**APPENDIX A: INSTRUCTIONAL GROUPING STRATEGIES**

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| **Type of Group** | **Suggested Strategies (All content areas, literacy focus)**  **Strategies taken from the** [**EngageNY Protocols and Resources document**](https://www.engageny.org/resource/grades-3-8-ela-curriculum-appendix-1-protocols-and-resources) | **Suggested Strategies (Math Only)**  **Strategies taken from:**  **[Mathematics Instruction for Students with Learning](http://www.centeroninstruction.org/files/Mathematics%20Instruction%20LD%20Guide%20for%20Teachers%2Epdf)**  **[Disabilities or Difficult Learning Mathematics](http://www.centeroninstruction.org/files/Mathematics%20Instruction%20LD%20Guide%20for%20Teachers%2Epdf),** [**Assisting Students Struggling with Mathematics**](https://ies.ed.gov/ncee/wwc/practiceguide/2) |
| **Small group for teaching (teacher-led)**   * The teacher leads this small group to do re-teaching, reinforcement, or to teach skills that only the small group needs to learn. | * Interactive word wall (p.18) * Praise, question, suggest (p.25) – particularly useful for writing * Annotating text (p. 54) * Mystery quotes (p.21) | * Providing models of proficient problem solving * Verbalization through the problem-solving process * Guided practice * Corrective feedback * Use of visual representations * Use of a step-by-step approach for problem solving (example: Read the problem. Highlight the key words. Solve the problems. Check your work.) |
| **Small group for practice (student-centered)**   * Students work in a group independently while the teacher is working with another small group. * Useful for reinforcement or additional practice | * Infer the topic (p.17) * Jigsaw (p.20) * Rank-talk-write (p.27) | * Fluency practice * Math facts practice * Use of visual representations * Peer-assisted instruction * Ongoing cumulative review (warm ups/ daily math) * Video tutorials ([Khan Academy to MAP Crosswalk](https://community.nwea.org/docs/DOC-2049)) |
| **Small group for discussion (student-centered)**   * These groups may be either teacher led or student led depending on the focus or activity | * Concentric circles (p. 10) * Discussion appointments (p.11) * Fishbowl (p.13) * Socratic seminar (p.31) – appropriate for middle school (7-8) | * Students verbalize decisions and solutions to math problems * Peer-assisted instruction * [Math talk](http://minds-in-bloom.com/getting-started-with-effective-ma/) |
| **Pairs** | * Back-to-Back and Face-to-Face (p.5) * Quiz-quiz-trade (p.26) * Say something (p.28) * Think-pair-share (p. 35) * Written conversation (p. 37) | * Students verbalize decisions and solutions to math problems * Use of visual representations * Peer-assisted instruction * Ongoing cumulative review (warm ups/ daily math) * [Math talk](http://minds-in-bloom.com/getting-started-with-effective-ma/) |
| **Whole class**   * Appropriate if the majority of the class continues to struggle with a particular topic. * These whole class activities can be followed up with group work for practice | * Mystery quotes (p.21) * Tea party (p. 34) * Close reading (p. 57) | * Providing models of proficient problem solving * Verbalization through the problem-solving process * Guided practice * Corrective feedback * Use of visual representations * Use of multiple instructional examples |
|  | | For additional Math strategy suggestions, see:   * Pages 16-20 of the[*Common Core Guide to Implementing a Story of Units*](https://www.engageny.org/sites/default/files/resource/attachments/how_to_implement_a_story_of_units.pdf) * [**Nine Ways to Catch Kids Up**](http://www.ascd.org/publications/educational-leadership/nov07/vol65/num03/Nine-Ways-to-Catch-Kids-Up.aspx) |

**APPENDIX B: GENERAL INSTRUCTIONAL STRATEGIES**

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| **NONCONTENT SPECIFIC HIGH YIELD STRATEGIES\*** | |
| **Lesson Objectives**   * Use Bloom’s Taxonomy verbs in the objective that ensure greater rigor. * Connect the objective of the lesson more tightly to what and how students will be assessed. * Compose objectives that clearly identify students will know \_\_\_\_\_ by doing \_\_\_\_\_\_.   **Formative Assessment**   * Use “Do Now” at the beginning of class as opportunities to review or to reteach. * Use a tracking sheet to show students’ performance (and improvement) on “Do Now”. * Keep records to note which students are struggling with “Do Now” and follow up with oral review. * Revisit prior days’ objective using “Do Now”. * Use “Exit Tickets” at the end of class to check understanding of lesson. * Create a tracking sheet to show students’ performance on exit tickets. * Follow up the “Exit Ticket” with a “Do Now”   **Questioning**   * Develop method for whole class response that allows checking for understanding and enhanced student engagement/participation (i.e. clapping) * Use “cold call” (call on students without raised hands) * Compose questions to ask before each day’s lesson. * Follow up student response with “Why do you think that is the answer?” or “Explain how you arrived at that answer?” * Require students to support their answers with evidence from the actual text. | * Do not let students “opt out” when unable to answer a question. Come back to them and ask them to restate another student’s response in their own words. * Task students to “use their own words” when defining a concept. * Ask “what if questions” * Ensure varied questioning techniques: probing, prompting, and redirecting. * Consider lengthening your wait time before calling on a student.   **Differentiate Instruction**   * Use leveled questions in assessments * Prepare different Do Nows or worksheets * Group students based on the skill they need to enhance * Create stations * Use assignments that have a menu of options (by content, process, and/or product)   **Peer Support**   * Task certain students to re-teach to small groups * Use: think, pair, share. * Create mentoring relationships within and out of classrooms.   **Homework**   * Incorporate a spiral review in homework assignments * Use leveled homework assignments * Require homework errors to be corrected * Ensure students are given opportunities to do grade appropriate “challenge’ assignments. * Review homework problem areas * Design homework questions aligned with NYSED test format   \*Based on Paul Bambrick-Santoyo’s *Driven by Data*, pgs. 81-84. |