Year 5 Prime Numbers Challenge

Eratosthenes was a mathematician from ancient Greece. He discovered a method for finding the prime numbers up to 100 by using the multiples of 2, 3, 5, and 7.

We are going to use this method today, just as he did over 2000 years ago.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Use the grid and complete the following steps.

Use a different colour for each step (pencil crayons work best because you will still be able to see the numbers).

1. Cross out the number 1 because one isn't a prime number.
2. Cross out all the multiples of 2, but NOT 2
   All even numbers (above 2) can be divided by 2, so they aren't prime numbers.
3. Cross out all the multiples of 3, but NOT 3
   All the multiples of 3 (above 3) can be divided by 3, so they aren't prime numbers.
4. Cross out all the multiples of 5, but NOT 5.
   All the multiples of 5 (above 5) can be divided by 5, so they aren't prime numbers.
5. Cross out all the multiples of 7, but NOT 7.
   All the multiples of 7 (above 7) can be divided by 7, so they aren't prime numbers.

Write down all the numbers you have not crossed out.

You should now have a list of all the prime numbers up to 100.

What do you notice about the numbers 2, 3, 5, and 7, which you used to find the multiples for each stage?