

Place Value: Large Numbers & Decimals

Read, represent, compare, round and reason with large whole numbers and decimals using place-value relationships.

LEARN • PRACTISE • CREATE • REFLECT

Original BrightPencil Kids resource - adult-led where appropriate

A4 edition • 12 purposeful pages • review copy

Print. Learn. Grow.

Grown-up guide

Learning objective

Read, represent, compare, round and reason with large whole numbers and decimals using place-value relationships.

Use this pack well

- Model the first example aloud, then let the learner try.
- Ask “How do you know?” more often than “Are you finished?”.
- Use real objects, talk, movement or observation when the activity suggests it.
- Stop or shorten the session if attention or enjoyment drops.
- Open-ended pages can have many successful answers.

Quality note

This resource was written originally for BrightPencil Kids. Curriculum sources informed scope and progression only; no third-party worksheet or story text is reproduced.

Learn the idea

1 Each place is ten times the value of the place to its right in base ten.

2 Decimals extend the same place-value system through tenths, hundredths and thousandths.

3 Rounding is an approximation and should be tied to a stated place or purpose.

Talk about it

Explain one idea in your own words. Give an example from real life, a drawing or an object if that helps.

Represent 4,072,305 in expanded form.

Compare 0.507 and 0.57 using place value.

Place 3.045 on a number line between 3 and 3.1.

Round a multi-digit number to a useful stated place.

Explain why adding a trailing zero to 0.5 does not change its value.

Try it beyond the page

Real-world / hands-on connection

Find large numbers or decimal measurements in a trusted real-world source and explain what each digit represents.

Before you finish

What did you notice?

What evidence, object or example helped you?

What would you change if you tried again?

Create something

Your project

Create a place-value puzzle where clues identify one whole number and one decimal.

Use this space for planning, drawing, mapping, designing or notes.

CHALLENGE

Think deeper

1. Which is greater: 0.62 or 0.602?

2. What does the 7 mean in 5.073?

3. Does rounding give the exact original value?

Quick review

1. In one sentence, explain the big idea of “Place Value: Large Numbers & Decimals”.

2. Draw or write one example that shows you understand.

3. Choose one activity from this pack and explain the strategy you used.

4. Write one question you still have.

Answer & discussion notes

Use these as guidance, not scripts. Open questions can have different successful responses when the reasoning is sensible and evidence-based.

1. Suggested response

0.62.

2. Suggested response

Seven hundredths.

3. Suggested response

No.

Review before publication

Check age fit, factual accuracy, clarity, accessibility, rights provenance and whether the activity works in practice. This file remains a review copy until those checks are signed off.

FINISH

My learning reflection

I finished this BrightPencil learning pack.

One thing I understand better now:

A strategy that helped me:

Something I created or noticed:

My next small question or goal:

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