

Explicit Instruction Routines

Explicit instruction episode 1: Comparing teen numbers using a number track

Purpose

Use this as a **core Foundation instructional episode** for comparison within 20 and as a **Year 1 review episode** for students who are not yet secure comparing teen numerals (accuracy).

Learning intention

We are learning to compare numbers to decide which is more, less, or the same.

Success criteria

- I can identify which numeral is more, less, or the same
- I can explain how I know using a number track
- I can use the sentence:
___ comes after ___, so ___ is more

Materials

- Numeral cards
- Number track or number path from 0–20
- Mini-whiteboards

Teacher Modelling

Teacher displays **14** and **16**.

Teacher says: "Today we are learning to compare numbers. Compare means decide which number is more, less, or the same."

"The numbers are 14 and 16."

"Listen first. I am going to find which number is more."

Teacher points to 14 on the number track.

"Here is 14."

Teacher points to 16 on the number track.

"Here is 16."

Teacher traces from 14 to 16.

"16 comes after 14. Numbers that come after are more. So, 16 is more than 14."

Teacher points back to 14.

"14 comes before 16. Numbers that come before are less. So, 14 is less than 16."

Teacher says: "Say it with me: 16 comes after 14, so 16 is more."

Students repeat: "16 comes after 14, so 16 is more."

Teacher says: "Say it with me: 14 comes before 16, so 14 is less."

Students repeat: "14 comes before 16, so 14 is less."

Guided Practice

Teacher displays **18** and **15**.

Teacher says:

"The numbers are 18 and 15."

"Which number is more?"

Students respond: "18."

Teacher says: "Let's prove it on the number track."

Teacher points to 15. "Here is 15."

Teacher points to 18. "Here is 18."

Teacher asks: "Which number comes after?"

Students respond: "18."

Teacher says:

"Use the stem sentence: ___ comes after ___, so ___ is more."

Students say: "18 comes after 15, so 18 is more."

Teacher asks: "Which number is less?"

Students respond: "15 is less than 18."

Teacher says:

"Use the stem sentence: ___ comes before ___, so ___ is less."

Students say: "15 comes before 18, so 15 is less."

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Supported independent practice

Students compare pairs using a number track.

Examples:

- 12 and 17
- 19 and 16
- 11 and 11
- 13 and 15
- 20 and 18

For each pair, students:

1. read both numerals,
2. circle or write the number that is more,
3. say the stem sentence to a partner.

Student language:

___ comes after ___, so ___ is more
___ comes before ___, so ___ is less
___ and ___ are the same

Correction routine

If a student says,

“16 is more than 19,”

the teacher says:

“Let’s check on the number track. Here is 16.

Here is 19. 16 comes before 19.

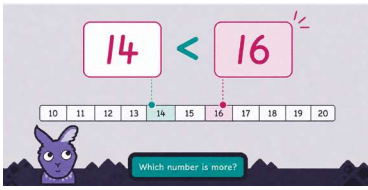
That means 16 is less than 19.

Say it with me: 19 comes after 16, so 19 is more.”

Students repeat:

“19 comes after 16, so 19 is more.”

The illustration shows a teacher kneeling and pointing to a number track from 10 to 20. Above the track, the numbers 14 and 16 are shown in boxes with a less-than sign (<) between them. A speech bubble above the teacher says, "16 is more than 14." Below the track, another speech bubble says, "14 comes before 16, so 14 is less." The number 14 is highlighted in green on the track, and 16 is highlighted in red. A green arrow points from 14 to 16.



Explicit Instruction Routines

Explicit instruction episode 2: Foundation emerging / Year 1 bridge — comparing teen numbers using base-10 blocks

Purpose

Use this when students are beginning to understand teen numbers as **10 and some more**. This can be introduced in Foundation for students working confidently within 20 and should be revisited in Year 1 as a bridge to comparing two-digit numbers. It should support teen-number understanding rather than become a full place-value comparison lesson in Foundation.

Learning intention

We are learning to compare teen numbers by showing 10 and some more.

Success criteria

- I can build a teen number as 10 and some more
- I can compare two teen numbers
- I can explain which number is more

Materials

- Numeral cards
- Ten rods or bundled tens
- Ones blocks or counters
- Ten-frames if preferred

Teacher Modelling

Teacher displays **14** and **16**.

Teacher says:

“The numbers are 14 and 16. I will build each number using 10 and some more.”

Teacher builds 14 with one ten and four ones.

“This is 14. 14 is 10 and 4 more.”

Teacher builds 16 with one ten and six ones.

“This is 16. 16 is 10 and 6 more.”

Teacher aligns the ten rods.

“Both numbers have 10.”

Teacher points to the extra ones.

“Now I compare the extra ones. 14 has 4 extra ones. 16 has 6 extra ones. Six extra ones is more than 4 extra ones.”

“So, 16 is more than 14.”

Teacher says:

“Say it with me: Both numbers have 10, but 16 has more extra ones, so 16 is more.”

Students repeat:

“Both numbers have 10, but 16 has more extra ones, so 16 is more.”

Guided Practice

Teacher displays **18** and **15**.

Teacher says:

“The numbers are 18 and 15. Let’s build 18 first.”

Teacher and students build 18.

“Start with 10. Now add 8 more ones. 18 is 10 and 8 more.”

Teacher says: “Now build 15.”

Teacher and students build 15.

“Start with 10. Now add 5 more ones. 15 is 10 and 5 more.”

Teacher asks: “Do both numbers have 10?”

Students respond: “Yes.”

Teacher asks: “Which number has more extra ones?”

Students respond: “18.”

Teacher says:

“Use the stem sentence: Both numbers have 10, but ___ has more extra ones, so ___ is more.”

Students say:

“Both numbers have 10, but 18 has more extra ones, so 18 is more.”

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Supported independent practice

Students compare teen numbers using base-10 materials.

Examples:

- 13 and 17
- 12 and 19
- 16 and 16
- 15 and 11

For each pair, students:

1. build each number as 10 and some more,
2. identify which number has more extra ones,
3. say the comparison sentence.

Student language:

___ is 10 and ___ more

___ is 10 and ___ more

Both numbers have 10, but ___ has more extra ones, so ___ is more

Correction routine

If a student counts inaccurately or compares only the last digit without linking to the whole number, the teacher says:

“Let’s build the numbers carefully. First, make 10. Now add the extra ones. Both numbers have 10, so we compare the extra ones.”

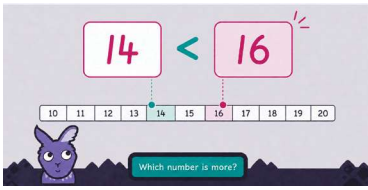
Then the teacher leads the correct stem:

“Both numbers have 10, but ___ has more extra ones, so ___ is more.”

Both numbers have 10, but 18 has more extra ones, so 18 is more.

18 is 10 and 8 more.

15 is 10 and 5 more.



Explicit Instruction Routines

Explicit instruction episode 3: Year 1 extension — comparing two-digit numbers using base-10 blocks and a place-value chart

Purpose

This is a **Year 1 extension from Foundation comparison work**. It is appropriate when students are working with numbers to 100 and are learning to compare two-digit numbers using tens and ones. Use this when students:

- can compare numbers within 20 with reasonable accuracy,
- have some emerging understanding of teen numbers as 10 and some more,
- are ready to compare two-digit numbers by attending to tens first.

Learning intention

We are learning to compare two-digit numbers by comparing tens first.

Success criteria

- I can show a two-digit number using tens and ones.
- I can compare the tens first.
- I can compare the ones if the tens are the same.
- I can explain which number is more.

Materials

- Numeral cards
- Base-10 blocks
- Place-value chart with Tens and Ones
- Mini-whiteboards

Teacher Modelling

Teacher displays **35** and **30**.

Teacher says: "We are comparing two-digit numbers. When we compare two-digit numbers, we compare the tens first."

Teacher places 35 on the place-value chart.
"35 has 3 tens and 5 ones."

Teacher places 30 on the place-value chart.
"30 has 3 tens and 0 ones."

Teacher says: "First, I compare the tens. 35 has 3 tens. 30 has 3 tens. The tens are the same."

"When the tens are the same, I compare the ones."
Teacher points to the ones.

"35 has 5 ones. 30 has 0 ones. Five ones is more than zero ones." "So, 35 is more than 30."

Teacher says: "Say it with me: Both numbers have 3 tens, but 35 has more ones, so 35 is more."

Students repeat:

"Both numbers have 3 tens, but 35 has more ones, so 35 is more."

Guided Practice

Teacher displays **46** and **42**.

Teacher says: "The numbers are 46 and 42. What do we compare first?"

Students respond: "Tens."

Teacher says: "Yes. We compare tens first."

Teacher asks: "How many tens does 46 have?"

Students respond: "4 tens."

Teacher asks: "How many tens does 42 have?"

Students respond: "4 tens."

Teacher says: "The tens are the same. What do we compare next?"

Students respond: "Ones."

Teacher asks: "How many ones does 46 have?"

Students respond: "6 ones."

Teacher asks: "How many ones does 42 have?"

Students respond: "2 ones."

Teacher asks: "Which number is more?"

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Students respond: "46."

Teacher says: "Use the full sentence."

Students say: "Both numbers have 4 tens, but 46 has more ones, so 46 is more."

Year 1 example with different tens

Teacher displays 54 and 38.

Teacher says:

"The numbers are 54 and 38. I compare the tens first."

"54 has 5 tens. 38 has 3 tens."

"Five tens is more than 3 tens, so 54 is more than 38."

Teacher says:

"Say it with me: 54 has more tens than 38, so 54 is more."

Students repeat:

"54 has more tens than 38, so 54 is more."

Supported independent practice

Students compare two-digit numbers using base-10 blocks and a place-value chart.

Examples:

- 35 and 30
- 46 and 42
- 54 and 38
- 67 and 72
- 81 and 81
- 40 and 46

For each pair, students:

1. write or build each number in the place-value chart,
2. compare the tens first,
3. compare the ones only if the tens are the same,
4. say or write the comparison sentence.

Student language:

First, I compare the tens

___ has more tens than ___, so ___ is more

The tens are the same, so I compare the ones

Both numbers have ___ tens, but ___ has more ones, so ___ is more

Correction routine for digit-comparison errors

If a student says:

"38 is more than 54 because 8 is bigger than 4,"

the teacher says:

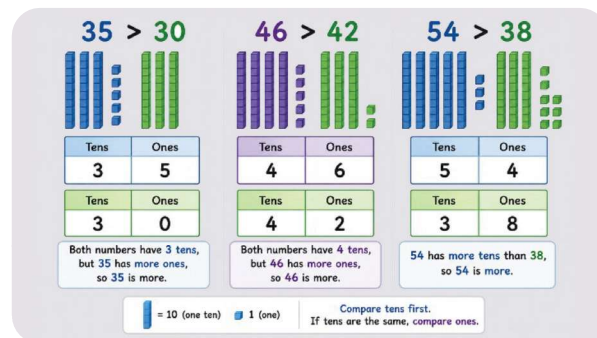
"You compared the ones before the tens. In two-digit numbers, we compare tens first."

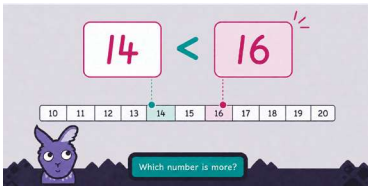
Teacher points to the tens column.

"54 has 5 tens. 38 has 3 tens. Five tens is more than 3 tens, so 54 is more than 38."

Students repeat:

"54 has more tens than 38, so 54 is more."





Review and Practice

Independent practice options

Independent practice should be brief, accurate, and closely matched to what has been explicitly taught.

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Independent practice should be brief, accurate, and closely matched to what has been explicitly taught.

Within 10

- Circle the number that is more
- Write the number that is less
- Match equal numbers
- Order three numerals

Within 20

- Compare teen numerals using a number track.
- Complete stem sentences
- Write the missing number in a sequence
- Sort pairs into: more, less, same

Teen numbers as 10 and some more

- Build 14, 16, and 18 as 10 and some more
- Match numerals to base-10 representations
- Complete: 17 is 10 and ____ more
- Compare: 13 and 18

Year 1 comparison within 100

- Compare decade numbers such as 30 and 60
- Use base-10 blocks to compare two-digit numbers
- Use hundred charts to compare numbers within 100
- Use place-value charts to compare tens first
- Identify and correct digit-comparison errors

Progress monitoring and decision rules

For students receiving this class-wide or small-group follow-up after ENSSA:

Check accuracy briefly and often

Use 6–10 comparison items.

Include:

- smaller number pairs,
- teen number pairs,
- same-number pairs,
- close pairs, such as 14 and 16,
- for Year 1, decade and two-digit pairs within 100 if taught.

Suggested mastery indicator

A student is likely secure with the taught range when they can:

- compare numerals accurately,
- explain using a taught stem sentence,
- maintain accuracy across several brief reviews,
- apply the skill without relying on counting every object

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