

The best way to teach math facts?

DO NOT TEACH MATH FACTS!

Give children the opportunity to meet a clear, measurable challenge.

- 1) Give children tools to succeed. See The Math Facts Challenge Kit.*
- 2) Give children a clear goal, and a way to measure their progress.
- 3) Verify their progress.

* Print the kit and watch instructional videos are at studysmart.com.

Benefits of this approach:

Children learn to follow directions, self-teach, develop grit, confidence and a practice habit.

The self-assessment is more accurate, and more likely to lead to success.

There is less work for teachers and parents.

A short to do list.

- 1) Give students the kit and a completion date.
 - 2) On the date, verify student progress.
- There are optional class activities on the next page.

Students are motivated and believe they can succeed.

There are only eight flashcards. Children believe they can succeed. They learn the study technique, and their success gives them confidence in learning the rest of the facts.

So little investment. So much to gain.

Teachers and parents do not need to buy anything.

This can be a home assignment.

If it works, you can give your students another challenge.

My name is Mitchell Mark. I am a retired teacher, with a post-graduate degree in Instructional Design. I worked with several teachers in developing the kit. Your comments and suggestions are welcomed. You can contact me at MitchellMarkTeacher@gmail.com.

The Math Facts Challenge Kit

- Instructional flashcards help children both understand and recall facts.
- Answer forms increase interaction, and provide proof of practice.
- Step-by-step instructions children can follow *without* adult assistance.

A Better Way to Assess

The kit shows children how to measure their progress. When children are in charge of their own assessment, they are more informed, more responsible, and more motivated to show their teachers and parents they can do it.

Optional Classroom Activities

Assign study partners.

One of the benefits of this approach is that children learn to study on their own, and with a partner. They can help their partner succeed, and benefit from their partner's help. Partners do not need to be at the same level.

An six-minute classroom practice routine.

Students sit with their study partners.

First, both students practice by themselves. They interact with each card. It takes about two minutes.

After two minutes, teachers signal for students to practice with their partners.

Student A tests himself. His partner watches and helps.

Student A holds up a card so that he can see the question, and his partner can see the hint and answer.

If Student A knows the answer, he writes it on his answer form, turns the card over, and checks his answer.

If he does not know the answer, he writes a "?" in the Hint column of his answer form.

His partner reads the hint. If Student A knows the answer, he writes it and checks it.

If he still does not know, he writes a "?" in the Product column, turns the card over, and writes the correct answer.

After two minutes, teachers signal for partners to switch roles.

In six minutes, every student has completed 21 interactions with math facts.

There is no paperwork to collect or correct.

Play Video Flashcards.

At studysmart.com, choose videos. Choose Challenge videos.

Each video presents all eight flashcards.

Students use an answer form.

Every student gets immediate feedback after every answer.

Factors				Product	Check	Hints
3	x	4	=			?
3	x	4	=	12	✓	-
3	x	4	=	14	12	

Assign home practice.

Give students answer forms. They complete three. Each takes two minutes.

They can practice alone, with a partner, with videos, or any combination of the three.

Have a classroom contest.

Students who meet the challenge can enter their progress chart.

Choose a progress chart and award a small prize.

Challenge another classroom.

Both classes take home the same challenge kit.

A date is chosen for the final assessment.

All students answer all eight facts. The class with the highest percentage correct wins.

Prize suggestion: The winning class gets a trophy or stuffed animal for the week. They also get extra recess time.