## Partitioning numbers lesson plan

<table>
<thead>
<tr>
<th>Subject:</th>
<th>Maths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson Title:</td>
<td>Partitioning numbers</td>
</tr>
<tr>
<td>Date:</td>
<td>Time Span:</td>
</tr>
<tr>
<td>Year Group:</td>
<td>Group Size:</td>
</tr>
<tr>
<td>Year 3</td>
<td>30</td>
</tr>
</tbody>
</table>

### Desired Learning Outcomes

To understand how to partition numbers

### Key Language:

Partition, split, break, worth, value, units, tens, hundreds and thousands, tenths, hundredths and thousandths

### Use of ICT:

Smartboard for intro

### Assessment (Make reference to each section of the lesson)

**Intro** – Children to attempt sample questions on the carpet on their pupil whiteboards. More able children to attempt to partition 4-digit numbers independently.

**Main** – Mark children’s work as they complete it. Sit with any children who are struggling, bringing them back to the carpet if necessary. If still unsure by end of lesson sit with TA during plenary.

**Plenary** – Can children partition the numbers that their partner gives them?

### Use of Other Adults

TA to monitor progress of G+T children attempting work without listening to intro

TA to monitor progress of other children once begin work

TA to sit and continue working with children (of any ability) who struggled in plenary

### Anticipated Misconceptions/Difficulties

Children not including the right number of 0s e.g. 47 = 4 + 7 or 678 = 60 + 7 + 8

Children being confused by the equals sign coming at the beginning of the number sentence

G + T – children not understanding / forgetting that they need to write zero point … to show tenths e.g. 0.8, not 08 or just the digit 8

### Resources

Units blocks, tens sticks and hundreds cubes

Unit squares and tenth strips

Pupil whiteboards and pens

© www.SaveTeachersSundays.com 2013
### Introduction

Go through PowerPoint covering the following:

- Explaining how there are 10 digits: 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 and that these digits are used to make all other numbers.
- Examples of 2-digit, 3-digit and 4-digit numbers.
  - At this point G+T children to go and attempt higher ability work (partitioning 4-digit numbers).
- Explaining what place value means and how the place of a digit gives it its value.
- How to partition 2-digit numbers into their tens and units, with visual representations of the tens and units.
- How to partition 3-digit numbers into their hundreds, tens and units, with visual representations of the hundreds, tens and units.
- How to partition 4-digit numbers into their thousands, hundreds, tens and units.
  - At this point G+T children who partitioned 4-digit numbers successfully to come to the carpet.
- Explaining how a unit can be split into tenths, with a visual representation.
- Explaining how a unit can be split into hundredths, with a visual representation.
- An explanation and visual representation of how a unit, tenth, hundredth and thousandth relate to each other.
- Explaining how zeros after the final digit in numbers with a decimal place are irrelevant.
- How to partition numbers into their units and tenths, with visual representations of the units and tenths.
- How to partition numbers into their units, tenths, hundredths and thousandths with visual representations of each.
- Some more examples of how to partition numbers into their units, tenths, hundredths and thousandths. Emphasise the need to get the number of zeros right.

### Main (including differentiated tasks)

- **Lower ability** – partition 2-digit numbers
- **Middle ability** – partition 3-digit numbers
- **Higher ability** – partition 4-digit numbers
- **Gifted and talented** – partition numbers with decimal places

### Plenary

In partners children to give each other a numbers to partition on their whiteboards.

Partition each others’ numbers, swap and check agree on partitioning, discussing any differences.

---

© www.SaveTeachersSundays.com 2013