

A Useful Guide for Parents of Children in Grade 1

Erasmus+
Enriching lives, opening minds.



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WHAT IS DIDUNAS?

Digital
Identification and
Support of Under-
Achieving
Students

The purpose of DIDUNAS is to address students' under-achievement in mathematics early in schooling in Grade 1.

- App for the identification of under-achieving students
- Support material for students
- Material for teachers
- Material for parents



University
of Cyprus



ÖREBRO
UNIVERSITY

Parents as supporters of their child's mathematics education.

- Enhancing positive attitudes toward mathematics
- Similarities and differences between parents and child mathematics education
- Mathematical thinking and learning through daily activities
- Pedagogical material, mathematical games, and digital tools

1. Enhancing your child's positive attitudes towards mathematics

- Be positive about math
- Show confidence
- Listen to your child



1. Enhancing your child's positive attitudes towards mathematics

- Think out loud
- Trigger curiosity
- Reward



2. What's the same as when I went to school, and what's different?

- Mathematics content
- Mathematical problem-solving
- Development of mathematical skills
- Mathematical terminology
- Data representation with graphs and tables

What is
the same?

3. What's the same as when I went to school, and what's different?

- Connection with daily life
- Conceptual understanding
- Communication and justification of reasoning
- Experientially learning
- Collaboration

What is
different?

3. Ways for facilitating your child's mathematical thinking and learning through daily activities

- Count the items you shop, fruits/vegetables
- Perform simple additions and subtractions
- Challenge for estimation the total cost or calculation of the change

GO SHOPPING



3. Ways for facilitating your child's mathematical thinking and learning through daily activities

Helpful questions:

- *“How many more packs of cereals are on the shelf compared to the packs of chocolate biscuits?”*
- *“We bought five red apples and four green apples. How many apples we bought in total?”*
- *“If the milk is around €2 and the bread around €3, how much money I will pay?”*

GO SHOPPING



3. Ways for facilitating your child's mathematical thinking and learning through daily activities

- Count the number of ingredients
- Perform simple additions and subtractions
- Decorate cookies or cake following a pattern, e.g yellow, red, green, yellow, red, green... or red, red, blue, red, red, blue...

COOKING



3. Ways for facilitating your child's mathematical thinking and learning through daily activities

Helpful Questions:

- “We need two spoons of white sugar and one spoon of brown sugar. How many spoons of sugar we need in total?”
- “We baked 9 cookies. If we eat 2 cookies, how many cookies will be left?”
- “There are 8 eggs in a pack. I need 10 eggs for a recipe. How many more eggs I need?”

COOKING



3. Ways for facilitating your child's mathematical thinking and learning through daily activities

- Seeing the numbers on signs or license plates

IN THE CAR



3. Ways for facilitating your child's mathematical thinking and learning through daily activities

DINING

- Number of plates, bowls and glasses
- Compare the number of items

Helpful Questions:

- “Are there as many knives as forks?”



3. Ways for facilitating your child's mathematical thinking and learning through daily activities

READING MATH STORIES

- Eugene Trivizas, Aris the shoemaker
- Eugene Trivizas, Fouchitra, The witch with the vacuum machine

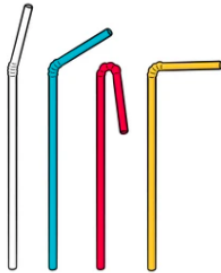


4. Pedagogical material and games

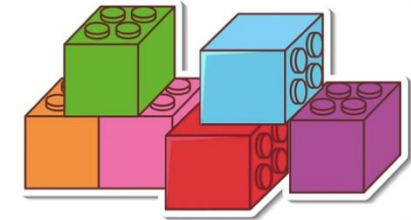
Tools



Dices



Sticks or straws



Blocks



Cards with numbers



Mini whiteboard



Counters

4. Pedagogical material and games

Tools

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

Number chart
1-10, 1-20, 1-100

4. Pedagogical material and games

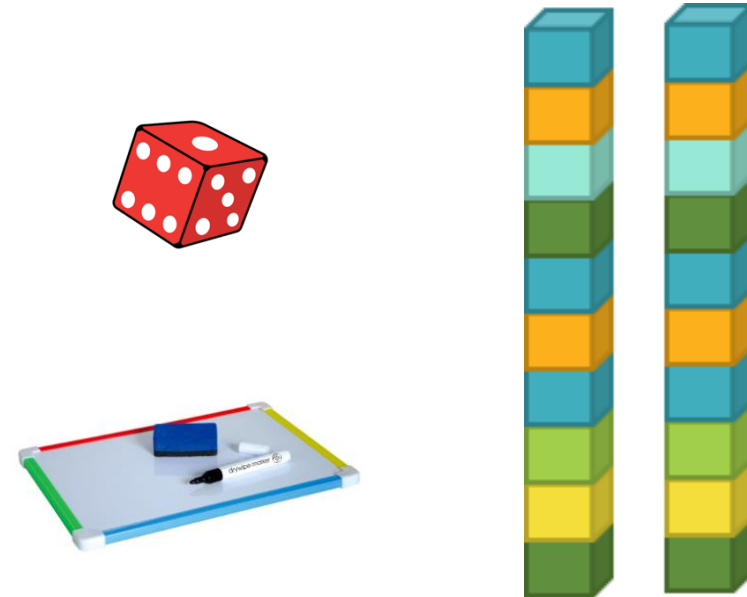
Math Games- Towers

Goal:

Practice subtraction game for 2 players

Equipment:

- 20 blocks per player
- 1 six-sided dice
- Paper or whiteboard

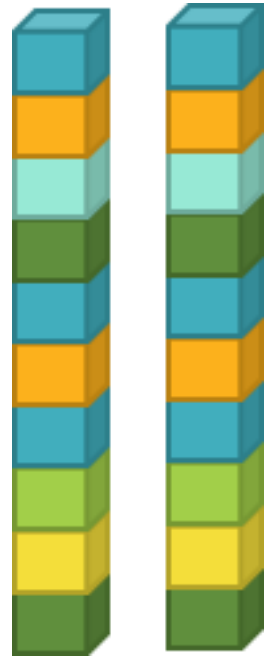


4. Pedagogical material and games

Math Games- Towers

Guidelines:

- Each player builds a tower with 10 blocks.
- Players take turns to roll a dice. They remove as many blocks from their tower as the dice shows. They write the subtraction sentence e.g., $10-3=7$.
- If the number rolled out is larger than the number of the blocks, the player misses his/her turn.
- The game continues until a player removes all blocks. The last roll should be the exact number needed to get to zero.



4. Pedagogical material and games

Math Games- Number line

Goal:

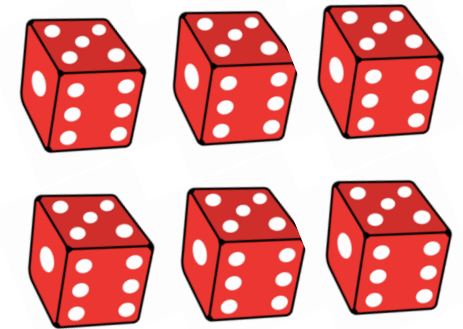
Addition and subtraction game for 2 players

Equipment:

Paper or whiteboards

A small figurine (or other type of counter)

6-sided dice

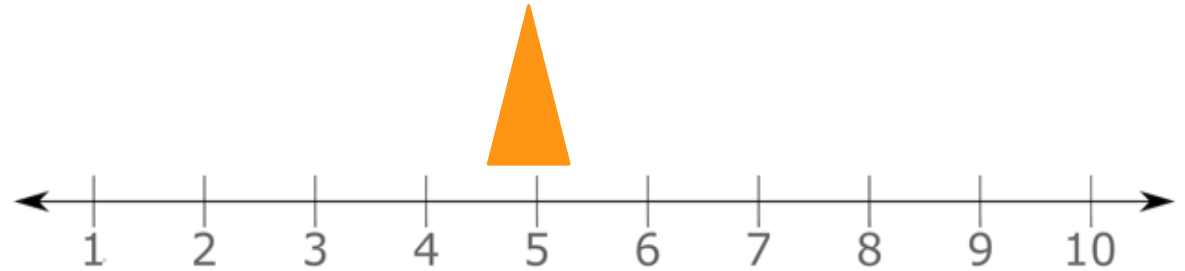


4. Pedagogical material and games

Math Games- Number line

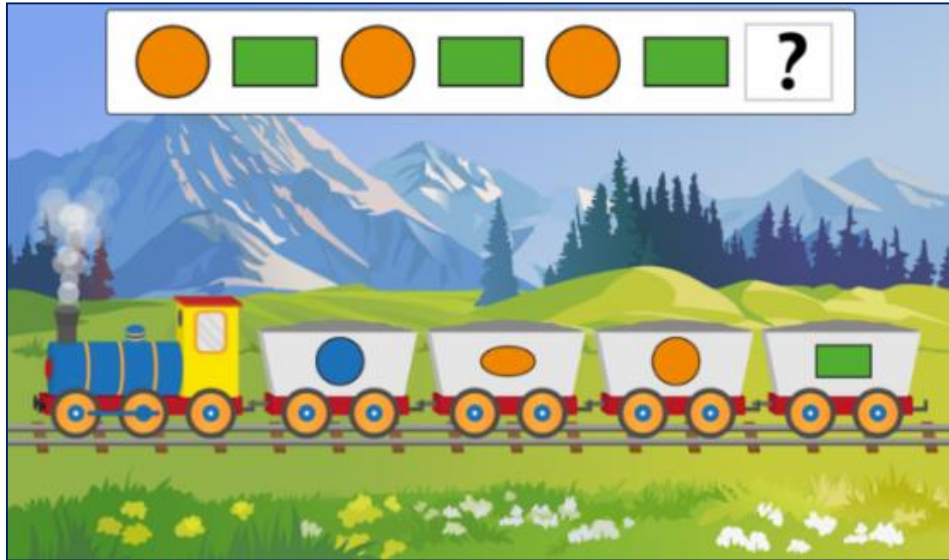
Guidelines:

- Use a number line (1-10).
- The counter starts on 5. “Player A” moves the counter right to get to 10, “Player B” moves the counter left to get to 1.
- Players take turns to roll the dice. Then they move their to the right or to the left, according to the number on the dice. If the counter reaches 1 or further “Player B” wins. If the counter reaches ten or further “Player A” wins.

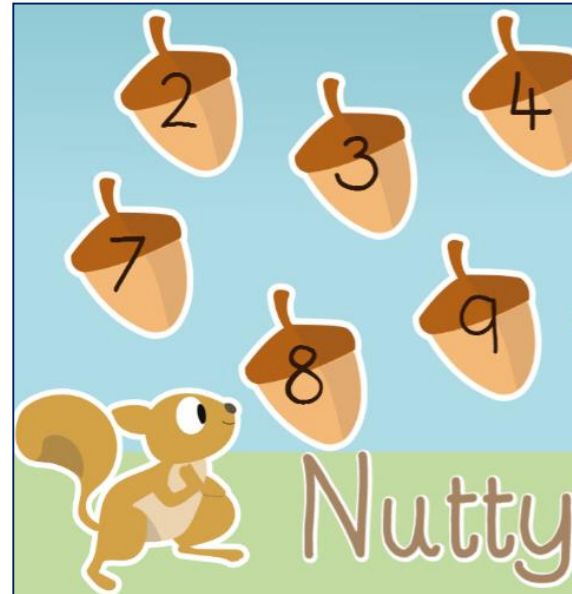


5. Digital tools

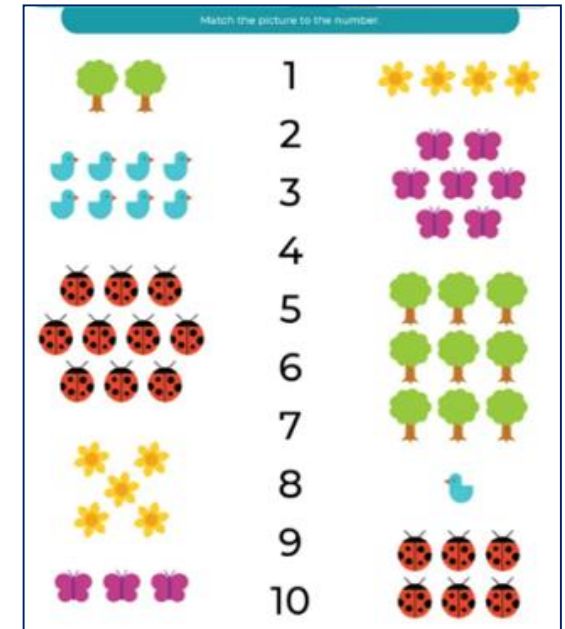
Shape Patterns



Counting numbers




Recognize numbers




6. What your child is expected to learn at Grade 1 - Basic Mathematical Concepts and Procedures

- Recognize, describe, and extend figural patterns.
- Name, recognize, and represent numbers from 1 to 10.


There is a pattern!



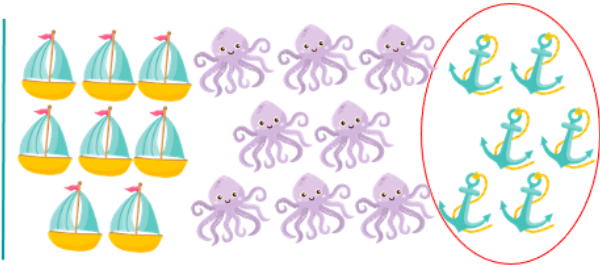
One blue fish, one purple fish...
One blue fish, one purple fish... This is repeated...



1. Describe each pattern.



6
six



6. What your child is expected to learn at Grade 1 - Basic Mathematical Concepts and Procedures

- Compare and order numbers from 1 to 10.
- Recognize and represent situations that involve addition and subtraction using mathematical sentences.

1. Color the numbers that are **larger** than the number in red.

Example:

3	2	4	1	5
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1	3	4	5	2
---	---	---	---	---

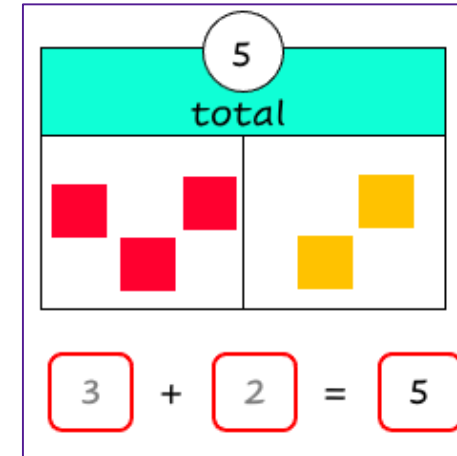
 First	 Then	 Now	$2 + 3 = 5$
 First	 Then	 Now	$4 - 1 = 3$
 First	 Then	 Now	$3 + 2 = 5$

6. What your child is expected to learn at Grade 1- Basic Mathematical Concepts and Procedures

- Add and subtract numbers up to 10

For example: $3+2$, $5+4$, $8+2$, $7-4$, $10-6$

- Solve simple addition and subtraction word problems.



6. Circle one mathematical sentence for each problem and find the answer.

Anna had 6 balls. She gave to her friend Lena 2 balls. How many balls were left to Anna?



$4 + 2 = \square$

$6 - 2 = \square$

$8 - 2 = \square$

$6 + 2 = \square$

Answer: _____