ProFuturo

Mathematics for everyone: JUMP Math!

Innovation in mathematics education.
Start teaching classes with JUMP Math!

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Telefónica FOUNDATION

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Why a mathematics education course?

The importance of mathematics

- It is applied to many other areas of knowledge: science and technology.
- It is a key tool in the education of young people, favouring a successful future.
- It helps develop problem-solving competence.

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Why a mathematics education course?

Our challenges vis-a-vis **the students**

- Making mathematics a lever for positive change in students' lives.
- Enabling all students to discover their potential.
- Counteracting negative attitudes, e.g. "I'm no good at math."
- Making sure all students enjoy learning math.

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Why a mathematics education course?

Our challenges **vis-a-vis teachers**

- Allow teachers to develop their maximum pedagogical capacities.
- Train teachers to become agents of social change.
- Help the teacher to be a figure that students remember their whole lives.

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The cornerstones of JUMP Math

Scientific research

JUMP Math is based on the latest advances in neuroscience. It takes into account students' cognitive maturation process.

Feasible challenges

It presents small, sequenced challenges everyone can meet, to facilitate abstraction.

Deep understanding

Through gradual, step-by-step learning, enabling students to remember not only the end goal, but the entire process.

Self-confidence and motivation

It motivates and empowers students, and gets them to fall in love with math.

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The pedagogical keys to JUMP Math

- Strengthen confidence through regular exercises and mental calculation
- Ensure understanding of each concept
- Propose gradual challenges that everyone can tackle
- Teach complex concepts through a series of simple steps
- Encourage practice through motivating games and challenges
- Encourage work with manipulatives, physical objects
- Minimise texts
- Evaluate continuously
- Follow appropriate learning sequences

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The pedagogical keys to JUMP Math

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Mathematics for everyone: JUMP Math!

Online mathematical training programme for teachers

Objective	Improve teachers' pedagogical capacities.
Target	Primary education teachers.

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Course structure

Study load: 20 hours in 10 units

Unit 1	Units 2 to 8	Unit 9	Unit 10
Introduction	Mathematical presentation	Lesson preparation	Mathematics and community

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Course structure

Unit 1

Introduction

- The importance of mathematics
- Research in mathematics
- The importance of the teacher
- Classroom dynamics

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Course structure

Units 2 to 8

Mathematical presentation

- Numbering
- Geometry
- Algebra
- Problem-solving

Greater learning difficulties: poor forms of teaching

- Unclear mathematical reasoning
- Few connections between concepts
- Algorithms only
- Great importance assigned to the answers
- Memorisation of cases

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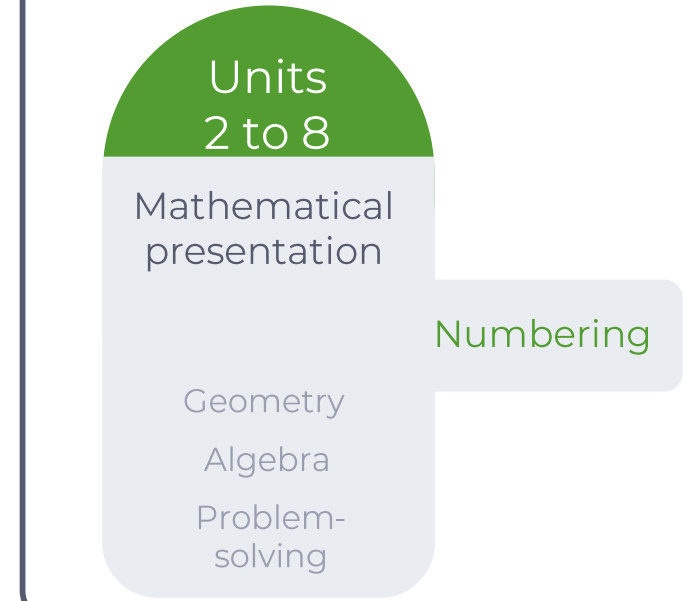
Course structure



Unit 2: Decimal numbering system and basic arithmetic operations

Counting, numbering, place value, adding, subtracting, multiplying, and dividing.

Unit 3: Fractions

Concept, writing and comparing, equivalent fractions, adding, subtracting, multiplying and dividing.

Unit 4: Ratios and numerical proportionality

Ratios and ratio tables, equivalent ratios and percentages.

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Course structure

Units 2 to 8

Mathematical presentation

Numbering

Algebra

Problem-solving

Geometry

Unit 5: Geometric elements and flat shapes

Flat shapes, equal sides, parallel sides, symmetry, angles, and polygons.

Unit 6: Measurements and the decimal metric system

Measuring, perimeter, area, and units of measurement.

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Course structure

Units 2 to 8

Mathematical presentation

Numbering

Geometry

Algebra

Problem-solving

Unit 7: The Basic Concepts of Algebra

Numeric expressions, unknown numbers, creating equations and solving equations.

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Course structure

Units
2 to 8

Mathematical presentation

Numbering
Geometry
Algebra

Problem-solving

Unit 8: Problem-solving Strategies

Understanding problems, using a number line, posing a simpler problem, searching systematically, using tape diagrams and patterns.

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Course structure

Unit 9

Lesson preparation

- How to plan classes
- How to teach classes
- How to evaluate continuously and with exams
- How to accommodate diversity

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Course structure

Unit 10

Mathematics and community

- The teacher's role as the protagonist
- All students can learn math.
- Strengthening the school's curriculum
- Mathematics and community

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How does it contribute to your work as a teacher?

- Development of mathematical thinking
- Assimilation of problem-solving strategies
- On-going training
- The teacher as an agent of change

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What teaching functions will you adopt?

Facilitator

Evaluator

Resource designer

Motivator

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Be that person they will remember their whole lives!

All students can acquire a mathematical foundation sufficient to confidently tackle challenges.

Complete the course and start teaching with JUMP Math!

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