Get ready to discover mathematics all around you this winter in everyday activities!

Just like reading, regular practice with problem solving, computation, and math facts will maintain and strengthen the mathematic gains you have made over the school year.

Enjoy these activities to explore problem solving at home. The goal is for you to have fun thinking and working collaboratively as a family to communicate mathematical ideas.

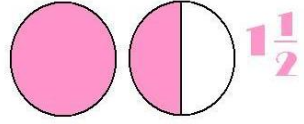While you are working ask how the solution was found and why a particular strategy helped you solve the problem.
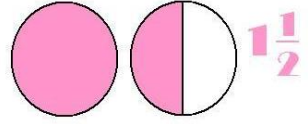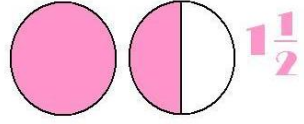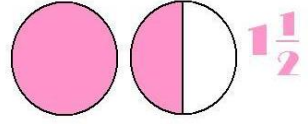
Literature and websites are also recommended to explore mathematics in new ways.

Keeping a Math journal is a great way for children to log their ideas about Math as well as strategies for arriving at solutions.   Here is an example of a journal entry:

January 6,
Over winter break I plan to go skating every third day. I will skate 1 ½ hour every day I go skating.

 Here is a picture of the calendar and how I plan to figure how many hours I plan to skate over the winter break.
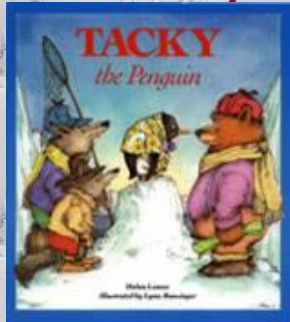
(Draw a calendar)

Sunday	Monday	Wednesday	Thursday	Friday	Saturday
		Skate 1 ½ hours			Skate 1 ½ hours
		Skate 1 ½ hours			Skate 1 ½ hours

Check out the sampling of great Winter Math/Literature Connections at http://mathwire.com/seasonal/winter06.html

Penguin Measurement:

- Read the book **Tacky the Penguin** by Helen Lester as an introduction to penguin math activities.
- Measuring Penguins describes activity in which kindergarten students use linking cubes to measure life-size penguin cutouts.
- Where in the World Is Tacky the Penguin? encourages students to measure distances in penguin feet.
- Sizing Up Penguins Webquest

Fun Websites to Explore all Year Long:

www.funbrain.com

www.aplusmath.com

www.pbskids.org

www.illuminations.nctm.org
Click on **ACTIVITIES**. Click on **K-2** and press **SEARCH.**

Explore these webpages for Math Family Winter Fun

http://www.dadeschools.net/winterbreak/pdfs/math/math_gr2.pdf

http://mathwire.com/seasonal/winter07.html

Games To Play (You will need a deck of cards)

1. WINTER FUN: From MathWire.com
ESTIMATION, COUNTING, AND MEASURING

For each activity, students first should make a prediction, then count or measure to test their prediction. Older students also might graph the class's findings and/or determine the mean, median, mode, and range of data.

- How many cubes fit in your mitten or glove? Use Unifix cubes or centimeter cubes. After packing each glove as fully as possible, empty it out and count the cubes. Younger students can snap together their Unifix cubes and tape them to a wall to see whose chain is the longest. For a math-literature connection, read Jan Brett's *The Mitten*.

- How many "snowballs" (large marshmallows) are in the estimation jar?

- Measuring snow:

  o How much does a snowball weigh? What is its circumference?

  o How much does a cup of snow weigh compared to a cup of water?

  o What is the liquid volume of a cup of snow after it melts?

  o How long does it take cup of loose snow to melt compared to a packed snowball and/or a cup of ice?

- How do you compare to a penguin or a polar bear? (Compare students to these cold-loving animals in terms of height, weight, leg length, or other measurements.)

- See more at: http://www.educationworld.com/a_curr/mathchat/mathchat015.shtml#sthash.X8Ug1nSh.dpuf

Compare
Remove the face cards from a deck of cards. Remember an Ace is the same as 1. Pass out all of the cards in the deck among all of the players. Each player flips over one card at the same time. The player with the higher number keeps both cards. If the two cards are the same, turn over another card. The player with the higher number keeps all four.

2. Double Compare
Same as above, but turn over two cards each time and find the sum. The one with the larger sum takes the cards.

3. Close to 10
Remove the face cards from a deck of cards. Deal 3 cards to each player. Which two cards brings you closest to 10? Which player is closest to 10? Example: You turn over the cards 5, 4, 3 and your opponent turns over an Ace, 8, and 3. You can make 9 (5 and 4) and your opponent can make 9 (Ace and 8) or 11 (8 and 3). It's a tie since you are both 1 away from 10!

Other games to play:
Checkers, Memory, Chutes and Ladders, jigsaw puzzles, Parcheesi, Fish, Crazy Eights, Candy Land, Blink, Connect Four, Legos, K'Nex.
Check out the PDF: Making Math More Fun Board Games that contains a variety of board games for different grade levels..