Teachers...

Showing Your Students *How to Think Like a Mathemetician* When They Are at Home

We know that mathematics is much more than just solving the problems and checking to see if the answer is correct. It also involves each student's understanding of what they are learning, how they can learn it, and what they have learned about their mathematical thinking along the way. The more students are able to understand their own learning process and articulate it, the easier it will be for them to improve their conceptual understanding, procedural skill and fluency, and applications.

We can support our students to be metacognitive by having them reflect on their learning before they begin working and to reflect on their learning after they have completed their work. We can help them think like a mathematician by having them ask and answer the questions below.

So, we suggest that you include this "Own It!" information as a part of the support you send home to your students.

Own It! True learning happens when I own my learning. Before I begin each assignment, I'll remind myself of these things. Being able to answer these questions, shows that I am owning what I am learning. Then when I finish, I will reflect on my learning. Being able to answer these questions and make statements mean that I am thinking and speaking like a mathematician.

Before: Read the problem out loud.
- What is the problem asking me to do?
- How could I go about solving the problem?
- What tools do I need to solve the problem?
- How will I know I have solved it correctly?

Then answer these questions.
- The problem is asking me to…
- I could solve the problem by…
- I need _____ to solve this problem
- I will know I have solved the problem correctly when…

After: Share your solution.
- What mathematical evidence supports my solution?
- What was the problem asking me to do?
- What did I do to solve the problem? Why did I select that strategy?
- What other strategies could I have used?

Then answer these questions.
- _____ supports my solution…
- The problem was asking me to…
- I solved the problem by _____ because…
- I could have used _____ to solve the problem.

Be sure to share the following:

- **"Own It"** information on each and every assignment.
- Student resource for **"How to Think like a Mathematician When You Are at Home"** with each and every student.
- Family resource for **"Supporting Your Child How to Think Like a Mathematician When They Are at Home"** with each and every caregiver.

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