

Goldsmith Primary Academy Key Instant Recall Facts (KIRFs)

Here is a comprehensive list of Key Instant Recall Facts (KIRFs) for our children at Goldsmith Primary Academy, designed for quick, confident recall from Nursery to Year 6. These facts form the bedrock of mathematical fluency, allowing children to tackle more complex problems with ease. We should regularly check that children can retrieve the previous year groups, whilst also their current.

Nursery:

- **Counting:** Verbally counting to 10 and beyond.
 - **One-to-one correspondence:** Understanding that each object in a group is counted only once, and that a number word corresponds to a single object. For example, when counting five apples, they should point to each apple in turn, saying "one, two, three, four, five."
 - **Subitising:** The ability to instantly recognise a small number of items without having to count them. They should be able to look at three items and know it's "three" immediately.
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Reception

- **Number bonds to 5:** Instantly know all pairs of numbers that make 5 (e.g., 1+4, 2+3).
 - **Counting to 20:** Confidently count forwards and backwards to and from 20.
 - **Doubles to 5:** Know the doubles of numbers up to 5 (e.g., 3+3=6).
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Year 1

- **Number bonds to 10:** Rapid recall of all pairs of numbers that make 10 (e.g., 7+3, 8+2).
 - **Number bonds to 20:** Know number pairs that add up to 20 (e.g., 15+5, 12+8).
 - **Doubles and halves to 10:** Instantly know the doubles and corresponding halves of numbers up to 10 (e.g., half of 8 is 4).
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Year 2

- **Number bonds to 20:** Continued practice of number bonds to 20 to ensure automatic recall.
- **Times tables 2, 5, 10:** Confidently recite the **2, 5, and 10 times tables** and know the corresponding division facts (e.g., if $5 \times 4 = 20$, then $20 \div 4 = 5$).

Year 3

- **Times tables 3, 4, 8:** Master the **3, 4, and 8 times tables**, and their related division facts.
- **Number bonds to 100:** Know pairs of multiples of 10 that add up to 100 (e.g., $60+40=100$).

Year 4

- **All times tables up to 12x12:** The ultimate goal for this year is to have instant recall of **all multiplication and division facts up to 12 x 12**. This is a crucial milestone for mathematical fluency.

Year 5

- **Factors of a number:** Find all the factors of a given number (e.g., the factors of 12 are 1, 2, 3, 4, 6, 12).
- **Prime numbers up to 20:** Instantly identify prime numbers up to 20 (2, 3, 5, 7, 11, 13, 17, 19).
- **Metric conversions:** Know key conversions within the metric system (e.g., $1000\text{m} = 1\text{km}$, $1000\text{ml} = 1\text{l}$)

Year 6

- **Common factors and multiples:** Find common factors and multiples of two numbers (e.g., common factors of 12 and 18 are 1, 2, 3, 6).
- **Fractions, decimals, percentages:** Confidently convert between common **fractions, decimals, and percentages** (e.g., $\frac{1}{2}=0.5=50\%$).
- **Percentage of an amount:** Find a percentage of a given amount (e.g., 10% of 80 is 8).