

TEKS Cluster: Multiplication and Division of Whole Numbers

TEKS Subcluster: Multiplication of Whole Numbers

Student Expectations: 3.4(D), 3.4(E), 3.4(F), 3.4(G), 3.5(C), 3.5(D), 3.6(C) – Connected SEs: 3.4(K), 3.5(B), 3.5(E)

Activities Summary: Students are introduced to basic fact multiplication and 2-digit by 1-digit multiplication. This subcluster contains models that build from the concrete to the pictorial to abstract and provides students with many connections to build fluency and flexibility in the process of multiplication. Activities may be organized and delivered in two topics: **Basic Fact Multiplication** and **Two-Digit by One-Digit Multiplication**.

Activity Title Student Expectations	Activity Topic	Type			Delivery		
		new learning	intervention	practice	teacher-facilitated	small groups	stations
Basic Fact Multiplication							
Connections 3.4(D), 3.4(F), 3.4(H), 3.5(D)	Meaning of Multiplication and Division Students discuss the connection between multiplication and division and choose multiple representations that match a problem situation. This activity is also included in the Division of Whole Numbers subcluster.	✓			✓		
2s Facts 3.4(E), 3.4(F), 3.5(E)	Learn the Base Facts Students use strip diagrams, tables, number lines, and skip counting to find 2s facts.	✓	✓		✓		
10s Facts 3.4(E), 3.4(F), 3.5(E)	Learn the Base Facts Students use strip diagrams, tables, number lines, and skip counting to find 10s facts.	✓	✓		✓		
5s Facts 3.4(E), 3.4(F), 3.5(E)	Learn the Base Facts Students use strip diagrams, tables, number lines, and skip counting to find 5s facts.	✓	✓		✓		
1s Facts 3.4(E), 3.4(F), 3.5(E)	Learn the Base Facts Students use strip diagrams, tables, number lines, and skip counting to find 1s facts.	✓	✓		✓		
3s Facts 3.4(E), 3.4(F), 3.4(K), 3.5(E)	Double + 1 More Group Strategy Students double related 2s facts and add another group to find 3s facts.	✓	✓		✓		
4s Facts 3.4(D), 3.4(E), 3.4(F), 3.4(K), 3.5(B)	Double Strategy Students double related 2s facts to find 4s facts.	✓	✓		✓		
6s Facts 3.4(D), 3.4(E), 3.4(F), 3.4(K), 3.5(B)	Double Strategy Students double related 3s facts to find 6s facts.	✓	✓		✓		
9s Facts 3.4(D), 3.4(E), 3.4(F), 3.5(B)	Set – 1 Group Students subtract a group from related 10s facts to find the 9s facts.	✓	✓		✓		
8s Facts 3.4(F)	Double-Double Strategy Students double related 2s facts and double again to find 8s facts.	✓	✓		✓		
7s Facts 3.4(F)	Set + 2 More Groups Strategy Students add 2 more groups to related 5s facts to find 7s facts.	✓	✓		✓		

Basic Fact Multiplication (cont'd.)						
A Problem for Every Multiplication Fact 3.4(D), 3.4(E), 3.4(F)	All the Problems: Multiplication This activity includes one multiplication problem for every multiplication fact on an individual card. Scaffolding includes three templates: <ul style="list-style-type: none"> • Equal groups, repeated addition, and arrays • Strip diagrams, number lines, and skip counting • Number lines, skip counting, and tables The multiplication problems from this activity may be mixed with the division problems from the A Division Problem for Every Fact activity.		✓	✓		✓
Equal Groups, Repeated Addition, & Arrays 3.4(D), 3.4(E)	Solve Multiplication Problems Students solve problems using concrete models, arrays, the number of rows and number in each row and what each represents, pictures, and repeated addition.	✓	✓		✓	
Strip Diagrams, Number Lines, & Skip Counting 3.4(D), 3.4(E), 3.4(F)	Solve Multiplication Problems Students solve problems using strip diagrams, number lines, skip counting, and multiplication number sentences.	✓	✓		✓	
Number Lines, Skip Counting, & Tables 3.4(E), 3.4(F), 3.5(E)	Solve Multiplication Problems Students solve problems using number lines, skip counting, tables, and division and multiplication number sentences.	✓	✓		✓	
What's Missing? 3.4(F), 3.5(D)	Unknown Number Students make models, find the missing number, and write multiplication and division equations.			✓		✓
We Are Family 3.4(F), 3.5(D)	Unknown Number Students make models and write fact families.					✓
Tell Me a Story 3.4(F), 3.5(D)	Unknown Number Students use facts families to fill in the blanks in word problems so that the problems make sense.	✓			✓	
All in the (Fact) Family 3.4(F), 3.5(D)	Unknown Number Students find the missing number and write multiplication and division equations.			✓		✓
Monster Museum 3.4(F), 3.5(C)	Multiplicative Comparison Students create a monster. Then they describe the relationship between the parts of the monster's body using comparative language.			✓		✓

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		new learning	intervention	practice	teacher-facilitated	small groups	stations
Two-Digit by One-Digit Multiplication							
Professor Pancake 3.4(F), 3.4(G)	Use Concrete Models and Arrays to Solve Multiplication Problems Students solve problems using concrete models, pictures, and arrays.	✓	✓		✓		
Animal Band 3.4(F), 3.4(G)	Use Concrete Models, Arrays, and Area Models to Solve Multiplication Problems Students solve problems using concrete models, pictures, arrays, and area models.	✓	✓		✓		
One Weird Menu! 3.4(F), 3.4(G)	Use Arrays, Area Models, and Partial Products to Solve Multiplication Problems Students solve problems using arrays, area models, and partial products.	✓	✓		✓		
Hadley the Dog 3.4(F), 3.4(G)	Use Area Models, Partial Products, and the Standard Algorithm to Solve Multiplication Problems Students solve problems using area models, partial products, and the standard algorithm.	✓	✓		✓		
Lots of Word Problems 3.4(F), 3.4(G)	Solve 2-Digit by 1-Digit Word Problems This highly scaffolded activity includes 5 different word problem stories. Each story is written two ways – once with small numbers for use with concrete and pictorial models and once with large numbers for use partial products and the standard algorithm.			✓		✓	
Cranium Crackers 3.4(F), 3.4(G)	Use Mental Math to Multiply This challenge activity develops fluency, speed, and accuracy using mental math to multiply 2-digit by 1-digit numbers.			✓		✓	