulary

Place Value قيمة المنزلة — the value of a digit based on its position

Tens العشرات — the place worth 10 ones

Ones الآحاد — the place worth 1

Very Important Point / نقطة مهمة جدًا

35 and 53 are NOT the same number! In 35, the 3 is in the tens place (30), but in 53, the 3 is in the ones place (3). The position of each digit matters. This is the whole idea of place value. A good way to remember: the digit on the right is ones, the digit on the left is tens.

Everyday Example / مثال من الحياة اليومية

إذا كان عندك 42 جنيهًا، فهذا يعني 4 عشرات و 2 آحاد =4 فئات من 10 جنيهات +2 جنيهات .إذا قلبت الرقمين أصبح 24 جنيهًا و هذا مبلغ مختلف تمامًا —!

Module 10: Count and Represent Numbers

الموديول العاشر: العد وتمثيل الأعداد

In this module, we learn to count all the way to 120 and represent numbers in different ways. Counting to 120 means counting by ones (1, 2, 3... 120) and also by tens (10, 20, 30... 120). Representing numbers means showing them using objects, drawings, or written numbers. A two-digit number can be shown as tens and ones: 47 = 4 tens + 7 ones. You can also decompose numbers in different ways: 47 = 3 tens + 17 ones = 2 tens + 27 ones. The value stays the same!

Philosophical Connection / رابط فلسفي

فكرة قيمة المنزلة تشبه فلسفة الهوية :نفس الشخص يمكن أن يكون والدًا وابنًا ومعلمًا في آن واحد — قيمته تتغير بحسب موقعه. كذلك الرقم 5 قيمته 5 في منزلة الآحاد ولكنه 50 في منزلة العشرات!

Module 11: Compare Numbers

الموديول الحادي عشر: مقارنة الأعداد

Comparing numbers means deciding which number is bigger and which is smaller. We use three symbols: Greater Than (>), Less Than (<), and Equal To (=). Think of the symbols as a hungry alligator mouth — it always wants to eat the bigger number! So 8 > 5 means '8 is greater than 5' (the mouth opens toward 8). 3 < 7 means '3 is less than 7' (the mouth opens toward 7). When comparing two-digit numbers, always compare the tens digit first. If the tens are the same, then compare the ones.

Key Vocabulary

Greater Than (>) (<) أكبر من — the left number is bigger

Less Than (<) (>) أصغر من — the left number is smaller

Equal To (=) (=) يساوي — both numbers are the same

Step 1: Compare tens first: 42 vs 56 → 4 tens < 5 tens, so 42 < 56.

Step 2: If tens are the same, compare ones: 42 vs 47 → same tens (4), 2 ones < 7 ones, so 42 < 47.

Step 3: If tens and ones are the same, the numbers are equal: 42 = 42.

Unit 4: Addition and Subtraction in Base Ten

الوحدة الرابعة: الجمع والطرح في الأساس العشري

Module 12: Addition and Subtraction with Tens and Ones

الموديول الثاني عشر: الجمع والطرح بالعشرات والآحاد

Now we take addition and subtraction to the next level by working with two-digit numbers. The key idea is to work with tens and ones separately. When you add 24 + 30, you are adding 2 tens and 4 ones to 3 tens and 0 ones. That gives 5 tens and 4 ones = 54. You can use a hundred chart to help. Find 24, then move down 3 rows (each row is 10), and you land on 54. For subtraction, 56 – 20 means moving up 2 rows on the hundred chart from 56, landing on 36.

Using a Hundred Chart

A hundred chart is a grid with numbers 1 to 100 arranged in 10 rows and 10 columns. It is a powerful tool for adding and subtracting with tens. Moving down one row adds 10. Moving up one row subtracts 10. Moving right one column adds 1. Moving left one column subtracts 1. For example, to add 34 + 20: find 34, move down 2 rows (adding 20), and you land on 54.

Module 13: Two-Digit Addition and Subtraction

الموديول الثالث عشر: الجمع والطرح برقمين

This module extends your skills to adding two-digit numbers and subtracting multiples of ten. The strategies include using a hundred chart, using place value, and using base-ten blocks. For place value addition: 45 + 23 = (40 + 20) + (5 + 3) = 60 + 8 = 68. You add the tens together and the ones together separately. For place value subtraction of multiples of ten: 80 – 30 = 50 because 8 tens minus 3 tens = 5 tens.

Step 1: Break each number into tens and ones: 45 = 40 + 5, 23 = 20 + 3

Step 2: Add the tens: 40 + 20 = 60

Step 3: Add the ones: 5 + 3 = 8

Step 4: Combine: 60 + 8 = 68. So 45 + 23 = 68.

نقطة مهمة / Key Point

Sometimes when you add the ones, you get 10 or more. This is called 'regrouping' or 'carrying'. For example: 47 + 25: 40 + 20 = 60, 7 + 5 = 12. Now 12 is one ten and two ones, so: 60 + 12 = 72. In Grade 1, we focus on understanding this concept with objects and drawings, not just the algorithm.

Unit 5: Geometry

الوحدة الخامسة: الهندسة

Module 14: Three-Dimensional Shapes

الموديول الرابع عشر: الأشكال المجسمة (ثلاثية الأبعاد)

Three-dimensional (3D) shapes are shapes that take up space. You can hold them in your hand. They have length, width, and height. The main 3D shapes in Grade 1 are: Sphere (like a football or orange), Cube (like a dice or box with all equal sides), Cone (like an ice cream cone), and Cylinder (like a can of beans). Each 3D shape has special features. A sphere is round all over with no flat faces. A cube has 6 flat square faces. A cone has 1 flat circular face and 1 curved surface that comes to a point. A cylinder has 2 flat circular faces and 1 curved surface.

Sphere كرة — round 3D shape like a ball

Cube مكعب — 3D shape with 6 equal square faces

Cone مخروط — 3D shape with a point and circular base

Cylinder أسطوانة — 3D shape with 2 circular bases

Module 15: Two-Dimensional Shapes

الموديول الخامس عشر: الأشكال المسطحة (ثنائية الأبعاد)

Two-dimensional (2D) shapes are flat shapes. They only have length and width. The main 2D shapes in Grade 1 are: Circle (perfectly round, no straight sides), Triangle (3 straight sides and 3 vertices), Rectangle (4 straight sides, opposite sides equal, 4 right angles), Square (4 equal straight sides, 4 right angles — a special rectangle), Hexagon (6 straight sides and 6 vertices), and Trapezoid (4 straight sides with only one pair of parallel sides).

Key Vocabulary

Side ضلع — a straight line that forms part of a shape

Vertex (Vertices) رأس (أرؤس) — a corner where two sides meet

Hexagon سداسي — a shape with 6 sides

Trapezoid شبه منحرف — a shape with 4 sides and one pair of parallel sides

Composing and Decomposing Shapes

Composing means putting smaller shapes together to make a bigger shape. For example, two triangles can compose a rectangle. Decomposing means taking a big shape apart into smaller shapes. For example, a square can be decomposed into two triangles. This skill helps children understand how shapes relate to each other and builds the foundation for understanding fractions in the next module.

Everyday Example / مثال من الحياة اليومية

انظر إلى بلاط الحمام في منزلكم — هو مربع مصنوع من مثلثين! النافذة فيها مربع ومستطيل. الأشكال في كل مكان حولنا!

Module 16: Fraction Foundations

الموديول السادس عشر: أسس الكسور

Fractions are about equal sharing. When we cut something into equal parts, each part is a fraction of the whole. In Grade 1, we learn about halves (2 equal parts) and fourths (4 equal parts). The most important word here is EQUAL. If a pizza is cut into 2 pieces but one is bigger, those are NOT halves. Halves must be equal in size. Similarly, fourths mean 4 equal parts. We say 'half of' to describe one of the two equal parts, and 'a fourth of' or 'a quarter of' to describe one of the four equal parts.

Key Vocabulary

Equal Shares أجزاء متساوية — parts that are the same size

Unequal Shares أجزاء غير متساوية — parts that are not the same size

Halves أنصاف — 2 equal parts

Fourths / Quarters أرباع — 4 equal parts

Everyday Example / مثال من الحياة اليومية

عندما تقسم رغيف العيش بالنصف بينك وبين أخيك، كل واحد يأخذ نصف (half).

إذا قسمته إلى 4 قطع متساوية مع أصدقائك، كل واحد يأخذ ربع (fourth)

لكن إذا كانت قطعة أكبر من الباقي — فهذه ليست أجزاء متساوية .!

Philosophical Connection / رابط فلسفي

فكرة الكسور تشبه فكرة العدل في الفلسفة :العدالة تتطلب أن يحصل الجميع على نفس القدر — والأجزاء المتساوية تعني أن كل جزء له نفس الحجم .إذا لم تكن متساوية، فليس هناك عدل!

Unit 6: Measurement

الوحدة السادسة: القياس

Module 17: Measure Length

الموديول السابع عشر: قياس الطول

Length is how long something is from one end to the other. In Grade 1, we measure length by lining up objects end to end. Before using rulers, children learn to measure with non-standard units like paper clips, connecting cubes, or even their own hand spans. The key rules for measuring are: (1) Start at the very beginning of the object, (2) Use units that are all the same size, (3) Place units end to end with no gaps and no overlaps, (4) Count how many units long the object is. For example, if a pencil is 5 paper clips long, we say its length is 5 paper clips.

Length الطول — how long something is

Measure قياس — to find the length, weight, or amount

Longer أطول — has more length

Shorter أقصر — has less length

Everyday Example / مثال من الحياة اليومية

قم بقياس طاولة الطعام باستخدام أصابعك! ضع إصبعك بجانب الطاولة من البداية إلى النهاية، واعدد كم إصبعًا احتاجت. هذا هو القياس بوحدات غير معيارية!

Module 18: Measure Time

الموديول الثامن عشر: قياس الوقت

Time is how we measure when things happen and how long they take. We use clocks to measure time. There are two kinds of clocks: analog (with hands that move around a circle) and digital (with numbers that change). In Grade 1, we learn to tell time to the hour and the half hour. An analog clock has numbers 1 to 12 around its face. It has two hands: the short hand is the hour hand and the long hand is the minute hand. When the minute hand points to 12, it is the exact hour. When the minute hand points to 6, it is half past the hour.

Key Vocabulary

Hour Hand عقرب الساعات — the short hand that shows the hour

Minute Hand عقرب الدقائق — the long hand that shows the minutes

Hour ساعة — 60 minutes

Half Hour نصف ساعة — 30 minutes

Half Past والنصف — 30 minutes after the hour

How to Read a Clock

Step 1: Look at the short hand (hour hand). What number is it pointing to or past? That tells you the hour.

Step 2: Look at the long hand (minute hand). If it points to 12, it is the exact hour (e.g., 3:00). If it points to 6, it is half past (e.g., 3:30).

Step 3: For half past, the hour hand will be BETWEEN two numbers. It is past the earlier number. Example: if the hour hand is between 3 and 4, and the minute hand is on 6, the time is 3:30 (not 4:30).

Everyday Example / مثال من الحياة اليومية

متى يبدأ الدرس؟ إذا كانت الساعة 7:00، فالدرس يبدأ في الساعة 7 بالضبط .إذا كانت 7:30، فهذا وقت الفطور !تعلم قراءة الساعة يساعدك في حياتك اليومية.

Philosophical Connection / رابط فلسفي

الوقت هو من أكثر المفاهيم غموضًا في الفلسفة .أبقراط سأل' :ما هو الوقت؟ 'الرياضيات تعطينا طريقة لقياسه وتنظيمه، لكن جوهره لا يزال لغزًا فلسفيًا .تعليم الأطفال قراءة الساعة هو تعليمهم أن الوقت يمضي بانتظام ولا يمكن إعادته.