

Figure This!



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Getting to the Point of Portfolios

Portfolios are a purposeful collection of student work and are very useful in the classroom. Portfolios are not true assessments, they serve as a medium for students, parents and teachers to view student progress. The portfolio is the assessment vehicle.

Here are some ideas to consider for implementing portfolios in the classroom:

- ☞ The students become part of the system, can see their own progress, and can use the self-assessment to impact their learning.
- ☞ Interaction (orally or in writing) between the student and teacher can help identify strengths, areas for improvement, likes, and dislikes. Dialog between teacher and student, in either conversation or a journal, is important for the portfolio process.
- ☞ Portfolios can be used during parent, student and teacher conferences to demonstrate the student's strengths and weaknesses in the subject.
- ☞ The portfolio can be used as a bridge to communicate to parents about the learning taking place in the classroom. Students should take the portfolios home to open communication and understanding for parents.
- ☞ Teachers can use the portfolio as a vehicle to measure both their students' growth and of the curriculum over time.



A wide variety of student work can be collected to demonstrate their learning and understanding of ideas beyond facts and knowledge. The portfolio should be flexible, so that the students can demonstrate what they know and are able to do in a format that works for the individual.

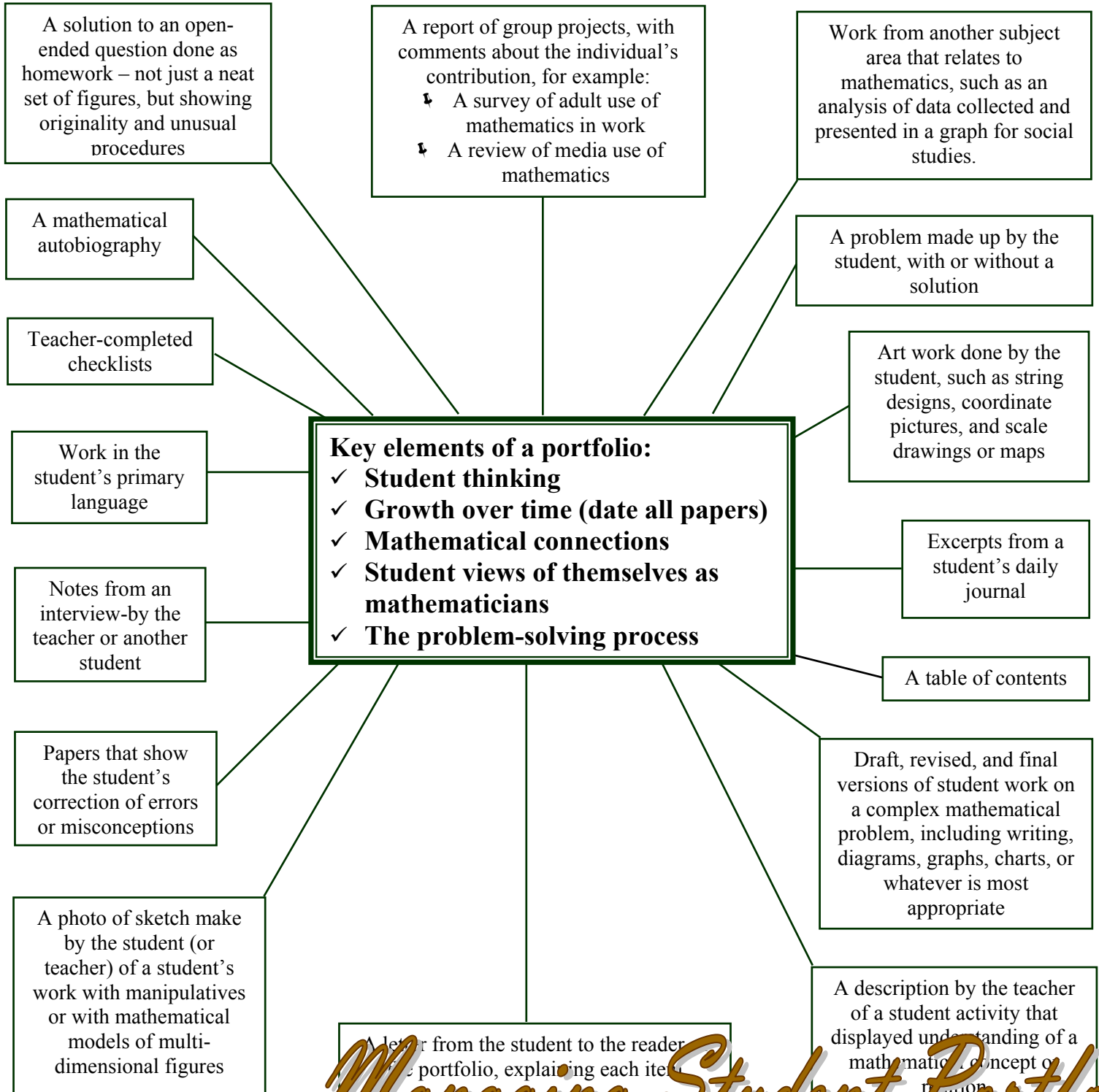
A mathematics portfolio should help to demonstrate a student's:



- ↳ Ability to reason and to communicate mathematically.
- ↳ To make conjectures, gather evidence, look for patterns, analyze, build logical arguments, and solve problems.
- ↳ Understanding of mathematical concepts and to make connections.
- ↳ Ability to self evaluate their mathematics.
- ↳ Feelings about mathematics.
- ↳ Mathematical growth.

Anatomy of a Mathematics Portfolio

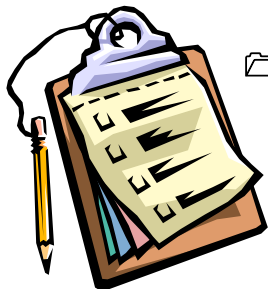
Source: *Mathematics Assessment: Myths, Models, Good Questions, and Practical Suggestions*, NCTM, 1991. The following excerpt is a direct reprint from the book.



Managing Student Portfolios

Here are a few tips for organizing, managing, and assessing portfolios:

☞ To record students' growth over time, pose similar questions or investigations periodically throughout the year. These questions or investigations should not be identical but should explore the same concepts in new contexts. The APS Mathematics Task Bank is an excellent resource for assessing students' mathematical growth.



☞ Regularly add observation checklists, interview notes, and parent communications to the students' assessment portfolios.

☞ The nature of the work that students select and their rationale for choosing provide insights into their views, understandings, and achievements. These also reveal information about the degree of the students' engagement in mathematical investigations and activities. Evaluation of student portfolios can focus on the students' efforts to think critically about their own thinking and development and to support their conclusions with evidence.

☞ Keep in mind that meaningful self-assessment takes time to develop. Reflection and introspection are not easy at first! Most students are used to relying on the teacher's judgment about their progress and find it threatening to react honestly and critically about their own performance. It is important to provide encouragement and support when evaluating student portfolios.

☞ For program evaluation, make copies of representative papers and use them to confer with teachers about what the evaluation team has seen.



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