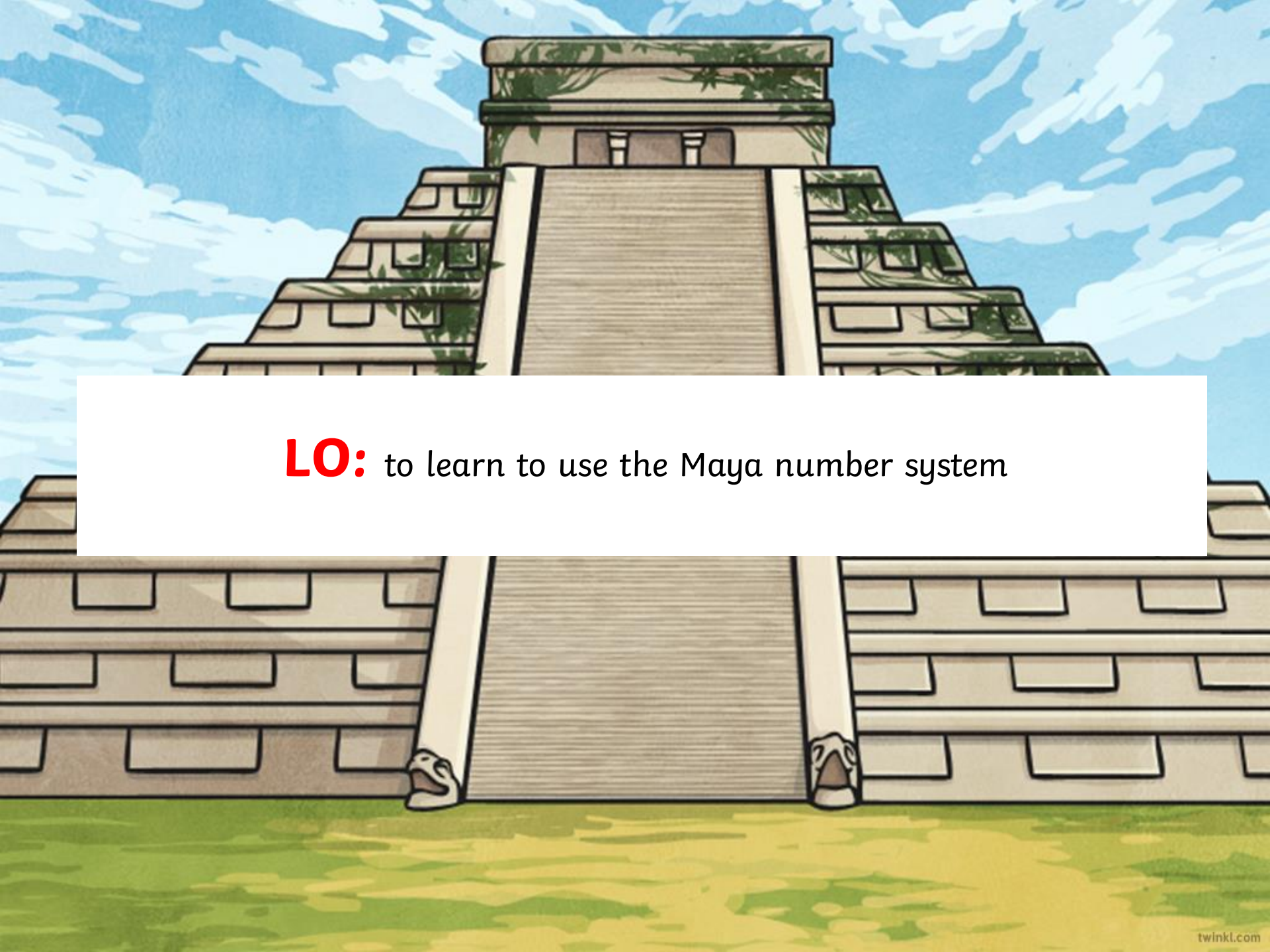
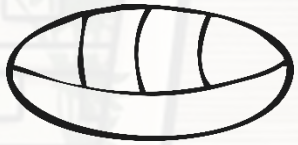
Maya Number System


LO: to learn to use the Maya number system
twinkl.com

Number System

The numbers 1-19 are formed in a similar way to Roman Numerals.

 = 0

 = 1

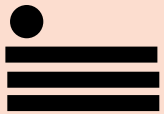
 = 5

Different numbers are made by stacking the lines and lining up the circles on top.

5 circles = a new line.

Numbers 1-19

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

11	
12	
13	
14	
15	
16	
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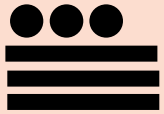
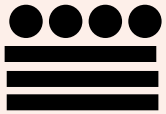
18	
19	

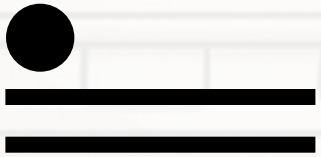
Remember:

● = 1 ——— = 5

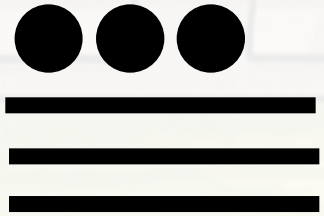
Can you work out what these numbers would be?

 = 7

 = 12

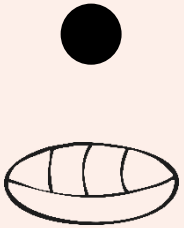
 = 11

 = 16

 = 18

 = 8

After 19 it gets a little more tricky. After 19 numbers were written **vertically** with **multiples of 20** above the bottom number.

20	
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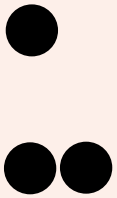
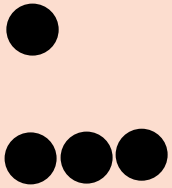
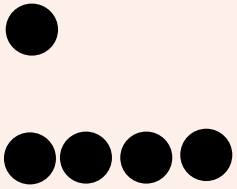
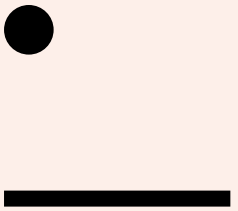
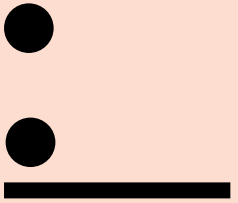
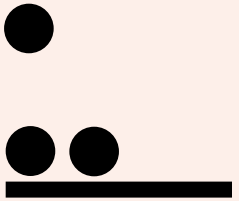
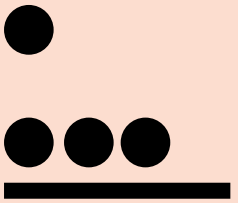
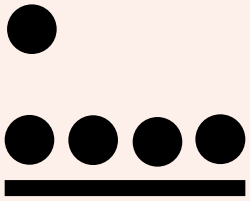
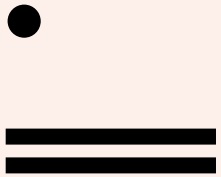
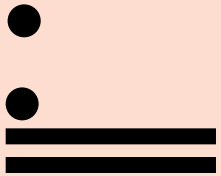
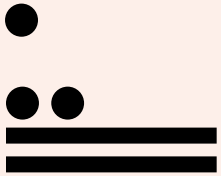
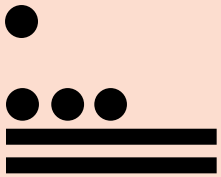
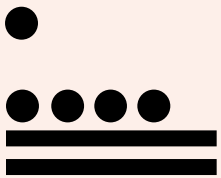
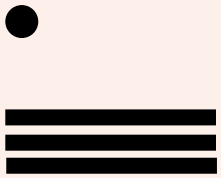
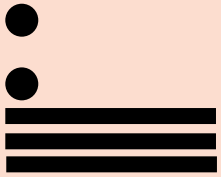
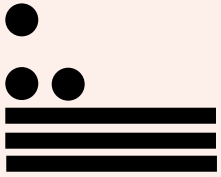
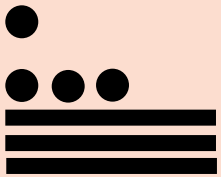
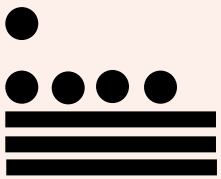
22	
23	
24	

25	
26	
27	
28	
29	

After 19 it gets a little more tricky. After 19 numbers were written **vertically** with **multiples of 20** above the bottom number.

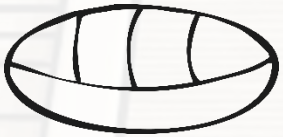
30	
31	
32	
33	
34	

35	
36	
37	
38	
39	
40	

Remember:

If you have a multiple of 20, the zero is used as a place holder, much like we do today.

= 2 x 20

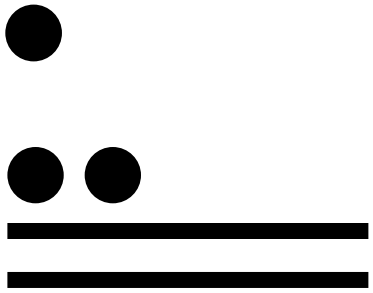


= 0

40 + 0 = 40

Numbers Above 10

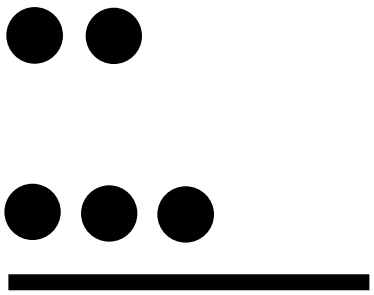
If you have a multiple of 20, the zero is used as a place holder, much like we do today.



= 1 x 20

= 12

20 + 12 = 32

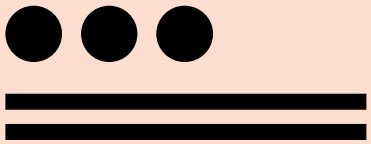


= 2 x 20

= 8

40 + 8 = 48

Once we get above 40 it might be easier to see it in a table:

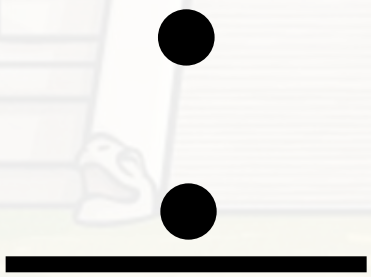
Number of 20s		4 x 20 = 80	93
Number of 1s and 5s		= 13	

Number of 20s		8 x 20 = 160	167
Number of 1s and 5s		= 7	

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

Number of 20s		8 x 20 = 160	167
Number of 1s and 5s		= 7	



20

6

= 26

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

Number of 20s		8 x 20 = 160	167
Number of 1s and 5s		= 7	

40

= 58

18

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

Number of 20s		8 x 20 = 160	167
Number of 1s and 5s		= 7	

200

18

= 218

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

Number of 20s		8 x 20 = 160	167
Number of 1s and 5s		= 7	

320

18

= 338

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

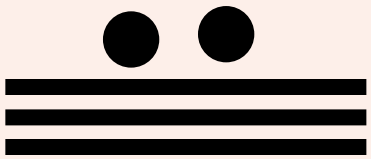
19 x 20 = 380

19

= 399

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

Number of 400s		2 x 400 = 800	937
Number of 20s		6 x 20 = 120	
Number of 1s and 5s		= 17	

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

Number of 400s	●●	800
Number of 20s	●	120
Number of 1s and 5s	●●●	8

= 928

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

Number of 400s		4000
Number of 20s		140
Number of 1s and 5s		13

= 4153

Can you work out what these numbers would be?

Use the grid to remind you how the system works.

Number of 400s		2000
Number of 20s		0
Number of 1s and 5s		12

= 2012

Individual Task A

Complete your 'Maya Number System **0 - 19**' worksheets!

Individual Task B

Complete your 'Maya Number System **0 - 399**' worksheets!

Individual Task C

Complete your ‘Maya Number System **0 - 7999**’ worksheets!

Plenary

Work with a partner to write down the following numbers using the Maya system.

7

16

34

126

427

3065

Plenary

Why do you think the Maya chose five and twenty as the bases of their numerical system?

Maybe the Maya chose five and twenty as the two bases of their system as there are five fingers on one hand, and twenty fingers and toes on one person.