

Notebook Checklist

1. Course Information
 - (a) Notebook Checklist (can serve as your Table of Contents)
 - (b) Syllabus
2. Notes
 - (a) Your own notes
 - (b) Daily class summaries from the course website
3. Problems
 - (a) List of problems from the website
 - (b) Quadratic Patterns of Change
 - (c) Symmetry Transformations
4. Homework assignments and solutions, exam preparation handouts, exams, solutions to Exam #2.
5. Mathematics
6. Problem Solving and Standards
 - (a) Polya's Four Phases of Problem Solving
 - (b) Kentucky's Program of Studies, with example from Mathematics - Eighth Grade
 - (c) NCTM National Mathematics Standards, including Problem Solving, Reasoning and Proof, Communication, Connections, and Representation
 - (d) Review of Problem Solutions
7. Websites and Software
 - (a) The National Library of Virtual Manipulatives
 - (b) Excel — Getting Started
 - (c) GeoGebra
8. Manipulatives

9. Learning Styles and Differentiated Instruction

- (a) Index of Learning Styles

10. Connections

- (a) Mathematical Magic — The Twenty-Seven Card Trick and the Eight Card Trick
- (b) Music — Tuning a Piano
- (c) Origami: The Art of Science and Mathematics
- (d) Art — “Wallpaper” patterns for analysis