**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. |

**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. |
| **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. | |