Exploring Hundreds Charts

Materials

- Slideshow
- A copy of the handout for each student (see page 3)

0	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

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
101	102	103	104	105	106	107	108	109	110

Tuning in

Slide 1

As a class, use the slideshow to look at the pair of number charts. Invite students to think about and respond to:

- how they are the same
- how they are different.

Students may make the following observations.

They are the same because:

- All numbers with 1 ones and 6 ones are highlighted blue.
- Both charts show a skip-counting by fives sequence.
- Both have a hundred numbers – both are a 10 by 10 square.
- All blue numbers aren't multiples of 5 – it's not the usual skip-counting by fives pattern.

They are different because:

- The range is different 41 to 140 on left, 60 to 159 on right.
- The left chart starts at zero and right chart starts at 11.
- The placement of the tens is different – in the left chart they are in the first column, but in the right chart they are in the last column.

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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140

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	101	102	103	104	105	106	107	108	109
110	111	112	113	114	115	116	117	118	119
120	121	122	123	124	125	126	127	128	129
130	131	132	133	134	135	136	137	138	139
140	141	142	143	144	145	146	147	148	149
150	151	152	153	154	155	156	157	158	159

Slide 2

Move on to the second pair of number charts. Again, ask students to think about and share:

- how they are the same
- how they are different.

Students may make the following observations.

They are the same because:

- Both charts show skip-counting by twos.
- There is the same number of blue numbers – 5 columns of 10.
- Adding onto there being the same number of blue numbers, half of the numbers are blue in both.
- Both charts don't start at zero (they start at 41 or 60).

They are different because:

- The number range is different – 41 to 140, and 60 to 159.
- The placement of the tens is different – in the left chart they are in the last column (which is more familiar or typical in a hundred chart), but in the right chart they are in the first column.
- On the left chart, blue numbers are all even, but on the right chart they're all odd.
- The left chart shows counting by twos a multiple* of 2 (which is why they're all even numbers) while the right chart shows counting by twos from a non-multiple of 2 (which is why they're all odd numbers).

Explore

Provide students with a handout of a pair of hundred charts and invite them to create their own pair of hundred charts.

Students are to use skip-counting and colouring, but are encouraged to explore a pattern or patterns they're curious about. Sequences to explore include but are not limited to twos, threes, fours, fives or tens.

Once students have finished preparing their two charts, they can take some time to notice what is the same and what is different. They may like to make a list. Students can then begin to get together in pairs or a small group to share their number charts and find out what others notice is the same/different.

Wrap

Before inviting the class back together, encourage students to reflect on the work they've done. In particular:

- What have they noticed or observed about the numbers or patterns in different chart pairs?
- What are they wondering about?

- What would they be interested to explore next?

Come together as a group to share some of these observations, wonderings and next step ideas.

Student handout: Hundreds chart.

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

Mathematics Hub

121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220