

The Value of 0

Thoughtful number conversations

Setting the scene

Numbers feature in our lives more than we realise: our date of birth; important phone numbers; house or flat number; bank account number and balance; number of meals we need to make and the food budget we work to; dates on the calendar; hours we have to work; hours available to relax; months to go until the summer holiday...and so it goes on.

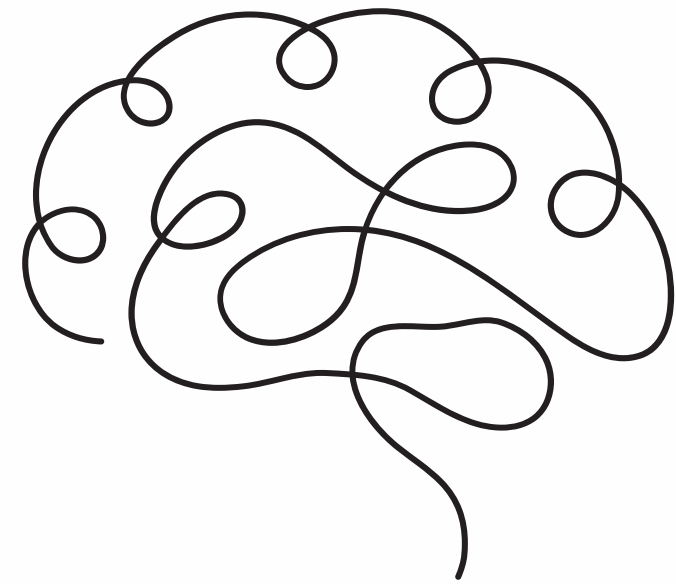
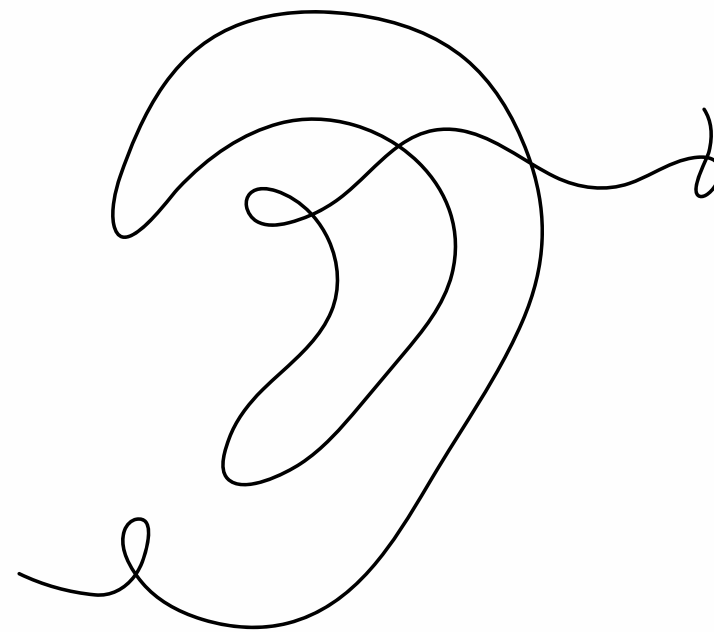
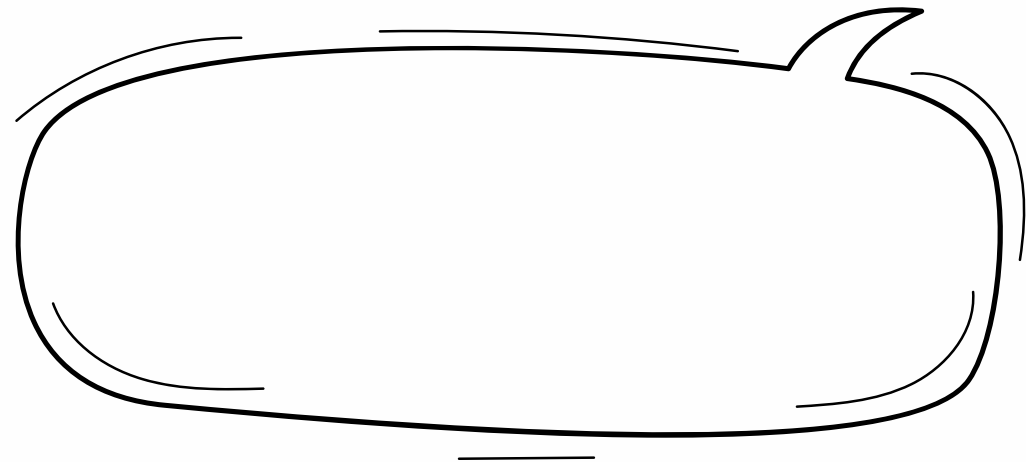
Here's some thoughtful numeracy questions to get you started:

- What numbers do you like, and why?
- What numbers don't you like, and why?
- What numbers are connected to you, or significant?
- Are numbers important?

National Numeracy Day 2026 is the perfect time to not just use numbers but to also have a natter about the big philosophical ideas hidden within them, for example: value, problems, luck and confidence. Whether it's at home in a family community, in school or the wider community, find a question in this resource that interests you and start a thoughtful numeracy natter!

What is philosophical enquiry?

Philosophical enquiry is the practice of speaking, listening *and thinking* about topics that matter and are meaningful, that helps people to understand themselves, others and the world around them - and to acquire the skills to thrive in school and society.



Considerations for first time facilitators

Share some guidelines to cultivate the ethos, for example: we listen respectfully; we speak clearly; we work together; we think deeply.

Ask questions to open up the thinking, for example:

Who has an idea?

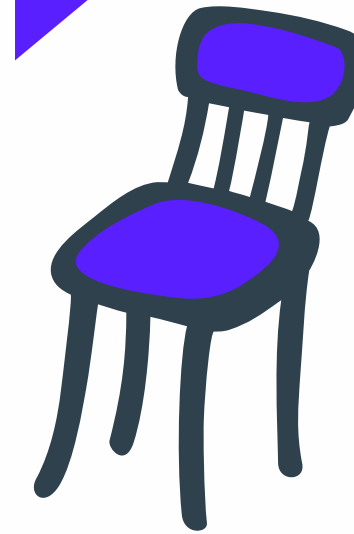
Can you say more?

Why do you think that?

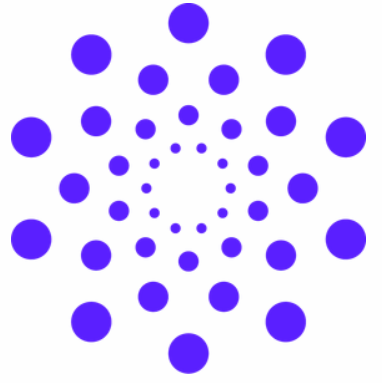
Do you agree or disagree?
Why?

What are your reasons?

Can you say how that helps answer our question?



Considerations for first time facilitators

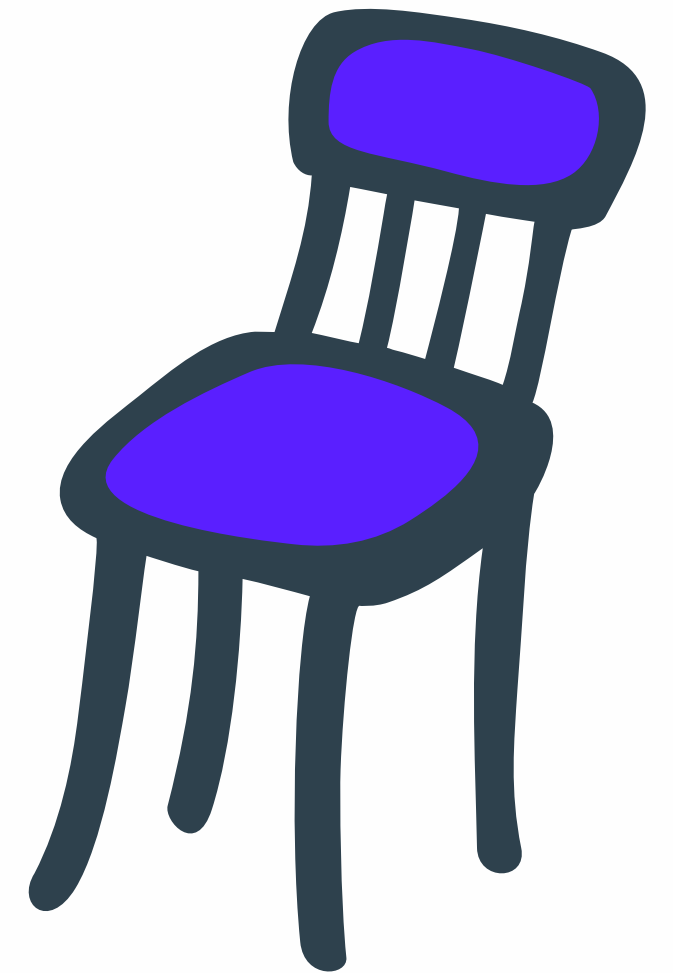


Pick up on what the community is interested in thinking about and follow their lead in the conversation - do not feel like you need to ask or answer questions all the time.

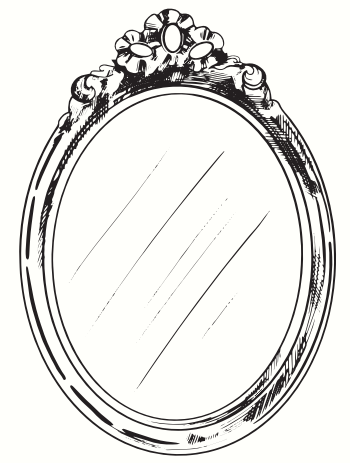
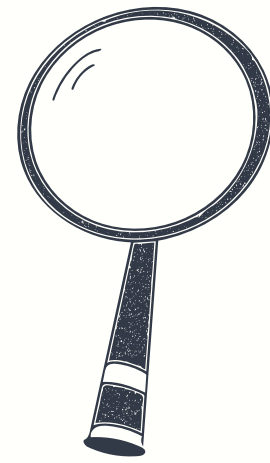
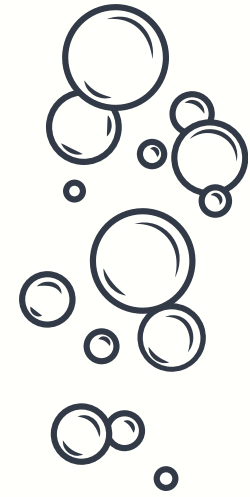
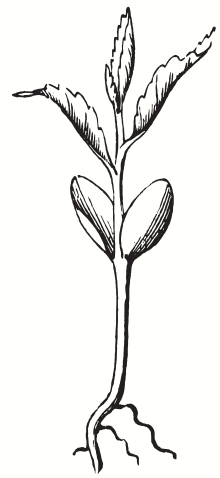
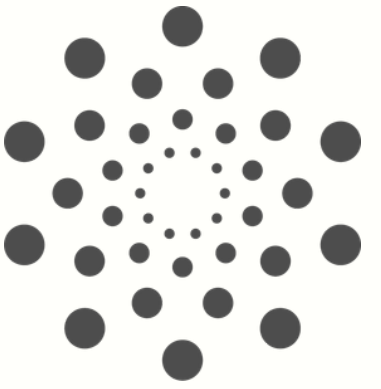
Explore some or all of the ideas that the resource suggests, using the time you have available, recognising that you could return to the ideas in another session.

Refine and adapt the resource materials to work for your students and context. For example, you may choose to focus on one of the questions (without the number story) as a conversation starter at the beginning of a maths session.

Evaluate how the students responded and how it went for you as the facilitator - and reflect on the question: How has our thinking changed?



Thoughtful elements of enquiry



S

Share

A

Ask

P

Pick

E

Explore

R

Refine

E

Evaluate

Share a number story (i)

1, 2, 3, 4, 5, 6, 7, 8 and 9 are a tight knit community of numbers who live together on the Number Line, an ordered street where everyone feels included and valued.. They get on well with each other, happily joining forces to make new numbers.

However, at the end of the street was a round figure that appeared lonely and small.

“Hello,” it said quietly. “I’m **Zero**. Can I join you?”

The numbers stared.

“You don’t add anything,” said **3**.

“You’re...nothing,” whispered **7**.

Zero felt smaller than ever.

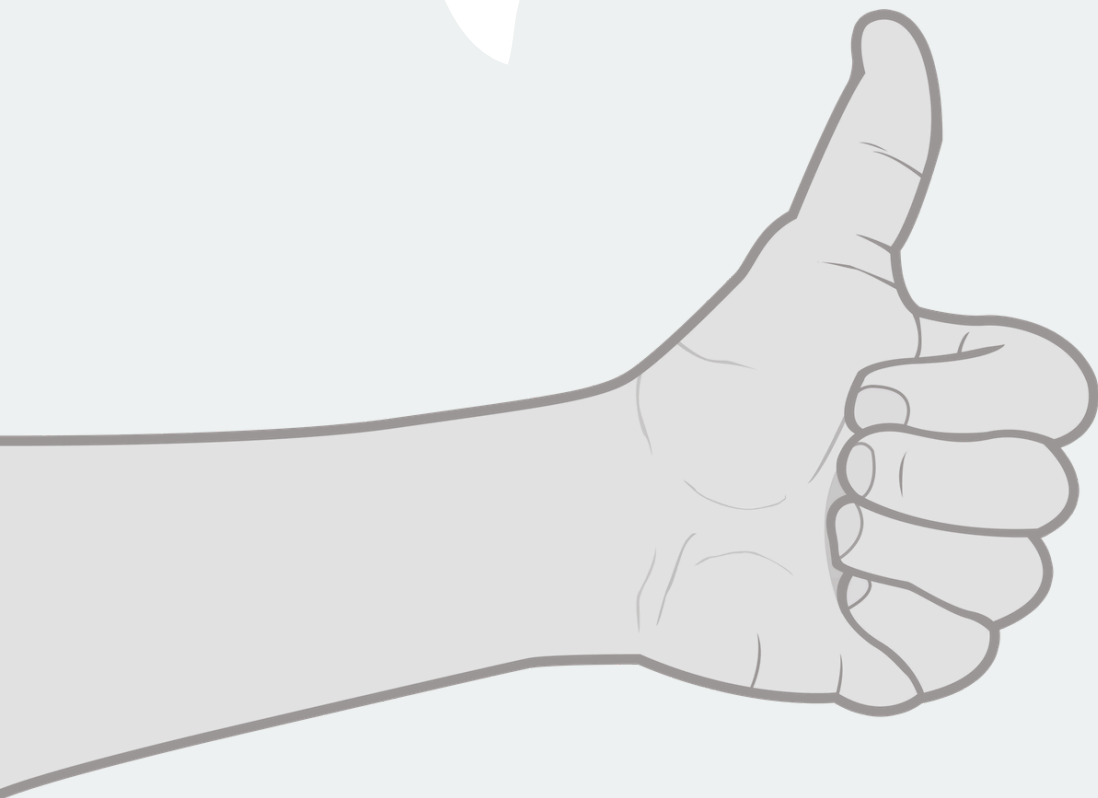


Ask if they agree or disagree, and why

I agree
because...

0 is a number.

I disagree
because...



Pick a side

NO

**Should 0 be allowed to join the
number community?**

YES

Share a number story (ii)

But then **1** stepped forward. “Maybe **Zero** doesn’t add anything to me,” **1** said, “but look what happens when **Zero** stands next to me.”

Together they formed **10** — a number bigger than any of them alone. The others gasped.

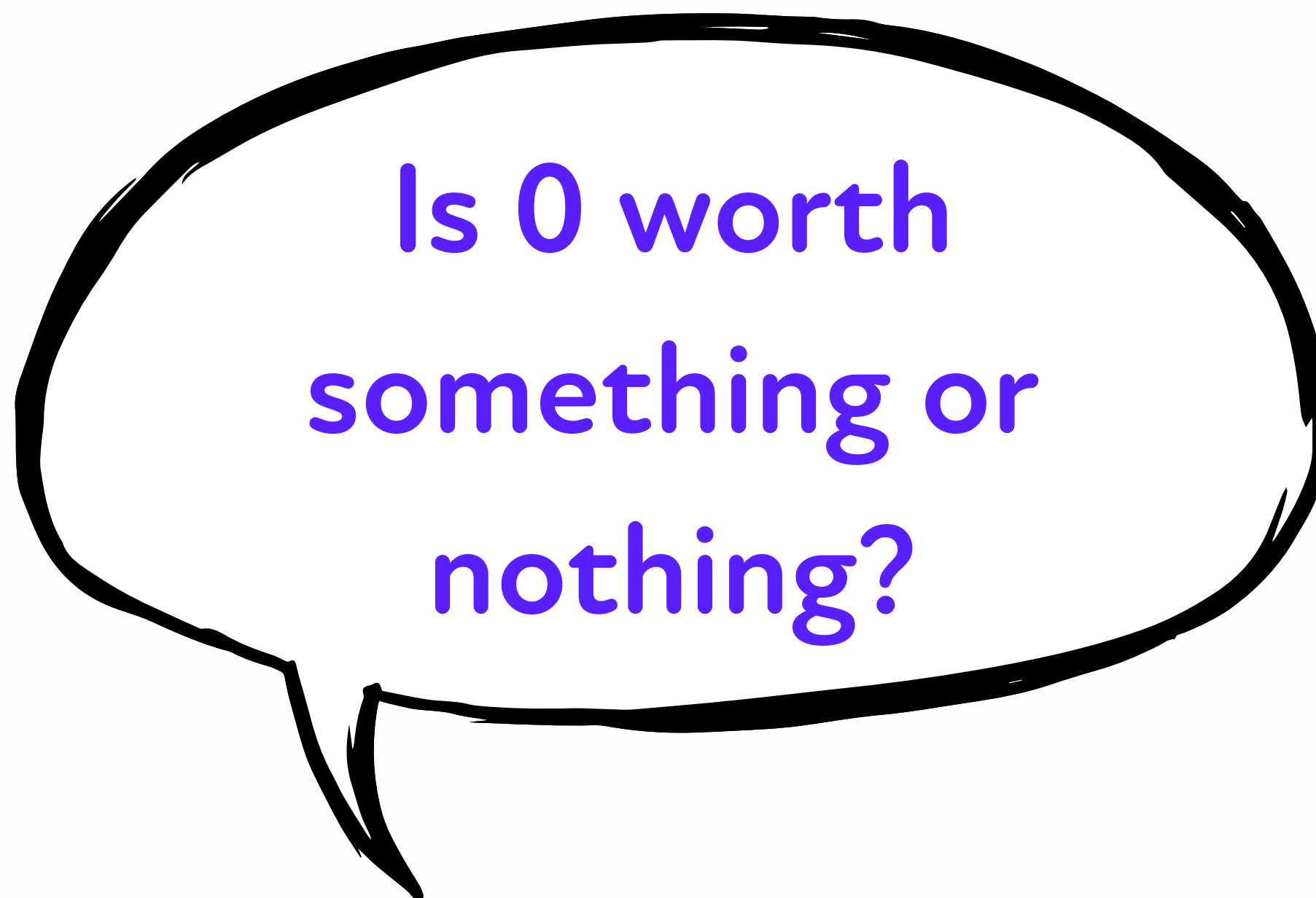
“Try it with me!” said **2**. “Me next!” said **3**.

Soon the whole street was buzzing. With **Zero**, they could build **10, 20, 30... 90** — whole new families of numbers. **Zero** didn’t just join the community. **Zero** expanded it and made it bigger.

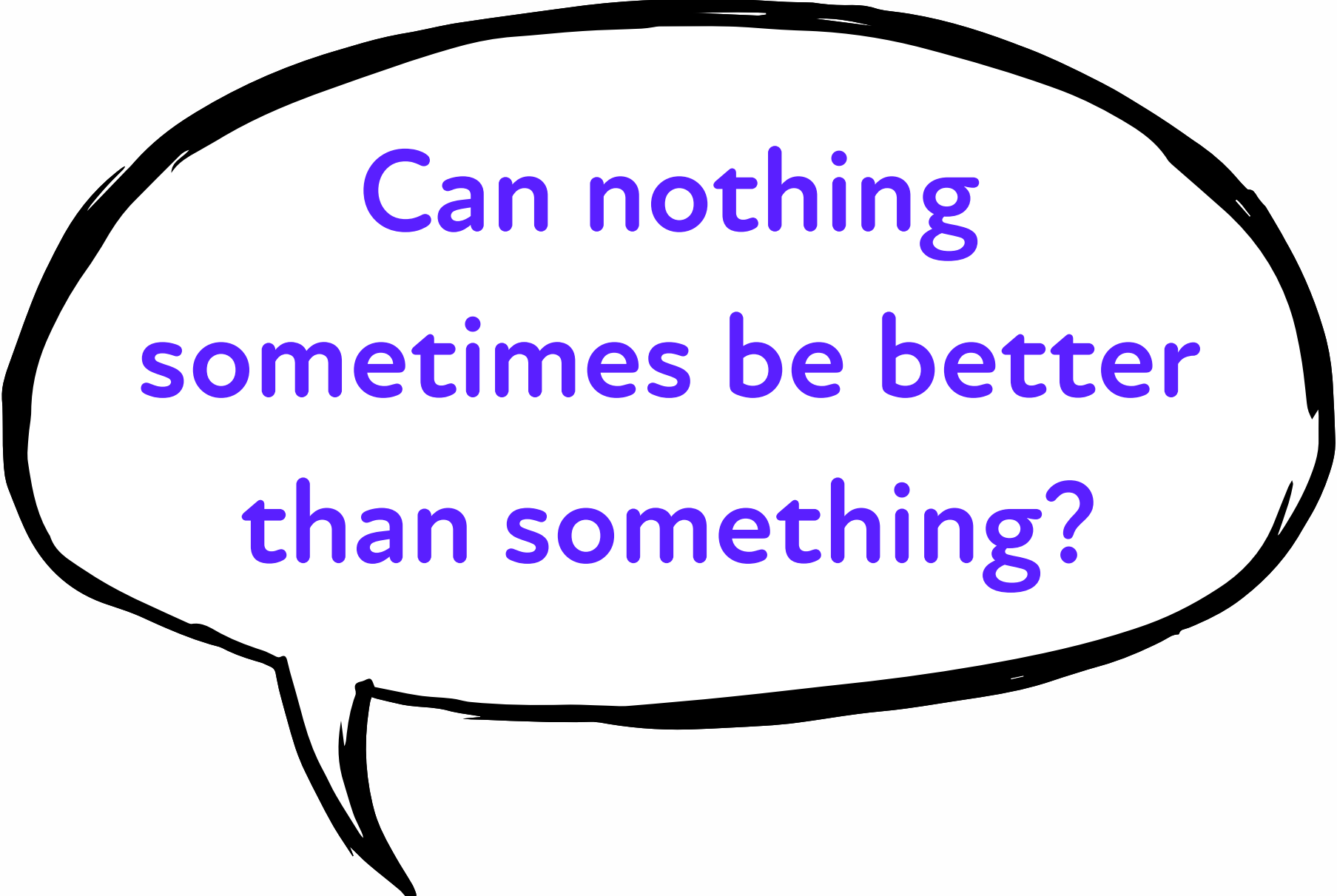
Zero now felt like something rather than nothing.



Explore this bigger question



Refine thinking




Can nothing
sometimes be better
than something?

NOTHING

SOMETHING

Evaluate and reflect together



What do you think
now?



Has your thinking
changed at all?


There is always more thinking to do

Our aim when thinking philosophically is to progress our thinking by understanding a problem in more detail. However, philosophical conversations rarely resolve problems completely. Because philosophy deals with everyday ideas that are complex and contested, there is always more thinking to do.

Numeracy can reveal all sorts of big ideas that we can connect with life and even this short number story has other ideas hidden away that could lead to more conversations, for example: [Can a number be a name?](#) or [Can we feel more valued by certain communities?](#)

Numeracy can present lots of opportunities to talk about big contestable ideas and simply asking young people, 'What do you think?' can result in a glorious few minutes to listen to what they think, and how they are relating to the world around them.

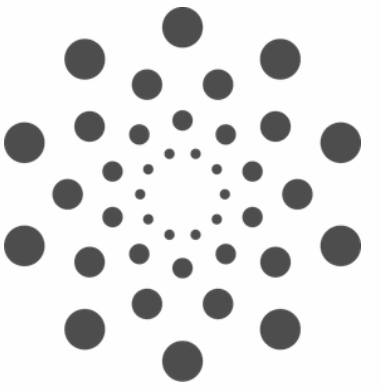
And if you want a philosophical question to think about another time, here is one for when the time is right...



**Should communities
be made up of the
same or different
people?**

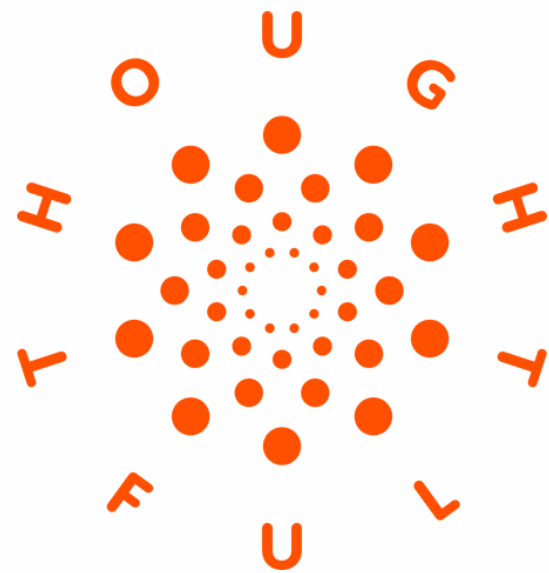
Other big ideas in the story of 0





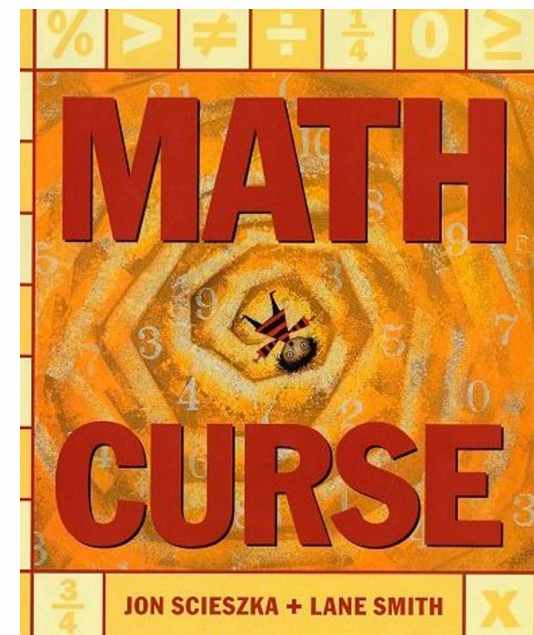
Further resources

Any books, television programmes and everyday situations where you can talk about numbers is a new opportunity to do more philosophical thinking.



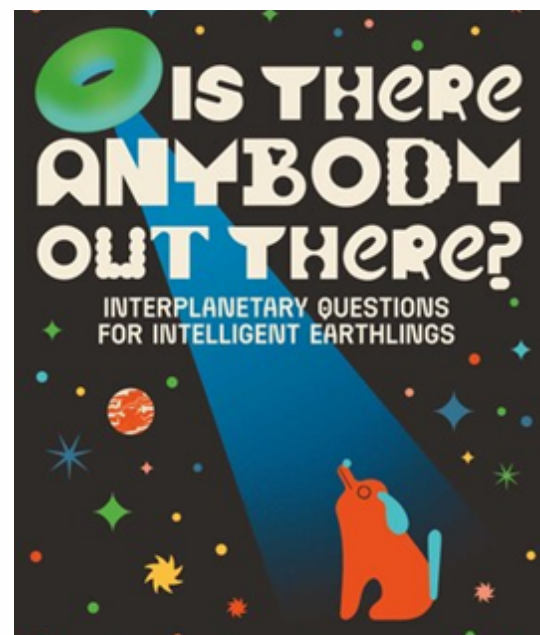
You can explore more resources which open up philosophical conversations related to numeracy on the Thoughtful website here:

<https://www.thoughtful.org.uk/resources/>

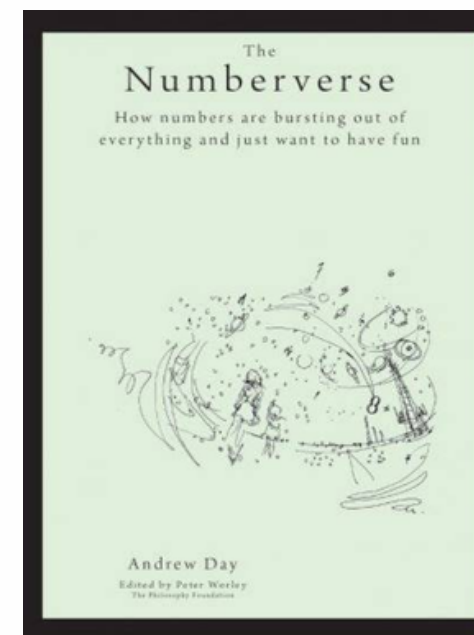


'*Maths Curse*' by Jon Scieszka and Lane Smith states, 'Everything seems to be a problem' and provokes us to think philosophically about the idea of problems and problem solving. The book is available on YouTube here:

<https://www.youtube.com/watch?v=8-ozgmx2nMI>



'*Is there Anybody Out There?: Interplanetary Questions for Intelligent Earthlings*' by Ellen Duthie, is great as a more general resource bank of philosophical questions for young people. It also has a double page on questions linked to numeracy: 'On Earth, does two plus two always equal four?'



'*The Numberverse: How numbers are bursting out of everything and just want to have fun*' by Andrew Day and edited by Peter Worley, plays philosophically with numbers and maths. It also has a chapter on 'Zero the Hero'!

Our theory of change



People participate
in philosophical
discussions



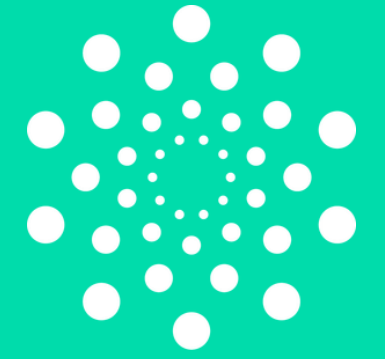
They learn to
think, speak, listen
and understand



This improves their
learning and their lives
and connects communities



Flourishing individuals
contribute to a better
society for everyone



SKILLS TO THRIVE IN LEARNING AND LIFE

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C/o WR Partners LLP, Belmont House, Sitka Drive
Shrewsbury Business Park. Shrewsbury SY2 6LGF

+44 (0) 1784 906899 

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