

Teacher & Coach

To learn Math a Student needs both a Teacher and a Coach.

The Teacher selects the appropriate topics for a student and then explains each topic and gives the student exercises and feedback via a quiz.

The Coach monitors the student's activities and gives the student motivational feedback with both "carrots" and "sticks".

The "sticks" might be requiring the student to spend a certain amount of time studying math with the Teacher.

The "carrots" are giving the student positive feedback in the form of compliments and rewards for efforts and accomplishments.

Mistakes are unavoidable when learning math, just like any sport or skill. The Coach should acknowledge the student's mistakes as good efforts and progress in learning the math concepts and skills.

DO NOT ever let a student feel s/he is a "failure" because of some mistake s/he makes. Celebrate mistakes as a sign of effort and progress.

A Coach should be able to come up with various "rewards" for a student's progress and efforts.

Recognition and sincere compliments are often the best rewards.

A Coach must be present in a student's life, and care about the student, and make persistent and consistent efforts to give the student these positive feedbacks.

A Coach must be prepared to encourage the student to make efforts even when these efforts seem to not be producing good results. All successful people go through periods of "doldrums".

Any successful person in the development of any skill will make many "mistakes". The Coach must be sure the student understands this and appreciates this.

Compare Math to some game or sport or music or any other skill the student likes.

We all make mistakes. The better we become the fewer mistakes we make, but we always make mistakes.

The more we learn the more mistakes we will have made.

The Coach should try to help the student see where learning the concepts and skills of Math will help the student in other areas of interest to the student.

If a student is interested in any technical field s/he must realize the value of math in this field. The Coach should be sure the student is aware of this.

A Coach does not have to be the Teacher. The Coach does not have to know much math.

The Coach will work with the Teacher.

It is possible that one person can be both the Coach and the Teacher. But, this is usually impossible.

I can be the Teacher thanks to modern technology.

You can be the Coach. Any parent must find a local person to be the Coach since this requires a continual presence and a personal relationship.

Here is what I recommend the Coach should do:

- 1. Be sure the student understands the Dozen Tips for Success. Watch the video and read the PDF notes.**
- 2. Take the lessons in proper sequence.**
- 3. Take the Pre-Quiz to see what is going to be learned in this lesson.**
- 4. Watch the video where I, as the Teacher, explain the topic of the lesson.**
- 5. Go back and watch the video again and pause and do anything I have asked the student to do.**
- 6. Try to do the Exercises for that topic.**
- 7. Watch the video repeatedly until the student understands the topic and can do the exercises.**
- 8. Take the Post-Quiz to “prove” to all of us the student understands this topic.**
- 9. Go on to the next Lesson.**
- 10. Go back and review previous lessons and exercises. Probably at least 50% of the student’s time should be spent in review. Repetition is the key to retention of knowledge and skills.**

11. If a student has watched a video several times and still does not understand a topic, then have the student ask someone for help by asking a precise question.
12. The Coach does not have to be able to answer these questions. That is the Teacher's responsibility.
13. A Forum is available for that very purpose. Be sure the student uses it.
14. Cheer the student's efforts.
15. Cheer the student's successes as the student climbs the ladder.
16. Cheer the student's mistakes and frustrations since these are necessary components of learning.
17. Explore other interests the student might have if a student can learn the necessary math.
18. Remember, Math is the "open sesame" for virtually any technical field and for virtually all STEM subjects.
19. Remember different students learn at different paces and speeds. DO NOT compare one student to another.
20. Cheer each student's progress and efforts independent of any other student.