Pack 3 Session A

Talk Task: What do we use numbers for?

How many people do you think there are in the school?

Count and build

10 ones is equal to 1 ten

10 tens is equal to 1 hundred
Pack 3 Session A

**Activity:** Counting and grouping

1) Complete the table to show each number with Dienes and in words.

<table>
<thead>
<tr>
<th>number</th>
<th>Dienes</th>
<th>words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>One hundred and fifty four</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>307</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2) If you count in steps of 10 starting at 56, will you say these numbers? Tick the ones you will say. What other numbers would you say?

- Ninety six
- One hundred and ten
- Two hundred and twenty six

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Pack 3 Session B
Talk Task: The value of the place

How many different 2-digit and 3-digit numbers can you build and write with these digits?

3 1 4

Four hundred and thirteen

Fourteen

How do you know you have found them all?
Pack 3 Session B

**Activity:** The value of the place

1) Use these digits to create numbers for each of the properties

\[5 \ 2 \ 4\]

a) A number less than 100
b) A number greater than 300
c) An even number
d) A number that you can show with 7 Dienes blocks
e) An odd number

2) Generate at least two examples and non-examples for each

<table>
<thead>
<tr>
<th>Examples</th>
<th>Non-examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>A number with 4 tens that is greater than 500</td>
<td></td>
</tr>
<tr>
<td>An even number with 3 hundreds</td>
<td></td>
</tr>
<tr>
<td>A number with 6 ones that is greater than 100 but less than 200</td>
<td></td>
</tr>
</tbody>
</table>
Pack 3 Session C
Talk Task: Counting coins

What is the same? What is different?
Use Dienes to explain and show why
Pack 3 Session C

Activity: Regrouping

1) Match the representations

<table>
<thead>
<tr>
<th>Rectangles</th>
<th>90 + 14</th>
<th>5 tens and 95 ones</th>
<th>154</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectangles</td>
<td>90 + 55</td>
<td>1 hundred, 2 tens and 34 ones</td>
<td>145</td>
</tr>
<tr>
<td>Rectangles</td>
<td>100 + 40 + 14</td>
<td>4 tens and 64 ones</td>
<td>104</td>
</tr>
</tbody>
</table>

2) Fill in the blanks to show each number in different ways. How many more can you think of?

<table>
<thead>
<tr>
<th>42</th>
<th>84</th>
<th>168</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 + □</td>
<td>□ + 4</td>
<td>□ + 60 + 8</td>
</tr>
<tr>
<td>□ + 12</td>
<td>60 + □</td>
<td>100 + 50 + □</td>
</tr>
<tr>
<td>20 + □</td>
<td>□ + 34</td>
<td>100 + □ + 28</td>
</tr>
<tr>
<td>□ + 21</td>
<td>51 + □</td>
<td>□ + 70 + 8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>90 + 60 + □</td>
</tr>
<tr>
<td></td>
<td></td>
<td>90 + □ + 28</td>
</tr>
</tbody>
</table>

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Pack 3 Session D

Talk Task: Build and adjust

Exactly ten blocks
What numbers can and cannot be shown?

Adjust your model
Add one block.
What could happen? What could not happen?

Take away one block.
What could happen? What could not happen?

Choose a number. Add 10
The digit in the ones place changes.
The digit in the tens place changes.
The digit in the hundreds place changes.

Explore if the statements are always, sometimes or never true.
Pack 3 Session D

**Activity**: Build and adjust

1) Draw and write numbers with **exactly five Dienes blocks**

![Dienes blocks](image)

| 113 | 32 |

2) Circle always, sometimes or never and give examples to support your answer.

- **always**
  - If you add 1 to a number, the digit in the ones place changes.

- **sometimes**
  - If you add 1 to a number, the digit in the tens place changes.

- **never**
  - If you add 1 to a number, the digit in the hundreds place changes.
Loved a session?
Got some ideas for improvements?
Spotted a typo?

Let us know your feedback [here](#)