

9

8

PLACE VALUES

BY
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6

3

1

?



HISTORY OF NUMBERS

Place values describe numbers in written form

(Hansen, (2020, p. 17)

Our number system is based on the Hindu-Arabic system
In use since 15th Century

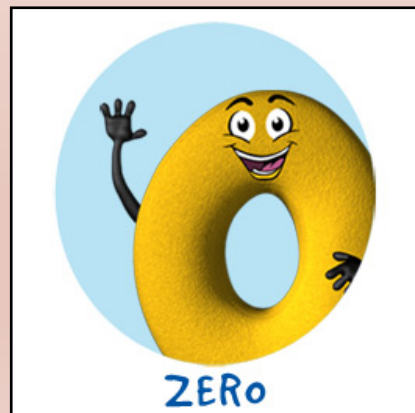
(Hansen, (2020, p. 17)

We only have 10 digits to use

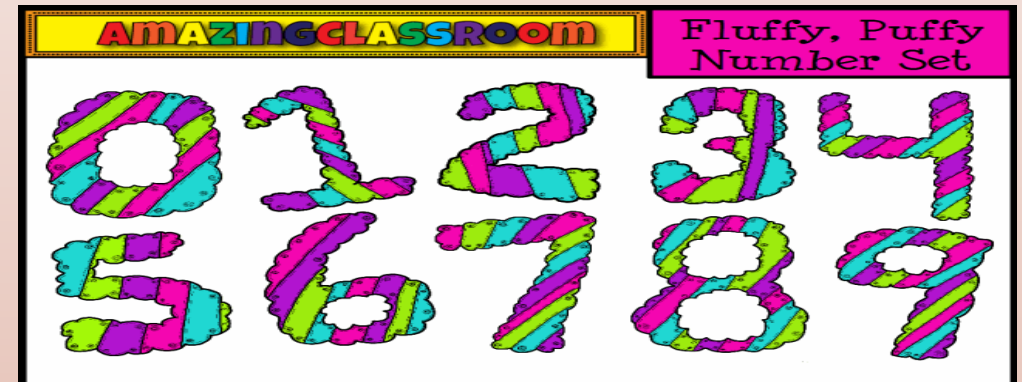
(Hansen, (2020, p. 17)

Fills empty columns

(Hansen, (2020, p. 17)



(Numbers Alive, 2014)



(Amazing Classroom, 2021)

30 = 3 Tens and ZERO or NO 1's

PLACE VALUES & WHAT GOES WHERE

Base 10 means columns go

or



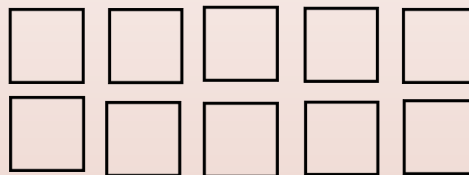
By powers of 10.

Grouping and exchange

10 lots of 1

=

1 lot of 10



LOCATION

LOCATION

LOCATION

HUNDREDS

TENS

UNITS/1'S

3

1

7

317 = 3 Hundreds
1 Ten
and 7 1's

3

0

30 = 3 Tens
And 0 1's

WHAT THE THEORISTS SAY!!

The principles of Vygotsky's theory are:

- Build on the knowledge the learner already has
- Break the task down into smaller steps
- keep learners focused on finishing the small tasks
- Use MKOs to help and support

(Bates 2019)

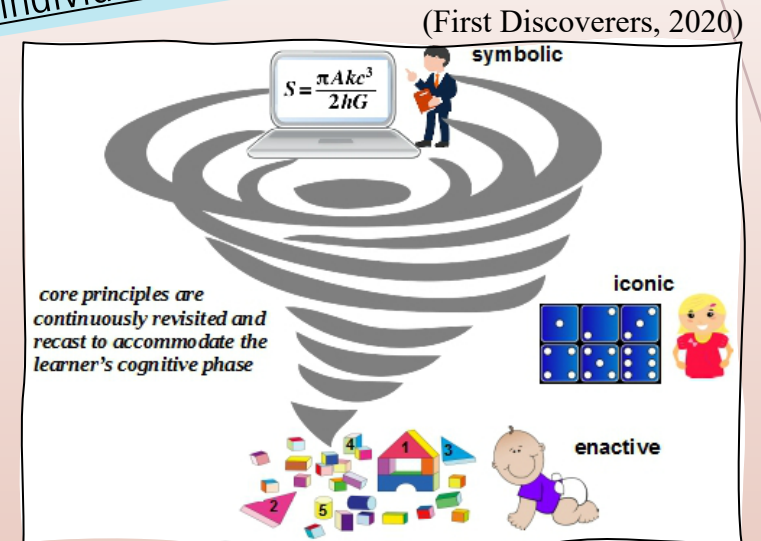


(McGoldrick, 2020)



Steps to success 1, 2, 3...
By breaking the main task down into smaller more manageable steps for the learner to follow the main task will be less out of reach.

Vygotsky called those we learn from **Most knowledgeable others (MKOs)** and that when we are in the process of learning from them, We are in the **Zone of Proximal Development (ZPD)** it is during this period that we are most receptive to learning and can achieve far beyond our capabilities individually. (Bates, 2019)



Burners Spiral curriculum

- Understanding is vital for learning to occur
- Takes place in 3 stages
- Start with recap of what was already taught
- Question students for understanding

(Bates, 2019)

LITERACY & NUMERACY FRAMEWORK

Numeracy Co-Ordinator should

- Maintain settings numeracy policy
- Ensures cross curricular opportunities
- Adequate training and monitoring of staff
- Collates and monitors pupil progress

Numeracy Policy

- Published by The Welsh Assembly Government in 2013
- Designed to support schools in providing cross curricular opportunities to improve numeracy skills
- For 5 – 14 yr. old's or yr. 1 – yr. 9
- Developing numerical reasoning,
- Using number skills
- Using measuring skills
- Using data skills

(WAG, 2013)

New Curriculum for Wales

The new curriculum sets out 5 new proficiencies which are:

- conceptual understanding
- fluency
- communication with symbols
- logical reasoning
- strategic competence
- Progression is dependant on the understanding of the previous.
- Greater control to schools about how lessons are taught

(WAG, 2019)

THE RESOURCE

- A simple card design with the most used place value columns.
- Can be purchased or just written at the top of a page

PTS 

Place Value

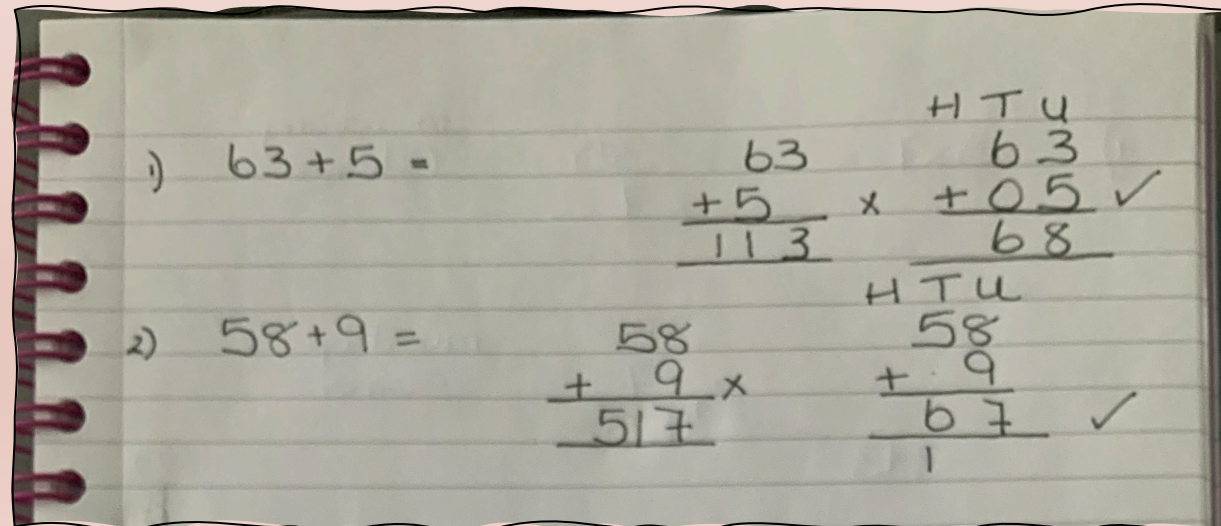
Place value determines the value of a digit based on its location within a number.

M	100 Th	10 Th	Th	H	T	O	.	†	h
Millions	Hundreds of Thousands	Tens of Thousands	Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths

www.ptstickers.co.uk

Common errors

- Digits in wrong columns
- Addition errors



WHAT GOES WHERE??

Multiplying by 10, 100, 1000

Handwritten notes on a piece of lined paper showing multiplication by 10, 100, and 1000.

multiplying by 10, 100 & 1,000

HTU.th $\times 10$
0.7
7

HTU $\times 10$
3
30

HTU.th $\times 100$
0.3
30

HTU.th $\times 100$
3.3
330

HTU.th $\times 1000$
71
710

Dividing by 10, 100, 1000

Handwritten notes on a piece of lined paper showing division by 10, 100, and 1000.

Dividing by 10, 100, 1,000

HTU.th $\div 10$
2.
0.2

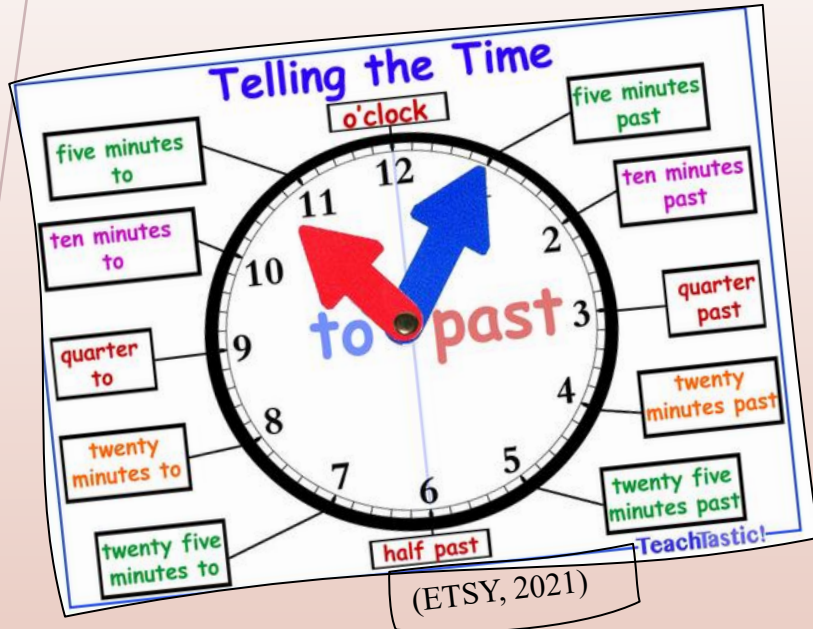
HTU.th $\div 10$
21.
2.1

HTU.th $\div 100$
21.
0.21

HTU.th $\div 100$
236.
2.36

Th HTU.thth $\div 1,000$
9710.
9.71

EVERYDAY USES



3:25 is 25 past 3

Money



Bus Timetable

Buses to the City will run at the following times:

Monday to Friday

Depart	Arrive
09.30	10.00
11.30	12.00
12.30	13.00
13.30	14.00
16.30	17.00
18.30	19.00
20.30	21.00
22.30	23.00

Sunday

Depart	Arrive
10.00	10.30
12.00	12.30
14.00	14.30
16.00	16.30
18.00	18.30
20.00	20.30

(Early Learning, 2020)

Departs 9.30

£1.76 + £10.99

£10.99

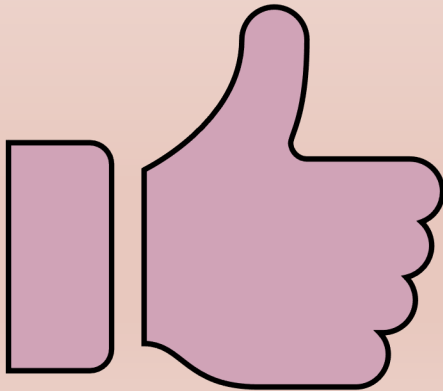
£ 1.76

£ .

PRO'S AND CON'S

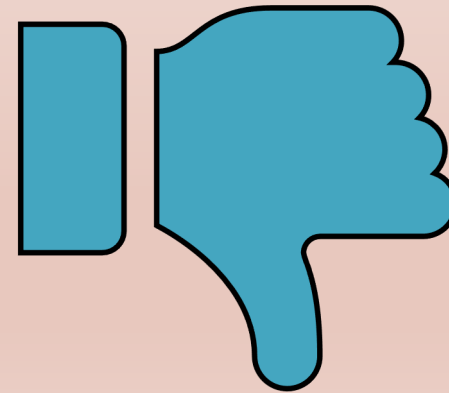
Pro's

- No equipment is needed (other than a pen)!
- Can be used anywhere with any sum
- Can be used for all subjects
- Can be used in exams
- Easy to remember



Con's

- Can not be prompted in tests
- Relies on memory
- Numbers can get muddled up



REFERENCE LIST

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