Dear Families,

Part of preparing our students for a bright future involves not only a strong focus on academics, but a growth mindset that allows students to be comfortable with problem-solving and critically thinking. This year, Mt. Pleasant teachers are intentionally teaching the eight mathematical practices that allow for students to **not only** solve math problems, but <u>understand</u> their thinking and <u>apply</u> 21st century skills (communication, collaboration, critical thinking, and creativity) to what they learn in the classroom.

Listed below are the eight practices with a small description of how they are incorporated into your child's math class. It is **important** to note that these practices are what the <u>students are doing</u>—not the teachers. The job of the teacher is to make sure their students are thinking critically about the math concepts they are learning and applying them to new ideas.

1. **Make sense of problems and persevere in solving them.**
   - I can make my own plan for solving the problem and stick with it even if it is difficult.
   - I can check the reasonableness of my answer.
   - I can solve it a second way to make sure I am right!
2. **Reason abstractly and quantitatively.**
   - I can use numbers and words to help make sense of problems.
   - I can think about what each number represents.
   - I can think about the relationships between the numbers in the problem.
   - I can think about what property might be used to solve the problem.
   - I can think about whether other operations might be used.
3. **Construct viable arguments and critique the reasoning of others.**
   - I can explain my thinking using objects, drawings or actions.
   - I can consider the thinking of other students.
   - I can ask questions to clarify my understanding.
   - I can make connections to other strategies.
4. **Model with mathematics.**
   - I can recognize math in everyday life and use it to solve problems.
   - I can use pictures, words, objects or symbols to solve.
   - I can use number lines, arrays or other models to help myself as I solve the problem or to represent my solution.
5. **Use appropriate tools strategically.**
   - I can use math tools such as number lines, calculators, objects, tables, etc. to solve a problem.
   - I can use estimates when problem solving.
6. **Attend to precision.**
   - I can be careful when I use math and clear when I share my ideas.
   - I always think about whether my answer is reasonable!
   - I try to be efficient and concise when I solve a problem. (This looks different at various grade levels)
   - I can test my solution by solving a different way or by modeling the solution and checking for reasonableness.
7. **Look for and make use of structure.**
   - I can see and understand how numbers and shapes are put together as parts and wholes.
   - I look for patterns that can help me solve a problem.
   - I think about other problems I have solved before and whether they can help me with this problem.
   - I try to connect mathematical ideas.
8. **Look for and express regularity in repeated reasoning.**
   - I can notice when calculations are repeated and use these ideas to create a strategy.
   - I think about whether patterns are always true in all situations.
   - I can create rules for patterns.

Standards for Mathematical Practice for Parents . Retrieved from https://www.abss.k12.nc.us/cms/lib/NC01001905/Centricity/Domain/36/Standards%20for%20Mathematical%20Practice%20for%20Parents.pdf