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| **Mini murder mystery**  **Multiples, factors, primes and squares** | |
| One of these 6 famous film stars has murdered one of the others! Each has made 4 statements about the following list of numbers.  **The murderer has made 3 errors. The victim has made 4 errors.**  **The other suspects have made 1 or 2 errors.** | |
| **5, 8, 13, 16, 21, 38, 49,**  **52, 61, 64, 72** | |
| **Will says:**   * There are 5 odd numbers * There are 2 square numbers * There are 2 multiples of 7 * The lowest prime number in the list is 13 | **Jim says:**   * There are 3 primes * The difference between the 1st 2 odd numbers in the list is 8 * There are 6 even numbers * There are 3 odd numbers |
| **Emma says:**   * There are 3 square numbers in the list * There are 2 multiples of 9 in the list * The largest gap between numbers is 9. * The answer to 52 is in the list | **Zac says:**   * There are no prime numbers in the list * There are 4 square numbers * There are 5 multiples of 7 * There are 3 multiples of 10 |
| **Sarah-Jessica says:**   * 42 is in the list * There are no factors of 12 in the list * There are 5 odd numbers * The sum of the two lowest numbers is 23 | **Johnny says:**   * There are 6 even numbers * 72 is in the list * There are 3 prime numbers in the list * There are 2 multiples of 5 |
| **Use the numbers 1-100 to investigate the following statements. Use your 100 square if you need to!** | |
| **Where**  The crime was committed somewhere on the grounds of Swallownest Primary School | |
| It was in the Scullery if there are 3 prime numbers under 20 | |
| It was in the Art Stockroom if there are 4 multiples of 10 between 20 and 100 | |
| It was in the Library if there are 9 factors of 36 | |
| It was in the ICT Suite if there are 6 perfect square numbers between 25 and 100 | |
|  | |
| **When.**  Calculate the time and date from these  (eg hours answer =17 minutes part =28 gives a time of 17:28 | |
| The hour part of the time is the answer to | The 6th prime number |
| The minute part of the time is the answer to | The 5th multiple of 5 |
| The day part of the date is | 52 + 2 |
| The month part of the date is | 32 |
| The year part of the date is | (20 x 100) + the 6th prime number |

**EXTENSION: Imagine Jennifer Aniston was an eye witness to the crime. Write 2 true statements and 2 false statements of your own about the following set of numbers, which Jennifer could have said:**

**3, 9, 15, 22, 30, 43, 56, 64**

