

Prove It! Strategy

Source: Marschall, Carla, & French, R. (2018). *Concept-based Inquiry in Action: Strategies to Promote Transferable Understanding*. Thousand Oaks: Corwin.

What is this strategy?	★ The goal of this type of strategy is to have students use and apply their conceptual understanding and communication skills to prove true and/or untrue statements. ★ This strategy is multi-disciplinary but is ideal for mathematics.
How do I implement this strategy?	● Explore Idea of Proof: Discuss with students what it means to have proof, and to prove something. Ask them for some examples of when they have proved something and have had to use proof within their own lies. ● Share Factual or Conceptual Statement: Share a statement and ask students to tell whether the statement is true or false. ○ Eg: 0.25 is larger than 0.25. ○ Eg: An ostrich is a mammal. ● Provide Think Time: Let students think about the statement before engaging in a think-pair-share or whole-class sharing. ● Communicate Ideas: On large sheets of paper, on the board, or digitally, have students illustrate their thinking through pictures, symbols, diagrams, models, and words. Make sure they know to provide evidence to justify their thinking about whether the statement is true or false. ○ Example of communicating ideas: $2 + 2 + 2 + 2 = 7$ ● Construct Justifications: Look and listen for students using examples, counterexamples that prove or disprove the statement. Look and listen for students using concepts, definitions as well as relationships between concepts. Look and listen for students referencing previously established generalizations and understandings.
What materials do I need?	★ A statement to prove/disprove. ★ Large sheets of paper, whiteboards or a digital presentation tool to have students illustrate their thinking.