NOVA SCOTIA CURRICULUM PLACEMENT

Compare Equal Groups and Balance

Grade 1 · Mathematics · Where This Fits in Your Year Use this pack during Grade 1 work on equality, comparison, fair sharing, and part-whole reasoning. Students match members one-to-one, test whether two groups contain the same number, use a balance to distinguish equal number from equal weight, split totals into two equal groups, and explain comparison verdicts with concrete evidence.

Only the strongest regional connections are printed below. The pack reinforces those expectations where its required student work is direct; broader symbolic, geometry, or problem-type requirements remain outside the claim.

STRONGEST CURRICULUM CONNECTIONS - OUR SUMMARY

REINFORCES · N05

Compare sets of up to 20 objects using referents and one-to-one correspondence to solve comparison problems.

Student evidence: Students compare two groups by matching members one-to-one, identify whether every member has a partner, and use the result to decide whether the groups have the same number.

Boundary: The pack uses this comparison structure in selected lessons; it does not provide a complete regional sequence across all comparison contexts.

REINFORCES · PR03

Describe equality as balance and inequality as imbalance using concrete and pictorial representations with quantities from 0 to 20.

Student evidence: Students test equality with a balance, distinguish equal number from equal weight, and explain what a balanced or unbalanced beam shows.

Boundary: The pack develops equality through number and weight tests but does not teach every symbolic or pattern component associated with the broader regional strand.

TEACHER MUST ADD

Teach and collect evidence for the additional elements named in the boundary before treating the complete regional expectation as met.

Curriculum source: Mathematics 1: Outcomes (2022) https:/ / curriculum.novascotia.ca/ sites/ default/ files/ documents/ outcomes

-indicators -files/ Mathematics%201%20Outcomes%20(2022).pdf

LESSON GUIDE

7 Lessons from Equal Shmequal Choose the lesson that fits the work already underway. The plans retain the full and short versions, access levels, language support, materials, and printable student work from the curated pack.

1. Two Groups, Same Number
2. Two Tests for Equal
3. Will It Make Halves?
4. Parts of the Team
5. One Word, Two Tests
6. The Number the Book Never Says
7. Were the Teams Equal?

CURATED LESSON

1. Two Groups, Same Number Concept · Making two groups with the same number The animals argue their way to a definition and the book states it in one line: halves are two groups with the same number. Students take that line and run it on counters, splitting six into two groups and proving the split by matching the groups one to one on a mat, then taking a counter away and finding that five leaves one with no partner.

Full lesson — 20 minutes

1. Build the team of six (5 min) Take six counters, one for each animal that lined up for the tug-of-war.

Push the counters into two groups so that the two groups hold the same number. Count each group aloud and say the two numbers to your partner.

Word preview: equal The animals lined up, three on one side and three on the other.

2. Match one to one (6 min) Put one counter from the first group and one from the second on the same row of the mat. Work down the mat until one group runs out. If every counter has a partner and nothing is left over, the two groups hold the same number. Say aloud how many rows you filled.

Word preview: halves “Halves are what you get when you make two groups with the same number,” Mouse said.

3. Take one away (5 min) Lift one counter off the mat so five are left. Try again to make two groups with the same number and to fill the rows. Show your partner the counter that ends up with no partner and say what that means about five.

Word preview: halves We can’t make halves because there are five of us.

4. Say the rule back (4 min) Point at your two matched rows. Tell your partner the rule in Mouse’s words: two groups with the same number are halves. Then hold up five counters and tell your partner why five will not make halves.

Word preview: equal, halves Short version — 9 minutes

1. Match one to one (6 min) Pair the counters across the mat, one from each group to a row, until one group runs out. Say aloud how many rows you filled and whether anything was left over.

Word preview: halves “Halves are what you get when you make two groups with the same number,” Mouse said.

2. Say the rule back (3 min) Point at your matched rows and say the rule: two groups with the same number are halves. Then hold up five counters and say why five will not do it.

Word preview: equal, halves

Three Levels

Support. Work with four counters instead of six. Split them, fill the rows on the mat, and say the same rule aloud that everyone else says: two groups with the same number are halves. The matching and the sentence stay exactly as they are.

At Grade. Work with six counters, then five, then seven, filling the mat each time and saying aloud which totals made halves and which left a counter with no partner.

Extension. Take any total from four to ten, say before you build it whether it will make halves, then build it and say what the mat showed. Tell your partner how you knew before you counted.

English Learners

Splitting a pile and matching counters row by row need no English at all, and a student can show halves on the mat before naming them. The word that does not carry over is halves: everyday English uses half for one piece of one thing, so a child who hears it may look for a cut rather than two groups.

Practice the frame “Six makes halves. Three and three.” against “Five does not make halves. One is left over.” Students may count the rows in their first language first and then give the frame in English.

Materials

Workbook

Matching Mat: Two Groups, Same Number — full page Equal Shmequal — Two Groups, Same Number Put one counter from each group on the same row. Work down the mat until one group runs out. Two columns, five rows: Group 1 | Group 2 > “Halves are what you get when you make two groups with the same number,” Mouse said.

Word Cards — card set Equal Shmequal — Two Groups, Same Number. Cut on the card lines. One word to a card: equal, halves Per class - 10 two-color counters per two students - A two-column matching mat, five rows, per two students - Word cards: equal, halves

CURATED LESSON

2. Two Tests for Equal Application · Comparing two groups by count and by weight The book's whole quarrel is that the animals keep testing the wrong thing, and it ends with two teams that fail a count and pass a balance. Students run both tests on one arrangement: they count Bear and Mouse against the other five, then load two large blocks against loose small cubes until the beam sits level and count what it took.

Full lesson — 20 minutes

1. Count the teams (5 min) Deal the seven animal cards into the two teams the story ends with.

Bear and Mouse on one side of the yarn, everyone else on the other. Count each side aloud and say the two numbers to your partner.

Word preview: number Bear and Mouse were on one side of the line and all the other animals were on the other.

2. Weigh the teams (6 min) The two large blocks stand for Bear and Mouse's side; the small cubes stand for the other five. Put the two large blocks in one pan of the balance. Drop small cubes into the other pan one at a time until the beam sits straight across, then count the cubes aloud. Say the two numbers and then say what the beam is doing.

Word preview: weight, balance Now the teams have equal weight.

3. Two answers, one set (5 min) The cards and the pans stand for the same two teams. Tell your partner what the counting said about the two teams and then what the beam said about them. Put the numbers you counted into both sentences, and use the words equal number for the first and equal weight for the second.

Word preview: weight, number, equal In math, to be equal means to have parts that are the same in weight, size, quantity, or other measure.

4. Pick the test (4 min) Your partner asks one of two questions: do the sides hold the same number, or do the sides weigh the same? Answer by counting the cards or by loading the pans, whichever the question calls for. Say the answer with a number in it, then trade jobs.

Word preview: number Short version — 9 minutes

1. Weigh the teams (6 min) Two large blocks in one pan of the balance, small cubes into the other one at a time until the beam is straight across. Count the cubes aloud and say both numbers.

Word preview: weight, balance Now the teams have equal weight.

2. Pick the test (3 min) Your partner asks whether the sides hold the same number or weigh the same.

Run the test the question calls for and answer with a number in the sentence.

Word preview: number

Three Levels

Support. Run both tests on the same two piles and answer with the class frames rather than your own sentence: “This side has ___ and that side has ___” and “The beam is straight across.” The counting and the loading stay exactly as everyone else does them.

At Grade. Run both tests on the two teams, then build a second pair of sides that passes one test and fails the other, and say aloud which test each pair passed.

Extension. Build two sides that pass both tests at once, with the same number in each pan and the beam straight across, and tell your partner what you had to change to get both.

English Learners

Counting cards and loading a balance are both silent acts, so a student new to English can produce the mathematics on the first day. What does not carry over is that English uses one word, equal, for two different tests here. Many languages mark same-number and same-weight with different words, and a child who hears only equal will not know which test was asked for. Drill “equal number” and “equal weight” as a contrasting pair, and let students say which test they ran in their home language before giving the English frame.

Materials

Workbook

Animal Cards: The Two Teams — card set Equal Shmequal — Two Tests for Equal. Cut on the card lines. Seven cards make the whole set. Bear · Mouse · Turtle · Rabbit · Bobcat · Wolf · Deer Sentence Frames: Answering Each Test (Support) — half page Equal Shmequal — Two Tests for Equal. Use these sentences to say what each test showed. This side has _____ and that side has _____. - The beam is straight across.

Word Cards — card set Equal Shmequal — Two Tests for Equal. Cut on the card lines. One word to a card: number, weight, balance, equal Per class - A set of seven animal cards per two students - A length of yarn per two students - A pan balance per two students - Two large wooden blocks and a tub of small cubes per two students - Word cards: number, weight, balance, equal

CURATED LESSON

3. Will It Make Halves?

Reasoning · Deciding whether a total splits into two equal groups Mouse rules five out before anyone tries it, and Deer’s arrival is what makes the line-up possible. Students test totals the way the animals did, pushing counters together two at a time for five, six and seven and reporting whether anything is left over, then sorting number cards from two to ten onto a halves side and a left over side.

Full lesson — 20 minutes

1. Pair off five (6 min) Take five counters, one for each animal who wanted to play before Deer came out of the woods. Push the counters together two at a time until you cannot make another pair. Count the pairs aloud and show your partner the counter that has no partner.

Word preview: pair We can’t make halves because there are five of us.

2. Add Deer (5 min) Slide one more counter in for Deer and pair the whole set off again. Count the pairs aloud, then split the pairs into two sides and count each side. Say the two side numbers to your partner.

Word preview: pair The animals lined up, three on one side and three on the other.

3. Add Bear (5 min) Slide in the seventh counter for Bear and pair off once more. Say aloud whether every counter found a partner this time and how many were left over.

Word preview: left over Then Bear looked up from his crumbs and ran over roaring, “Wait for me!”

4. Sort the totals (4 min) Lay out the number cards from two to ten. Put each card on the halves side or the left over side, building it with counters whenever you are not sure. Tell your partner one number you were sure about before you tested it and how you knew.

Word preview: halves, left over Short version — 9 minutes

1. Pair off five (6 min) Five counters, pushed together two at a time until no more pairs can be made.

Count the pairs aloud and show the counter with no partner.

Word preview: pair We can’t make halves because there are five of us.

2. Sort the totals (3 min) Put the number cards from two to ten on the halves side or the left over side, testing with counters when you are unsure. Say one number you knew before testing.

Word preview: halves, left over

Three Levels

Support. Stay with four, five and six instead of going up to ten. Pair the counters off for each one and say aloud which total left a counter with no partner, in the same two sentences the class is using.

At Grade. Test every number from two to ten with the counters, then say aloud the rule you noticed about which totals leave one over.

Extension. Pick a number from eleven to twenty and decide whether it makes halves without building it. Tell your partner how the pairs from a smaller total let you know.

English Learners

Pairing off is language-free: a child who cannot yet say six in English can still show that one counter has no partner. Two pieces of English need rehearsing. Left over means remaining, not departed, and the two readings pull in opposite directions for a child translating word by word. Halves is not the everyday half of one object. Practice “Six makes halves” against “Five leaves one over.” Students may count the pairs in their strongest language and give the two side numbers in English.

Materials

Workbook

Number Cards: Two Through Ten — card set Equal Shmequal — Will It Make Halves? Cut on the card lines. One number to a card. 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 Sorting Mat: Halves or Left Over — full page Equal Shmequal — Will It Make Halves? Put each number card on one side of this mat. Build the number with counters if you are not sure. Halves | Left over Word Cards — card set Equal Shmequal — Will It Make Halves? Cut on the card lines. One word to a card: halves, left over, pair Per class 10 counters per two students - Number cards two through ten, one set per two students - Word cards: halves, left over, pair

CURATED LESSON

4. Parts of the Team Fluency · Number pairs that make five, six and seven The three totals in this story are five before Deer, six in the line-up and seven once Bear barges in, and each one gets split into two sides. Students take those three totals onto a part-part-whole mat, find every pair of parts for each, and then answer missing-part cards without touching counters.

Full lesson — 20 minutes

1. Break five (5 min) Put five counters on the whole space of the mat, then slide them into the two part spaces to make two sides. Say the two numbers aloud, sweep the counters back to the whole space, and find a different way. Keep going until you have found every way.

Word preview: part, whole We can’t make halves because there are five of us.

2. Break six (6 min) Now put six counters on the whole space and find every pair of sides. Say each pair aloud as you slide it. Point to the one pair that puts the same number on both sides.

Word preview: part, whole The animals lined up, three on one side and three on the other.

3. Break seven (5 min) Put seven counters on the mat and slide two of them into one part space for Bear and Mouse. Say how many are left in the other part space, then find every other pair for seven the same way.

Word preview: part Turtle, Rabbit, Bobcat, Wolf, and Deer pulled back.

4. Quick answers (4 min) Your partner holds up a card showing the whole and one part. Say the missing part as fast as you can without touching the counters, then check on the mat if you disagree. Trade jobs after every five cards.

Word preview: part, whole Short version — 9 minutes

1. Break six (6 min) Six counters on the whole space. Slide them into the two part spaces every way you can, saying each pair aloud, and point to the pair that splits six evenly.

Word preview: part, whole The animals lined up, three on one side and three on the other.

2. Quick answers (3 min) Your partner shows the whole and one part. Say the missing part without touching the counters, and check on the mat only if you disagree.

Word preview: part, whole

Three Levels

Support. Keep the counters sitting in the part spaces while you say the two numbers, instead of answering from memory. Work through five, six and seven exactly as everyone else does, and say every pair aloud as you slide it.

At Grade. Find every pair for five, six and seven on the mat, then answer the card set for six with the counters pushed aside.

Extension. Answer the cards for five, six and seven with the mat turned over, then say the pairs for eight and tell your partner which pair for eight would make halves.

English Learners

What has to be practiced is the English word order, because English says the whole last in “three and three make six” and first in “six is three and three,” and a child who has learned only one order may hear the other as a new fact. Rehearse both. Students may say the pairs in their strongest language while sliding counters, then give one frame in English.

Materials

Workbook

Part-Part-Whole Mat — full page Equal Shmequal — Parts of the Team Put the counters on the whole space, then slide them into the two part spaces. Say the two part numbers aloud each time.

Whole /

Part | Part

Part and Whole Cards: Five, Six and Seven — card set Equal Shmequal — Parts of the Team. Cut on the card lines. Hold up one card at a time. - Whole 5, one part 1 · 2 · 3 · 4 - Whole 6, one part 1 · 2 · 3

- 4 · 5 - Whole 7, one part 1 · 2 · 3 · 4 · 5 · 6 Word Cards — card set Equal Shmequal — Parts of the Team. Cut on the card lines. One word to a card: part, whole Per class - A part-part-whole mat per two students - 10 counters per two students - A set of part-andwhole cards for five, six and seven per two students - Word cards: part, whole

CURATED LESSON

5. One Word, Two Tests Integrated · One sentence, one measure word, two different verdicts Students swap numbers for weights in Mouse's sentence and produce both verdicts on the very same two piles.

Full lesson — 20 minutes

1. Hear the sentence (4 min) Listen while Mouse's sentence is read to you twice. Point at the two piles or at the balance to show which test the sentence is asking for, then say the measure word back.

Word preview: equal

2. Run the number test (5 min) Count the three blocks aloud, then count the three erasers aloud.

Say the two numbers to your partner and say whether the number test passed.

Word preview: number

3. Swap the word and run it again (7 min) Watch the word card change on the sentence strip.

Move the same two piles into the pans without adding anything or taking anything away, read the beam, and say the new verdict next to the old one.

Word preview: weight

4. Say what the word did (4 min) With both verdicts in hand, tell your partner which word sent you to which test and what the piles had to do with it. Put a number in each half of your sentence.

Word preview: equal, number, weight Short version — 9 minutes

1. Swap the word and run it again (7 min) Watch the word card change on the sentence strip.

Move the same two piles into the pans without adding anything or taking anything away, read the beam, and say the new verdict next to the old one.

Word preview: weight

2. Say what the word did (4 min) With both verdicts in hand, tell your partner which word sent you to which test and what the piles had to do with it. Put a number in each half of your sentence.

Word preview: equal, number, weight

Three Levels

Support. Use two blocks and two erasers instead of three, so the counting is over in a moment and the whole of the swap segment is spent on the beam and the word. The sentence work and both frames stay exactly as they are.

At Grade. Count both piles, run the balance on the same two piles without altering them, and say both verdicts in one turn, naming the word that produced each.

Extension. Find a pair of piles for which both verdicts come out the same, then say what would have to change about the objects to make the two words disagree again.

English Learners

Equal, number and weight are the whole lesson, and the trap is specific: English uses the single word equal for both tests and puts the deciding word beside it rather than in the verb, so a listener tracking only the familiar word hears no difference at all. Many languages mark same-count and same-weight differently and give the learner more warning than English does. Rehearse equal number against equal weight as a contrasting pair before the swap. Students may say which test the sentence asked for in their strongest language while pointing at the piles or the pans, then give the English frame.

Materials

Workbook

The Sentence Strip with the Swappable Word — strip set Equal Shmequal — One Word, Two Tests - The strip. The two sides have equal _____. - The word cards that go in the blank. number | weight - Mouse’s line, displayed beside the strip. In math, to be equal means to have parts that are the same in weight, size, quantity, or other measure.

Both Verdicts — half page Equal Shmequal — One Word, Two Tests - The number test. This pile has _____ and that pile has _____. Equal number? _____ - The weight test. The beam is _____. Equal weight? _____ - The word that sent me to the first test was _____.

The word that sent me to the second was _____.

Word Cards — card set Equal Shmequal — One Word, Two Tests. Cut on the card lines. One word to a card: equal, number, weight Per class - A pan balance per two students - Three large wooden blocks and three small erasers per two students - A sentence strip of Mouse’s line with the measure word on a removable card - Word cards: equal, number, weight

CURATED LESSON

6. The Number the Book Never Says Integrated · Inferring an unstated total and naming the line that proves it Students work out how many animals are playing once Deer joins, a number the story never states, and say it together with the sentence that proves it.

Full lesson — 20 minutes

1. Count the five (4 min) Set out one counter for each animal in Mouse’s line about there being five of us. Count them aloud and push them into one group.

Word preview: because

2. Catch the sentences (6 min) Four sentences from the story will be read to you, one at a time.

Raise your hand at the one that tells how many animals there were, and raise it again at the one that tells how they lined up. Say each of those two back. Those two sentences are your evidence.

Word preview: evidence

3. Find the number (6 min) Add one counter for Deer and count the whole set. Then push the counters into the three and three that the line-up sentence describes and count again. Tell your partner whether the two ways agreed.

Word preview: because

4. Say the number and the line (4 min) Give your answer to another pair in one turn: the number first, then the evidence it came from. Say it as one sentence, six, because _____. An answer with only the number comes back for its evidence.

Word preview: evidence, because Short version — 9 minutes

1. Catch the sentences (6 min) Four sentences from the story will be read to you, one at a time.

Raise your hand at the one that tells how many animals there were, and raise it again at the one that tells how they lined up. Say each of those two back. Those two sentences are your evidence.

Word preview: evidence

2. Find the number (6 min) Add one counter for Deer and count the whole set. Then push the counters into the three and three that the line-up sentence describes and count again. Tell your partner whether the two ways agreed.

Word preview: because

Three Levels

Support. Two candidate sentences are read to you instead of four, and you may give the answer in the frame six, because they lined up three and three. The counting and the two ways of finding the number stay exactly as they are for everybody.

At Grade. Add Deer’s counter and count the set, split it three and three and count again, then give the number with the sentence that funds it.

Extension. Work out how many animals are on the seesaw at the very end, once Bear has jumped on and the last teams are formed, and name the two sentences that fix it. Then say which of the two is doing more of the work.

English Learners

This lesson is listening work before it is anything else, and the reading load falls entirely on the teacher’s rereading, which is exactly right for a class where English is new. What must be rehearsed is the shape of the answer, because because is doing structural work here and languages differ in where the reason goes in the sentence. Practice the frame *six, because ___* before the first reread.

Students may say which sentence they want in their strongest language, or point when the teacher rereads it, and give the number in English.

Materials

Workbook

The Four Candidate Sentences — card set Equal Shmequal — The Number the Book Never Says.

Reread one at a time. Two of the four fix the number; two do not. - Card 1 (fixes the total). We can’t make halves because there are five of us. - Card 2 (fixes the line-up). The animals lined up, three on one side and three on the other. - Card 3 (does not fix it). Then Bear looked up from his crumbs and ran over roaring, “Wait for me!” - Card 4 (does not fix it). Now the teams have equal weight.

Say the Number and the Line — half page Equal Shmequal — The Number the Book Never Says - There were _____ animals. - I know because it says _____ - The other way I counted: _____ and _____ makes _____. The two ways agreed / did not agree.

Word Cards — card set Equal Shmequal — The Number the Book Never Says. Cut on the card lines.

One word to a card: evidence, because Per class - 10 counters per two students - A strip of the four candidate sentences, reread aloud one at a time - Word cards: evidence, because

CURATED LESSON

7. Were the Teams Equal?

Integrated · Taking a position on the ending and defending it with a number Students build the last two teams, test them by counting and by weighing, and argue to a partner whether the teams were equal, with both numbers in the sentence.

Full lesson — 20 minutes

1. Set up the last pull (5 min) Deal the seven animal cards into the story’s last two teams and count both sides aloud. Then build the same two teams again with two large blocks against small cubes, loading the pans until the beam sits level, and count the cubes.

Word preview: more than, fewer than

2. Take a side (4 min) Say aloud which answer you hold and give one number for it, using the frame, before you hear anyone else's position. If you say the teams were not equal, say which side had more than the other and which had fewer.

Word preview: more than, fewer than

3. Argue it to a partner (7 min) If your partner holds the other answer, take turns. State your case, point at the test you ran, and answer your partner's reason with a number instead of saying your own answer again. Use more than and fewer than when you compare the two counts.

Word preview: more than, fewer than

4. Change your mind out loud (4 min) Say whether you moved and what moved you. If you did not move, say what would have moved you and name the test it would have come from.

Word preview: more than, fewer than Short version — 9 minutes

1. Set up the last pull (5 min) Deal the seven animal cards into the story's last two teams and count both sides aloud. Then build the same two teams again with two large blocks against small cubes, loading the pans until the beam sits level, and count the cubes.

Word preview: more than, fewer than

2. Argue it to a partner (7 min) If your partner holds the other answer, take turns. State your case, point at the test you ran, and answer your partner's reason with a number instead of saying your own answer again. Use more than and fewer than when you compare the two counts.

Word preview: more than, fewer than

Three Levels

Support. Fill in only the numbers in the frame: *I think the teams were ___ because this side had ___ and that side had ___.* Both tests are run exactly as everyone else runs them, and the position is the student's own.

At Grade. Take a position, state it with both counts and the balance result, and answer your partner's reason with a number rather than by saying your answer again.

Extension. Argue the strongest case against the position you just took, using the same two tests, then say which case you would give to Deer if she asked whether the two teams were really equal.

English Learners

Every position in this lesson has to carry a number, which is a gift for a student new to English, because the number is the part they can already produce. Two structures need rehearsing: because, which carries the whole argument and sits in different places in different languages, and the comparison of two counts, which English states with more than and fewer than where many languages use one word for both. Practice *I think the teams were ___ because ___.* Students may reason with a partner in their strongest language and give the position and its number in English.

Materials

Workbook

Animal Cards: The Two Teams — card set Equal Shmequal — Were the Teams Equal? Cut on the card lines. Seven cards make the whole set. Bear · Mouse · Turtle · Rabbit · Bobcat · Wolf · Deer Position and Evidence — half page Equal Shmequal — Were the Teams Equal? - I think the teams were _____ because this side had _____ and that side had _____. - The beam was _____. - I changed my mind because _____ - I did not change my mind. What would have moved me: _____ Word Cards — card set Equal Shmequal — Were the Teams Equal? Cut on the card lines. One word to a card: more than, fewer than Per class - A set of seven animal cards per two students - A length of yarn per two students - A pan balance per two students - Two large wooden blocks and a tub of small cubes per two students - The ending of the story, reread aloud once both teams are built and both tests have been run - Word cards: more than, fewer than