

# Tips from Elementary Mathematics Teachers

- Unpack the TEKS
- Vertically align with grade level above and below
- Create learning stations for all learners (track data)
- Hands-on teaching strategies
- Project-based learning activities
- Number of the Day to promote number sense
- Listen to students and their thinking and actively monitor
- Discuss word problem meaning to promote understanding
- Partner talk to explain thinking
- Develop a rapport with your students
- Always let the students have a teach back moment
- Purposeful mistakes so students can learn from them
- Interactive journals
- Spiral TEKS (review packet)
- Teach misconceptions (become familiar with misconceptions)
- Provide anchor charts (concepts/vocabulary)
- Interactive journal (review/study guide)
- Student-led discussions in the classroom
- Ask questions (deeper level thinking)
- Use data
- Tips:
  - Teacher/instruction
  - Visuals
  - Vertical alignment
  - Home support
- Do nows
- Spiral objectives
- Pinterest
- Exit tickets
- Make word problems interesting to students
  - Math bowl
  - Real world
  - Make connections
- Survey students to learn interests, learning styles etc. to build relationships and guide lesson planning, survey students on glows/grows of teacher
- Freedom in flexibility of learning (i.e. bouncy bands, standing, carpet time, preferential/flexible seating)
- Turning rote learning into fun, cooperative and engaging games and activities
- Carpe diem
- Listen (relationship)
- Partnership (student-student, student-teacher)
- Ownership (students present their own strategies)
- Real life connections
- Read the books by Stephanie Harvey

# Tips from Middle School Mathematics Teachers

- Talk less...let students talk more
- Heterogeneous grouping - partner work
- Explain WHY
- Randomizer; students call on each other
- Warm-ups: can be used to preview, reteach, spiral...
- Be flexible
- Early exposure to mathematical concepts
- Alter our language
- Effective failure mindset
- Group competition
- Put some humor into the lessons
- Integrate art
- Use manipulatives
- Floating lunch detention card (hot potato)
- Allow students to create test questions
- Cold calling
- Classroom jobs
- Make MATH REAL
- Being firm but fair
- Show students that Math is all around US!
- Student's names on index cards to call upon everyone
- Show students genuine care
- Contact parents early with positive message
- Post problem-solving, challenge "Problem of the Day"
- Stay organized and post homework in the same place everyday
- Use engaging activities
  - Unit Rate (minute-to-win-it)
  - Scavenger hunt
  - Review games (Kahoot)
  - Battleship (translations)
  - Rap songs to remember steps
- Use interactive notebooks
  - Foldables
  - Guided notes (with tabs)
  - Note cards
- Have students create projects
  - 3D measurement
  - Candy wrapper scale
  - City built with angles
- Build relationships with students
  - Connect with students
  - Incentive system

- Class culture
- Student-centered learning (consider their interests)
- Value each student's' ideas
- Use students' names/activities in problems

# Tips from High School Mathematics Teachers

## Technology “Nuggets”

- symbolab.com
- mathway.com
- Online reviews/with self-checking answers
- Code.org
- MathFun.com
- Khanacademy.com
- Nearpod/Kahoot
- Quizlet

## Notetaking “Nuggets”

- Interactive notebook
- Smartboard notes saved to the HUB (for HISD teachers)

## Student Interaction:

- Relay race
- Guest teacher

## Parent Communication

- Text images of good student work while grading

## Formative assessment tools:

- Flippity
- Kahoot
- Quizizz

## Classroom strategy:

- Interactive notebooks
- Foldables
- Carousels
- Circuit
- Google Classroom
- Desmos
- Daily spiral warm-up
- Stations
- Individual white board
- Edmodo

## Data Analysis

## Parent Involvement/Communication

- Phone calls
- Emails
- Letters

## Teacher Tips

- Be like Tom Brady: Tom Brady approach is to use higher level kids to bring up deficiencies of the weaker students (the way Tom Brady takes weaker receivers and makes them better)
- Controlled mistakes
- Have differentiated instruction within a unit to address all learner’s needs
- Set EXPECTATIONS!!

- Homework stamp sheet for the week
- Communication with grades through GradeSpeed (for districts that have access to this program)
- Twitter for videos and online games
- Check for understanding 1-5 or fist to 5
- Running Table of Contents for interactive notebooks
- Bin with foldables/notes for notebooks
- Keeping missing papers/worksheets in a box, file cabinet, or bins/drawers
- “Cell” block – allow students to charge cell phones if they come to class and plug in before class starts
- Partner quizzes
- Positive feedback!
- Break the main concept into parts - clarify
- Use math software like MathXL, Geogebra, Hub Math Resources, and Desmos
- Kahoot as a warm-up
- Mini-lessons
- Accountability/test corrections