

Grades 6-8

Math Concept	Activity Description	Resources and Materials
All	Videos help families and students better understand the concepts and skills that are taught in school. Watching videos after engaging in lessons can assist in deeper understanding and retention of the content. Captions are available on both YouTube and Vimeo. To turn on captions when viewing a movie, hover over the video to bring up the menu at the bottom and click on the CC icon. When English subtitles are selected, you should see them appear (beginning with "bright music" or "upbeat ambient music").	6-8+Algebra
Data	When watching TV, reading a newspaper, or using social media and you see a chart or graph, talk with your child about the variables in the chart, how the data was collected, and what the data means.	If there are graphs don't show up authentically, you can find some here: Over 60 New York Times Graphs for Students to Analyze
Mixed Challenges and Puzzles	A math challenge game board for students to complete during their summer break (or in the classroom), using the online games and books at TangMath.com. There are 4 game boards for students who have finished 6th grade linked on the site (levels 7-10), but students can work through the previous levels as needed. You do not need to submit game boards to participate.	Summer Challenge
Positive and Negative Numbers	Create a list of numbers and then order them from least to greatest. Make sure to have discussions around why you are ordering them that way and what the numbers could represent if you didn't take them from a real-world scenario. To increase spatial awareness you could co-create a number line to order them. Number can be whole numbers, fractions, and decimals.	Example of this activity Online game extension of this task. It's recommended that you play together on the same computer so it becomes interactive and there's discussion around the math.
Unit Rate	Before or during grocery shopping, create your shopping lists with your child. Look for better better buys by comparing the "price per oz", "price per lb.", "price per unit", etc. If you aren't comparing the product to another one, you can simply ask your child to tell you about the cost per item/unit of measure.	Example of this activity

Algebraic Thinking	Use logic to solve visual, interactive mathematical puzzles. Play and even build SolveMe Mobiles together. As you do this together, discuss ways you solved it and make sure to get creative as there isn't just one way to figure it out.	SolveMe Mobiles
3D shapes	<p>Exploring the properties of three dimensional shapes is fun for all ages! If you can print on stock paper and not regular paper, it makes them sturdier. After printing, simply cut out the 3d shape nets on the solid lines. Have them label the different parts of the shape (face, edge, base) before assembling. Then, carefully fold each tab so that it can be used to glue the shape together, and fold each side of the shape. Finally, glue or tape shapes together. Once they are made you can:</p> <ul style="list-style-type: none"> • Discuss math vocabulary such as polyhedron, face, edge, prism, etc. • Compare the shapes by counting number of faces and edges or other characteristics • Use them to go on a 3D shape hunt: find the shapes in real life 	Geometric Nets For 3D Shapes: Printable Pack