

## Building a Positive Math Identity

Every child develops a **math identity**—their belief about who they are as a math learner. This identity is shaped by experiences at school, conversations at home, and the messages they hear about mathematics. A positive math identity helps students see themselves as capable learners who can grow, learn from mistakes, and improve through effort and persistence.

Here are some ways to support the development of a positive math identity:

| What to do:                                                                                                               | What it looks/sounds like:                                                           |
|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  Use Encouraging and Supportive Language | Say: "You worked really hard on that."                                               |
|  Value Thinking Over Speed               | Encourage your child to take their time and explain how they arrived at their answer |
|  Normalize Challenges and Mistakes       | Say: "This is challenging, but that means your brain is growing."                    |
|  Ask Questions That Build Confidence     | Ask: "What strategy did you use?"                                                    |
|  Celebrate Progress, Big and Small       | Keep examples of work to show how far they've come                                   |
|  Model a Positive Attitude Toward Math   | Say: "Math takes practice, but we can figure it out together."                       |
|  Make Math Feel Relevant and Connected | Talk about numbers, patterns, or problem-solving in daily activities                 |

## A Lasting Impact

Supporting a positive math identity is more than helping with homework—it's about helping children see themselves as capable learners. When parents and caregivers encourage curiosity, resilience, and persistence, they help build a foundation that allows students to approach math with confidence rather than fear.

Over time, this belief—"I can learn and grow in math"—can transform not only how students perform, but how they see themselves as thinkers and problem-solvers in school and beyond.



For additional information and resources to support at home, please visit the [Office of Mathematics website](#).

## Big Ideas in Unit 7

Within this unit, students will learn these big ideas:

- Exponent Rules
- More Exponent Rules
- Large and Small Numbers
- Scientific Notation

For more details about this unit, see [Unit 7 Family Resources](#).

### Lesson Specific Resources

Use the links below to learn about the learning from each lesson.

| Lesson Link                                                               |
|---------------------------------------------------------------------------|
| <a href="#">7.1 Exponent Review</a>                                       |
| <a href="#">7.2 Multiplying Powers of 10</a>                              |
| <a href="#">7.3 Powers of Powers of 10</a>                                |
| <a href="#">7.4 Dividing Powers of 10</a>                                 |
| <a href="#">7.5 Negative Exponents with Powers of 10</a>                  |
| <a href="#">7.6 What about Other Bases?</a>                               |
| <a href="#">7.7 Practice with Rational Bases</a>                          |
| <a href="#">7.8 Combining Bases</a>                                       |
| <a href="#">7.9 Describing Large and Small Numbers Using Powers of 10</a> |
| <a href="#">7.10 Representing Large Numbers on the Number Line</a>        |
| <a href="#">7.11 Representing Small Numbers on the Number Line</a>        |
| <a href="#">7.12 Applications of Arithmetic with Powers of 10</a>         |
| <a href="#">7.13 Definition of Scientific Notation</a>                    |
| <a href="#">7.14 Estimating with Scientific Notation</a>                  |
| <a href="#">7.15 Adding and Subtracting with Scientific Notation</a>      |
| <a href="#">7.16 Is a Smartphone Smart Enough to Go to the Moon?</a>      |