Kumon *Grade 3 Multiplication* Workbook Educator's Guide

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Using Kumon Calculations Workbooks: General Guidance

Kumon Calculations Workbooks follow the Kumon Method, a proven learning system from Japan that has helped millions of children worldwide develop math skills without frustration.

You can use Kumon Calculations Workbooks to **introduce new math skills** or **to provide additional support** after/alongside another program. The table below shows benefits of each approach.

Using Kumon Workbooks to teach	Using Kumon Workbooks
a new skill	for additional support
 Learn the new concept(s) using an efficient and targeted approach Avoid development of misconceptions Progress toward mastery of the relevant math facts and procedures Improve your child's mental calculation abilities and their ability to learn independently 	 Refine and deepen understanding of the concept(s) Solidify mastery of math facts and gain procedural fluency Identify and correct misconceptions Improve your child's mental calculation abilities and their ability to learn independently

Please note that **for the full benefit of the Kumon Method**, including personalized learning plans and individualized instruction, take the next step and contact a Kumon Learning Center near you. Visit <u>www.kumon.com</u> for more information about our Learning Centers.

Important Steps

For all Kumon Calculations Workbooks, please use the following steps for best results.

Timing	
•	We recommend having your child complete about one section (2 pages) a day. This should include the answer check.
•	Each daily session is about 15 to 30 minutes. If your child is learning the skill for the first time, the learning session will be closer to 30 minutes.
Sequend	sing
•	Even if your child is reviewing material, have them start on page 1 and work through the book page by page. Similarly, they should always work problems on each page in order. For best results, do not skip any content.
	Kumon Workbooks are designed so the student "learns through doing"; therefore, the sequence of pages and

problems in each book is key to the instructional method and effectiveness.

Checking Answers and Moving On

- Checking and correcting answers is an essential part of the learning process. One approach is to have a parent or teacher mark the child's answers as either correct or incorrect. Then have the child correct the wrong answers.
- You may choose to require a perfect score before your child moves on the next section. If you use this approach, you can repeat each section as many times as you wish by erasing it and having your child redo it. Or, have your child write answers on a separate sheet.

Encourage Self-Learning

- One hallmark of the Kumon Method is the emphasis on learning through doing rather than passive absorption of information. This is why there is minimal direct explanation in the book; the understanding comes through working problems in sequence.
- Support your child in the self-learning process by allowing them to work independently on the problems, correct their answers, and reflect on their errors. We encourage you to ask questions to promote deeper engagement, but resist the urge to "just explain" what they should learn from the page.

For a daily plan and page-by-page guidance to support using Kumon *Grade 3 Multiplication*, see the next page.

KUMON Grade 3 Multiplication Workbook: Daily Guide

Using this guide

- This guide organizes the workbook into daily sessions of 2 pages each.
- Each daily session should last about 15 to 30 minutes.
- Fill in the Date column to keep track of your progress.





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Date	Book Section	PP.	Description	Educator Notes
			TOPIC: REPEATED A	ADDITION
	1	2–3	 Practicing simple repeated addition problems (adding twice or three times) Introduction to 2 and 3 times tables through repeated addition 	After page 3, ask your child if they see a pattern in the sequences of problems on this page. Guide them to see that in each sequence, they are adding a number twice, three times, four times, and so on. Here, we are establishing a founding for understanding multiplication as repeated addition.
				If your child has previously studied multiplication, try to notice which problems on pages 2 and 3 they already solve with multiplication facts and which they still solve using repeated addition. Doing so will give you a better sense of which multiplication facts they already know well.
	2	4–5	• Introduction to 4s, 5s, 6s, and 7s times tables through repeated addition	Your child may recognize the "shortcut" that they can add on to the answer of the previous problem. If your child uses this strategy, don't discourage it, but do ask questions to keep the focus on repeated addition, such as <i>How is this problem different</i> <i>from the previous one? Which problem represents adding eight</i> <i>5s?</i> Your child may find these problems more challenging than those in the previous section because the numbers are getting larger. This can actually be a good thing; it motivates understanding of why knowledge of multiplication facts is useful.
	3	6–7	 Introduction to 8s, 9s, and 1s times tables through repeated addition 	As above, keep the focus on repeated addition, even if your child solves these problems by adding on the previous answer.
			 Short review of repeated addition problems, mixed and out of sequence 	
			TOPIC: REPEATED ADD	ITION REVIEW
	4	8–9	 Longer review of repeated addition problems, mixed and out of sequence 	Discourage your child from looking back to previous pages for the answers. We are building your child's repeated addition skills, which will be valuable in the study of multiplication tables.
				Depending on your child's stamina, you may wish to split this review into two sessions. Alternatively, complete it in one session and check answers and review in the second session.
			TOPIC: 2× TA	BLES
	5	10-11	 Focusing on 2×, Stage 1: Skip counting Tracing and reading, in sequence Reading and filling in, in sequence Solving problems, mainly in sequence 	Here we formally begin learning the times tables, beginning with 2×. The three stages used here will repeat each time we focus on a new multiplication table. This three-part sequence is designed to support efficient learning of the times table being studied, before moving on. Stage 1 introduces the multiplication facts using a multisensory approach that includes auditory (reading aloud), kinesthetic (tracing), and visual learning. Reading aloud can be a powerful memorization tool. If your child is new to memorization, please have them read aloud, not silently, wherever the directions say "read." If your can use reading aloud selectively. Have them read aloud for the number facts for which they are less secure. This will
				help them target the facts that need special attention.

Date	Book Section	PP.	Description	Educator Notes	
	6	12–13	 Focusing on 2×. Stage 2: Reading and filling in, in sequence Solving problems, mainly in sequence Reading and filling in, out of sequence Solving problems, varying sequence types 	Stage 2 engages pattern recognition and calculation ability by presenting number facts in various kinds of sequences not just the standard memorized order. This practice helps your child learn different strategies for calculating answers to multiplication problems, which they can rely on as they build up their memorized knowledge. It also promotes deeper understanding of the multiplication concept. If your child has difficulty, encourage them to build on their answers to the other problems in the section. For example, you can say: <i>If</i> $2 \times 5 = 10$, <i>like you answered in problem</i> 1, <i>what is</i> 2×6 ? <i>How could you "get from"</i> 2×5 to 2×6 ?	
	7	14–15	<u>Focusing on 2×,Stage 3:</u> • Reading and filling in without provided answers, out of sequence • Solving problems, varying sequence types • Solving problems, shuffled order • Solving problems, missing factor	Stage 3 takes away some of the previous memory supports and has your child work problems out of sequence. Discourage your child them from looking back at answers from another page. It's important for your child to try to generate the answers on their own. Missing factor problems at the end of this stage prompt your child to use their knowledge in a new way and to apply algebraic reasoning skills.	
	0	16 17	TOPIC: 3× TAE	BLES	
	0	10-17	 Skip counting Skip counting Tracing and reading, in sequence Reading and filling in, in sequence Solving problems, mainly in sequence 	Please return to the supports listed above for the 2x tables as your child continues to work through the book, advancing from one times table to the next.	
	9	18–19	 Focusing on 3×, Stage 2: Reading and filling in, in sequence Solving problems, mainly in sequence Reading and filling in, out of sequence Solving problems, varying sequence types 		
	10	20–21	<u>Focusing on 3×,Stage 3:</u> • Reading and filling in without provided answers, out of sequence • Solving problems, varying sequence types • Solving problems, shuffled order • Solving problems, missing factor		
			TOPIC: REVIEW 2× ANI	D 3× TABLES	
	11	22–23	<u>Review of the 2s and 3s times tables</u> • Solving problems in varying sequences and out of sequence • Missing factor problems	This review addresses both the $2 \times$ and $3 \times$ tables using question types your child has seen in previous sections. As with all reviews in this book, this is a place to pause and assess whether your child is ready to move on.	
				If your child makes several mistakes, determine whether they are for 2× problems, 3× problems, or both. Then provide additional practice where needed before moving on. A good option is to simply erase earlier completed sections in the book and have your child redo them again in order. You can use this approach for any	
	TOPIC: 4× Tables				

Date	Book Section	PP.	Description	Educator Notes
	12	24–25	Focusing on 4×. Stage 1: • Skip counting • Tracing and reading, in sequence • Reading and filling in, in sequence • Solving problems, mainly in sequence	Please return to the supports listed above for the 2× tables as your child continues to work through the book, advancing from one times table to the next.
	13	26–27	Focusing on 4×. Stage 2: • Reading and filling in, in sequence • Solving problems, mainly in sequence • Reading and filling in, out of sequence • Solving problems, varying sequence types	
	14	28–29	 Focusing on 4×.Stage 3: Reading and filling in without provided answers, out of sequence Solving problems, varying sequence types Solving problems, shuffled order Solving problems, missing factor 	
				× Tables
	15	30-21	Focusing on 5x. Stage 1	Please return to the supports listed above for the 2x tables as
	13	50 51	 Skip counting Tracing and reading, in sequence Reading and filling in, in sequence Solving problems, mainly in sequence 	your child continues to work through the book, advancing from one times table to the next.
	16	32–33	<u>Focusing on 5×, Stage 2:</u> • Reading and filling in, in sequence • Solving problems, mainly in sequence • Reading and filling in, out of sequence • Solving problems, varying sequence types	
	17	34–35	Focusing on 5×,Stage 3: • Reading and filling in without provided answers, out of sequence • Solving problems, varying sequence types • Solving problems, shuffled order • Solving problems, missing factor	
			TOPIC: REVIEW 4× ANI	D 5× TABLES
	18	36–37	Review of the 4s and 5s times tables	This review addresses both the $4 \times$ and $5 \times$ tables using question types your child has seen in previous sections. Please return to the support listed for the $2 \times$ and $2 \times$ review above
			TOPIC: REVIEW 2×, 3×, 4×	and 4× TABLES
	19	38–39	Review of the 2s, 3s, 4× and 5s times tables	This review addresses all times tables studied so far. It also introduces a new activity type: the multiplication grid. Some of the numbers in the grid are filled in for support. These supports are gradually reduced each time your child returns to the activity. Multiplication grids are great not only for working on memorization but also for promoting pattern recognition skills and number sense.
				If your child already feels somewhat comfortable with multiplication, you might challenge them to complete their own 2s through 5s multiplication grid on a blank sheet of paper.
	0.0	40.55	TOPIC: 6× TAE	BLES
	20	40–41	Focusing on 6×, Stage 1: • Skip counting • Tracing and reading, in sequence • Reading and filling in, in sequence • Solving problems, mainly in sequence	Please return to the supports listed above for the 2× tables as your child continues to work through the book, advancing from one times table to the next.

Date	Book Section	PP.	Description	Educator Notes
	21	42–43	Focusing on 6×, Stage 2: • Reading and filling in, in sequence • Solving problems, mainly in sequence • Reading and filling in, out of sequence • Solving problems, varying sequence types	
	22	44–45	Focusing on 6×,Stage 2: • Reading and filling in without provided answers, out of sequence • Solving problems, varying sequence types • Solving problems, shuffled order • Solving problems, missing factor	
			ΤΟΡΙϹ: 7× ΤΑΕ	BLES
	23	46–47	 Focusing on 7×, Stage 1: Skip counting Tracing and reading, in sequence Reading and filling in, in sequence Solving problems, mainly in sequence 	Please return to the supports listed above for the 2× tables as your child continues to work through the book, advancing from one times table to the next.
	24	48–49	Focusing on 7×, Stage 2: • Reading and filling in, in sequence • Solving problems, mainly in sequence • Reading and filling in, out of sequence • Solving problems, varying sequence types	
	25	50–51	Focusing on 7×,Stage 3: • Reading and filling in without provided answers, out of sequence • Solving problems, varying sequence types • Solving problems, shuffled order • Solving problems, missing factor	
			TOPIC: REVIEW 6× ANI	D 7× TABLES
	26	52–53	Review of the 6s and 7s times tables • Solving problems in varying sequences and out of sequence • Missing factor problems	This review addresses both the $6 \times$ and $7 \times$ tables using question types your child has seen in previous sections. Please return to the supports listed for the $2 \times$ and $3 \times$ review above.
			TOPIC: REVIEW 2× t	hrough 7×
	27	54–55	Review of 6×, /×, 8×, and 9×	This review addresses all times tables studied so far and includes a partially filled in multiplication grid.
				If your child already feels somewhat comfortable with multiplication, you might challenge them to complete their own 2s through 7s multiplication grid on a blank sheet of paper.
	I		TOPIC: 8× Tak	ples
	28	56–57	<u>Focusing on 8×, Stage 1:</u> • Skip counting • Tracing and reading, in sequence • Reading and filling in, in sequence • Solving problems, mainly in sequence	Please return to the supports listed above for the 2× tables as your child continues to work through the book, advancing from one times table to the next.
	29	58–59	 Focusing on 8×, Stage 2: Reading and filling in, in sequence Solving problems, mainly in sequence Reading and filling in, out of sequence Solving problems, varying sequence types 	
	30	60–61	 Focusing on 8×,Stage 3: Reading and filling in without provided answers, out of sequence Solving problems, varying sequence types Solving problems, shuffled order Solving problems, missing factor 	

Date	Book Section	PP.	Description	Educator Notes		
	TOPIC: 9× TABLES					
	31	62–63	<u>Focusing on 9×, Stage 1:</u> • Skip counting • Tracing and reading, in sequence • Reading and filling in, in sequence • Solving problems, mainly in sequence	Please return to the supports listed above for the 2× tables as your child continues to work through the book, advancing from one times table to the next.		
	32	64–65	 Focusing on 9×, Stage 2: Reading and filling in, in sequence Solving problems, mainly in sequence Reading and filling in, out of sequence Solving problems, varying sequence types 			
	33	66–67	 Focusing on 9×,Stage 3: Reading and filling in without provided answers, out of sequence Solving problems, varying sequence types Solving problems, shuffled order Solving problems, missing factor 			
			TOPIC: REVIEW 8× AN	D 9× TABLES		
	34	68–69	Review of 8× and 9×	This review addresses both the $8 \times$ and $9 \times$ tables using question types your child has seen in previous sections. Please return to the supports listed for the $2 \times$ and $3 \times$ review above.		
			TOPIC: REVIEW 2× TH	IROUGH 9×		
	35	70–71	Reviews of 2× through 9×	These reviews address all times tables, 2 through 9, using		
	36	72–73	 Calculations problems 	question types your child has seen in previous sections. There are		
	37	74–75		3 reviews in a row. Be sure to stop and check answers after each review. Have your child review any problems they missed before moving on.		
	38	76–77	Review of 2× through 9× • Multiplication grid	This review consists of multiplication grids. With each subsequent grid, fewer numbers are filled in, making each step a little more challenging. For an added challenge, have your child identify patterns in the numbers that are filled in within each grid. The last grid contains only perfect squares, as in 2 times itself is 4, 3 times itself is 9, 4 times itself is 16, and so on.		
			TOPIC: 1× AND 10:	× TABLES		
	39	78–79	 Focusing on 1×: Skip counting Tracing and reading, in sequence Reading and filling in, in sequence Solving problems, mainly in sequence 	Allow your child to work independently through this section, using the problem-solving skills they've developed in this book. This will help them develop an understanding of what multiplying by 1 means, even if eventually they identify an "easy recipe" for solving these problems. At the conclusion of this section, you can discuss with your child that 1 times any number is that same number. Have them explain to you why this is the case.		
	40	80-81	Focusing on 10×, Stage 1: • Skip counting • Tracing and reading, in sequence • Reading and filling in, in sequence • Solving problems, mainly in sequence	Allow your child to work independently through this section, using the problem-solving skills they've developed in this book. This will help them develop an understanding of what multiplying by 10 means, even if eventually they identify an "easy recipe" for solving these problems. At the conclusion of this section, you can discuss with your child that 10 times a number is the same number but "shifted over," so the 1s place becomes the 10s place, and so on. Challenge your child to explain why this is the case. You can encourage them to use manipulatives or drawings to aid in their explanation. The essential point underlying the discussion is that our place value number system is base 10.		
	41	82–83	Keview of 1× and 10×	Inis review addresses both the 1× and 10× tables using question types your child has seen in previous sections. Please return to the supports listed for the 2× and 3× review above.		
			TOPIC: COMMUTATIVE PROPERT	Y AND FINAL REVIEW		

Date	Book Section	PP.	Description	Educator Notes
	42	84–85	This book concludes with an introduction to the concept of the commutative property and a final review of all times tables.	Now that your child is learning about the commutative property, you can point out that this is an extra tool they can use when working with multiplication facts. If they are stumped by a certain fact, they can try reversing the order of the factors.
	43	86–87		Be sure your child checks their final answers and reviews any that they missed. Your child can repeat this and similar reviews as many times as needed until they can earn a perfect score.