



Lining up two groups: more, fewer or the same

Small group of 4 to 5 children with one adult · 15 minutes

Objective: Children compare two groups of objects (using amounts between 2 and 8) by lining them up one to one, and say whether a group is more than, fewer than or the same as the other.

eyfs.ma.patterns.2 Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Resources

- Two different sets of real objects for comparing, such as conkers and buttons, or teddies and cubes
- Two long strips of ribbon or wool laid on the carpet to make a top row and a bottom row
- A basket or tray to hold spare objects not yet placed
- Wool or string pieces to lay as a 'joining line' between paired objects
- Number cards 2 to 8 for the challenge extension

Set-up

Lay the two ribbons on the carpet, one above the other, so there is a clear top row and bottom row. Sit the group around the rows so everyone can reach to place objects. Have the objects and spare basket within reach.

Key questions

- Which group do you think has more? How could we check?
- What happens when we line them up in pairs?
- Are there any objects left over with no partner? Which row are they in?
- Is this group more than, fewer than, or the same as that group?
- How many more are there? How do you know?
- If we took one away from this row, would it still be more?

Vocabulary

more than, fewer than, the same as, compare, line up, pair, match, spare, count

What to do

- Gather the group on the carpet and say, 'Today we are finding out if one group has more, fewer, or the same as another group.'
- Place 3 conkers along the top row, spaced out, and 5 buttons along the bottom row, spaced out. Ask, 'Just by looking, can you tell me which group has more?'
- Say, 'Let's check properly by lining them up in pairs.' Move the conkers and buttons so each conker sits directly above one button, matching one to one.
- Lay a small piece of wool between each matched pair so children can see the joining line.
- Point to the buttons left over with no partner and say, 'These ones haven't got a pair. What does that tell us?' Guide children to say 5 is more than 3, and 3 is fewer than 5.
- Ask, 'How many more buttons are there than conkers?' Count the spare buttons together to show 5 is 2 more than 3.
- Clear the rows and repeat with 6 teddies on top and 4 cubes on the bottom, lining up pairs and finding that 6 is more than 4, 4 is fewer than 6, and 6 is 2 more than 4.
- Repeat again with 5 and 5 so children see every object has a partner and there are no spares, so the groups are the same.
- Try 2 on top and 7 on the bottom, then 8 on top and 6 on the bottom, then 4 and 4, each time lining up one to one, joining pairs with wool, and naming more than, fewer than or the same as.
- Invite each child to choose their own two amounts from the objects and line them up with a partner while the adult asks the key questions.

Misconceptions

A child judges which group has more by how long or spread out the row looks, rather than lining objects up one to one.

Say, 'Let's check by lining them up carefully so each one has a partner,' and physically slide the objects together in pairs so the child can see the true comparison.

A child says the two groups are the same because both rows 'look full', without checking for spares.

Join each pair with a piece of wool together, then ask the child to point to any object without a piece of wool. If every object has a partner, confirm it is the same as; if not, count the spares together.

A child mixes up more than and fewer than, calling the smaller group 'more'.

Hold up the spare objects and say, 'This row has extra ones, so it has more. The other row has fewer, because some are missing their partner,' pointing to each as you speak.

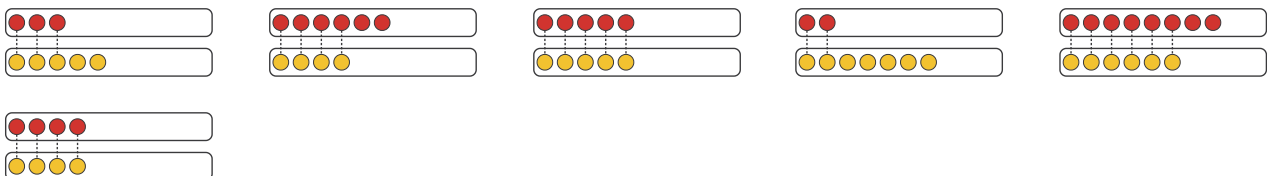
Adapting

- Support:** Use smaller amounts such as 2 and 7 or 4 and 4 first, with identical objects in one colour, and the adult's hand guiding each object into its pair position one at a time.
- Challenge:** Ask 'how many more' or 'how many fewer' and expect a numeral answer using the number cards, then ask the child to set out their own two amounts between 2 and 8 for a partner to compare without adult help.
- SEND and EAL:** Use real objects rather than pictures, model each phrase with a gesture (hands apart for 'more than', hands close for 'the same as'), repeat the same sentence pattern each time, and pair the child with a talk partner who can model the vocabulary.

Look for

- Children spontaneously line objects up one to one rather than guessing from the spread of the row
- Children point to or count the spare objects to justify their answer
- Children use the words more than, fewer than or the same as unprompted
- Children can say how many more or fewer using the correct number

Picture cards for this session





How many more? How many fewer?

4 to 6 children · 15 to 20 minutes

Objective: Children compare two groups of up to 10 real objects by lining them up one to one, and say whether a group has more than, fewer than or the same as another group, including how many more or how many fewer.

eyfs.ma.patterns.2 Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Resources

- a big bag of real everyday objects for counting, enough to make groups of up to 10 (for example conkers, buttons, shells, pompoms, teddy counters)
- two long strips of ribbon or fabric to mark a 'top row' and a 'bottom row' on the carpet or table
- lengths of wool or string to join each matched pair with a line
- a picture card showing 4 counters in the top row and 5 counters in the bottom row, lined up in pairs with a dotted line joining each pair
- a picture card showing 7 counters in the top row and 5 counters in the bottom row, lined up in pairs with a dotted line joining each pair
- a picture card showing 6 counters in the top row and 9 counters in the bottom row, lined up in pairs with a dotted line joining each pair
- a picture card showing 8 counters in the top row and 7 counters in the bottom row, lined up in pairs with a dotted line joining each pair
- a picture card showing 3 counters in the top row and 6 counters in the bottom row, lined up in pairs with a dotted line joining each pair
- a picture card showing 10 counters in the top row and 8 counters in the bottom row, lined up in pairs with a dotted line joining each pair

Set-up

Lay the two ribbons on the carpet, one above the other, to make a top row and a bottom row. Put a scoop of real objects within reach of each child. Keep the six picture cards face down nearby to bring out one at a time once the group has built that comparison with real objects.

What to do

- Gather the group around the ribbons. Place 4 real objects in the top row and 5 real objects in the bottom row, but spread the bottom row out so it looks longer. Ask, 'Which row do you think has more? How can we find out for certain?'
- Model pushing the objects into a straight line, then draw one piece of wool from each top object to one bottom object, making matched pairs. Say, 'We've matched them one to one. Now we can see exactly what's happening.'
- Point to the bottom object with no partner and say, 'This one hasn't got a pair, so the bottom row has more.' Show the matching picture card (4 top, 5 bottom) and say together: '5 is more than 4. 4 is fewer than 5. 5 is 1 more than 4.'
- Hand out objects and invite a child to build a top row of 7 and a bottom row of 5 on their own ribbons, matching them one to one with wool. Ask, 'How many are left over once every pair is matched? What does that tell us?' Check against the picture card (7 top, 5 bottom): '7 is more than 5. 5 is fewer than 7. 7 is 2 more than 5.'
- Next child builds 6 in the top row and 9 in the bottom row. Support them to match pairs along the wool lines, then cover the matched pairs with a hand and count only what's left over. Confirm with the picture card (6 top, 9 bottom): '9 is more than 6. 6 is fewer than 9. 9 is 3 more than 6.'
- Continue around the group with 8 in the top row and 7 in the bottom row, matching one to one. Ask, 'Could the rows look the same length but still not match exactly?' Confirm with the picture card (8 top, 7 bottom): '8 is more than 7. 7 is fewer than 8. 8 is 1 more than 7.'
- Try 3 in the top row and 6 in the bottom row. Ask the child to predict which row has fewer before matching, then check by lining up. Confirm with the picture card (3 top, 6 bottom): '6 is more than 3. 3 is fewer than 6. 6 is 3 more than 3.'
- Finish with 10 in the top row and 8 in the bottom row, matching one to one. Confirm with the picture card (10 top, 8 bottom): '10 is more than 8. 8 is fewer than 10. 10 is 2 more than 8.'
- Finish by mixing up two scoops of objects without counting first and asking the group to decide together how they would find out which has more, fewer, or whether they are the same as each other.

Misconceptions

The child decides a group has more because its row is longer or more spread out, even when it has fewer objects.

Push the objects together into a tight line and match them one to one with wool. Show the child that the length of the row does not tell us how many there are — only matching the pairs tells us for certain.

When asked 'how many more', the child states the total number of objects in the bigger group instead of counting only the unmatched, left-over objects.

Cover or move aside the matched pairs so only the left-over objects are visible, then ask the child to count just those. Say, 'These are the ones with no partner — that's how many more.'

The child says 'less' instead of 'fewer' when talking about a smaller group of countable objects.

Briefly recast what the child said using 'fewer', for example, 'Yes, this row has fewer — fewer, because we can count them.' Keep playing without making the child repeat the word.

Adapting

- Support:** Start with smaller, closer groups (such as 3 and 6) and match the objects hand over hand with the child. Use favourite small-world toys as the objects and keep both rows directly next to each other so the one-to-one matching is easy to see.
- Challenge:** Ask the child to predict which row will have more or fewer before matching, then ask 'how many more would we need to add to make the rows the same?' Pose a picture card on its own and ask the child to work out the comparison by pointing along the dotted lines, without real objects in front of them.
- SEND and EAL:** Rely on the real objects and the wool lines as the main communication tool, pointing and gesturing alongside key words. Pair the child with a peer for the matching. Model short sentence frames such as '___ is more than ___' and repeat the same frame for every comparison so the pattern becomes familiar.

Look for

- Child spontaneously lines objects up one to one rather than judging by how spread out a row looks
- Child points to or counts only the left-over, unmatched objects when asked 'how many more' or 'how many fewer'
- Child uses the words more than, fewer than or the same as accurately
- Child says 'fewer' rather than 'less' when talking about countable objects
- Child can match a real-object comparison to the correct picture card

Picture cards for this session





Same or different? Making two groups the same

Up to 4 children with one adult · About 15 minutes

Objective: Children compare two groups of up to 10 objects by lining them up one to one, using the words 'more than', 'fewer than' and 'the same as' to say which group has more, fewer or the same.

eyfs.ma.patterns.2 Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Resources

- Real objects to build groups with, such as conkers and buttons (at least 10 of each)
- Two long strips of fabric or two hoops to make a 'top row' and a 'bottom row'
- A ball of wool, cut into short pieces, to lay a dotted line between each paired object
- Six picture cards, each showing two rows of counters lined up in pairs with a dotted line joining each pair: 5 and 5; 4 and 7; 8 and 8; 6 and 9; 3 and 3; 9 and 10

Set-up

On the carpet, lay the two strips of fabric side by side to make a top row and a bottom row. Keep trays of conkers and buttons within reach, and stack the six picture cards face down nearby.

Key questions

- How can we check without just looking - what could we do with the objects?
- Is there an object in this row with no partner in the other row?
- Which row has more? How do you know?
- Which row has fewer? How do you know?
- What could we do to make the two rows the same?
- How many more would we need to make them the same?

Vocabulary

more than, fewer than, the same as, line up, pair, left over, group, compare

What to do

- Gather the children on the carpet around the two strips of fabric. Say: 'Today we're going to make two groups and find out if they are the same, or if one group has more.'
- Put 5 conkers in a loose pile on the top strip and 5 buttons spread right across the bottom strip. Ask: 'Which row do you think has more?' Let the children share their first guess.
- Say: 'Spreading them out can trick our eyes - let's check properly.' Move the objects so each conker sits directly opposite a button, laying a short piece of wool between each pair. Count together: '1 and 1, 2 and 2 ... 5 and 5 - they are the same!' Turn over the first picture card and show the children it matches: 5 counters on top, 5 on the bottom, each pair joined by a dotted line.
- Clear the strips. Put 4 conkers on the top strip and 7 buttons on the bottom strip. Ask the children to line them up in pairs. Ask: 'Is there a button with no partner?' Count the ones with no partner together. Say: '7 is more than 4. 4 is fewer than 7.' Turn over the next picture card to match.
- Repeat with 8 conkers on top and 8 buttons on the bottom. Line up in pairs and count together: '8 and 8 - the same again!' Match to the next picture card.
- Repeat with 6 on top and 9 on the bottom. Line up in pairs, find the objects with no partner, and say together: '9 is more than 6. 6 is fewer than 9.' Match to the next picture card.
- Repeat with 3 on top and 3 on the bottom. Line up in pairs and say: '3 and 3 - the same.' Match to the next picture card.
- Finish with 9 on top and 10 on the bottom. Line up in pairs and ask: 'Which row has one left over with no partner?' Say together: '10 is more than 9. 9 is fewer than 10.' Match to the final picture card.
- Invite each child to choose their own two trays of objects, build a top row and a bottom row, and use the wool to line them up and decide together whether the rows are the same, or which one has more.

Misconceptions

A child says the row that is spread out over more space has more, even though both rows have the same number of objects, like the 5 and 5 row.

Invite the child to move the objects into a straight line, pairing each one with a dotted piece of wool, and count together to show that spreading objects out does not change how many there are.

A child counts an object twice or skips one when counting a line, especially with groups of 8, 9 or 10, and gets the wrong total.

Ask the child to touch each object once as they say the number, moving it into its pair as they count, so every object is counted only once.

A child says 'the top row has less' instead of 'fewer', or mixes up more than and fewer than.

Model the correct word straight away, for example 'yes, 4 is fewer than 7', and ask the child to repeat the sentence back using 'fewer'.

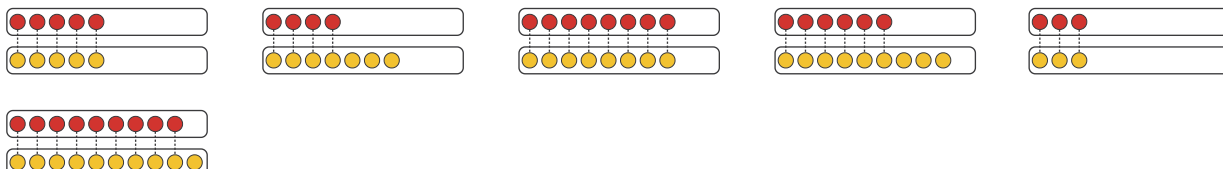
Adapting

- Support:** Start with the smallest groups (3 and 3, or 5 and 5) and hand the child one object at a time to place directly opposite its pair, saying 'this one needs a partner' before moving to the next.
- Challenge:** Ask the child to work out how many more are needed before adding any objects, for example working out that the 9 row needs 1 more to match the 10 row, then checking by lining up.
- SEND and EAL:** Use the same sentence frames every time ('___ is more than ___', '___ is fewer than ___', '___ and ___ are the same'), pair each word with the lined-up objects and dotted line, and accept pointing or placing objects as an answer alongside spoken words.

Look for

- Lines up objects one to one rather than judging by the length or spread of the row
- Uses 'more than', 'fewer than' or 'the same as' without adult prompting
- Says 'fewer' rather than 'less' when talking about countable objects
- Can say how many more are needed to make two unequal groups the same, such as for 9 and 10

Picture cards for this session





More than, fewer than and the same as, with numerals to 10

3 to 4 children with one adult · 15 to 20 minutes

Objective: Children compare two quantities up to 10 by lining the groups up one to one, and use the words more than, fewer than and the same as, matched to numerals.

eyfs.ma.patterns.2 Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Resources

- A tray of real conkers (or shells, or buttons) - at least 10
- Two parallel lines of tape stuck on the carpet, or two hoops, one marked 'top row' and one marked 'bottom row'
- Numeral cards 0 to 10
- A soft toy or puppet to set up a context, such as sharing out treats between two plates
- 6 picture cards, each showing two rows of counters to compare, with the numbers shown: 6 over 3; 9 over 10; 7 over 7; 2 over 8; 10 over 5; 4 over 4

Set-up

Mark two parallel lines with tape on the carpet (a 'top row' and a 'bottom row'), or set out two hoops. Put the tray of conkers nearby, with the numeral cards in a pot and the 6 picture cards stacked face down. Seat the group where everyone can reach the rows.

Key questions

- How could we check which row has more without counting all the way through again?
- What happens when every conker in one row has a partner in the other row?
- Are there any conkers left over with no partner? What does that tell us?
- Which row has fewer conkers? How do you know?
- How can we be sure these two rows are the same?

Vocabulary

more than, fewer than, the same as, pair, partner, row, left over, compare

What to do

1. Bring out the puppet and say, 'Milo has two plates of conkers and wants to know which plate has more. Let's help him check.'
2. Count 6 conkers into the top row and 3 conkers into the bottom row, placing them with gaps so they are not yet paired up.
3. Say, 'I'm not going to count again - watch how I check another way.' Slide each bottom conker so it sits directly under a top conker, making pairs.
4. Point to the top conkers left without a partner. Say, 'These ones don't have a partner underneath - what does that tell us?'
5. Hold up the numeral cards 6 and 3 next to the rows. Say the sentence together: '6 is more than 3. 3 is fewer than 6.'
6. Invite one child to build their own two rows with the conkers, using any two numbers from 2 to 10, and to line them up one to one in the same way.
7. Ask the child to find the matching numeral cards and say the sentence out loud, pointing to the row with no partners left over.
8. Bring out the picture cards one at a time. For each one, ask the children to look at the pairs (not count from the start) and decide which row has more, which has fewer, or whether they are the same.
9. Hold up the card showing 7 over 7 last. Ask, 'This time, are there any left over without a partner?' Agree together that 7 and 7 are the same.
10. Finish by asking each child to choose a picture card and say one sentence about it using more than, fewer than or the same as.

Misconceptions

A child thinks the row that is spread out over a longer space has more, even when it has fewer conkers in it.

Slide the conkers back onto the taped lines so every conker has a partner directly opposite it, and ask, 'Now there are no gaps - let's check again, are there any left without a partner?'

A child points to the smaller group when asked which is more, muddling the words more than and fewer than.

Model the sentence every time, touching the row as you say it: 'This row has more, so it has more than. This row has fewer.' Ask the child to copy the sentence while pointing to the correct row.

When two rows have the same amount but are arranged differently (such as the 7 and 7 picture card), a child insists one row must have more because it looks different.

Line the two rows up one to one again in front of the child so every object has a partner with none left over, and say, 'Every one has a partner and none are left over, so they are the same.'

Adapting

- **Support:** Work with real conkers only, keep the rows short to start (such as 2 and 8), and physically help the child move each conker into its pair before asking the key question. Use the words one at a time rather than together.
- **Challenge:** Ask the child to say how many more or fewer, using the full sentence (for example, '8 is 6 more than 2' or '10 is 1 more than 9'), and let them set up their own two rows for a partner to compare.
- **SEND and EAL:** Use the real conkers and gesture (hands apart for more, hands close for the same) alongside every spoken sentence. Repeat the same sentence stem each time ('___ is more than ___') and pair the child with a confident talking partner during the picture card round.

Look for

- Children who line objects up one to one themselves, without being shown
- Children who use more than, fewer than or the same as without prompting
- Children who can match a numeral card to the correct row
- Children who still judge by how spread out a row looks, rather than by pairing

Picture cards for this session

