

Activities with the 'number plate' (reference chart of numbers like Pickmarble and Dédé) the following two pages

Preliminary remark

For these activities it is not necessary to isolate the two pages of the reference chart. They can be used on the book itself.

Discovery of the number plate

We recommend the use of this reference number chart after the activities on pages 86-87. Learners must first understand the organization of this chart. The analogy between this chart and the number line on pages 86-87 has to be emphasized to the learners: in each case one can look at the number written in the small cloud and the set of marbles corresponding to this number. The only difference is the following: rather than rolling itself into the form of a "snail", the file is interrupted after 10 and starts again on the next line; the same happens after 20, 30 etc.

Afterwards one can explore this chart case after case on a few segments of the numerical sequence (for example from7 to 13, 17 to 23, 27 to 33 etc.) by explaining every time the **correspondence between the written number and the corresponding amount of marbles** : 'thirty-two' is **3 tens** and **2 ones** (or units) ; there are three boxes of ten marbles and two isolated marbles; this number is written with a 3 representing the number of tens and a 2 representing the number of ones (units)...

One has to dwell upon the transitions 10, 20, 30 etc. which should serve to help remember the rule of formation of sets of marbles: one obtains a new box only when one gets 10 marbles with which to fill up the box (in other words there are never more than 9 isolated marbles).

Pass-the-slipper game

This phase of discovery can be concluded with a sort of 'pass-the-slipper' game counting in one 1. The teacher randomly names the learners one after the other. For example:

- Eric, which number comes after twenty-seven?
- Twenty-eight, it is 2 tens and 8 ones.
- Jane, what is the number after that? Etc.

The learners follow the course of the game with their finger on the number plate to prepare themselves to answer should they be asked to.

Basic activity: 'The Number Plate game'...

For this game every learner has his (her) slate which they put on the number plate in such a way that the boxes on which they will be questioned are hidden. In fact, their



task is to **preempt what they can see** in a specific case when questioned orally by the teacher (in no specific order this time):

- they write the requested number (with figures obviously) on their slate;
- they draw the boxes and the marbles (for example the boxes of tens in broad lines and dots in an organized disposition like Dédé for the isolated marbles).

It is only afterwards that they are asked to verify what they have produced by lifting up their slates and by observing the case corresponding to the requested number (the plate is thus a means of auto-correction). Here as well some comments have to be given; for example, in the following way: 'forty-seven' is 4 'tens' and 7 'ones' (or units); there are 4 boxes of ten marbles and 7 isolated marbles; this number is written with a 4 representing the number of 'tens' and 7 representing the number of 'ones', etc.

At the beginning one has to emphasize the two types of numbers:

- the numbers 10, 20, 30 etc, because the learners are led to explain the zero by referring to the set which has been drawn (there isn't any isolated marble);
- the numbers between 11 and 16 to be structured as 'ten and one', 'ten and two', etc.

Extra activities

Other 'Pass-the-slipper' games

- 1. Counting in 1 in decreasing order: this amounts to skimming over the plate backwards.
- 2. Counting in 10 in increasing order: this amounts to skimming over the plate in columns. One could begin with the series: *ten, twenty, thirty* etc. Afterwards the series of which the second figure is always pronounced the same: <u>seven, seventeen, twenty-seven</u>, etc. And lastly the series of which the second figure is not always pronounced the same: one, eleven, twenty-one... / two, twelve, twenty-two... / three, thirteen, twenty-three...etc.

The 'plus ten' game

The teacher says a number, the learners have to add 10 (one refers to the case below. One has to emphasize the irregular cases: $one \rightarrow \underline{eleven}$, $two \rightarrow \underline{twelve}$, etc.