Field Day Teams

Teacher Guide · Solutions · Rubric

Grade 3 · All levels

Overview

Students plan Field Day. They share equipment equally (how many in each group), make teams of a given size (how many groups), write division equations and check with multiplication.

Time: 2 class periods · **Product:** Field Day Team Plan
Standards: 3.OA.A.2, 3.OA.A.3, 3.OA.B.6
Prerequisite skills: Multiplication facts and equal groups (Unit 1); Skip counting

Learning targets

- I can share a total equally and tell how many are in each group.
- I can make groups of a given size and tell how many groups there are.
- I can solve a division fact by finding the missing factor.

Timing and materials

- Day 1 (45 min): act out sharing and grouping with counters; Parts 1–2.
- Day 2 (45 min): Parts 3–4 and the team plan poster; gallery walk.

Materials: Counters (about 40 per pair); Paper plates or cups as groups; Pencils; Poster paper. No accounts, paid products or student personal information are needed.

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The three versions

- Remedial: hints for a first step, partly filled tables, sentence frames and fewer open choices; the same learning targets.
- Standard: the full task set at grade level; students choose their strategies and models.
- Advanced: open design constraints, missing information, error analysis and a written justification; no hints.

All versions use the same context and learning targets, so groups can share and compare work.

Implementation notes

- Act out both meanings with the same numbers so students see the answer means different things.
- Require a label on every answer (6 balls each, 6 teams).
- Advanced students handle a total that cannot be shared equally and must decide what to change.
- Before Part 1, read the challenge aloud and ask students to restate the goal.
- Close with a gallery walk: each group explains one strategy.

Rubric

Learning target	4 Exceeds	3 Meets	2 Approaching	1 Beginning
I can share a total equally and tell how many are in each group.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can make groups of a given size and tell how many groups there are.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can solve a division fact by finding the missing factor.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can explain my thinking with pictures, numbers and words.	Clear for every part	Clear for most parts	Some explanation	Little explanation
My field day team plan is complete and matches my math.	Complete, neat, accurate	Complete	Partly complete	Not complete

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Solutions · Remedial KEY

Part 1: Making Teams

There are 20 students. Each team needs 5 players.

1. How many teams can be made?
   4 teams
2. Write a division equation.
   20 ÷ 5 = 4
3. Write the multiplication fact that checks it.
   4 × 5 = 20

Part 2: Sharing Equipment

12 balls are shared equally among 4 stations.

4. How many balls go to each station?
   3 balls
5. Is this sharing or grouping? Explain.
   Sharing: the number of groups (stations) is known.

Part 3: Fact Families

Use multiplication to divide.

6. Use 4 × 5 = 20 to find 20 ÷ 4.
   5
7. Find 42 ÷ 7. Write the related multiplication fact.
   6, because 6 × 7 = 42

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Part 4: Team Plan

Make a poster that shows the teams and the equipment for each station.

8. Show your teams with a picture and an equation.

Answers vary; picture and equation must match.

Extension

The coach has 45 cones and 35 flags for 5 stations. How many cones and flags does each station get?

9 cones and 7 flags (45 ÷ 5 = 9, 35 ÷ 5 = 7)

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Solutions · Standard KEY

Part 1: Making Teams

There are 24 students. Each team needs 6 players.

1. How many teams can be made?
   4 teams
2. Write a division equation.
   24 ÷ 6 = 4
3. Write the multiplication fact that checks it.
   4 × 6 = 24

Part 2: Sharing Equipment

32 balls are shared equally among 8 stations.

4. How many balls go to each station?
   4 balls
5. Is this sharing or grouping? Explain.
   Sharing: the number of groups (stations) is known.

Part 3: Fact Families

Use multiplication to divide.

6. Use 4 × 6 = 24 to find 24 ÷ 4.
   6
7. Find 42 ÷ 7. Write the related multiplication fact.
   6, because 6 × 7 = 42

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Part 4: Team Plan

Make a poster that shows the teams and the equipment for each station.

8. Show your teams with a picture and an equation.

Answers vary; picture and equation must match.

Extension

The coach has 45 cones and 35 flags for 5 stations. How many cones and flags does each station get?

9 cones and 7 flags (45 ÷ 5 = 9, 35 ÷ 5 = 7)

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Solutions · Advanced KEY

Part 1: Making Teams

There are 28 students. Each team needs 7 players.

1. How many teams can be made?
   4 teams
2. Write a division equation.
   28 ÷ 7 = 4
3. Write the multiplication fact that checks it.
   4 × 7 = 28

Part 2: Sharing Equipment

48 balls are shared equally among 6 stations.

4. How many balls go to each station?
   8 balls
5. Is this sharing or grouping? Explain.
   Sharing: the number of groups (stations) is known.

Part 3: Fact Families

Use multiplication to divide.

6. Use 4 × 7 = 28 to find 28 ÷ 4.
   7
7. Find 42 ÷ 7. Write the related multiplication fact.
   6, because 6 × 7 = 42

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Part 4: Fair Teams?

Two more students join, so there are 30 students.

8. Can teams of 7 still be made with no one left out? Explain.

No. 30 is not a multiple of 7 (4 teams use 28).

9. Find a team size from 3 to 10 that works for 30 students. How many teams?

Answers vary: e.g. teams of 3 (10 teams), 5 (6 teams), 6 (5 teams), 10 (3 teams)

Extension

The coach has 45 cones and 35 flags for 5 stations. How many cones and flags does each station get?

9 cones and 7 flags (45 ÷ 5 = 9, 35 ÷ 5 = 7)