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Herts for Learning is a not for profit company providing school improvement and business services. With over 500 shareholder schools, Herts for Learning is dedicated to improving standards of education in Hertfordshire and beyond.

Major milestones

Year 1:
* **count in multiples of twos, fives and tens**
* **solve simple multiplication and division using objects, pictures and arrays with support**

Year 2:
* **count in steps of 2, 3, 5 and 10**
* **recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables**

Year 3:
* **count from 0 in multiples of 4, 8, 50 and 100**
* **recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables**

Year 4:
* **count in multiples of 6, 7, 9, 25 and 1000**
* **recall multiplication and division facts for multiplication tables up to 12 × 12**

Year 5:
* **identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers**
* **recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})**

Learning the facts

$0 \times 4 = 0$ ✓
$1 \times 4 = 4$ ✓

$2 \times 4 = 8$ ✓

$3 \times 4 = 12$ ✓

$4 \times 4 = 16$ ✓

$4 \times 5 = 20$ ✓
$6 \times 4 = 24$ ✓

$7 \times 4 = 28$ ✓

$8 \times 4 = 32$ ✓
$9 \times 4 = 36$ ✓
$10 \times 4 = 40$ ✓
$11 \times 4 = 44$ ✓
$12 \times 4 = 48$ ✓

At home – with pasta?

$$0 \times 3 = 0$$
$$1 \times 3 = 3$$
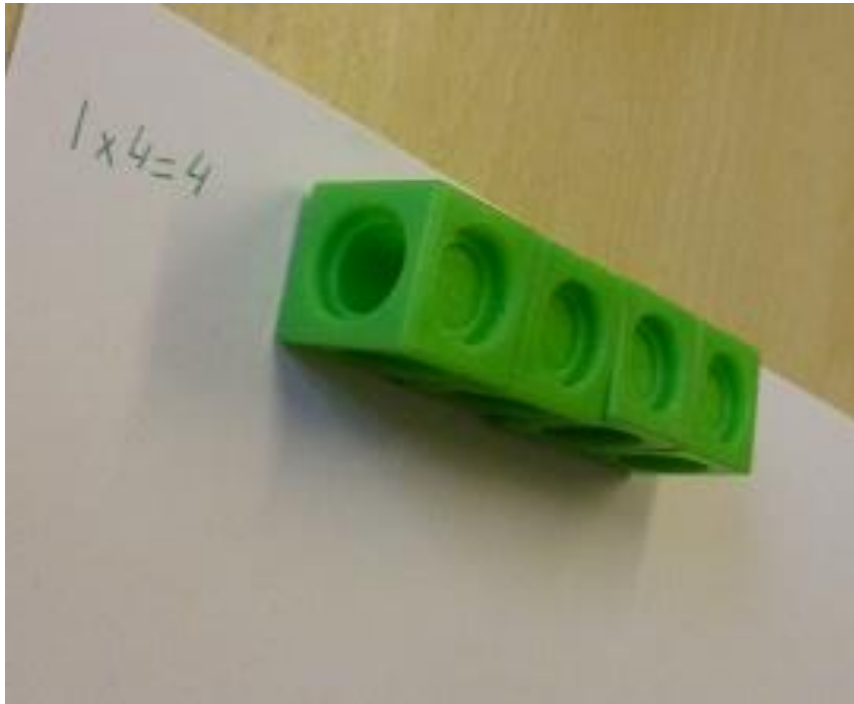$$2 \times 3 = 6$$
$$3 \times 3 = 9$$
$$4 \times 3 = 12$$

0×3

1×3

2×3

3×3

Learning the facts

- Start with 1 x __
- Make the array
- Clarify   0 x __ = 0
- Write the list
- Check it
- Create the cards
- Play with the cards

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Games with the cards

On your own, in a pair, with an adult…

- In order first, with the list still visible
- In order, without the list
- Starting with the product, give the fact
- Out of order – choose 'easiest' first
- Out of order – less choice of order
- Speed round

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Times Table Strategies

Doubling/Halving (x2, x4, x8) (x3 to x6)

One lot more, one lot less

Near 2s, 5s and 10s

Squares

Zero effect (___ x 0 = 0)

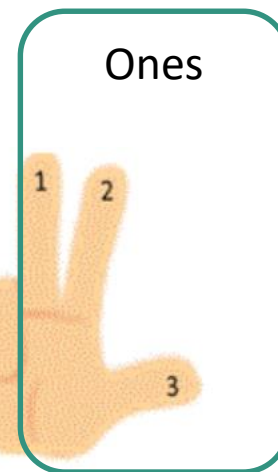Switch it (5 x 8 = 8 x 5)

Tricks e.g. 9s

Songs and rhymes

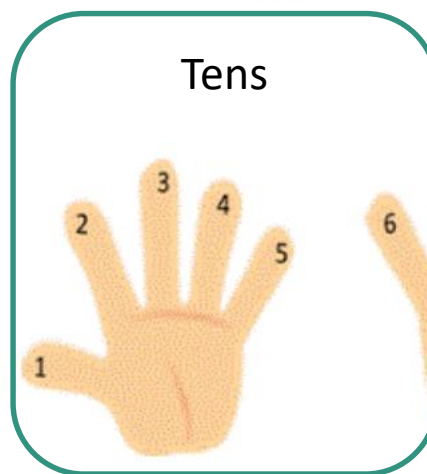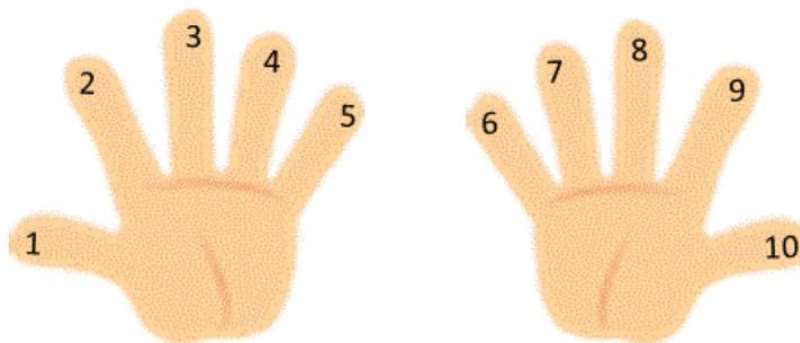# Seven times table hack

012

234

456

0 7	14	21
28	35	42
4 9	56	63

Facts at your fingertips – Nifty nines

9 x 7 =

Tens

Ones

Facts at your fingertips - 6x6 to 10x10

$7 \times 8 =$

Multiply number of fingers together
$3 \times 2 = 6$

Count of tens,
50

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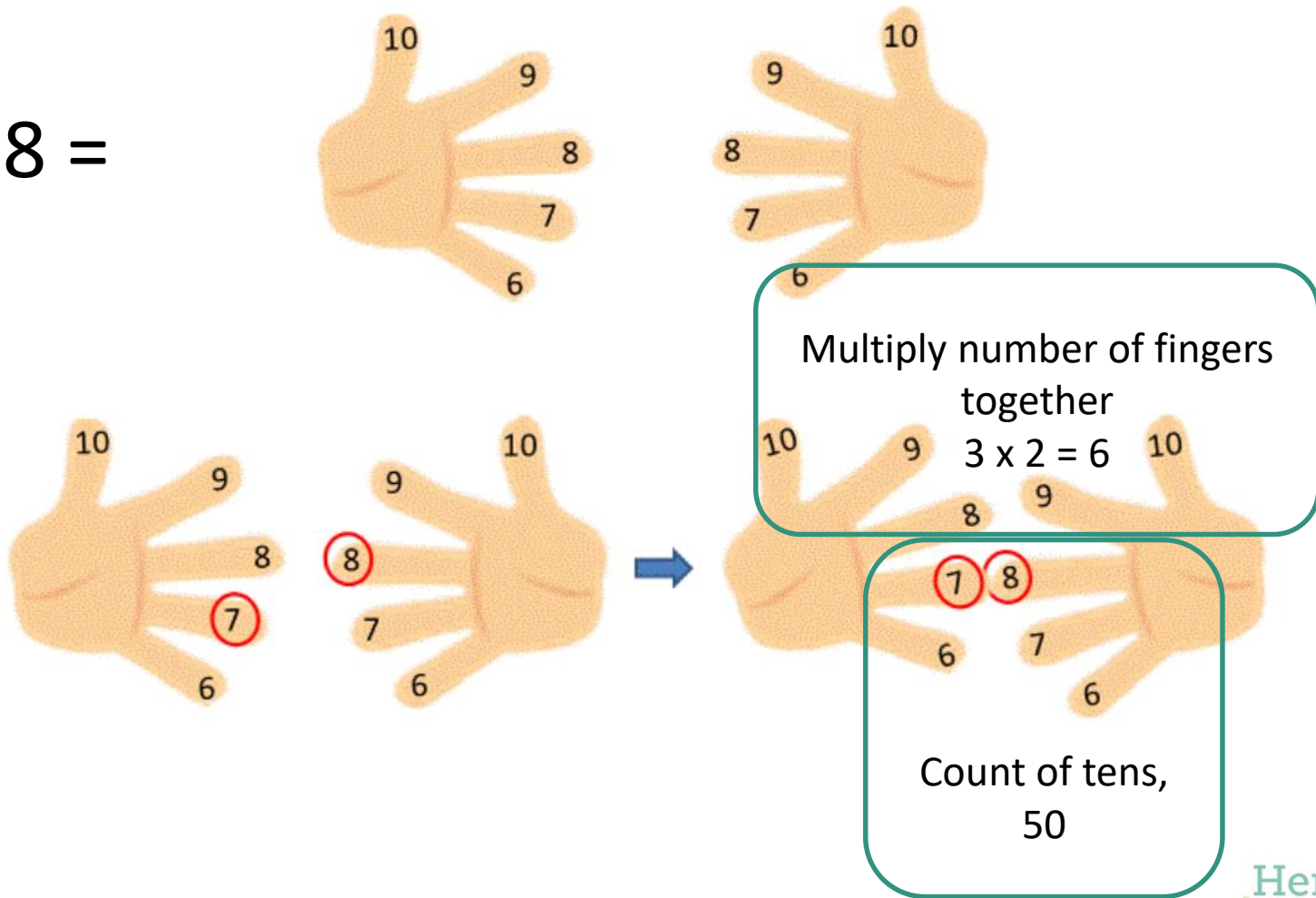
Three in a row

1	2	3	4	5	6	7	8	9	10

Working in pairs

You each need a different colour pencil

Roll your dice (if I roll 5 I need to work out 3 x 5)

Write the answer in the correct square

The winner is the person who gets 3 in a row first

Decades

- Deal each player 10 cards
- All remaining cards are placed in a face down pile in the centre of play.
- Note the value of the cards:
- ➢ Ace is worth eleven or one
- ➢ Jack is worth twelve
- ➢ Queen is worth thirteen
- ➢ King is worth fourteen

Decades

- Turn over the top card of the draw pile and multiply by 10

- If you have a pair of cards which multiply together to give a product within the target decade zone then lay them down.

- If you don't have cards with a product in the decade zone then miss a go.

- Turn over the next card on the draw pile to create the next decade zone.

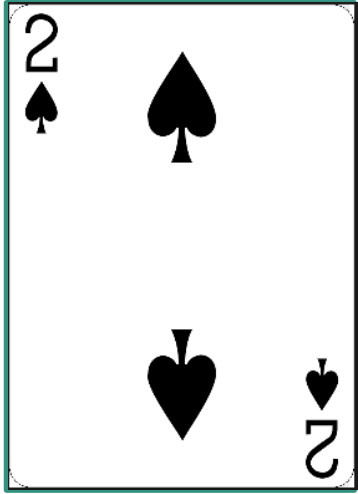- Play continues until one player only has two cards left.
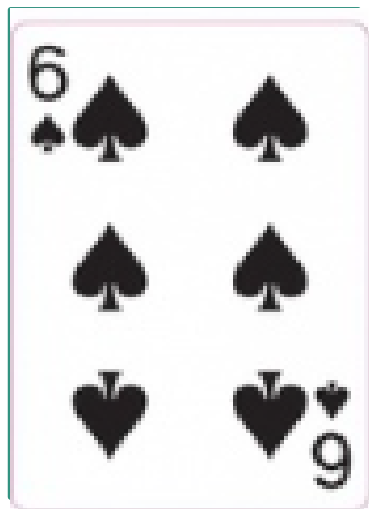
6 x 10 = 60

60 is the target decade zone

7 x 9 = 63
8 x 8 = 64
13 (Queen) x 5 = 65

2 x **10** = 20

20 is the target decade zone

11 (Ace) x 2 = 22
3 x 7 = 21
4 x 5 = 20

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