# Number – Multiplication and division

**Objective**
Recall and use multiplication facts for multiplication tables up to 12 × 12

**Resources**
Slide 1 (per class); mini whiteboard, pen and eraser (per child)

## Multiplication wheel

**What to do**
- Display: Slide 1.
- Write a number from 1 to 12 randomly in the inner circle, one at a time. Pupils multiply the number by nine mentally and write the answer on their mini whiteboard. Children display their answer on their whiteboard. Write the answer in appropriate space in outer circle of the wheel.
- Repeat, asking children to show their answer each time.
- Ask individual pupils to give the answer.

**Variation**
- Change the multiplication table at random intervals.

**Objective**
Recall and use division facts relating to the multiplication tables up to 12 × 12

**Resources**
Slide 2 (per class); mini whiteboard, pen and eraser (per child)

## Division wheel

**What to do**
- Display: Slide 2.
- Write a multiple of 6 from 6 to 72 randomly in the inner circle, one at a time. Pupils divide the number by six mentally and write the answer on their whiteboard. Children display their answer on their whiteboard. Write answer in appropriate space in outer circle of wheel.
- Repeat, asking children to show their answer each time.
- Ask individual pupils to give the answer.

**Variation**
- Use other multiplication tables or change the divisor at random intervals.

**Objective**
Recall the multiples of 25

**Resources**
Resource 34: Multiples of 25 cards, counting stick (divided into 10 or 12 equal sections) (whole class)

## Multiples counting stick

**What to do**
- Count forwards and backwards using patterns of 25 starting from zero.
- ⬇ Place the multiples of 25 along the stick using the number cards with Velcro or sticky tape.
- For the 25 multiplication table, name one end of the stick zero and the other end 250. Point to the first division and ask: **What number does this represent? How do you know?** Point to the seventh division. Ask: **What number does this represent? How do you know?** Check with the children counting in multiples of 25 from zero. Ask: **How many 25s are there in 100?** (4) **How many 25s in 200** (8) **How do you know? What is 100 divided by 25?** (4) **What is 75 divided by 25?** (3)
- Point at random divisions and ask which number would be represented, the next multiple and the multiple before.
- ⬆ Count in multiples of 25 beginning at 200, 1000.

**Variation**
- Count in other multiples.

### Multiples in order

**Objective**
Recall the multiples of 9

**Resources**
Resource 2:
Multiplication facts for
the 9 multiplication
table, i.e. 9 to 108
(per class)

**What to do**
- Shuffle the multiples cards.
- Place them face down, in random order, on the board using sticky putty.
- Invite children one at a time to select one card and place it along the base of the board in the position it would appear if all of the multiples were in order.
- Continue until all the cards have been positioned.
- Count in multiples of 9 to check the sequence is correct.
- Remove various cards and recite the sequence forward or backward. Continue until all of the cards have been removed.

**Variation**
- Use other multiples.

### Speedy multiples

**Objective**
Recall the multiples of 9

**Resources**
Resource 2:
Multiplication facts for
the 9 multiplication
table, i.e. 9 to 108
(per child)

**What to do**
- Ask children to shuffle their multiples cards.
- Place them face down, in random order, on their table.
- Give children one minute to turn over the cards and place them in the correct order, smallest to largest. Acknowledge the first three children who have finished.
- Count in multiples of 9 to check the sequence is correct.
- Repeat ordering from largest to smallest.

**Variation**
- Use other multiples.

### Multiples in order

**Objective**
Recall and use
multiplication facts for
the 6 multiplication table

**Resources**
Resource 10:
Multiplication facts for
the 6 multiplication table,
i.e. 6 to 72 (per child);
0–9 or 1–12 die

**What to do**
- Ask children to place multiples of 6 cards in random order on their table in front of them.
- Throw a 1–12 die (or a 0–9 die where the 0 represents 10). Call out the number, e.g. 8.
- Ask children to multiply the number called by 6 and hold up the relevant multiples card, e.g. 48.
- Repeat until most numbers have been called.

**Variation**
- Use different multiples cards for other multiplication facts.

### Three in a row

**Objective**
Recall and use
multiplication facts for
the 7 multiplication
table

**Resources**
0–9 or 1–12 die (per
class)

**What to do**
- Ask children to draw a one by three grid.
- They write a multiple of 7, between 7 and 84 (or 7 and 70), in each square.
- Throw a 1–12 die (or a 0–9 die where the 0 represents 10) and call out the number, e.g. 6.
- Children multiply the number called by 7. If they have the corresponding product, i.e. 42 written in their grid, they cross the number out.
- The winner is the first child to cross out three in a row.

**Variation**
- Use other multiplication facts.

## Fast facts multiplication

**Objective**
Recall and use multiplication facts for the multiplication tables up to 12 × 12

**Resources**
Resource 5: Fast facts multiplication (per child)

**What to do**
- Give each child a copy of Resource 5.
- Direct children to one column at a time. Give them an allocated amount of time to complete each column of multiplication facts, e.g. one minute. Mark each column when complete.
- Repeat with subsequent columns.
- Children should compare their results the next time they complete the worksheet to check for improvements in speed and mastery.

**Variation**
- Complete the entire worksheet in an allocated time, e.g. no more than 10 minutes.

## Fast facts division

**Objective**
Recall and use division facts for the multiplication tables up to 12 × 12

**Resources**
Resource 4: Fast facts division (per child)

**What to do**
- Give children each a copy of Resource 4.
- Direct children to one column at a time. Give them an allocated amount of time to complete each column of division facts, e.g. one minute. Mark each column when complete.
- Repeat with subsequent columns.
- Children should compare their results the next time they complete the worksheet to check for improvements in speed and mastery.

**Variation**
- Complete the entire worksheet in an allocated time, e.g. no more than 10 minutes.

## Finding factors

**Objective**
Recognise and find factors of numbers to multiples up to 12 × 12

**Resources**
Resource 6: 1–12 number cards (per child)

**What to do**
- Ask each child to place a set of 1–12 cards on their table.
- Call out a division fact from any of the facts above, e.g. 42 ÷ 7.
- Ask children to work out the answer to the division fact and hold up the appropriate digit card, i.e. 6.

**Variation**
- Use fewer multiplication tables or focus on one particular set of division facts.