

# The New Mathematics Curriculum KS2.

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Herts for Learning

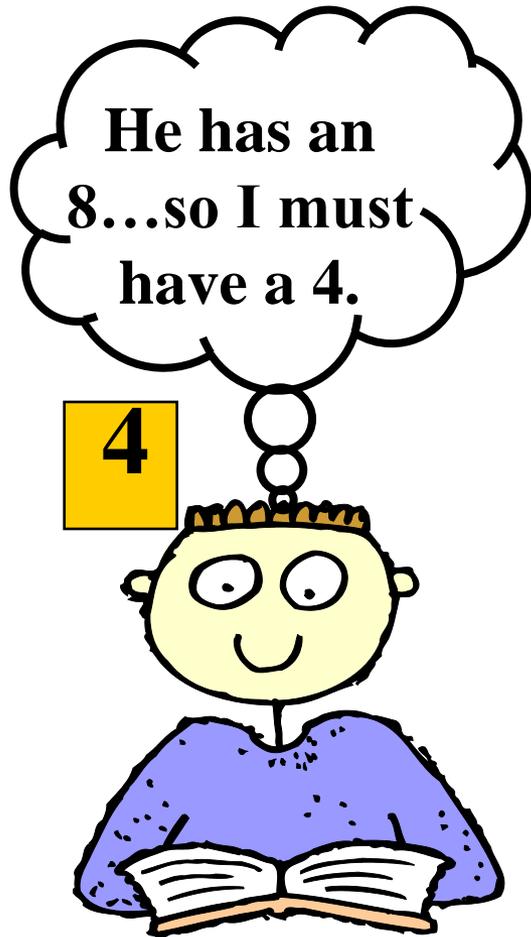
How are you feeling?



# Maths Anxiety

- As young as 5 years old (Ramirez et al 2013)
- About one third of students suffer maths anxiety (Boaler, 2014)
- Working memory becomes blocked and students cannot access the facts they know (Beilock, 2011; Ramirez et al 2013)
- Occurs most amongst girls and high achievers
- Creates a negative spiral
- Children turn away from maths

# Mind reading cards



# Aims of the mathematics curriculum

- become **fluent** ... through varied and frequent practice with increasingly complex problems [to] *develop conceptual understanding*
- **reason mathematically**
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication



24

If I know this one fact, what else do I know...

$$3 \times 5$$

# The X Table Fact that scared a Chancellor of the Exchequer...!

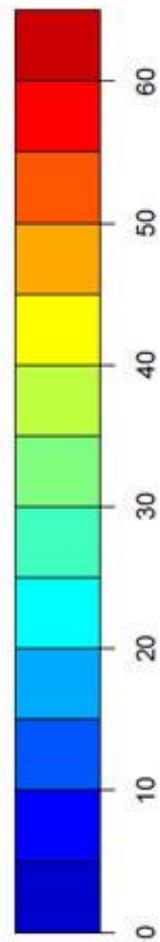
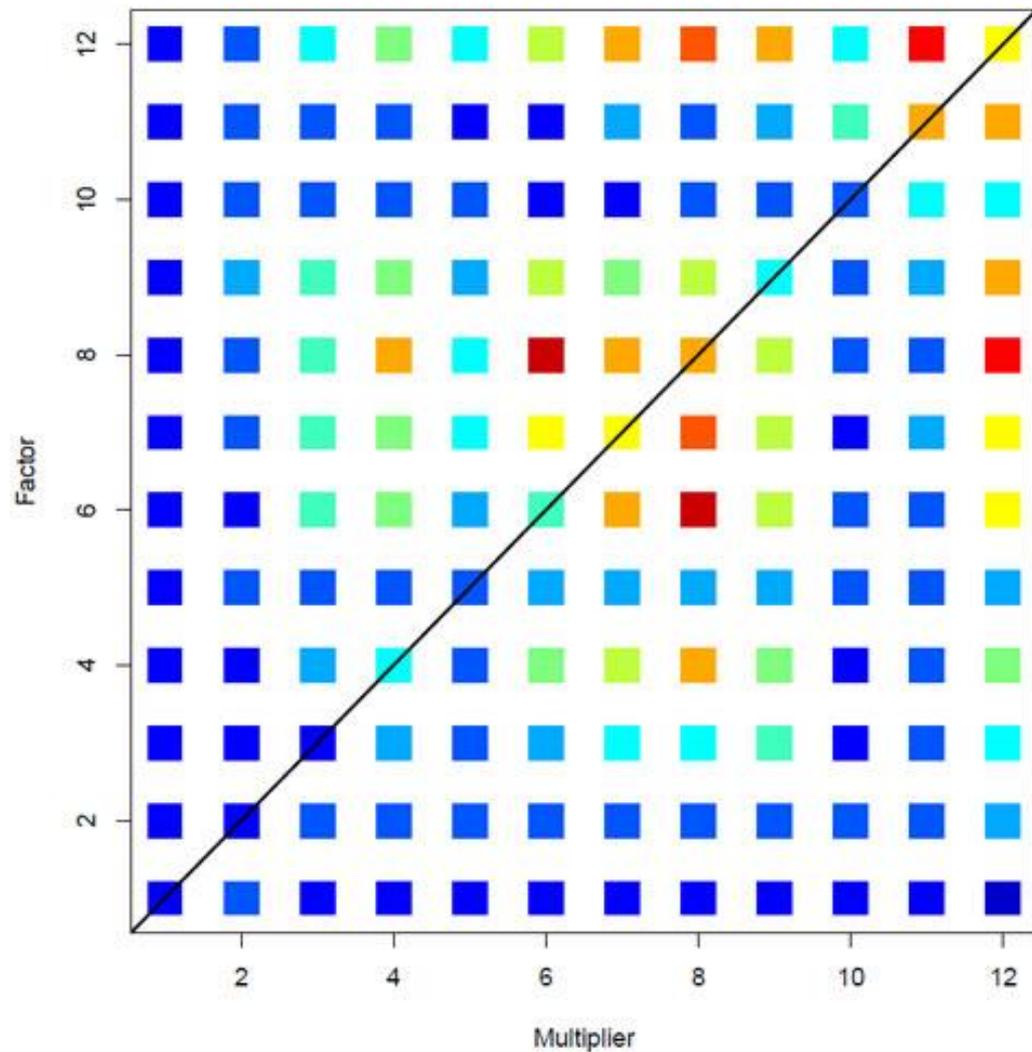


I make it a rule in  
life not to  
answer a load of  
maths questions.

# Which facts are the hardest to learn?

Work in buzz groups to colour in which tables facts are the hardest to learn on the grid.

Times Tables Answer Accuracy



n = 59346

# Celebrating the Blind Spot!



# Times Table Strategy Board

Working walls can help to remind pupils of the strategies they can use to solve multiplication facts more efficiently **if they don't recall** the answer.

Strategies can include:

Doubling

One lot more, one lot less

Near squares

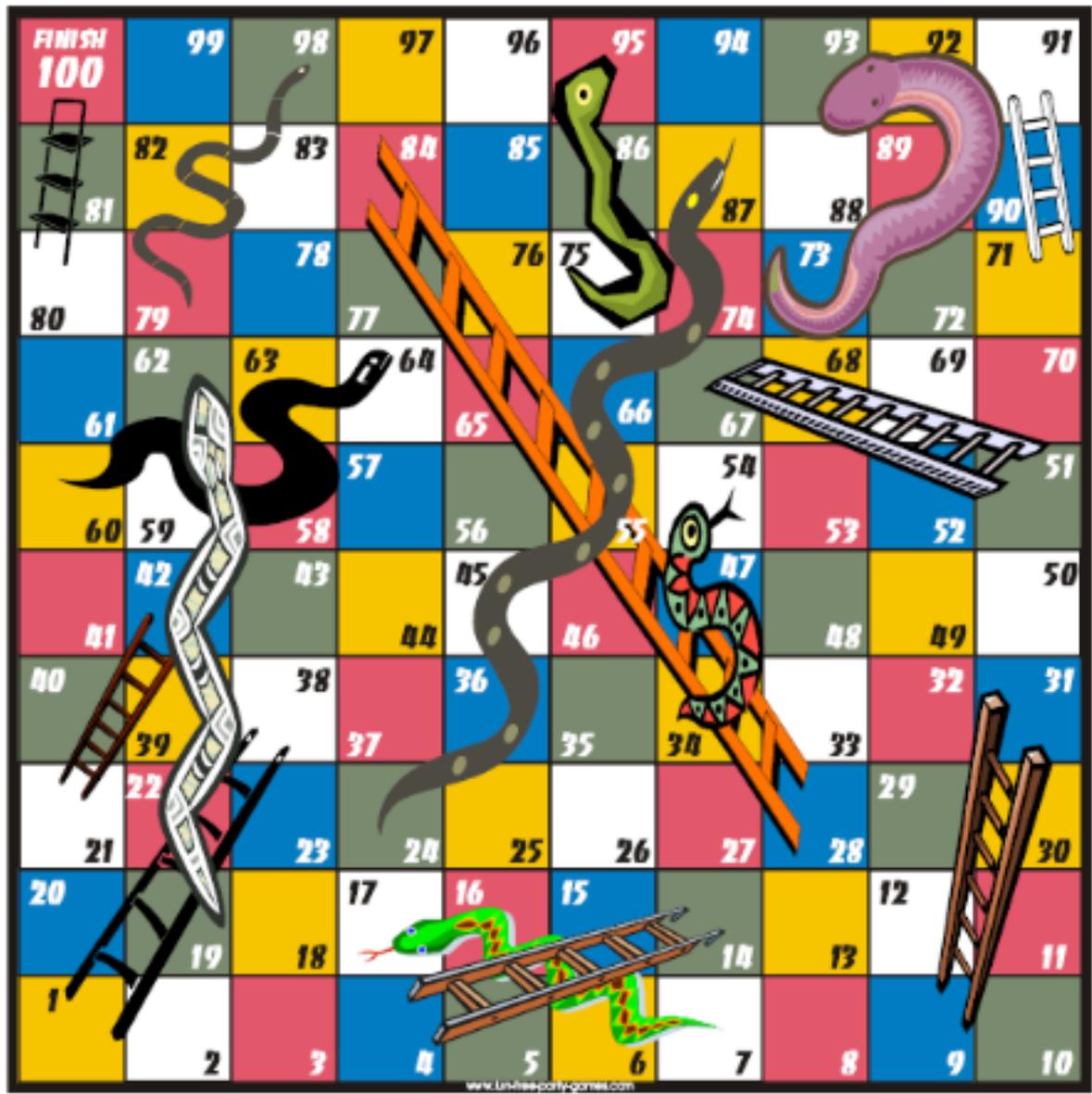
Near 2s, 5s and 10s

Switch it

Tricks

Mnemonics

ROGOF



# Using the associative law

What is the easiest way to do these calculations

- $2 \times 9 \times 5$
- $4 \times 8 \times 5$

Fluency Feeder



Encourage sharing and clarify

Who would like to share?

Any questions?

Did anyone else do it like that?

$$16 \times 35$$

How did you see it?

Who saw it differently?

Which strategies seem to be efficient for this problem?

Teach explicitly...

$$24 \times 42$$

# Questions to extend thinking

**Ask children who are getting started with a piece of work:**

- **How are you going to tackle this?**
- **What method are you going to use? Why?**
- **How are you going to record what you are doing?**
- **What do you think the answer will be?**
- **Can you estimate or predict the answer?**
- **Will you do it mentally, with pencil and paper, using a number line, with a calculator...? Why?**
- **What operations are you going to use?**

## **Ask children who are stuck...**

- Can you talk me through what you have done so far?**
- Is there something you already know that might help?**
- What about putting things in order?**
- Would a table/ diagram / graph help?**
- What did you do last time? What is different this time?**

# Important things to know

- Problems can be solved in different ways.
- Great mistake!
- Doing maths in your head is important.
- Its okay to use a calculator
- Hots not Mots

Thank you for your time  
and your engagement!

