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Math Induction

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> quite open; it is empowering, not frightening. On each visit I see more, understand more, and feel more connected with nature, knowledge, and myself. (Buerk 1996, p. 27)

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Adapted from Camp, Dane R. "Math Induction" in Math Song Sing-a-long, edited by John A. Carter and Dane R. Camp. Booklet presented at Illinois Council of Teachers of Mathematics Annual Conference, Springfield, Illinois, 1998. May be sung to the tune of "Blowing in the Wind" by Bob Dylan.

How can you prove that a statement is true
For any counting number n?
Cause there's no way you could try them all—
Why you could barely begin!
Is there a tool that can free us
From this quand'ry we're in?
The answer, my friend, is math induction,
The answer is math induction!

First you must find an initial case
For which the statement is true
Then you must show that if it's true for K,
Then K+1 must work, too!
then all statements fall like dominoes
Tell me, how did we score this coup?
The answer, my friend, is math induction,
The answer is math induction!