**Teaching Input Thursday 14th January**

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| **Objectives**  | Find 10 more and 10 less than any 2-digit number. |
| **Resources** | Plastic spider, 1–100 grid, whiteboards, pens |
| **Starter** | **Pairs to 6 and 10** *(simmering skills)*Put children in pairs. One child is designated as a *lion* and the other as a *tiger*. *Tigers, show me 9 fingers*. They work out how many fingers the other child must hold up to show 10 altogether. Repeat, asking tigers to show 0 to 10 fingers, lions show the complement to 10. Try to build up the pace. Tigers and lions swap roles.Repeat for pairs to 6. |
| **Teaching** | **PPT Day 4*** Give each child a 100 grid and Whiteboard
* Ask children to join in with Spider as he counts on in 10s, starting at 5: *5, 15, 25, 35 … 95.*
* *Spider is adding 10 each time.*
* Then count back again: *95, 85, 75, 65 … 5.*
* *Now spider is subtracting 10 each time!*
* Point to a number in the count, e.g. 65. *What is 10 more than 65?* Children discuss how to find the answer with a partner, then write the answer on whiteboards.
* *What is 10 less than 65? This means we take away 10, so Spider has to move back up the grid.* Children write the answer on whiteboards.
* Repeat starting at another number in this column.
* Model how to find the answers by moving Spider up and down the column to find 10 more/10 less.
* Children join in counting on in 10s with Spider, starting at 8: *8, 18, 28, 38 … 98* and back again.
* Ask children to choose a number that Spider said when counting on in 10s from 8.
* Put Spider on this number. *What is 10 more?* Children tell Spider. *And 10 less?*
* Repeat, this time starting at 3 and asking children to write the answers on their whiteboards.
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**Group activity notes - Wednesday**

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| **Use the in-depth problem-solving investigation ‘Five Steps to 50’ from NRICH as today’s group activity, or, use these activities:** |
| Find 10 more and 10 less using a grid and counters. | Make estimates of numbers of cubes and find 10 more and 10 less than that amount. |
| **Objectives:** Find 10 more and 10 less than any 2-digit number. | **Objectives:** Find 10 more and 10 less than any 2-digit number. |
| **You will need:** 1–100 grid (*see resources*), counters | **You will need:** Lots of cubes, whiteboards, pens |
| **Independent in pairs** *Working towards/ Below ARE***Introduce this activity whilst** *Working at ARE/Greater Depth are completing Practice sheet’10 more/10 less’.** Provide each child with a 1–100 grid and counters.
* Choose one child to pick a number on the grid. *What is 10 more?*
* Model counting on 10 in 1s. *Where have we landed? Is there a quicker way to find the answer?*
* Establish that children can also count on 10 – using spider - to find 10 more. Model this, moving the counter down one square.
* Find another number. *What is 10 less?*
* Model counting back 10 in 1s. *Where have we landed? Is there a quicker way to find the answer?*
* Establish that children can also count back 10 – using spider - to find 10 less. Model this, moving the counter up one square.
* Repeat with children choosing new numbers.
* Ask lots of ‘10 more ‘and ‘10 less’ questions.

Cont working in pairs independently whilst teacher moves to work with *Working at ARE/Greater Depth children – see next section* | **Groups of 6 – with TA or T** *Working at ARE* * Show children a pile of more than 20 cubes.
* *How many cubes do you think are there?*
* Children write the number on their whiteboards.
* Then choose children to read out their number to the rest of the group.
* Ask children to help you to group the cubes in 10s. (Greater Depth – can chrn count in 2s, 5s, 4s? – use subitising skills to make the grp of 10 quickly) Count them together, counting in 10s, then 1s... *Whose estimate was closest?*
* *What if there were 10 more?* Add 10 more.
* *What if there were 10 less?* Remove 10 and count in 10s, then 1s to check.
* *We got back to where we started! What if there are 10 less than this?* Remove 10 and check.
* Hand out ‘piles’ of cubes to pairs and ask them to repeat the activity, first estimating the number of cubes; then counting them out in 10s and 1s.

*Greater Depth* Use a greater number of cubes. BONUS - Chrn complete 10 more/10 less robot sheets (first sheet) |
| **Outcomes:** * I can find 10 more and 10 less than a number.
 | **Outcomes:*** I can estimate then count objects in groups of 10 and 1.
* I can find 10 more and 10 less than a number.
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| **Plenary** | True or false?* Adding 10 to a number ending in 0 always gives another number ending in 0. True.
* You count six tens to get from 10 to 60. False - it is 5 tens. This misunderstanding may arise from children including the initial 10.
* Counting back 3 tens from a number more than 50 always gives an answer more than 30. False, e.g. 53 – 30 = 23. The number would have to be more than 60 for this to be true.
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