

Age:

7 - 12 years old

Lesson 1: Digits which add up to seven

Aims:

- To describe patterns in calculation.
- To see the difference between number and digit.
- To organize data efficiently.

Materials:

- Pencils, whiteboard marker and a whiteboard

Vocabulary:

- Number and digit

Introduction:

The teacher asks the pupils four-figure numbers whose digits add up to seven.

The pupils suggest numbers and the teacher writes them on the blackboard in the following way: writing the numbers beginning with 1 in the first column, those beginning with 2 in the second column, etc...

Main part:

Different questions may arise during the activity such as: can we repeat digits? Can we begin a number with 0?. If no questions arise spontaneously, the teacher helps the pupils to think of them.

Round up:

Once the table has been completed on the whiteboard the pupils copy it in their notebooks.

Lesson 2: Analysing the table

Aims:

- To discover the patterns hidden in the table and to justify them.

Vocabulary:

- Odd and even

Main part:

The pupils take out their notebooks and look at the table they copied in the previous class. The teacher asks them to look for any patterns in the data by asking the following

questions:

- Which digit comes up most?
- How many numbers have repeated digits?
- How many numbers begin with even numbers?
- Which column is the longest, and the shortest?

Round up:

The pupils write down the following conclusions. For example:

1. The columns get shorter from left to right because 1 is used more times than 2 and 2 more than 3.
2. The tens and the units digits may be reversed in the same columns.
3. The most repeated digit is 1.
4. There are 83 numbers in total, 53 even numbers and 30 odd numbers.



4

4003
4012
4021
4030
4102
4111
4120
4201
4210
4300

5

5002
5011
5020
5110
5200

6

6001
6010
6100

7

7000