

Procedures and Routines

Beginning the Class

- **Entering the Room**
 - Enter the room quietly and ready to work. If you still want to converse loudly, then stay out in the hall.

- **When the Bell Rings**
 - Be in your seats, with notebooks out, doing your bell work when the class bell rings.

- **Come Prepared**
 - You are expected to come to class prepared to learn. This means bringing your pencils, notebooks, homework, and any other special projects that are due.
 - If you are without your notebook or paper, you may use scratch paper for notes (to be stapled into your notebooks later.)
 - I will have pencils that may be BORROWED with some form of collateral, but I'm not going to tell the students that up front. I need them to be responsible for your own supplies.

- **Pencil Sharpening**
 - Pencils should be sharpened during bell work, NOT when I am giving whole class instruction.
 - You will also have the option of sharpening pencils when doing group work.
 - Mechanical pencils are encouraged in this class room.

- **Getting Supplies**
 - On the corner of the desk, you will notice a small colored dot. On the top left hand corner of the white board, there will be a piece of paper with a colored circle on it. If your color matches, it is your day to pick up supplies including, but not limited to, calculators and your group's supply box.

- **Class Objectives**
 - Class objectives and today's class schedule will be posted on the board, wither right or left side (according to subject/grade level) of the white board.

Paperwork

- **Headings**
 - Write your **Name** (first and last), **Date** and **Class Period** in the top right hand corner of all assignments.

- **Turning in Work**
 - You will turn in work by making sure that the heading on your paper is correct and then stack them in the center of your group. I will be by to pick them up from the groups myself or ask another student to do it for me.
- **Late/Absent Work**
 - If you were absent from class, or have late work to turn in, you will need to get the *red* grading binder from my desk, grade your homework assignment, and then place it in the *leopard print* basket on my desk.
 - If you don't put it there, I will not know that it has been turned in and will not be able to put it in the gradebook.

Assignments/Tests/Quizzes

- **Homework**
 - Homework that is turned in on time will be given an additional point (max of 6 instead of 5).
 - Any day after the due date, homework will be given a maximum of 5 points.
 - Points will be determined according to amount completed/attempted and only awarded to those that show your work/thought process.
 - IF THE PROBLEM(S) TURN OUT TO BE MORE COMPLICATED THAN YOU CAN DO ON YOUR OWN AT HOME, write down (Yes that means in words) your current understanding and bring it in. This will be given full credit, IF you can show that you put real thought into solving the dilemma.
 - You can also come in before school, and I will be here and available to help you walk through the problem(s).
- **Reports**
 - There will be two written/creative projects.
 - Projects must include at least one page of written material explaining the student's thinking
 - Font choice will be up to the student, but can be no bigger than size 12. And MUST be legible.
 - Most of the project will be done in class.
- **Tests and Quizzes**
 - Tests and quizzes should be made up before school or during lunch within twenty-four hours of returning to school.
 - Please inform me ahead of time if you want to take it during lunch, so that I can make myself available.
 - Lunch periods tend to be shorter and student will be given more than one lunch hour to finish the exam.
- **Late Work**
 - Turning work in late will not help you improve your grade.
 - Late work WILL NOT be given full points.

- The percentages of what will be taken off of each assignment will be given on the grading rubric that will be handed out when the assignment is first assigned. (These rubrics will be posted online as well.)
- **Overall Grading Scale**
 - Will be the same as the school's, unless the school's is not specified, then it will be as follows:

| | | |
|-------------|-------------|----------------|
| 95-100 = A | 80- 84 = B- | 65- 69 = D |
| 90- 94 = A- | 75- 79 = C | 60- 64 = D- |
| 85- 89 = B | 70- 74 = C- | 59 & below = F |

- **Due Dates**
 - Major assignments, test dates, and other special events will be posted on the class calendar. This calendar will also be available online for students to check at any time.
- **Teacher Availability**
 - I will make myself available for students to finish tests, projects, and get additional homework assistance before school, and, *by appointment*, during lunch and after school.

Classroom Management

- **Absent Notes & Tardy Slips**
 - Absentee and tardy slips should be placed in the *teal* bin on my desk at the beginning of class.
- **Seating**
 - We will be using *assigned* group seating.
 - This will make it easier for myself and substitutes to take role, as well as allow me to learn students' names more quickly.
- **Noise Level**
 - We will be doing a large amount of group work in this class. There are too many people in this room for all of us to speak in a loud voice. We need to remember this and try to speak quietly.
- **Asking the Teacher Questions**
 - There is only one of me, and many of you. You are seated next to some very knowledgeable people. Therefore, students need to ask your neighbors what to do before they ask me.
 - If there is still a question, the ENTIRE group needs to raise your hands and I will come to assist them.

- **Raising Hands**
 - Our classroom is going to be primarily a hand raising class. This is so that we can each have the chance to voice our opinions without being interrupted.
- **Tracking**
 - When other students are speaking or presenting, it is expected that your classmates show them respect. To show this, students *should look at whoever is speaking*, listen quietly, and not interrupt.
- **Course Requirements**
 - Course requirements are on the class syllabus. This is posted online, if you have lost your copy.
- **Bathroom Breaks**
 - Bathroom breaks will not be allowed while I am instructing the class as a whole, when class has been in session for less than 10 minutes, nor 10 minutes before class ends.
- **Backpacks**
 - Backpacks need to be kept under the desks or on the back of your chair at all times.
 - We will be walking around the room often and I don't want to have to worry about anyone tripping over things.

Leaving Class

- **Leaving During Class**
 - In order to leave the room during class time, students need to speak to me first *and* take the hall pass with them, which can be found hanging next to the door.
 - Please return quickly and replace the hall pass when you are done with it.
- **End of Class**
 - Everyone will need to be in your seats, with your garbage cleaned up and supplies put away, when the bell rings.
 - I will dismiss the class when everyone is seated.
 - I plan to have an alarm on my computer set to go off one minute before class ends, so as to warn us when it is time to pack up.

Other

- **Intercom Announcements**
 - When the PA comes on, I need students to be quiet so that I can hear the announcement.
 - I will raise my hand and close my mouth.
 - Students are expected to follow my example and do the same.

- **Guests in the Classroom**
 - Most of the guests that we will have in our classroom will be people that will just be here to observe what we are doing.
 - My class will show each other, and the guest, the same respect that they show every day.
 - *This includes substitute teachers.*

- **Assemblies**
 - I expect my class to walk to assemblies in an orderly fashion.
 - We will walk to as a group.

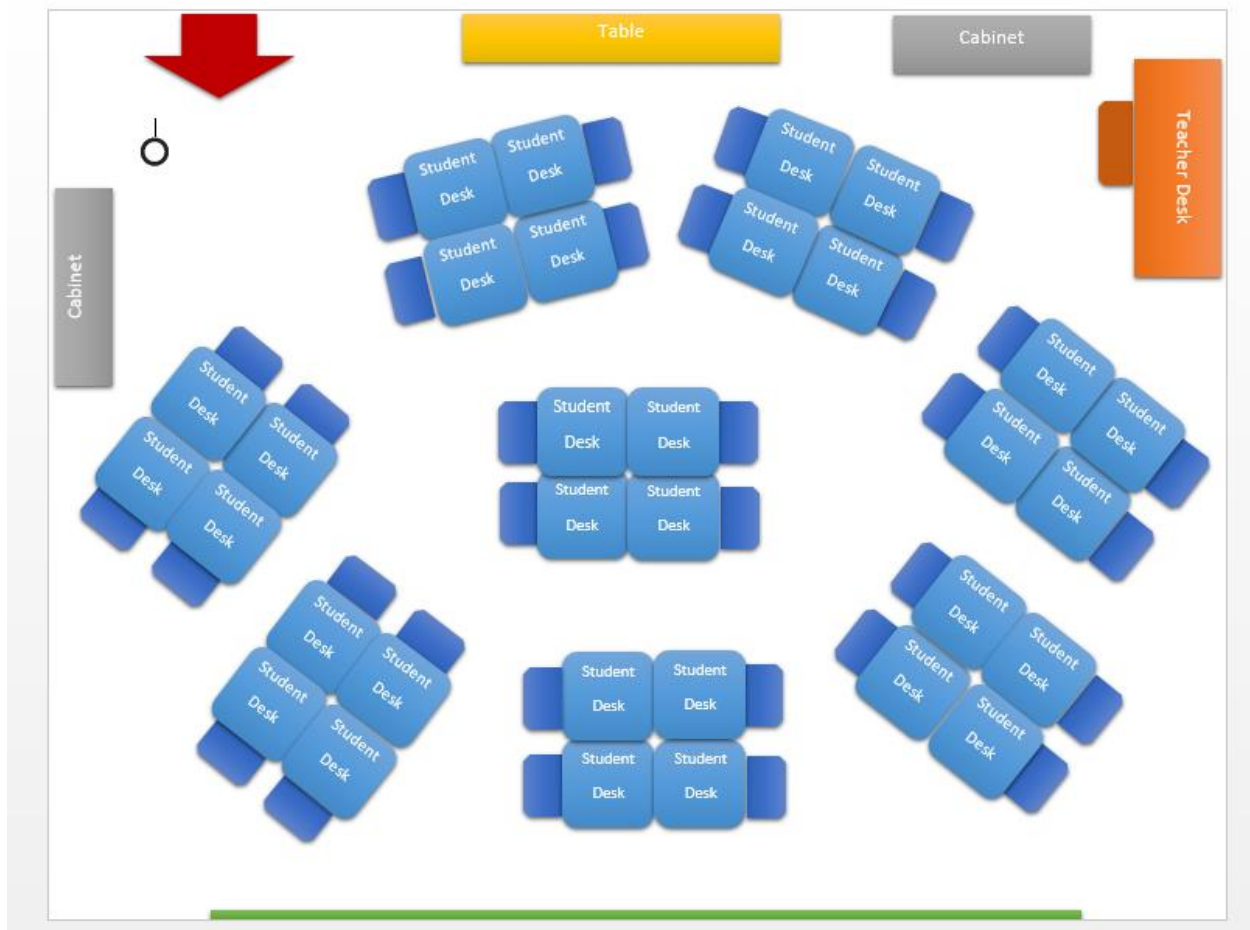
- **Fire Drills**
 - Everyone will stand up immediately, leaving *all* your belongings where they are.
 - Line up along the wall with the door.
 - First one to the door holds it open for the rest of the class.
 - In an orderly fashion, that means quietly and in a straight line, students will proceed to the nearest exit and then to our class “spot.”

- **Lock-Down Drills**
 - Leave your belongings where they are.
 - Move to the farthest side of the room from the door.
 - Once there, sit on the floor.
 - Quietly!!!

Classroom Arrangement

Classroom Seating Chart

This seating chart has three main components. The first is that the students are placed in small groups of four so that the students have the opportunity to work collaboratively. The second is to give each of the students a clear view of the white boards and/or Smart Board. The third is to give me, as the teacher, plenty of room to walk among the students. This is imperative so that I can better control behavioral issues and be able to informally assess the students learning while they are working.



Rules, Consequences, & Rewards

Rules

Classroom Standards begin *as soon as you enter the room*, not when the bell rings.

- **Come to class prepared and on time.**
 - You must be INSIDE the door when the bell rings to be counted on time.
 - Bring your pencil and note paper to class every day.
 - Bring your homework to class with you.

- **Attend to personal needs before coming to class.**
 - Go to the restroom and get a drink before class.
 - Be ready to work hard and do your best.
 - Keep electronic devices put away, and on silent.

- **Begin the bell work as soon as you enter the class.**
 - Please don't wait for me to remind you to begin.
 - When I start the lesson, directions for the bell work may be taken down.

- **Use polite speech and body language.**
 - Teasing and impolite behavior is unacceptable.
 - There are no dumb answers, nor dumb questions.

- **Follow the teacher's directions promptly.**
 - This will lessen the chaos in the room and make it easier for me to help you learn.

Consequences

- **1st Offense:**
 - A verbal warning will be given when a minor classroom or school rule is broken, unless the discipline code calls for a referral.

- **2nd Offense:**
 - A 2nd verbal warning will be given.
 - May be accompanied by a telephone call or email to your parent/guardian.

- **3rd Offense:**
 - If the problem persists beyond a verbal warning, you will be asked to take a time out and sit apart from the other students. This may be at a separate desk or at the back of classroom.
 - Will be accompanied with a telephone call or email to your parent/guardian.

- **4th Offense:**
 - If the problem persists, you will be sent to the office with a paper to be signed by the office staff.
 - The paper is to be brought back to me (the teacher) when you return to class.
 - There will also be a telephone call or email to your parent/guardian.

- **Severe Disruptions:**
 - Will result in the student being sent to the office immediately.
 - Parent/guardian will be notified, via telephone call or email.

Rewards

- **Academic**
 - “Awesome Notes!” cards will be given out for students that regularly take great notes. (Random)
 - Good for five minutes of ‘preferred activity time’ at the end of class during independent or small group work.
 - Well-done vocabulary riddles, graffiti cards, travelogues, etc. will be posted on a bulletin board with the students name next to it (with student permission. Done with each vocabulary assignment handed in.)
 - The *Big Darn Math* board will feature a thought provoking, challenge problem each week or every other week.
 - Students will submit answers into a box and have your names added to the list of solvers that will be posted on the board next to the problem.

- **Recognition**
 - “Caught Being Good” Pencils will be given to students who are going beyond the norm. (Random)
 - For working hard regularly, cleaning up someone else’s trash, or helping another student when it isn’t ‘required.’
 - “Job well done” cards will be given to those that turn in five homework assignments in a row.
 - Good for five minutes of ‘preferred activity time’ at the end of class during independent or small group work.
 - Telephone, email or letter home informing the parents how great your student is in class, how much they have improved, or how good your grades are. (at LEAST 3 students per week)

- **Fun**
 - Birthday “get-out-of-homework-free” business cards
 - Good for one free pass on the HOMEWORK assignment of the students choice

- Cannot be used for reports, quizzes, special projects, in class work, or when a substitute is giving the lesson.
- Music in the classroom.
 - If students (as a class) can listen and actively participate in our learning activities, throughout the week, they will be allowed to listen to music during class on Fridays.
- Preferred Activity Time
 - Given to students that regularly behave great and work hard in class.
 - Five minutes at the end of class for them to do 'what they want,' within reason.
 - Free-read
 - Homework from another class
 - Journal writing
 - PAT Box Activities (such as logic puzzles, brain teasers, jigsaw puzzles, etc.)

Start of the Year Letters

To the Parents

Dear Parent or Guardian,

It's that time again. School will be back in full swing before we know it. My name is Mrs. Larmore and I am excited to say that I will have your son/daughter in my math class this school year! I am looking forward to working with you and your child to make this school year the best that it can be.

Let me give you some background on myself. I have been in the educational field for ten years, working particularly with students with learning disabilities. I am married and have four children of my own. This will be my first year teaching full-time and I am happy to be beginning this journey with you and your child.

I have high expectations of my students and will do all that I can to help your child achieve these expectations. I will be sending homework home almost every night. Don't be surprised if the homework only consists of one problem. I believe that homework should not take all of my students' free-time. Each homework assignment is designed to be able to be accomplished by the students alone and enrich the learning that we have done in the classroom. I will be available to help students before school, during my preps/breaks, and after school (by appointment) if they have any problems.

Please feel free to phone, email, or visit the school if you have any questions or concerns regarding your student.

Sincerely,

Brianna Larmore

Middle School

(435)555-1212

1234 N. Somewhere Lane

blarmore@dmail.dixie.edu

Classroom Management Literature and Web Sites

Literature

- **Classroom Management Simplified**

Though geared slightly more toward the elementary school classroom, it has step-by-step instructions for becoming organized, planning well, maintain your composure, and being a role model.

Breaux, E. (2005). *Classroom management simplified*. Larchmont, NY: Eye on Education, Inc.

- **Handbook of Classroom Management**

This book contains 47 chapters, organized into 10 sections, which include different lines of classroom management research. Several themes are reflected in this research, the first being the importance of positive student-teacher relationships which are the “very core of effective classroom management.” The 10 steps to the problem solving stance are listed in Jere Brophy’s chapter 2.

Brophy, J. (2011). History of research on classroom management. In C. Everston & C. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues*. New York, NY: Routledge.

- **Teaching with Love and Logic**

Written by Jim Fay and David Funk, who have over 60 years combined educational experience, this book discusses a teaching strategy which encourages students to learn from your own mistakes/decisions, and for teachers to use enforceable limits while applying consequences with empathy.

Fay, J., & Funk, D. (1995). *Teaching with Love & Logic*. Golden, CO: The Love and Logic Press

- **The Everything Classroom Management Book**

Contains a handy list of the top ten things every teacher should know about classroom management, including such gems as: “Keep on top of all required paperwork and grading, every day. If you don’t these crucial tasks will bury you.” He also reminds readers that teaching is an art and that teachers should remember to perfect your own teaching style.

Groves, E. (2009). *The everything classroom management book: A teacher’s guide to an organized, productive, and calm classroom*. Avon, MA: F&W Media, Inc.

- **Tools for Teaching (2nd Edition)**

This book is part of the *Tools for Teaching* series which has received multiple educational awards. With easy to follow and simple to understand concepts such as

‘working the crowd’ and ‘praise, prompt, leave,’ Fred Jones humorously communicates instructional strategies that will keep the teachers from being burned to a frazzle.

Jones, F.H. (2007). *Tools for teaching* (2nd ed.). Santa Cruz, CA: Fredric H. Jones & Associates, Inc.

- **Win-Win Discipline**

According to Kagan and company, there are four types of disruptions aggression, behavioral, confrontation, and disengagement) which are based upon the actions or behaviors of the students. They also discuss the seven positions or basic needs in which a student enters the classroom every day (attention-seeking, avoiding failure, anger, control, energetic, bored and uninformed) and how to better support them. Kagan, S., Kyle, P., & Scott, S. (2006). *Win-Win Discipline*. San Clemente, CA: Kagan Publishing.

- **Beyond Discipline: From Compliance to Community**

Kohn suggests that teachers look to themselves when considering why students might not be willing to ‘obey the rules’ or behave in the classroom. He believes that a ‘student-directed’ classroom where students have a legitimate say in the goings on of the classroom.

Kohn, A. (2006). *Beyond discipline: From compliance to community*. Alexandria, VA: ASCD.

- **Classroom Instruction that Works**

Based on research, Marzano, Pickering, and Pollock suggest several successful strategies for the classroom. These strategies include, but are not limited to, summarizing and note taking, cooperative learning, cues, questions, and advance organizers.

Marzano, R. J., Pickering, D., & Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Alexandria, VA: ASCD.

- **When Teaching Gets Tough**

This book gives practical suggestions to that can be used immediately in order to make the classroom a better place. It rotates around managing difficult students, working with unappreciative adults, making the best of an imperfect environment, and finding time for the teacher to take care of themselves.

Mendler, A.N. (2012). *When teaching gets tough*. Alexandria, VA: ASCD.

- **Inviting Positive Classroom Discipline**

Purkey and Strahan use a color coded approach to classroom management which uses blue to describe the perfect, wonderful classroom and orange to display the over-controlled, negative classroom. They also detail the three step process of preparation, interaction, and follow-up which promote self-discipline in students.

Purkey, W.W., & Strahan, D.B. (2002). *Inviting positive classroom discipline*. Westerville, OH: National Middle School Association.

- **You have to go to School... You're the Teacher!**

This book is filled to the brim with simple to implement, practical, quick ways to make a teacher's day go just a little bit more smoothly. It includes tips for new and student teachers, beginning a winning year, helping students be responsible, and showing you are the same team.

Rosenblum-Lowden, R., & Kimmell, F.L. (2007). *You have to go to school...you're the teacher!: 300+classroom strategies to make your job easier and more fun*, 3rd ed. Thousand Oaks, CA: Corwin Press.

- **Discipline in the Secondary Classroom**

This book offers suggestions to deal with specific classroom problems immediately, handle behavioral issues over time, and increase student motivation. Sprick uses the CHAMP and ACHIEVE models to communicate the teacher's expectations to the students.

Sprick, R. (2008). *Discipline in the secondary classroom: A positive approach to behavior management*. San Francisco, CA: Jossey-Bass.

- **Shouting Won't Grow Dendrites**

While this book does not go into the chemistry of how the brain works or how dendrites don't grow without them, it does give advice on how to cultivate an environment that is conducive to learning and dealing with chronic behavioral problems.

Tate, M.L. (2007). *Shouting won't grow dendrites: 20 techniques for managing a brain-compatible classroom*. Thousand Oaks, CA: Corwin Press.

- **The First Days of School**

While this book includes several ideas that are not extremely practical for a secondary classroom, such as heart bulletin boards, it reminds new teachers and veterans alike the simple tasks that they can implement in your classrooms.

Wong, H.K., & Wong, R.T. (2009). *The first days of school*. Mountain View, CA: Harry Wong Publications, Inc.

- **Classroom Management: A Guide for Urban School Teachers**

This book includes ideas for arrangement for furniture and recommends that teachers seek to discover what students lives are like outside of the classroom. It also states that assertiveness equates to confidence.

Yisreal, S. (2012). *Classroom management: A guide for urban school teachers*. Lanham, MD: Rowman & Littlefield Education.

Websites

- **50 Actions that Will Grab Your Students' Attention**

My favorite suggestion from this list is to time the students' activities and to give students a countdown when a classroom transition is going to happen.

Thompson, J. G. (n.d.). *50 actions that will grab your students' attention*.

Retrieved from http://teaching.monster.com/training/articles/122-50-actions-that-will-grab-your-students-attention#comment_form

- **About.com Secondary Education**

List of multiple management trick and tips, including creating a tardy policy, positive reinforcement, and seating charts.

(2013). Classroom discipline resources. Retrieved from

<http://712educators.about.com/od/discipline/>

- **A to Z teacher Stuff**

A to Z teacher stuff is a website that provides teachers with helpful hints and resources for their classrooms. The forum pages can be especially helpful, as they are full of helpful hints and suggestions from teachers, substitutes, and other educators.

(n.d.). Retrieved from <http://forums.atozteacherstuff.com/>

- **Classroom Management Strategies**

Includes a top 10 list of rules for teachers to use when considering a classroom management plan. Each has a link to strategies and procedures that are effective in the classroom.

(2013). Classroom management strategies. *Lesson Plans Inc*, Retrieved from

http://www.lessonplansinc.com/classroom_management_strategies.php

- **Classroom Management: Teaching Modules**

According to Dr. Tim Kratochwill, teachers need to create safe and understanding classroom environments. He includes a list of do and don'ts for beginning teachers, why classroom management works, for whom does it work, developmental differences, and a list of references for teachers to find more information.

Kratochwill, T. (2013). Classroom management: Teaching modules. *American Psychological Association*, Retrieved from

<http://www.apa.org/education/k12/classroom-mgmt.aspx>

- **Classroom Structure and Teacher Efficacy in Serving Students with Disabilities: Differences in Elementary and Secondary Teachers**

The purpose of this study was to investigate the differences in classroom structure and the effectiveness in delivering instruction to students with disabilities. This research article also states that teacher's perceptions are 'critical features of classroom dynamics, structure and instruction.'

Shippen, M. E., Flores, M. M., Crites, S. A., Patterson, D., Ramsey, M. L., Houchins, D. E., & Jolivette, K. (2011). Classroom structure and teacher efficacy in serving students with disabilities: Differences in elementary and secondary teachers. *International Journal of Special Education*, 26(3), 36-44. Retrieved from [http://eric.ed.gov/?ft=on&q=classroom management secondary&id=EJ958999](http://eric.ed.gov/?ft=on&q=classroom+management+secondary&id=EJ958999)

- **Dan Meyer**

Specializing particularly in math, Dan Meyer believes that engaging activities will prevent most discipline problems in the classroom. He advocates higher order, deeper thinking problems in order to get students fundamentally involved and caring about the work they are doing.

Meyer, D. (2013, November). [Web log message]. Retrieved from <http://blog.mrmeyer.com/>

- **Education World**

A collection of 60 volumes of tips to help teachers manage classrooms more effectively. Included in the groupings are bulletin board hints, time savers, and getting organized. Starr, L. (n.d.). Retrieved from

http://www.educationworld.com/a_curr/archives/management_tips.shtml

- **Future Trends in K-12 Classroom Management and Discipline**

Discusses briefly the lean toward incorporating technology in the classroom, a new open-mindedness in classroom discipline strategies, and the possibility of more responsibility for their own learning being transferred to the student.

Lynch, M. (2013, November 22). [Web log message]. Future trends in k-12 classroom management and discipline. Retrieved from

http://blogs.edweek.org/edweek/education_futures/2013/11/future_trends_in_k-12_classroom_management_and_discipline.html

- **Middleweb**

This site contains information that is specially designed to help the middle school teacher make it through their day. From classroom management help to content specific information, this site has many links and tools to help with whatever problem might arise in the classroom.

Exploring middle school: Middleweb. (n.d.). Retrieved from

http://tln.typepad.com/middleweb/classroom_management_discipline/

- **#msSunFun - Classroom Management**

Part of the Math Twitter Blogosphere, this site belongs to a 7 year veteran of teaching, and is currently working with middle schoolers. Many of her suggestions in this web entry are 'common sense' but it is great to be reminded.

C. (2012, September 23). [Web log message]. Retrieved from

<http://thenumbertwentyone.wordpress.com/2012/09/23/mssunfun-classroom-management/>

- **National Education Association**

Provides several professional articles for teachers on discipline and dealing with parents. This also includes a Q&A forum, which provides expert classroom management advice.

(2013). Classroom management. *National Education Association*, Retrieved from <http://www.nea.org/tools/ClassroomManagement.html>

- **Power, Fun, and Freedom**

This is a short list of various things to remember when trying to keep students interested and engaged in the classroom. My favorite is to ‘think like a kinesthetic learner.’

Gray, S. (2012, November 14). [Web log message]. Retrieved from <http://www.the-teachers-lounge.com/blog/category/positive-classroom-management/>

- **Ten Tips for Classroom Management: How to Improve Student Engagement and Build a Positive Climate for Learning and Discipline**

This PDF includes helpful tips that are applicable not just for all ages, but also contains actual techniques for specific age groups. Includes information on: building a community, designing a safe, friendly and well-managed environment, including students in creating the rules, and knowing the students you teach.

(2011). Ten tips for classroom management: How to improve student engagement and build a positive climate for learning and discipline. *George Lucas Educational Foundation*, Retrieved from <http://eric.ed.gov/?ft=on&q=classroom management secondary&pg=2&id=ED539390>

- **Time Management**

It isn't enough to teach the students just content anymore. Students need to be taught time management, and study skills. Heather Wolpert-Gawron gives several different strategies that can be used in the classroom to help students organize their time from day to day to strategies for the whole year.

Wolpert-Gawron, H. (2010, August 28). [Web log message]. Retrieved from <http://tweenteacher.com/2010/08/28/middle-school-nuts-and-bolts-intro-to-time-management/>

Attention Getters

Hand Raising

When the announcements come on or if someone comes over the intercom, I will raise my hand and be quiet. The students are to follow my example, promptly. I will also use this type of attention getter when/if a visitor enters the room and needs to make an announcement to the class as a whole. This technique might also be handy when doing direct-instruction when students start to get chatty.

Clap and Clap Back

First, I would clap the tune of “shave and a haircut.” The students would then respond by clapping out “two bits.” If the students aren’t quiet at that point, I would repeat the procedure louder, once, while moving to stand next to the talkers. This should be more effective than just trying to shout over the noise of the class.

Call and Response

The idea behind this is to have the students respond after the teacher says something to the class. Various examples include: (teacher to McDonalds jiggle) “Ba da ba ba ba”- (students) “I’m lovin it!”, or (teacher) “Goodness gracious!”- (students) “Great balls of fire!” I plan on asking the students to help me think one specifically for their own class.

Educational/Inspirational Quotes, Certificates, Rewards/PAT

Quotes

“Education is the most powerful weapon which you can use to change the world.” ~Nelson Mandela

“It does not matter how slowly you go as long as you do not stop.”

~Confucius

“The important thing is not to stop questioning.” ~Albert Einstein

“Education is not the filling of a bucket, but the lighting of a fire.”
~W.B. Yeats

“EVERY JOB IS A SELF-PORTRAIT OF THE PERSON WHO DID IT. AUTOGRAPH YOUR WORK WITH EXCELLENCE.” ~UNKNOWN

**“There is a brilliant child locked inside every student.”
~Marva Collins**

“WHAT THWARTS US AND DEMANDS OF US THE GREATEST EFFORT IS ALSO WHAT CAN TEACH US MOST.” ~MATTHEW ARNOLD

**“Education is not received. It is achieved.”
~Albert Einstein**

“Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives.” ~Willa A. Foster

**“Education is learning
what you didn’t even know
you didn’t know.”
~Daniel J. Boorstin**

**“THE MORE I LIVE,
THE MORE I LEARN.
THE MORE I LEARN,
THE MORE I REALIZE,
THE LESS I KNOW.”
~MICHAEL LEGRAND**

**“THE HIGHEST RESULT OF EDUCATION IS
TOLERANCE.” ~HELEN KELLER**

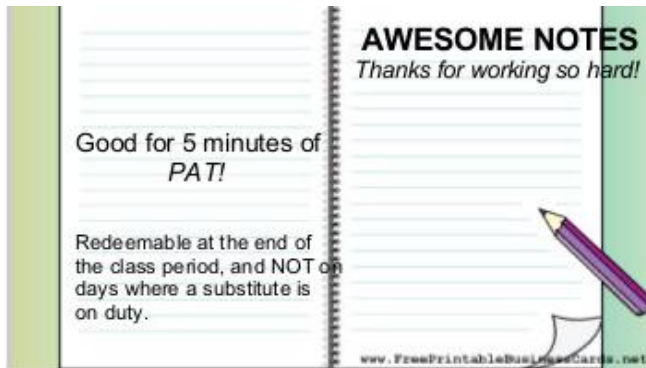
**“Knowledge will bring you the opportunity to make a difference.”
~Claire Fagin**

***“If you think education is expensive,
try ignorance.” ~Derek Bok***

**“You’ll never know everything about anything, especially something you love.”
~Julia Child**

Certificates/Awards

- “Awesome Notes!” Cards



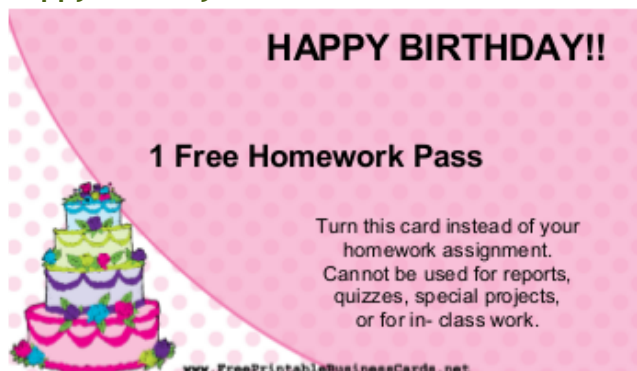
- “Caught Being Good”



- “Job Well Done” Cards




- Happy Birthday Cards



- **PAT box - Logic Puzzles**
<http://www.printable-puzzles.com/>

This site offers many types of logic puzzles (in easy, medium, and hard) with a new one every day.



| | | First Names | | | | Film Genres | | | | Merit Badges | | | |
|--------------|---------------|-------------|-------|------|--------|-------------|---------|--------|--------|--------------|---------|--------------|----------|
| | | Carter | Fiona | Jose | Marcus | documentary | fantasy | silent | sports | camping | cooking | horsemanship | swimming |
| Times | 2 min, 59 sec | | | | | | | | | | | | |
| | 3 min, 2 sec | | | | | | | | | | | | |
| | 3 min, 5 sec | | | | | | | | | | | | |
| | 3 min, 14 sec | | | | | | | | | | | | |
| Merit Badges | camping | | | | | | | | | | | | |
| | cooking | | | | | | | | | | | | |
| | horsemanship | | | | | | | | | | | | |
| | swimming | | | | | | | | | | | | |
| Film Genres | documentary | | | | | | | | | | | | |
| | fantasy | | | | | | | | | | | | |
| | silent | | | | | | | | | | | | |
| | sports | | | | | | | | | | | | |

Logic Puzzles

Presented by Puzzle Baron

Puzzle ID: F937IP

For hints, solutions and more puzzles, go to www.Printable-Puzzles.com!

| Times | First Names | Film Genres | Merit Badges |
|---------------|-------------|-------------|--------------|
| 2 min, 59 sec | | | |
| 3 min, 2 sec | | | |
| 3 min, 5 sec | | | |
| 3 min, 14 sec | | | |

1. The runner who finished with a time of 3 min, 2 sec didn't award the cooking merit badge.
2. The runner who finished with a time of 3 min, 14 sec didn't award the horsemanship or camping merit badge.
3. The scoutmaster who awarded the swimming merit badge is not Marcus.
4. Of the scoutmaster who awarded the cooking merit badge and Carter, one completed the race at 2 min, 59 sec and the other loves watching sports films.
5. Either the scoutmaster who awarded the camping merit badge or the scoutmaster who awarded the cooking merit badge is Fiona.
6. Marcus finished after the scoutmaster who awarded the cooking merit badge.
7. The silent film buff finished before the fantasy film buff.
8. The runner who finished with a time of 3 min, 5 sec is Marcus.
9. Fiona didn't award the cooking merit badge and doesn't enjoy fantasy films.
10. The runner who finished with a time of 2 min, 59 sec loves watching silent films.

▪ **PAT box - Math Mazes**

Found on www.commoncoresheets.com Math Mazes will allow the students to brush up on their multiplication in a fun way.



7's Multiplication Maze

Name: _____

Determine the multiples of 7 to find your way through the maze. Remember the numbers must be touching even if its just by a corner. Watch out for distractors (numbers that are multiples of 7, but not touching).

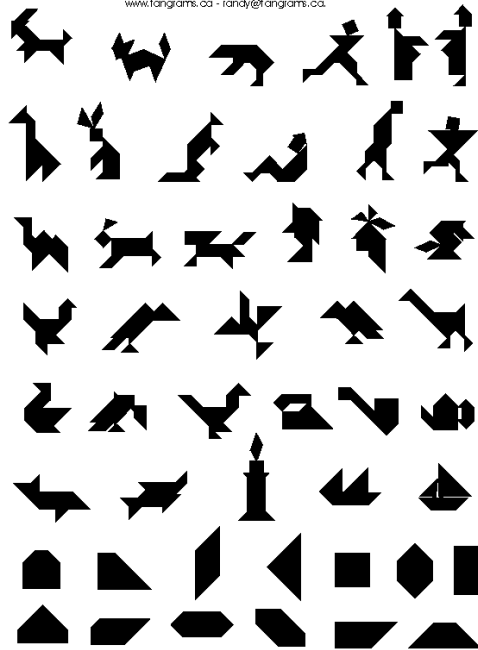
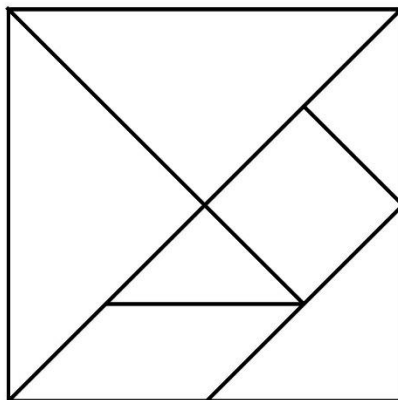


| | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 38 | 36 | 17 | 30 | 31 | 21 | 48 | 18 | 8 | 21 | 1 | 3 | 43 | 5 |
| 34 | 35 | 14 | 56 | 17 | 39 | 56 | 22 | 49 | 15 | 1 | 14 | 44 | 23 |
| 35 | 27 | 13 | 46 | 14 | 37 | 29 | 34 | 10 | 26 | 7 | 40 | 28 | 19 |
| 11 | 15 | 56 | 36 | 1 | 56 | 8 | 7 | 45 | 28 | 9 | 10 | 6 | 42 |
| 63 | 14 | 40 | 1 | 2 | 28 | 18 | 7 | 41 | 14 | 1 | 14 | 12 | 40 |
| 22 | 10 | 47 | 3 | 45 | 21 | 5 | 27 | 36 | 49 | 3 | 8 | 42 | 23 |
| 16 | 33 | 49 | 27 | 49 | 10 | 39 | 14 | 23 | 38 | 21 | 36 | 45 | 6 |
| 27 | 56 | 6 | 40 | 14 | 47 | 48 | 32 | 29 | 49 | 11 | 24 | 63 | 1 |
| 36 | 37 | 18 | 48 | 56 | 10 | 56 | 42 | 42 | 3 | 29 | 49 | 10 | 35 |
| 9 | 27 | 56 | 12 | 22 | 49 | 24 | 16 | 31 | 2 | 15 | 24 | 12 | 31 |
| 23 | 35 | 36 | 63 | 4 | 32 | 8 | 42 | 8 | 38 | 63 | 36 | 21 | 12 |
| 34 | 27 | 28 | 47 | 11 | 44 | 16 | 14 | 25 | 5 | 27 | 28 | 37 | 56 |

▪ **PAT box - Tangrams**

Cut out of cardstock and placed in a Zip-loc bag, tangrams will allow students to not just write out a thinking problem but to physically solve one.

Tangrams
www.tangrams.ca - randy@tangrams.ca



▪ **PAT box - Math Games**

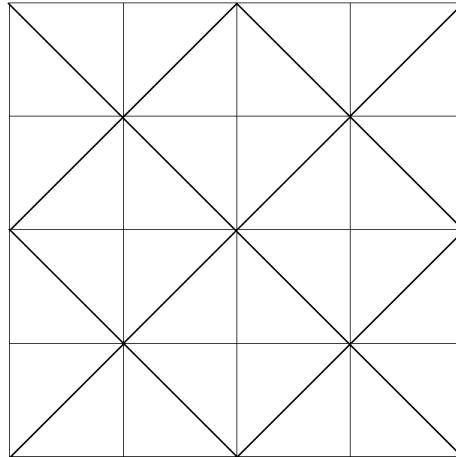
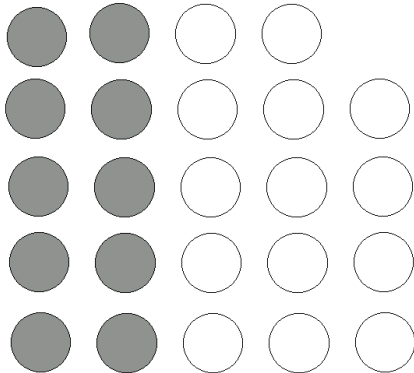
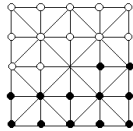
http://www.funmaths.com/games_puzzles/math_games_puzzles_01.htm

Such as the ancient game of Alquerque and Memory with math facts, both designed for two people play.

Alquerque

An ancient game from North Africa and the Middle East dating back to 1400BC.

A game for 2 players, whose pieces are set out as shown. Players take it in turn to move a piece to an empty point either along a line or jumping over an opponents piece to an empty point. Jumping over an opponents piece captures that piece and it is removed from the board. More than one capture can be made in one move and the direction of movement can also be changed. The winner is the first person to remove all their opponents pieces.



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▪ **PAT box - Sudoku and Number Puzzles**

<http://www.printable-puzzles.com/>

These puzzles might not get students to delve into the deeper reaches of Algebra, but they do encourage problem solving and critical thinking. And these skills are vital in any mathematics student.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | 3 | 8 | | | | |
| 3 | | | 7 | | 9 | | 4 | |
| 8 | | | 5 | | | | 1 | |
| | | | | 9 | | | | |
| 5 | 3 | | | 7 | | | | 8 |
| | | | | | 8 | | | 2 |
| 9 | | 1 | | | | | 7 | |
| 4 | | 5 | | | | | 8 | |
| 2 | | 3 | | | 4 | 1 | 5 | 9 |

ROSETTA

A Rosetta is made up of a centre coloured hexagon encircled by 6 white hexagons.

To complete the puzzle, fill in all 7 Rosettas with each number between 1 and 7 in no particular order while also ensuring that:

1. No number is repeated in a horizontal row
2. Each number from 1 to 7 are represented in the 7 grey coloured hexagon cells.

© Engaged Learning

Visual Instructional Plans (VIPs)

7th Grade (Single Variable Factoring)

Factor: $-3x + 9$.

Factor: $-3x + 9$

FACTOR OUT NEG.

$$\frac{-3x + 9}{-1 \quad -1}$$
$$-(3x - 9)$$

in common?

$$-(3x - 9)$$

$3 \cdot 1 = 3$
 $3 \cdot 3 = 9$

↑
LEFT OVER!

FACTOR OUT COMMON

$$-3(1x - 3)$$

8th Grade

The mass of the earth is 6×10^{24} kg. The mass of the moon is 7×10^{22} kg. How many times bigger is the mass of the earth than the mass of the moon?

TIMES bigger?

$$7 \times 10^{22} (n) = 6 \times 10^{24}$$

Solve for n

$$\frac{7 \times 10^{22} (n) = 6 \times 10^{24}}{7 \times 10^{22}}$$
$$n = \frac{6 \times 10^{24}}{7 \times 10^{22}}$$

DIVIDE

$$\frac{6 \times 10^{24}}{7 \times 10^{22}}$$
$$\frac{6}{7} = .8571$$
$$\frac{10^{24}}{10^{22}} = 10^{24-22} = 10^2$$

MULTIPLY

$$\frac{6 \times 10^{24}}{7 \times 10^{22}} = \frac{6}{7} \times \frac{10^{24}}{10^{22}}$$
$$.8571 \times 10^2$$

85.71
TIMES
BIGGER

Secondary Mathematics I (Functions)

Do the ordered pairs (-2,5), (9,8), (4,2), (8,9), and (2,5) represent a function?

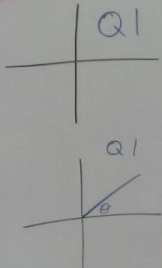
| TABLE | | INPUTS \rightarrow X |
|-------|---|---------------------------|
| X | Y | |
| -2 | 5 | -2, 9, 4, 8, 2 |
| 9 | 8 | |
| 4 | 2 | REPEATS? |
| 8 | 9 | NO \Rightarrow function |
| 2 | 5 | |

Secondary Mathematics II (Trigonometry)

Given: $\sin \theta = \frac{4}{5}$, find $\cos \theta$ if θ is in the first quadrant.

GIVEN: $\sin \theta = \frac{4}{5}$, find $\cos \theta$ if θ is in the first quadrant.

PICTURE I+!



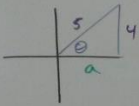
SOHCAHTOA

OPPOSITE
HYPOTENUSE = $\frac{4}{5}$

PYTHAGOREAN
 $a^2 + b^2 = c^2$

$a^2 + 4^2 = 5^2$

SOLVE FOR a



$a^2 + 4^2 = 5^2$
 $a^2 + 16 = 25$
 $-16 \quad -16$
 $\hline \sqrt{a^2} = \sqrt{9}$
 $a = \pm 3$
Q1 $a = 3$

cos?

SOHCAHTOA

ADJACENT
HYPOTENUSE = $\frac{3}{5}$

$\cos \theta = \frac{3}{5}$

Secondary Mathematics III (Distribution)

Simplify: $(x^3 + 5x^2 + 3x - 2) - (x^4 - 3x^2 + 7x - 1)$.

The image shows handwritten algebraic work on a whiteboard. It starts with the expression $(x^3 + 5x^2 + 3x - 2) - (x^4 - 3x^2 + 7x - 1)$. The word "DISTRIBUTE" is written above the minus sign, and arrows indicate the distribution of the minus sign to each term in the second polynomial, resulting in $x^3 + 5x^2 + 3x - 2 - x^4 + 3x^2 - 7x + 1$. The word "LIKE TERMS!" is written above the next step, where terms are grouped: $x^3 + 5x^2 + 3x - 2 - x^4 + 3x^2 - 7x + 1$. The word "AGAIN + AGAIN" is written vertically on the left side of the next steps, which show the terms being rearranged and combined: $-x^4 + x^3 + 5x^2 + 3x - 2 + 3x^2 - 7x + 1$, $-x^4 + x^3 + 8x^2 + 3x - 2 - 7x + 1$, $-x^4 + x^3 + 8x^2 - 4x - 2 + 1$, and finally the simplified expression $-x^4 + x^3 + 8x^2 - 4x - 1$ circled at the bottom.

Pre-Calculus (Combinations)

Find ${}_4C_2$.

The image shows handwritten work on a whiteboard. It is divided into three columns. The first column, titled "WHERE?", shows ${}_4C_2 = \binom{4}{2}$ with arrows pointing to the 4 and 2, labeled "top" and "bottom" respectively. The second column, titled "FORMULA", shows $\binom{n}{r} = \frac{n!}{r!(n-r)!}$, then ${}_4C_2 = \binom{4}{2} = \frac{4!}{2!(4-2)!}$. The third column, titled "Subtract", shows ${}_4C_2 = \binom{4}{2} = \frac{4!}{2!(4-2)!} = \frac{4!}{2!(2)!}$.

The image shows handwritten work on a whiteboard, continuing the calculation of ${}_4C_2$. It is divided into three columns. The first column, titled "FACTORIALS!", shows ${}_4C_2 = \binom{4}{2} = \frac{4!}{2!(2)!} = \frac{4 \cdot 3 \cdot 2 \cdot 1}{2 \cdot 1 \cdot (2 \cdot 1)}$. The second column, titled "CANCEL", shows ${}_4C_2 = \binom{4}{2} = \frac{2 \cdot 4 \cdot 3 \cdot 2 \cdot 1}{2 \cdot 1 \cdot (2 \cdot 1)} = \frac{2 \cdot 3}{1}$. The third column, titled "X / :-", shows $C = \binom{4}{2} = \frac{2 \cdot 3}{1} = 6$, with the final answer 6 circled.