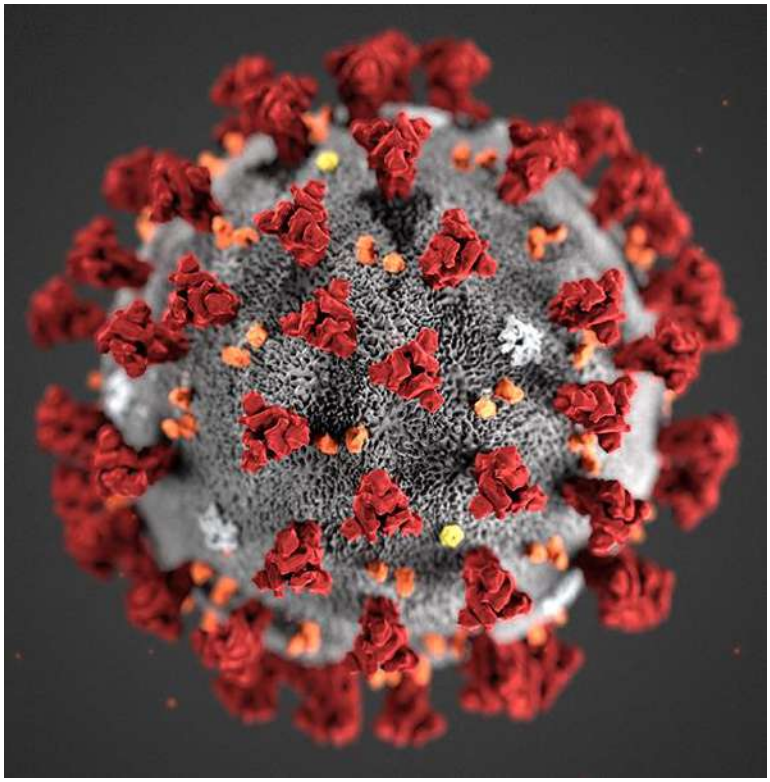
Flatten the curve

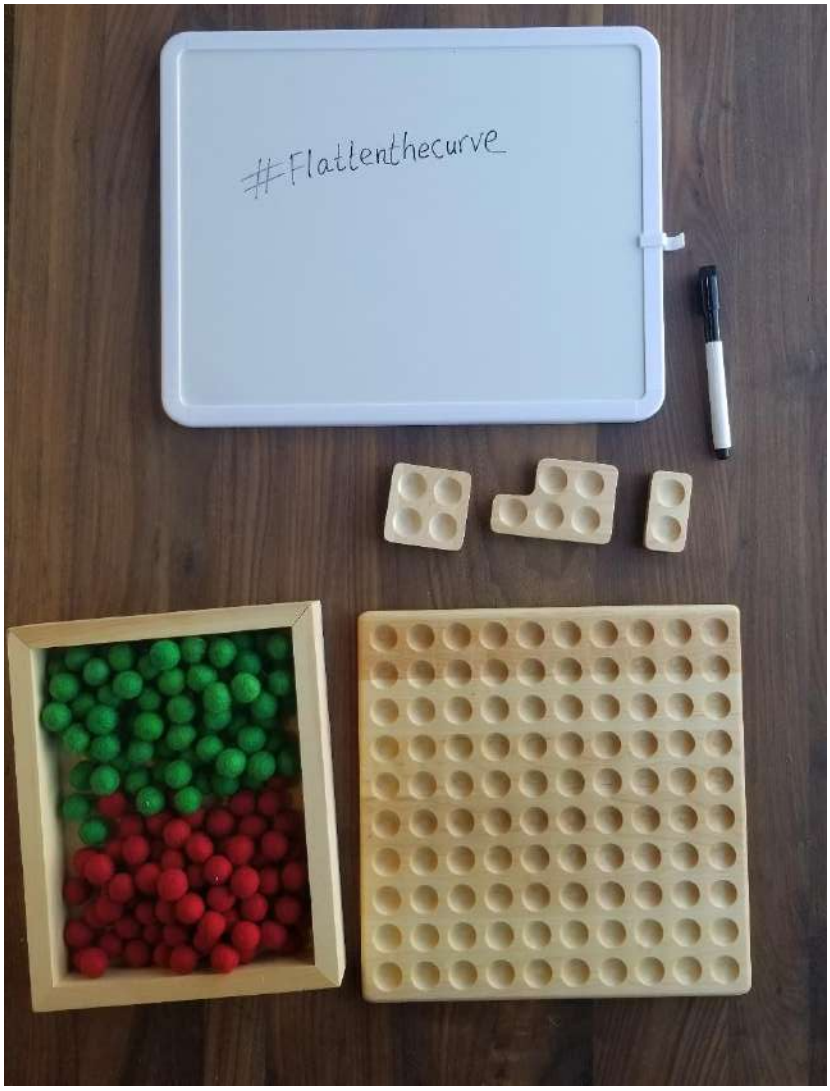


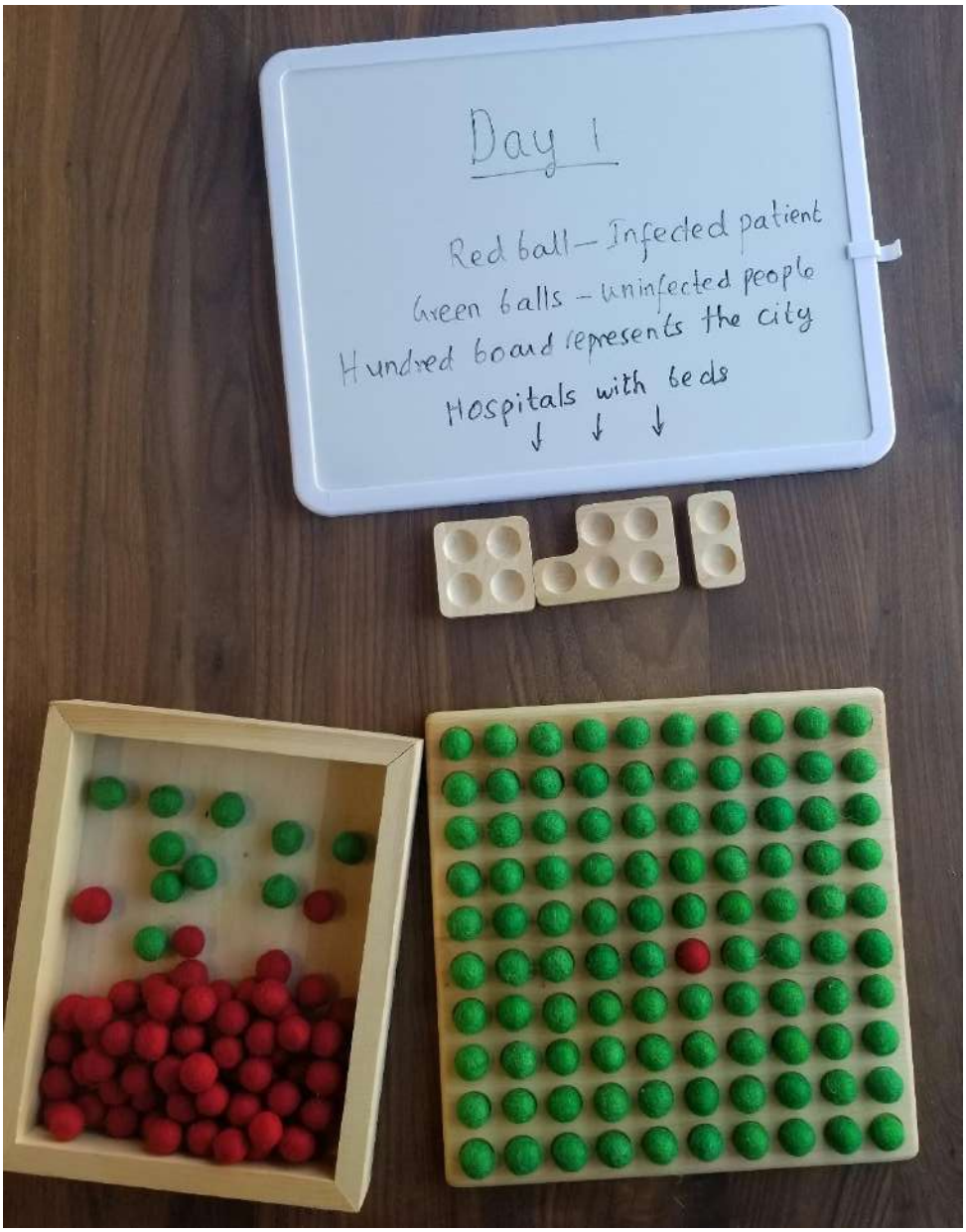
Why should I stay home? Can we please at least arrange a play date? We can't even go to the play place? Why is my favorite restaurant closed?

It is an uncomfortable time for adults, imagine what is going on in those little minds? They are confused, scared and bored. With juggling everything, my first instinct for all the whining is to say "because I said so!". Then I stopped myself. My little humans are scared. They look up to me for answers not just commands. But how do I teach them without complicating, just enough to understand and be cautious but hopeful?

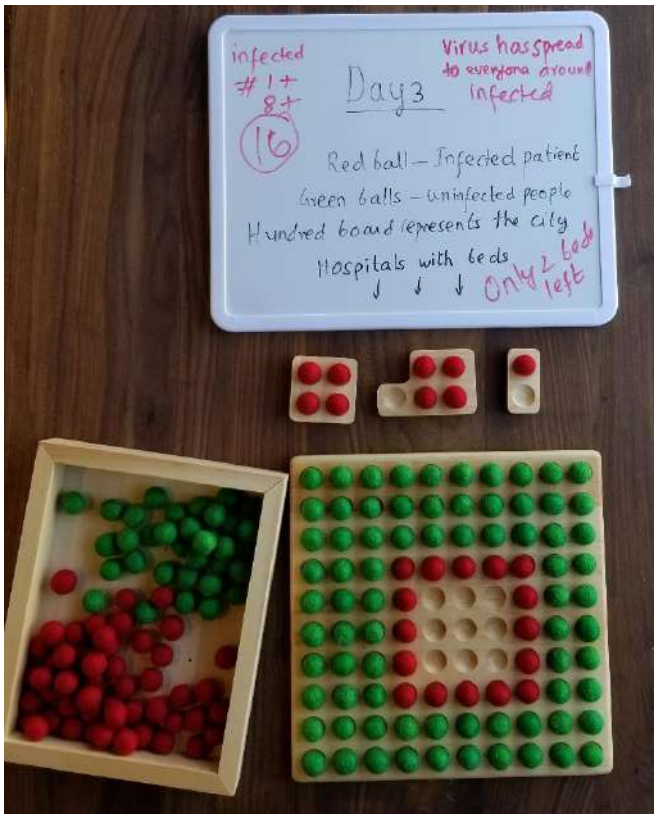
I will be using a hundred board for all of these activities, but you can do that with a hundred chart (available as a pdf here) and different colored markers.

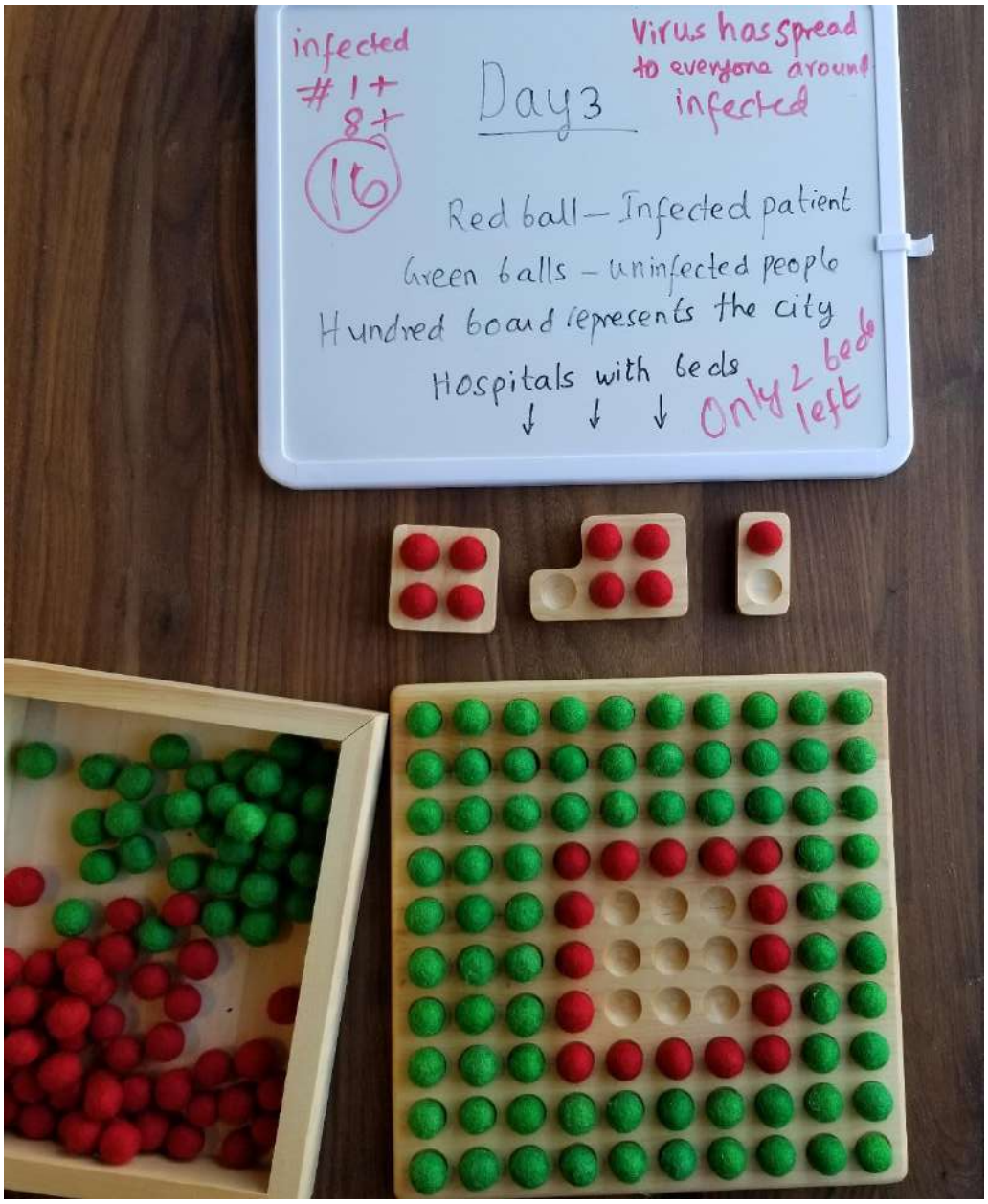
Activity #1: Demonstrate how quickly a virus can spread. Place the red ball in the center. This will be our patient zero, the person with the virus. Fill the rest of the board with different color balls. Each day everyone around the red person will be infected aka, replace them with red balls. Record how quickly the board turns all red.

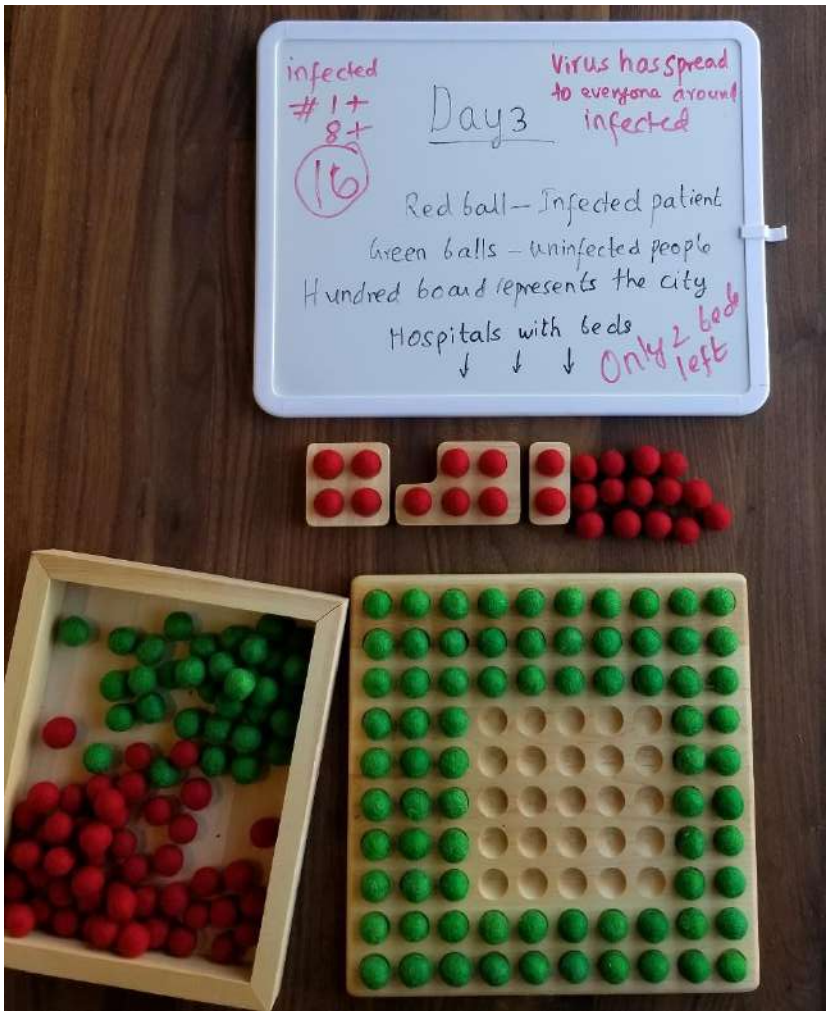


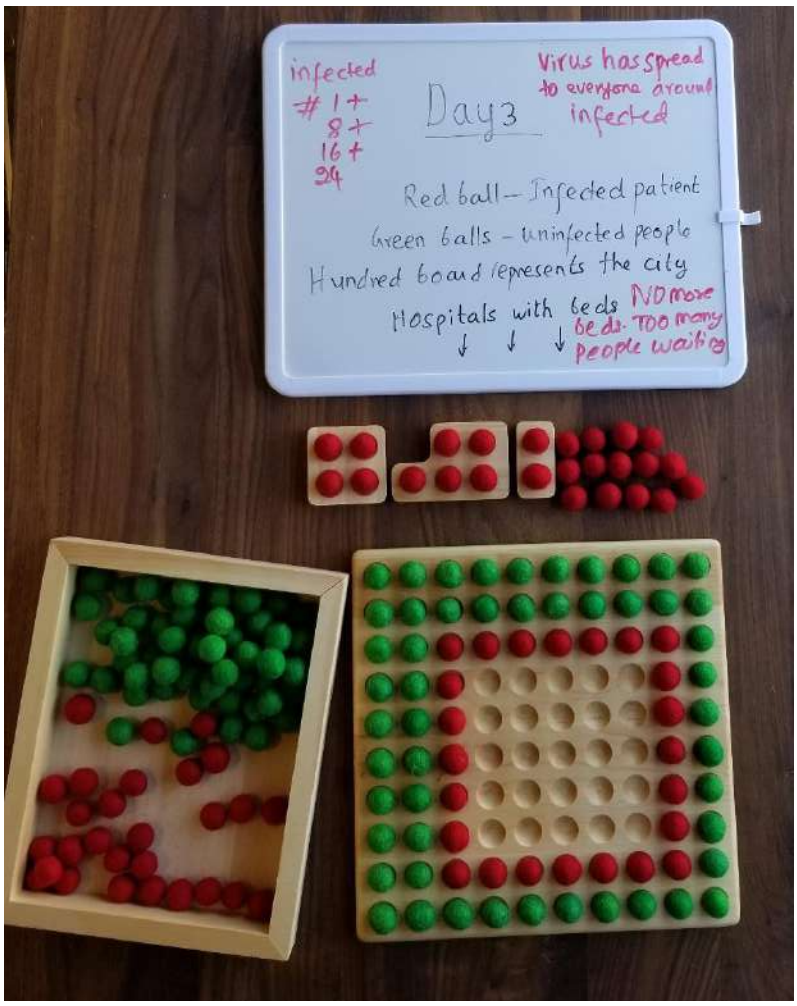

Day 1
Red ball – Infected patient
Green balls – uninfected people
Hundred board represents the city
Hospitals with beds

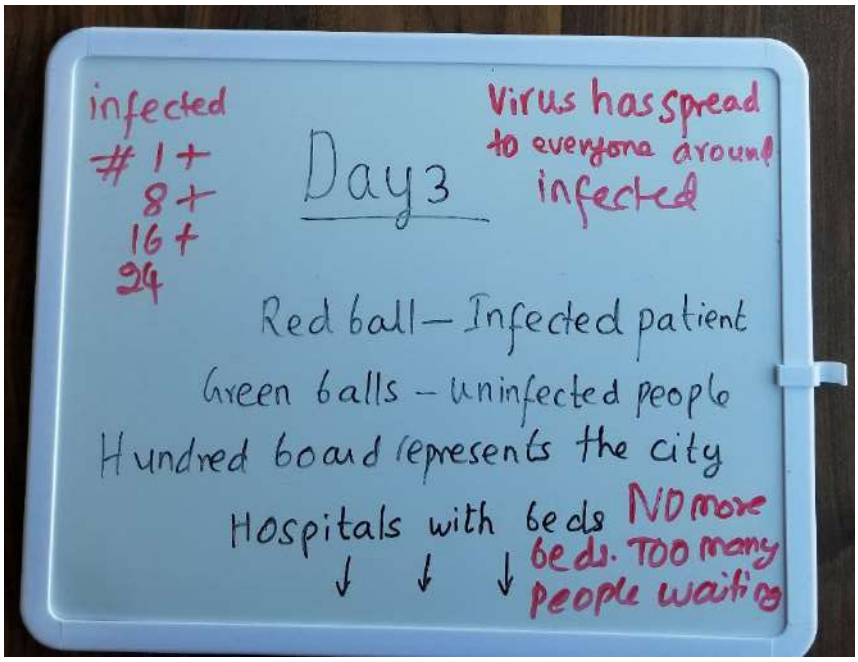

infected
#1+
8
Day 2
Virus has spread
to everyone around
Patient 0
Red ball - Infected patient
Green balls - uninfected people
Hundred board represents the city
Hospitals with beds


infected
#1+
8+
16
Day3
Virus has spread to everyone around infected
Red ball – Infected patient
Green balls – uninfected people
Hundred board represents the city
Hospitals with beds
Only 2 beds left

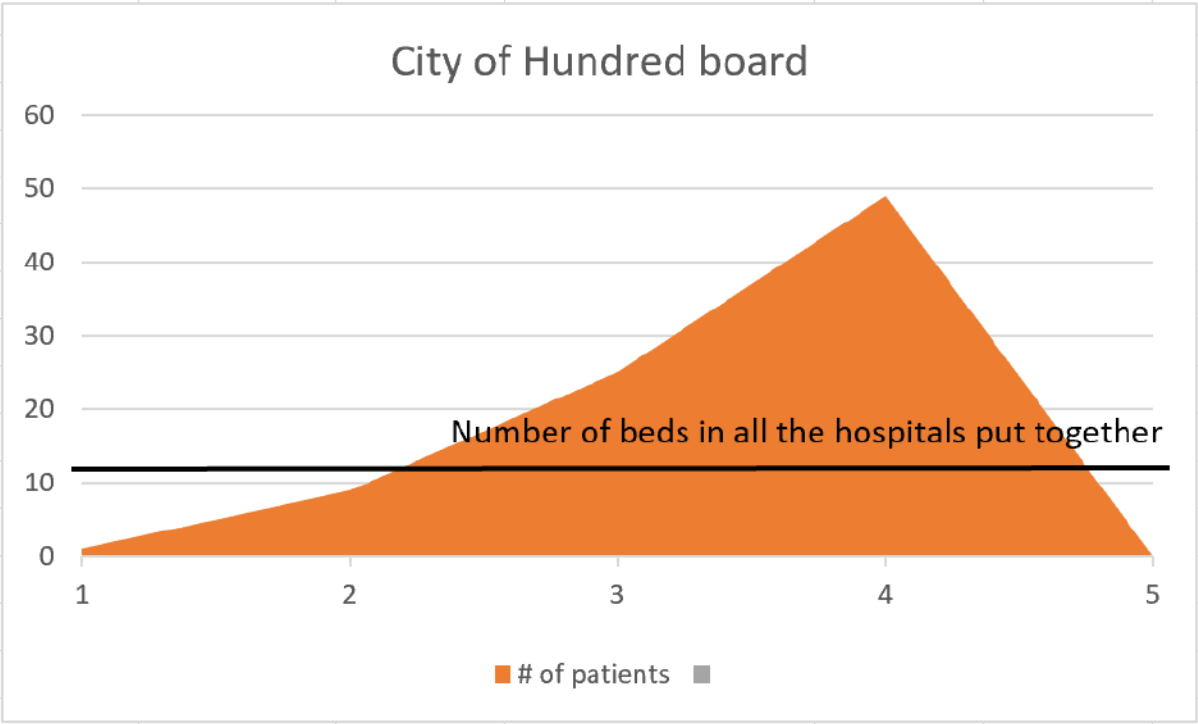

infected
#1+
8+
16
Day3
Virus has spread to everyone around infected
Red ball – Infected patient
Green balls – uninfected people
Hundred board represents the city
Hospitals with beds
↓ ↓ ↓
Only 2 beds left


infected
#1+
8+
16
Day3
Virus has spread to everyone around infected
Red ball – Infected patient
Green balls – uninfected people
Hundred board represents the city
Hospitals with beds
Only 2 bed left

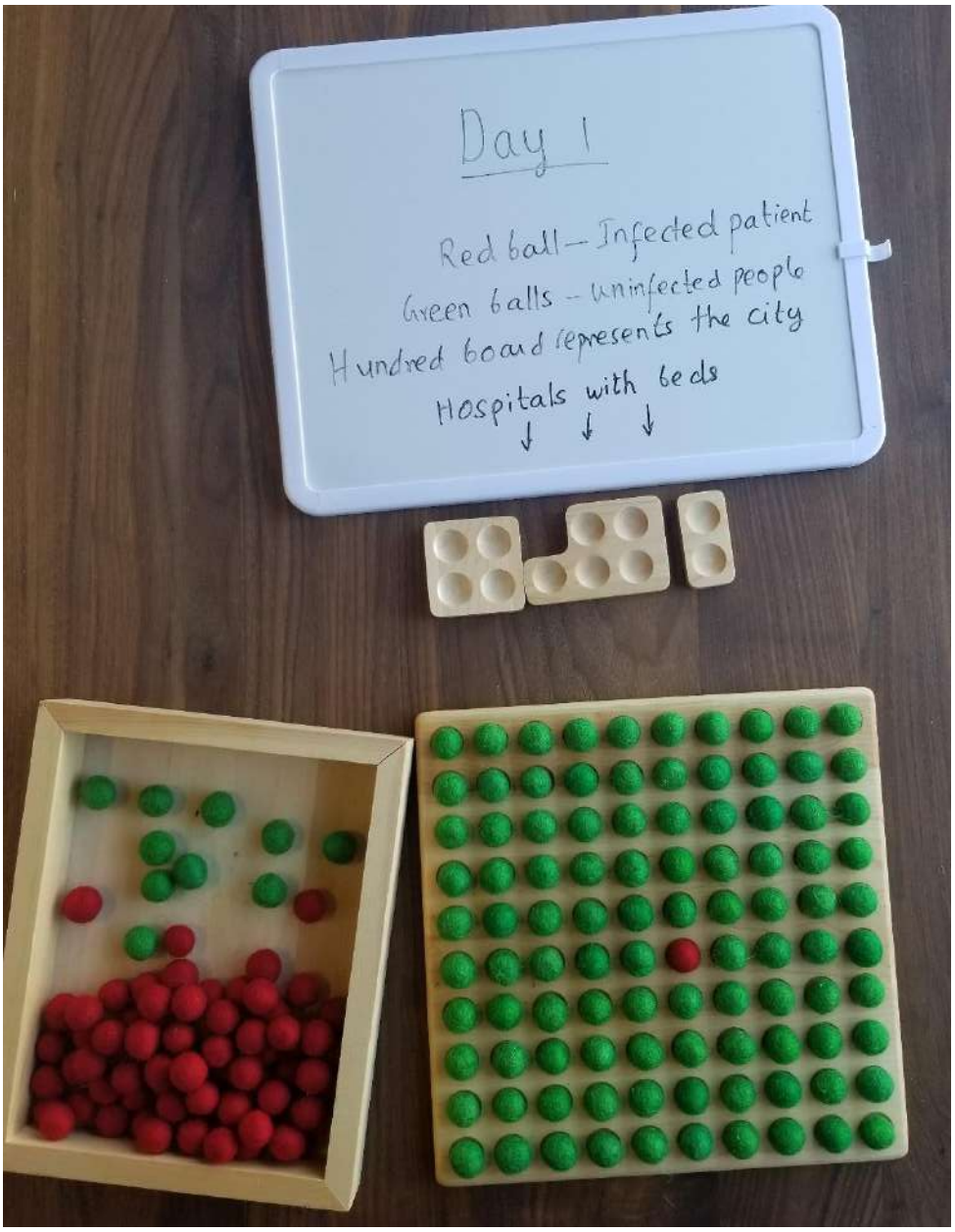

infected
1+
8+
16+
24
Day3
Virus has spread to everyone around infected
Red ball – Infected patient
Green balls – uninfected people
Hundred board represents the city
Hospitals with beds
NO more beds. TOO many people waiting

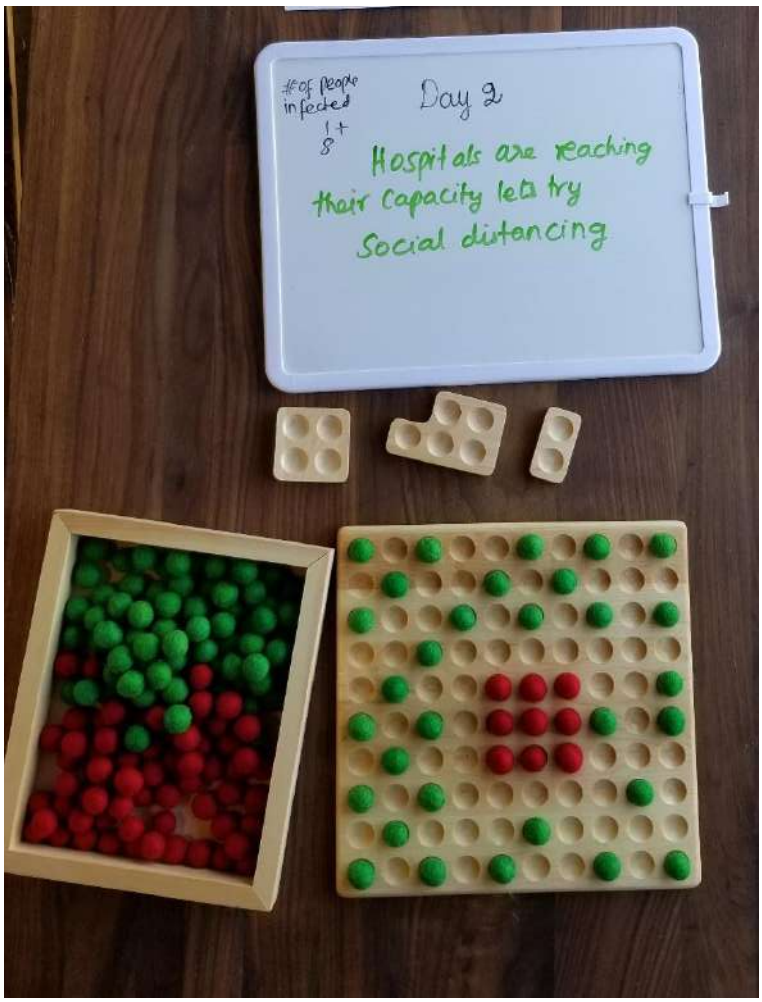

infected
1+
8+
16+
24
Day 3
Virus has spread to everyone around infected
Red ball – Infected patient
Green balls – uninfected people
Hundred board represents the city
Hospitals with beds
NO more beds. TOO many people waiting

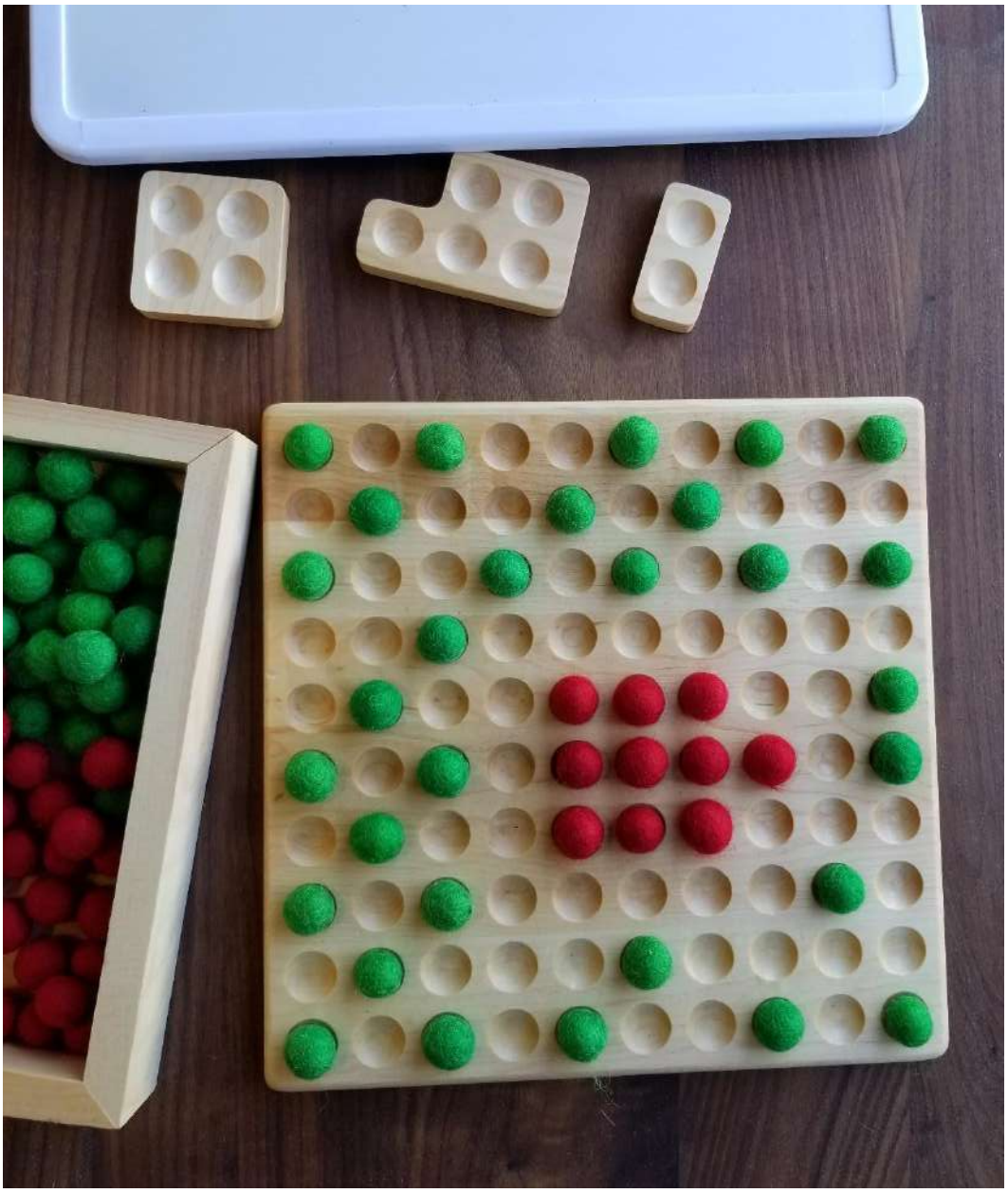
Days	# of patients
1	1
2	9
3	25
4	49
5	

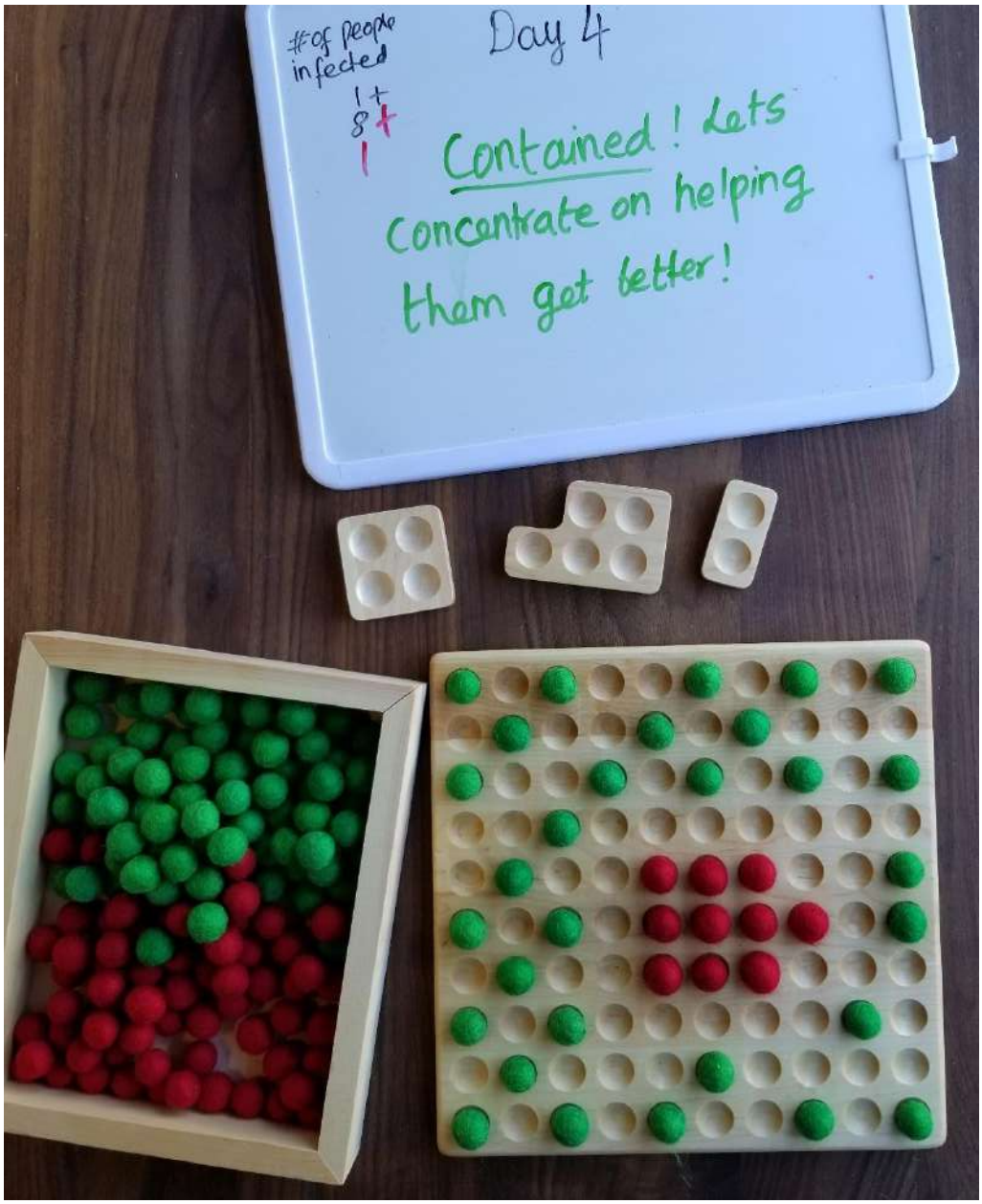


Activity #2: Demonstrate how social distancing can flatten the curve. Start this activity the same way you started activity #1 – place the patient zero in the middle. This time, instead of filling the board with people, fill them with distance. There will always be people who don't listen 😊 so place some close to the patient zero but distribute the rest with space. Depending on how much distance you put between people, see how quickly it spreads.

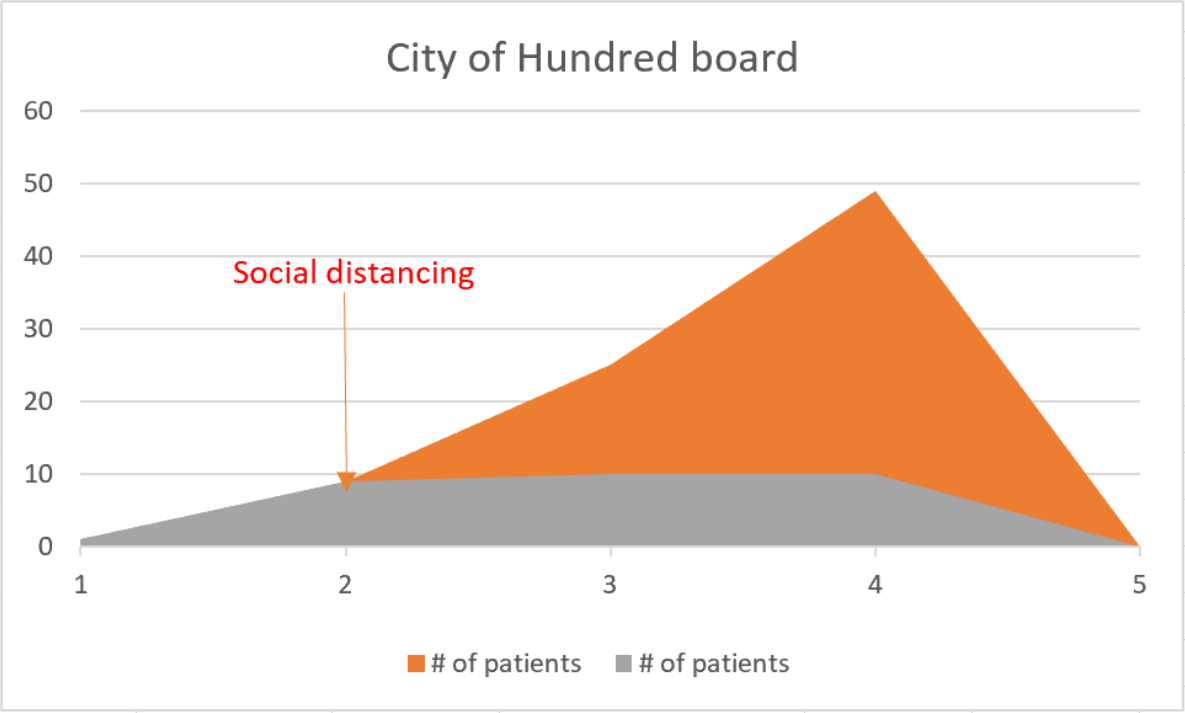

Day 1
Red ball – Infected patient
Green balls – uninfected people
Hundred board represents the city
Hospitals with beds


# of people infected
1 + 8
Day 2
Hospitals are reaching their capacity lets try Social distancing




#of people infected
1+
8+
1
Day 4
Contained! Lets
Concentrate on helping
them get better!

Days	# of patients	# of patients	
1	1	1	
2	9	9	<---Social distancing
3	25	10	
4	49	10	
5			



Activity #3: Demonstrate herd immunity. Use 3 colored balls – person who is infected (Red), people who are immune to the virus (via vaccination or by other means) with blue balls and immunocompromised people (green balls). Tell them the rule is green people near red will turn to red, but if they are surrounded by blue, they remain green. Demonstrate how with more blue people in general, more green people can be surrounded and be protected. This concept is called the herd immunity.

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