Multiplication/Division Edition
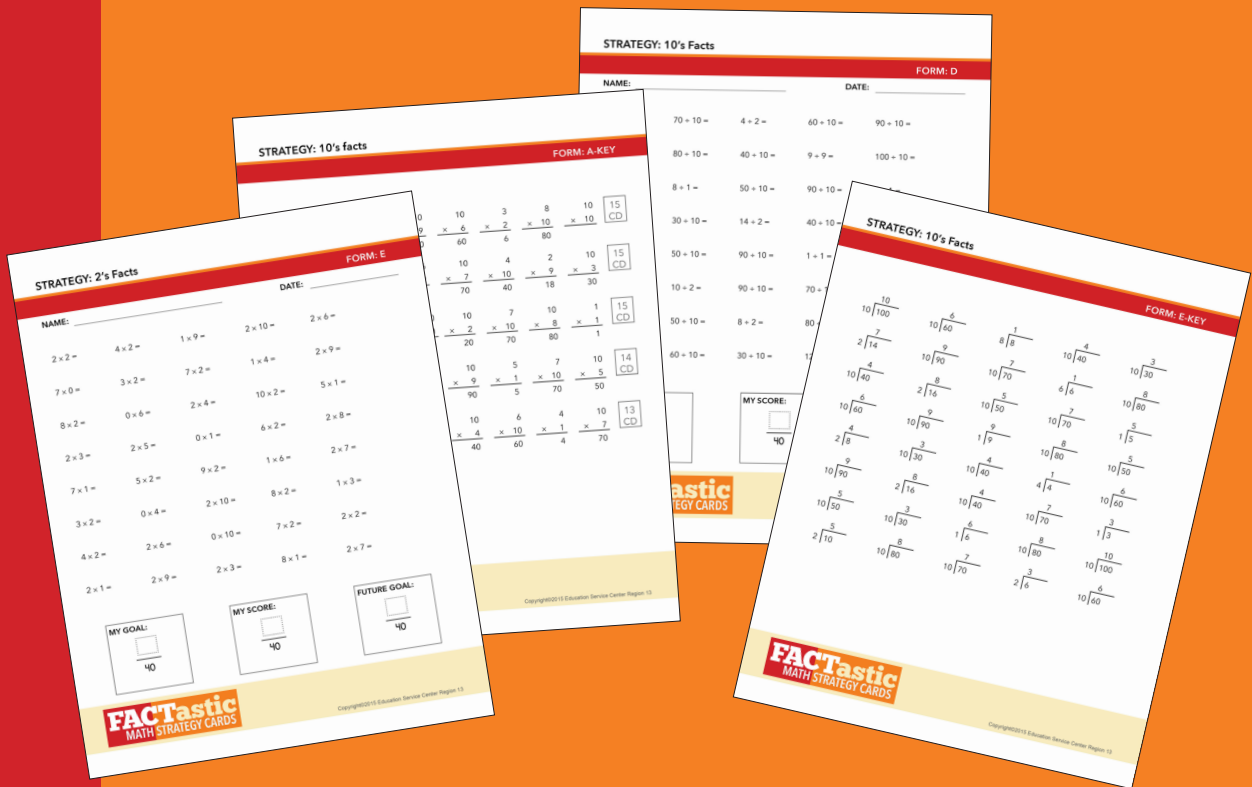
FACTastic
MATH STRATEGY CARDS

Progress Monitoring

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REGION 13
EDUCATION SERVICE CENTER

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OVERVIEW

FORMS

STRATEGY: 0's and 1's Facts Multiplication		
	STUDENT WORKSHEET	TEACHER KEY
FORM A	12	13
FORM B	14	15
FORM C	16	17
FORM D	18	19
FORM E	20	21

STRATEGY: 1's Facts Division		
	STUDENT WORKSHEET	TEACHER KEY
FORM A	22	23
FORM B	24	25
FORM C	26	27
FORM D	28	29
FORM E	30	31

STRATEGY: 2's Facts Multiplication		
	STUDENT WORKSHEET	TEACHER KEY
FORM A	32	33
FORM B	34	35
FORM C	36	37
FORM D	38	39
FORM E	40	41

STRATEGY: 2's Facts Division		
	STUDENT WORKSHEET	TEACHER KEY
FORM A	42	43
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STRATEGY: 6's Facts Multiplication

	STUDENT WORKSHEET	TEACHER KEY
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STRATEGY: 6's Facts Division

	STUDENT WORKSHEET	TEACHER KEY
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FORM B	144	145
FORM C	146	147
FORM D	148	149
FORM E	150	151

STRATEGY: 7's Facts Multiplication

	STUDENT WORKSHEET	TEACHER KEY
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FORM C	156	157
FORM D	158	159
FORM E	160	161

STRATEGY: 7's Facts Division

	STUDENT WORKSHEET	TEACHER KEY
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FORM C	166	167
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STRATEGY: 4's & 8's Facts Multiplication

	STUDENT WORKSHEET	TEACHER KEY
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FORM C	176	177
FORM D	178	179
FORM E	180	181

STRATEGY: 4's Facts Division

	STUDENT WORKSHEET	TEACHER KEY
FORM A	182	183
FORM B	184	185
FORM C	186	187
FORM D	188	189
FORM E	190	191

STRATEGY: 8s Facts Division

	STUDENT WORKSHEET	TEACHER KEY
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FORM B	194	195
FORM C	196	197
FORM D	198	199
FORM E	200	201

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APPENDIX

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Purpose

Progress monitoring is essential for assessing a student's instructional program and determining whether instructional changes are needed. For the purpose of this strategy-based instructional program, progress monitoring was created to assure mastery prior to instruction of the next strategy or set of facts. Student proficiency is vital to the success of this strategy-based program because students use beginning facts to solve advanced facts. Both the National Council of Teachers of Mathematics and the National Mathematics Advisory Panel recommend and endorse teaching to mastery of mathematics facts. Progress monitoring involves applying data to a decision rule or mastery. It is crucial that teachers use the data and decision rules to make instructional changes rather than simply move students on to the next set of facts after a predetermined length of time (Foegen, 2008; Fuchs et al., 2010; Shapiro, 2010).

After a specific strategy from FACTastic Math Strategy System has been introduced, the student has had opportunities for guided and independent practice, and the student is feeling confident in his or her knowledge of the specific facts, you should then proceed to progress monitoring checks.

Directions

Use the following steps to administer FACTastic Progress Monitoring.

1. Start the probes with Progress Monitoring Form A for the corresponding strategy for which the student is working to master.

2. Say to the student, "Today you will take a short fact check quiz. I will time you to see how quickly you can recall your facts. When I say, go, answer each problem. Start at the first problem on the left and work across the page. Try to solve each problem in the row, and then go to the next row. If you do not know the answer, skip the problem and try to answer the next one. Before we get started, write in your goal and/or your previous score. Do you have any questions?"

3. Set the timer for two minutes and say, "Go."

4. After two minutes have passed, say, "Stop. Pencil down."

5. Have the student check his or her own probe, recording the total number of correct answers in the middle box at the bottom of the page.

6. Have the student graph the total score on the Chart My Progress sheet.

7. Collect the student's probe and check for grading and scoring accuracy.

8. Determine if the student mastered the strategy using the Decision Table on the next page.

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9. Document the student's progress on your Progress Monitoring Tracking form.

10. If the student did not reach mastery, continue practicing that strategy. After providing opportunity to strengthen the student's skills, proceed to the next progress monitoring probe. If mastery is not met by probe E, return to the Progress Monitoring Form A.

Scoring for items correct is done by simply counting the total facts that have been answered correctly. To score for correct digits, count all correct digits that are written after the equal sign or below the equal bar. For example, in the problem, 9 x 4 = 36, 36 has two correct digits. The mastery criteria for each grade level are shown in the decision rules table below. For the FACTastic Math Strategy System, the student must master correct digits for multiplication or items correct for division on a two-minute probe and across two consecutive probes before moving to the next strategy or set of facts. For more information on how these decisions were developed, see p. 202.

Decision Rules Table

GRADE	MULTIPLICATION: CORRECT DIGITS	DIVISION: ITEMS CORRECT
2	*	*
3	32	24
4	49	36
5 and up	49	36

*Students are just being introduced to facts at this grade level. While the strategy-based instruction can be used with second graders, it is not necessary to measure automaticity until third grade.

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STRATEGY: 0 and 1's Facts Multiplication

NAME: _____   DATE: _____

0	0	1	5	9	1	0	1
× 2	× 4	× 3	× 0	× 1	× 6	× 10	× 1

1	0	3	10	1	7	1	0
× 5	× 8	× 0	× 0	× 2	× 1	× 4	× 7

1	0	1	3	1	6	0	1
× 0	× 6	× 8	× 1	× 10	× 0	× 9	× 7

2	0	0	8	1	4	0	6
× 1	× 1	× 3	× 1	× 9	× 0	× 5	× 1

4	2	7	10	8	5	9	1
× 1	× 0	× 0	× 1	× 0	× 1	× 0	× 1

MY GOAL:	MY SCORE:	FUTURE GOAL:
☐	☐	☐
40	40	40

Sample

0	0	1	5	9	1	0	1	8
× 2	× 4	× 3	× 0	× 1	× 6	× 10	× 1	CD
0	0	3	0	9	6	0	1	

1	0	3	10	1	7	1	0	8
× 5	× 8	× 0	× 0	× 2	× 1	× 4	× 7	CD
5	0	0	0	2	7	4	0	

1	0	1	3	1	6	0	1	9
× 0	× 6	× 8	× 1	× 10	× 0	× 9	× 7	CD
0	0	8	3	10	0	0	7	

2	0	0	8	1	4	0	6	8
× 1	× 1	× 3	× 1	× 9	× 0	× 5	× 1	CD
2	0	0	8	9	4	0	6	

4	2	7	10	8	5	9	1	9
× 1	× 0	× 0	× 1	× 0	× 1	× 0	× 1	CD
4	0	0	10	0	5	0	1	

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STRATEGY: 0 and 1's Facts Multiplication

NAME: _____   DATE: _____

1 × 8 =	0 × 4 =	6 × 0 =	1 × 7 =	2 × 1 =
1 × 10 =	0 × 1 =	3 × 0 =	3 × 1 =	0 × 5 =
10 × 0 =	1 × 4 =	6 × 1 =	1 × 9 =	0 × 2 =
8 × 0 =	0 × 9 =	7 × 1 =	1 × 5 =	0 × 6 =
1 × 0 =	1 × 3 =	10 × 1 =	1 × 2 =	7 × 0 =
0 × 3 =	2 × 0 =	4 × 1 =	8 × 1 =	1 × 6 =
9 × 0 =	5 × 0 =	9 × 1 =	4 × 0 =	0 × 7 =
5 × 1 =	0 × 10 =	1 × 7 =	0 × 8 =	1 × 1 =

MY GOAL:	MY SCORE:	FUTURE GOAL:
[ ]	[ ]	[ ]
40	40	40

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1 × 8 = 8	0 × 4 = 0	6 × 0 = 0	1 × 7 = 7	2 × 1 = 2	5 CD
1 × 10 = 10	0 × 1 = 0	3 × 0 = 0	3 × 1 = 3	0 × 5 = 0	6 CD
10 × 0 = 0	1 × 4 = 4	6 × 1 = 6	1 × 9 = 9	0 × 2 = 0	5 CD
8 × 0 = 0	0 × 9 = 0	7 × 1 = 7	1 × 5 = 5	0 × 6 = 0	5 CD
1 × 0 = 0	1 × 3 = 3	10 × 1 = 10	1 × 2 = 2	7 × 0 = 0	6 CD
0 × 3 = 0	2 × 0 = 0	4 × 1 = 4	8 × 1 = 8	1 × 6 = 6	5 CD
9 × 0 = 0	5 × 0 = 0	9 × 1 = 9	4 × 0 = 0	0 × 7 = 0	5 CD
5 × 1 = 5	0 × 10 = 0	1 × 7 = 7	0 × 8 = 0	1 × 1 = 1	5 CD

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