

Fourth Grade Cluster 4

Additional Resources



Videos to share with parents and colleagues:

- Properties of multiplication:
 - Associative - <https://www.youtube.com/watch?v=tbUQpZtAxw>
 - Commutative - <https://www.youtube.com/watch?v=HGPFgoniQDA>
 - Distributive - <https://www.youtube.com/watch?v=APWce2KtpjQ>
- This video shows parents how to solve two-digit by two-digit multiplication problems using the partial products model. <https://www.youtube.com/watch?v=2xmsEtyOBIO>
- This video shows parents how to solve multiplication using the area model. <https://www.youtube.com/watch?v=qdYV6i-kXcA>
- This video explains how to solve division problems using the open area model. <https://www.youtube.com/watch?v=vwDjUbwjrk>
- This video explains how to interpret remainders in a division problem. <https://www.youtube.com/watch?v=LcflScV-jg8A>
- This video explains to parents why students learn the area model rather than the algorithm. <https://www.youtube.com/watch?v=TcpR7KgfklA>

Videos to share with students:

- This catchy song/video takes students through the steps of multiplication using the area model. <https://www.youtube.com/watch?v=WYJsQo7ZTC4>
- Properties of Multiplication song: <https://www.youtube.com/watch?v=jG9E2pev3bQ>
- This video explains the commutative property of multiplication for kids. https://www.youtube.com/watch?v=7e9r8_V00-8
- Distributive property: <https://www.youtube.com/watch?v=QzvvSp-ZtBY>
- Associative property: <https://www.youtube.com/watch?v=TGVGwrM-vdo>
- Animated distributive property video: <http://studyjams.scholastic.com/studyjams/jams/math/multiplication-division/distrib-property.htm>
- Animated video on the relationship between multiplication and division: <http://studyjams.scholastic.com/studyjams/jams/math/multiplication-division/relate-mult-div.htm>
- Animated video on dividing with a one-digit divisor: <http://studyjams.scholastic.com/studyjams/jams/math/multiplication-division/single-digit-division.htm>

Literature connections:

- *17 Kings and 42 Elephants* by Margaret Mahy – This book introduces students to dividing with remainders.
- *Amanda Bean's Amazing Dream* by Cindy Neuschwander – This book explains the relationship between multiplication and repeated addition. Hear it read aloud here: <https://www.youtube.com/watch?v=8A98zXRouZY>
- *Multiplying Menace: The Revenge of Rumpelstiltskin* by Pam Calvert – This book is a fun way to teach students about multiplication. (Do not use as an introduction to multiplication.) Hear it read aloud here: <https://www.youtube.com/watch?v=53XH9ASKatM>
- *The Multiplying Menace Divides* by Pam Calvert – Rumpelstiltskin must be stopped from turning the village into frogs. Can the prince figure out how to divide in time? Hear it read aloud here: <https://www.youtube.com/watch?v=F-sfinkxGDb8>
- *The Great Divide* by Dayle Ann Dodds – Contestants in a race get divided up. Hear the book read aloud here: https://www.youtube.com/watch?v=vKRXUpU_FdA
- *Racing Around* by Stuart J. Murphy – This book incorporates geometry and helps students understand how to find the perimeter of a race track. Hear it read aloud here: https://www.youtube.com/watch?v=IXvCg0U_Hb0
- *Chickens on the Move* by Pam Pollack and Meg Belviso – In this book, children are trying to use perimeter to build a new coop for their chickens. Hear it read aloud here: <https://www.youtube.com/watch?v=jXnacAakm0>
- *Sam's Sneaker Squares* by Nat Gabriel – In this book, Sam measures the area of lawns and calculates how much money he should earn if he mows each one.
- *Spaghetti and Meatballs for All!* by Marilyn Burns – Help Mr. and Mrs. Comfort seat guests at their family reunion (area/perimeter). Hear it read aloud here: https://www.youtube.com/watch?v=jN_GmgeU5cw
- *One Hundred Hungry Ants* by Elinor J. Pinczes – Introduction to division. Hear it read aloud here: <https://www.youtube.com/watch?v=e3NwRgHcb5w>
- *A Remainder of One* by Elinor J. Pinczes – Division with remainders. Here is read aloud here: <https://www.youtube.com/watch?v=arT70SEdu3U>

Manipulative options:

- Graph paper to help students line up numbers
- Square tiles (area and perimeter)
- Counters and place value blocks to model multiplication and division
- Calculator

Online games for kids:

- Real world area and perimeter game. Students must use area and perimeter to design their backyard. (Must set up a free account with this site.) <https://www.education.com/game/pool-creation-math-problems/>
- Area and perimeter game with fixed and varying lengths: https://www.mathplayground.com/area_blocks/index.htm

- Soccer game with division with remainder questions. This is a partner or two player game.
<http://www.math-play.com/Soccer-Game-Division-With-Remainder/Soccer-Game-Division-With-Remainder.html5.html>
- Interpreting remainders word problem game: <https://www.mathgames.com/skill/4.89-interpret-remainders>
- Two-digit by two-digit multiplication game. Students can play against the computer or against other students.
https://www.mathplayground.com/ASB_Canoe_Penguins.html
- Prodigy: <https://www.prodigygame.com/> (must sign up for free account)

Additional Resources:

- Multiplication Boxing: Game using regular deck of playing cards to practice 2 x 2-digit multiplication. Can be used to practice box method and partial product method.
<http://www.cpalms.org/Public/PreviewResourceLesson/Preview/48348>