Mathematics @ Dinnington

KIRFs

Key Instant Recall Facts

Reception

To help develop children's fluency in Mathematics, we have identified some Key Instant Recall Facts that should be learnt off by heart each half term.

Children will practice these facts in class, but would benefit from regular practice at home 3 time a week as well. At the end of each half term they will be assessed on how well they achieve each fact.

Please see attached lists of KIRFs which are aligned to the Maths curriculum we deliver.

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Reception Block 1 KIRFs

By the end of this block, children should know the following facts. The aim is for them to recall these facts instantly and accurately

Say in order numbers 0 to 5 and 5 to 0 and say what number is next in these sequences.

In order:

0, 1, 2, 3, 4, 5

And back again:

5, 4, 3, 2, 1, 0

Key Vocabulary

next
before
after
count forwards
count backwards
sequence
order
zero, one, two, three, four, five

Possible learning activities

Activity 1: Number Line Hop – Children hop along a floor number line saying numbers 0–5 forward and 5–0 backward. Ask: *"What comes after 2?"* or *"What comes before 4?"*
Activity 2: Mystery Number Game – Show sequences with missing numbers (e.g., 0, 1, __, 3, 4). Children fill in the gap and say what comes next or before.

Practice Sentences –

- "Count from 0 to 5: 0, 1, 2, 3, 4, 5."
- "Count backwards: 5, 4, 3, 2, 1, 0."
- "What comes after 2? (3)"
- "What comes before 4? (3)"

Reception Block 2 KIRFs

By the end of this block, children should know the following facts. The aim is for them to recall these facts instantly and accurately

Say in order numbers 0 to 10 and 10 to 0 and say what number is next in these sequences.

In order:

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

And back again:

10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Key Vocabulary

next
before
after
count forwards
count backwards
sequence
order
six, seven, eight, nine, ten

Possible Learning Activities

Activity 1: Number Line Hop – Children hop along a number line saying numbers 0–10 forward and 10–0 backward. Ask: *"What comes after 6?"* or *"What comes before 8?"*
Activity 2: Missing Number Game – Show sequences with gaps (e.g., 0, 1, __, 3, 4, …). Children fill in the missing number and say what comes next or before.
Practice Sentences –

- "Count from 0 to 10: 0, 1, 2, …, 10."
- "Count backwards: 10, 9, 8, …, 0."
- "What comes after 7? (8)"
- "What comes before 3? (2)"

Reception Block 3 KIRFs

By the end of this block, children should know the following facts. The aim is for them to recall these facts instantly and accurately

Automatically recall number bonds up to 5 (without reference to rhymes, counting or other aids)

Zero and five make five.

One and four make five

Two and three make five

Key Vocabulary

number bond
add
equals
total
whole
part
make 5
how many more
take away

Partition numbers to 5 into 2 groups.

"5 can be split into 4 and 1."
"5 can be split into 3 and 2."
"If I have 2 and 3, that makes 5."
"0 and 5 make 5."
"1 and 4 make 5."
"There are lots of ways to make 5."

Key Vocabulary

partition
split
share
groups
parts
whole
make
equals
add

Possible Learning Activities

Activity 1: Number Bond Match – Children pair cards to make 5 (e.g., 2 and 3).
Activity 2: Part-Whole Circles – Show 5 in the middle, children fill two parts (e.g., 4 and 1).
Practice Sentences –

- "0 + 5 = 5"
- "1 + 4 = 5"
- "2 + 3 = 5"

Activity 1: Sorting Objects – Give 5 counters, ask children to split into two groups in different ways.
Activity 2: Partition Mats – Use a mat with two boxes, children place objects to show partitions (e.g., 3 and 2).
Practice Sentences –

- "5 can be split into 4 and 1."
- "5 can be split into 3 and 2."
- "0 and 5 make 5."

Reception Block 4 KIRFs

By the end of this block, children should know the following facts. The aim is for them to recall these facts instantly and accurately

Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

"Two is less than four."

"Seven is more than six."

"Three and three is the same as six."

"There are more apples than oranges."

Key Vocabulary

more than
less than
fewer than
same as
equal to

Possible Learning Activities

Activity 1: Object Comparison – Show two groups of objects (e.g., apples and oranges). Ask: *"Which group has more?"* or *"Are they the same?"*
Activity 2: Number Card Challenge – Display two number cards (e.g., 7 and 5). Children say which is greater, which is less, or if they are equal.
Practice Sentences –

- "7 is more than 5."
- "3 is less than 4."
- "6 and 6 are the same."

Reception Block 5 KIRFs

By the end of this block, children should know the following facts. The aim is for them to recall these facts instantly and accurately

Automatically recall doubles facts up to 5+5.

"Double 0 is 0."
"Double 1 is 2."
"Double 2 is 4."
"Double 3 is 6."
"Double 4 is 8."
"Double 5 is 10."
"Two lots of 3 make 6."
"If I have 4 and 4, that's double 4, which is 8."

Key Vocabulary

double
same
equal
add
total
pairs
two lots of
twice

Possible learning activities

Activity 1: Double It Game – Show a number card (0–5). Children say the double (e.g., show 3 → "Double 3 is 6").
Activity 2: Object Pairs – Use real items (e.g., socks, cubes). Children make pairs and count the total (e.g., 4 socks → "Double 2 is 4").
Practice Sentences –

- "Double 0 is 0."
- "Double 1 is 2."
- "Double 2 is 4."
- "Double 3 is 6."
- "Double 4 is 8."
- "Double 5 is 10."

Reception Block 6 KIRFs

By the end of this block, children should know the following facts. The aim is for them to recall these facts instantly and accurately

Recite number names in order to 20.

"Count from 0 to 20 in order: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20"

"After 9 comes 10."

"Before 15 is 14."

"The number after 19 is 20."

"Numbers go in a sequence: 17, 18, 19, 20."

Key Vocabulary

count
order
sequence
next
before
after
zero
teen numbers (11–19)
twenty

Possible learning activities

Activity 1: Counting Train – Children line up as a "train" and each says the next number in order from 0 to 20.
Activity 2: Number Card Shuffle – Lay out cards 0–20 mixed up; children arrange them in the correct order and recite aloud.
Practice Sentences –

- "Count from 0 to 20: 0, 1, 2, …, 20."
- "What comes after 9? (10)"
- "What comes before 12? (11)"