Number and Place Value

Farm Stock Challenge

- Count sheep, cows and tractors using place value.
- "The farm has 4,386 sheep. What is 1,000 more? 100 less?"
- Round livestock numbers to the nearest 10, 100 and 1,000.

Map Grid Coordinates

Use Ordnance Survey-style maps.

- Locate fields using four- and six-figure grid references.
- Estimate distances between fields.
- Compare field sizes.

Addition and Subtraction

Feeding the Animals

Example:

- Monday: 148kg feed
- Tuesday: 176kg
- Wednesday: 132kg

Questions:

- Total feed?
- Difference between Monday and Tuesday?
- How much more feed is needed for the week?

Multiplication and Division

Tractor Work

Example:
A tractor plants **24 rows** each day.

How many rows in:

- 5 days?
- 8 days?

Extension:
If each row has 36 plants:
24 × 36

Sheep Pens

There are 96 sheep.

Pens hold 8 sheep.

How many pens are needed?

What if 5 extra sheep arrive?

Fractions

Field Fractions

A farm has 12 fields.

- ¼ are wheat.
- ⅓ are sheep grazing.
- The rest are silage.

Draw the farm.

Hay Bales

Oscar loves practical maths.

There are 48 hay bales.

- Half sold.
- Quarter kept.
- How many remain?

Decimals

Fuel

A tractor uses:
12.8 litres/hour

How much after:

- 3 hours?
- 5 hours?

Compare fuel costs.

Percentages

Crop Loss

100 potatoes planted.

8% damaged by slugs.

How many healthy potatoes remain?

Measurement

Tractor Speed

Tractor drives:

4 km in 20 minutes

How far in an hour?

Compare speeds of different tractors.

Fence Building

Field perimeter:
238 metres

Fence panels:
2 metres each

How many panels?

How much fencing left over?

Area and Perimeter

Draw irregular fields.

Calculate:

- area
- perimeter

Decide which field is best for sheep.

Time (Oscar's Interest)

Farmer's Day

Create a timetable.

Example

6:15 Feed cattle

7:05 Milk cows

8:10 Move sheep

Questions:

- How long between jobs?
- Finish time?
- Elapsed time.

Harvest Challenge

Combine starts:
09:25

Break:
11:10

Starts again:
11:45

Finishes:
16:35

Calculate:

- working time
- break time
- total harvesting time

Maps

Use real Ordnance Survey maps.

Activities:

- Measure routes.
- Calculate scale.
- Compass directions.
- Coordinates.
- Shortest routes.

Example:
"The sheep are in Field 7. What's the quickest route from the barn?"

Problem Solving

Buy a New Tractor

Budget:
£145,000

Implements:

- Trailer £8,750
- Plough £13,500
- Drill £24,900

Calculate totals and remaining budget.

Data Handling

Collect farm data.

Example:

Animal	Number
Sheep	286
Cows	78
Chickens	146
Pigs	32

Draw:

- bar charts
- line graphs
- pie charts

Ask comparison questions.

Weekly Investigation

Running a Farm for One Week

Oscar becomes the farm manager.

Each day he must:

- feed animals
- manage money
- measure fields
- plan tractor routes
- calculate harvests
- read maps
- tell the time
- solve unexpected problems (e.g. "The sheep escaped! Which field are they in?")

This embeds almost every Year 5 maths objective into one engaging storyline.

Resources that work particularly well

- Laminated Ordnance Survey maps.
- Toy tractors, trailers and animals.
- Measuring wheels or trundle wheels for outdoor maths.
- Large-scale farm maps drawn on the playground for coordinate work.
- Real farm catalogues (machinery, seed or livestock) for budgeting activities.
- Timetables based on a real farmer's day.

For a pupil like Oscar, who is motivated by farming, this approach can make maths feel purposeful rather than abstract, while still covering the Year 5 curriculum.