Ways to Learn Math Without a Workbook

By Judy Arnall

Summer is a great time to learn differently. Children get sleep, sunshine and downtime and those are great brain builders to learn academic concepts with text and workbooks. Here are some handy ways children can learn math outside a classroom:

Adding and subtracting - Play board games such as monopoly, etc. Selling items and making change at a garage sale or lemonade stand. Paying for items in stores and noticing change.

Multiplying and dividing - Cooking, baking, sewing, workshop projects, and art projects. Sharing food and items among friends.

Greatest Common Multiples - Skip counting jumps on the trampoline.

Fractions - Baking and cooking from recipes. Dividing up food with siblings. Deciding how much quantity of food to buy per person for hosting dinners.

Decimals - Shopping. Splitting restaurant cheques.

Percents - Calculating tips, taxes and sale prices while shopping.

Estimation - Shopping. Tracking travel miles.

Perimeter - Measuring for baseboards.

Area - Measuring for carpet, paint or floor coverings. Sewing.

Volume - Measuring parcels for the post office.

Circumference - Measuring if half the ordered cheesecake really is half a cheesecake.

Least Common Factors - Lego pieces are named 2x2's or 2x8's so figuring out how many pieces needed to build a model.

Integers - Monitoring temperature changes. Counting money. Counting zero pairs with lego pieces.

Algebra - Computer games such as Graal, Minecraft etc. Shopping for packaged food items for a certain number of people. Figuring out problems.

Variables - Figuring out symbols that stand in for concepts.

Place value - Sorting and grouping toys and items. Measuring liquids, distances, and weight using the metric system that is based on 10. Counting money in games such as Monopoly. Writing out cheques. Cooking.

Coordinates and Ordered Pairs - Play Battleship.

Rounding - Figuring out how much allowance one has to pay for things. Estimating price total when grocery shopping.

Angles properties - Making a sundial. Studying astronomy. Visiting historical sites where people made ancient contraptions to measure time and seasons.

Degrees - Formatting photos and learning about astronomy. Questioning why the Xbox is a 360! Playing Hide and Seek

Temperature - Bake and cook. Monitoring the weather.

Time - Figuring out the clocks at hospitals and airports help children learn the 24 hour clock.

Roman numerals - Read "Asterix and Obelisk" books.

Reading graphs, pie charts, and figures - Reading magazines such as The Economist and MacLeans. Checking out newspaper articles to see how units on graphs can be manipulated to one's advantage.

Even and Odd numbers - Reading maps and house numbers on a street.

Properties of geometric solids - Playing with blocks and nets.

Slides, turns, rolls and flips - Formatting photos on the computer. Playing with blocks.

Symmetry - Playing with mirrors, objects and prisms.

Perfect squares - Examine a multiplication table and visually see the patterns. Making paper squares for cutting snowflakes and other paper projects. Seeing how squares fit into other squares.

X^2 + 4X + 3

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