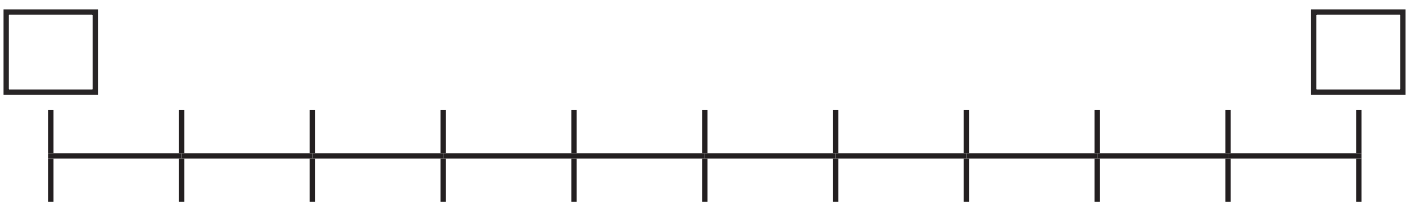
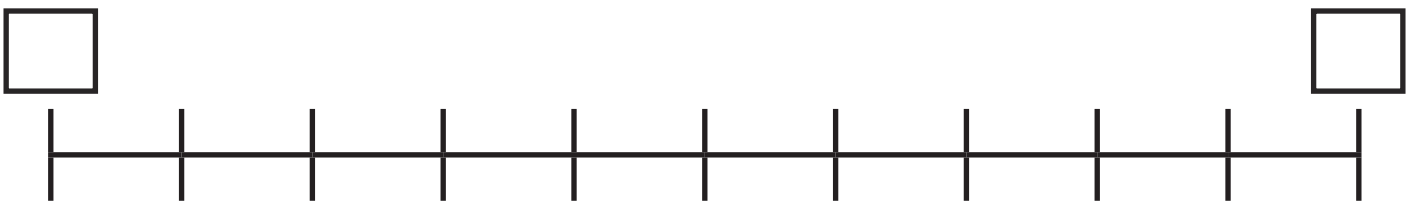


Blank Number Lines



Number Lines Sheet

3

4



Place 7.8 onto the number line and round it to the nearest whole number.

7

8



Place 5.1 onto the number line and round it to the nearest whole number.

5

6



Place 9.7 onto the number line and round it to the nearest whole number.

9

10



Place 4.2 onto the number line and round it to the nearest whole number.

4

5



Prove It Poster



Do you agree with Olive that all the suitcases weigh approximately 5kg?
Can you round each weight to the nearest kilogram to prove it?
A fifth suitcase rounds to 5kg. What could it weigh?

3.6

4

6.5

7

20.1

20

8.9

9

11.7

12

15.3

15

25.5

26

18.9

19

27.5

28

Stem Sentence Poster

_____ is between _____ and _____.

_____ is the previous whole number.

_____ is the next whole number.

The nearest whole number to _____ is _____.

_____ rounded to the nearest whole number is _____.

Name:

Date:

Same-Day Intervention Assessment

Child A

Child B

Child C

Child D

Child E

Round to the nearest whole number using a number line with the previous and next integers labelled.

Round to the nearest whole number using a blank number line.

Know that decimal numbers with five tenths round up to the next whole number.

Round a decimal to the nearest whole number without a number line.

Additional Notes

■ Same-Day Intervention: Rounding Decimals with One Decimal Place to the Nearest Whole Number

Children will learn to round numbers to one decimal place to the nearest whole number.

Pre-Intervention Check

To access this intervention, can the children...

*Tick as appropriate.

...round whole numbers?*

...identify and place numbers with one decimal place on a number line?*

Explaining the Misconception in Mathematical Understanding

Common Misconception:

Not being able to identify the two whole numbers that the decimal number sits between.

For example, if asked to round 3.4 to the nearest whole number, a child may respond with 2, missing out the nearest integer of 3.

This intervention will help prepare children for upper key stage 2 where they will be introduced to thousandths.

Summary of Intervention

Round to the nearest whole number using a number line with the previous and next integers labelled.

Round to the nearest whole number using a blank number line.

Know that decimal numbers with five tenths round up to the next whole number.

Round a decimal to the nearest whole number without a number line.

Preparation

- [Number Lines Sheet](#) (1 per pair)
- [Blank Number Lines](#) (1 per child)
- Whiteboards and pens
- [Prove It Poster](#)
- [Sentence Stem Poster](#)
- [Rounding Decimals Pairs Game](#) (optional – 1 per pair)

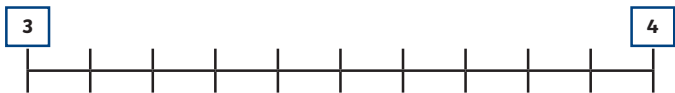
Key Vocabulary

- Round
- Nearest whole
- Integer
- Place value
- Tenths
- Previous, next

Key Questions for Deepening Understanding

Round to the nearest whole number using a number line with the previous and next integers labelled.

Display **Number Lines Sheet** and hand a copy to each pair. Ask children to focus on the first number line.



- What can you tell me about this number line?
- How many equal intervals are there between the whole numbers three and four? (10)
- What are the intervals going up in? What does each interval represent? (one-tenth or 0.1)

Write the number 3.4 on a whiteboard.

- How do you say this number?
- What is the value of the digit 3?
- What is the value of the digit 4?
- What is the heading for the place value column to the right of the decimal point? (tenths)
- Where would 3.4 go on the number line?
- How many intervals along will it be and why? (four intervals because this represents four-tenths)

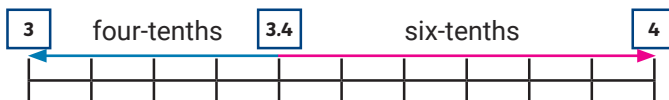
Model writing this on the number line. Encourage children to count up in tenths to check that you are correct before adding 3.4 to their number lines.



- Which two whole numbers does 3.4 come between?
- Which whole number comes before 3.4?
- Which whole number comes after 3.4? How do you know?
- How would we round 3.4 to the nearest whole number?
- Looking at the number line, which whole number is 3.4 closest to? How do you know?
- How many tenths are between 3.4 and 3? (four-tenths)
- How many tenths are between 3.4 and 4? (six-tenths)

- Which whole number is it closest to and why?

Model on a number line (as shown).



Display **Stem Sentence Poster** and ask children to complete it for the above example.

3.4 is between **3** and **4**.

3 is the previous whole number.

4 is the next whole number.

The nearest whole number to **3.4** is **3**.

3.4 rounded to the nearest whole number is **3**.

Repeat the above using the numbers 7.8, 5.1, 9.7 and 4.2 on the remaining number lines.

Round to the nearest whole number using a blank number line.

Display **Blank Number Lines** and hand out a copy to each pair.

Write the number 6.6 on a whiteboard.

- Which two whole numbers does 6.6 come between? What can you look at to help you?

Establish that the whole number (the six ones) tells us what the whole number at the start of the number line should be. Underline the digit 6 before the decimal point.

- What is the whole number?

Children write 6 at the start of the first number line (as shown).

- Which whole number comes after 6.6?

Children write 7 at the end of the first number line (as shown).



- How can we round 6.6 to the nearest whole number?

Key Questions for Deepening Understanding (Continued)

- Which whole number is 6.6 closest to? How do you know?
- How many tenths are between 6.6 and 6? (six-tenths)
- How many tenths are between 6.6 and 7? (four-tenths)
- Which whole number is it closest to and why?

Display **Stem Sentence Poster** and ask children to complete it for the above example.

6.6 is between 6 and 7.

6 is the previous whole number.

7 is the next whole number.

The nearest whole number to 6.6 is 7.

6.6 rounded to the nearest whole number is 7.

Repeat the above using the numbers 12.7, 8.9, 17.2 and 13.9 on the remaining number lines.

Know that decimal numbers with five tenths round up to the next whole number.

Hand each pair another copy of **Blank Number Lines**.

Write the number 8.5 on a whiteboard.

- Which two whole numbers does 8.5 come between? (8 and 9)
- Can you label where 8.5 would go?
- How many tenths are between 8.5 and 8? (five-tenths)
- How many tenths are between 8.5 and 9? (five-tenths)
- Which whole number is it closest to and why?

Establish that if the tenths digit is 1, 2, 3 or 4 we round **down** to the nearest whole number. If the tenths digit is 5, 6, 7, 8 or 9 we round **up** to the nearest whole number.

Repeat the above using the numbers 18.5, 20.5 and 16.5 on the remaining number lines.

Rounding a decimal to the nearest whole number without a number line.

Write the number 7.3 on a whiteboard.

- How could we round this number to the nearest whole number without using a number line?
- What do we need to do first? What do we need to identify? (the whole numbers that the number lies between)
- When rounding to the nearest whole number, what place value column do we look at to help us? (tenths)
- What is the value of the tenths digit? (three-tenths)
- What are the rules for rounding? Which numbers round down? Which numbers round up?
- What would 7.3 round to?

Repeat using numbers 2.1, 3.5, 22.7 and 11.5.

Display **Prove It Poster**.

- Do you agree with Olive that all the suitcases weigh approximately 5kg?
- Can you round each weight to the nearest whole kilogram to prove it?
- A fifth suitcase rounds to 5kg. What could it weigh?

Additional Opportunities to Reinforce Learning

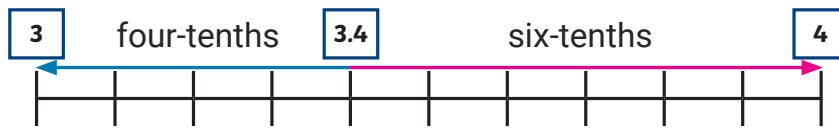
Children play **Rounding Decimals Pairs Game**. Each pair spread out a set of cards, face down, on the table. Each card has a matching answer card, e.g. 3.6 must be matched to 4. When the game begins, children should turn all of their cards over and match the nine pairs of cards as quickly as they can. The first team to match all nine pairs are the winners.

Example:

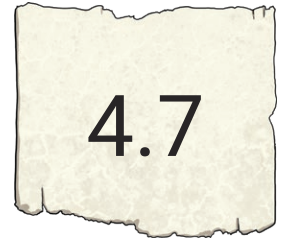


Home Learning Slip

Today, at school, your child has been learning to round numbers with one decimal place to the nearest whole number. Your child has learnt that if the tenths digit is 1, 2, 3 or 4 they round down to the nearest whole number. If the tenths digit is 5, 6, 7, 8 or 9 they round up to the nearest whole number. For example, the number 3.4 rounded to the nearest whole number would be 3 because the digit in the tenths column has the value of four-tenths.



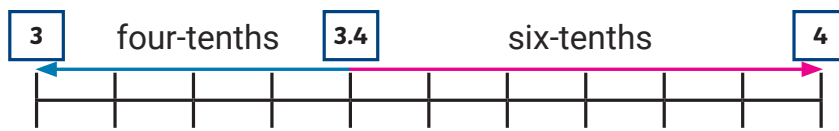
To help them consolidate their learning, you could complete the following activity with them at home. Write some numbers with one decimal place on ten pieces of small paper and place them around the house. Ask your child to search for them and round each to the nearest whole number. For example, if you write 4.7, your child needs to identify that 4.7 rounded to the nearest whole number is 5. As an extra challenge, you could give them just five minutes to complete the activity.



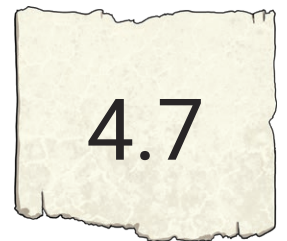
Thank you for your support with this. Your help will really make a difference to your child.

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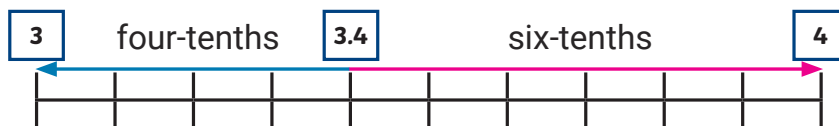
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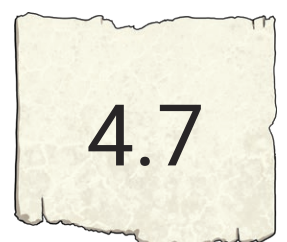
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