



Horseheads Central School District

# Golden Star Gazette

April 2017

## Gardner Road Elementary School

541 Gardner Road, Horseheads, New York 14845 (607) 739 – 6347  
ppatterson@horseheadsdistrict.com



Dear Gardner Road Families-

Spring is officially here and it's hard to believe that we are three quarters of the way through the school year. We have a lot of exciting events occurring this month including a local author visiting us, the GRPTO hosting our ice cream social/book fair and various guest teachers.

Report cards will also go home on April 7<sup>th</sup> for students in grades one through four. Just a friendly reminder that our report card provides grades on a 1-4 scale. A '1' means significantly below grade level expectation, a '2' means making growth towards grade level expectation, a '3' means that your child is meeting the grade level expectations and a '4' means your child exceeds grade level expectations. If you have any questions in regards to your child's grades, please contact your child's teacher. If you have a child(ren) in pre-kindergarten or kindergarten, your child's teacher will be in contact with you to set up a parent conference.

The [#LearningatGR](#) Home Connection series continues on page 3 of the newsletter. This month's focus is on inquiry. Be sure to check out the details and internet links! Feel free to also check out the following link connection families to reading resources:

<https://www2.ed.gov/parents/read/resources/edpicks.jhtml>

Congratulations to Aarushi and Natalia for representing Gardner Road so well at the regional Scripps Spelling Bee. The ladies finished tied for 10<sup>th</sup> out of 58 spellers (grades 2-8) vying for a spot to nationals. See the full details of their experience on our school's [Facebook feed](#).

Congratulations to all of the students who participated in our bee this year!

We look forward to seeing you at our school this month. Also check out the Horseheads 2030 meetings (see info on page 2 and [online](#)). Feel free to contact me if you need anything. Happy April Gardner Road!

Your Partner in Education,

Patrick Patterson - Principal



## Inside the Gazette:

### Page 2:

Main Office Updates

### Page 3

#LearningatGR Home Connection  
Snapshots of Learning

### Page 4:

Character Corner  
School Mission, Vision & Beliefs

### Included in the Online Newsletter:

Lunch Menu  
April Calendar  
GRPTO Newsletter  
CMOG - Spring Break Learning  
Math and Science Connection  
STEM for Young Children

### GENERAL INFORMATION:

#### Gardner Road School Hours

8:00 a.m. to 2:25 p.m.

Tardy Bell – 8:15 AM

#### Gardner Road Office Hours

7:30 a.m. to 3:30 p.m.

#### Elementary Lunches (K-6)

Breakfast: \$ 1.25

Lunch \$ 2.10

Proud Supporter of  
**School Matters!**



Attend Today, Achieve Tomorrow

## Moishe's Quote of the Month:

"Education must not simply teach work - it must teach life." W. E. B. Du Bois

## Main Office Updates:

### Class Placements for the 2017-2018 School Year:

In the near future we will begin to look at classroom placements for the year 2017 – 2018. We use a team approach for class placements and it is a long process. As you might imagine, we must take many things into consideration when making placements. We welcome your input on the learning environment your child learns best within and you are welcome to share this in a letter to me. Please do not include in your letter a request for a certain teacher as we do not honor these requests. Please know that we do value parent input and if you have any information about your child you want us to consider during placement, please put it in writing and drop it off to the main office by Friday, April 28, 2017.

### Friday, May 26<sup>th</sup> is Now a Regular Day in Session for ALL students:

Because the district has used four snow days this year, **Friday, May 26, will be a regular day in session for all students.** Last April, the Board of Education approved the one-page calendar that indicated our school schedule in the event we use more than three snow days. This calendar was sent home in our summer newsletters and is posted on our website. Please note: The multi-page calendar mailed to residents last summer has an error on May 26, and we apologize for that error. (The box for May 26 on that calendar should say “no school unless the district has used four snow days”). Again, Friday, May 26 will be a regular school day for all students. Highlighted in [our updated calendar](#) are the snow days we’ve used this year, and the schedule for snow days in the bottom right corner. Should there be additional snow days this year, we will follow that schedule. Thank you!

### Change of End of School Day Plans:

Please call the main office before noon to make changes to your child’s pick procedures as this is when we send the details to classroom teachers. Last minute changes do add delays to our dismissal process. Thanks!

### Morning Drop Off:

The drop off area is in front of the cafeteria from 7:45 – 8:00. At 8:00, families may then start using the other drop off lane in the main parking lot. Please do not use this lane before 8:00 so that there is an exit lane for the 7:45 – 8:00 drop off area. This also allows families/staff to park. Thank you!

### Screen Free Week 2017:

The first week of May will be [Screen Free Week](#). Be one the lookout for details.

## Horseheads 2030 *Infrastructure Discussions*

All district residents are welcome to attend meetings related to the physical infrastructure of the Horseheads district as part of Horseheads 2030, a comprehensive capital project to improve the education and infrastructure of the district. These meetings will focus on the district’s buildings and grounds.

All meetings are open to the public and will be held at 7pm in the Horseheads High School Auditorium. Here is the schedule:

February 28	7pm	Auditorium
March 16	7pm	Auditorium
March 27	7pm	Auditorium
April 26	7pm	Auditorium
May 11	7pm	Auditorium
May 30	7pm	Auditorium



Questions about Horseheads 2030? Visit [www.horseheadsdistrict.com](http://www.horseheadsdistrict.com), call (607) 739-5601, x4295, or email [hcsdinfo@horseheadsdistrict.com](mailto:hcsdinfo@horseheadsdistrict.com).

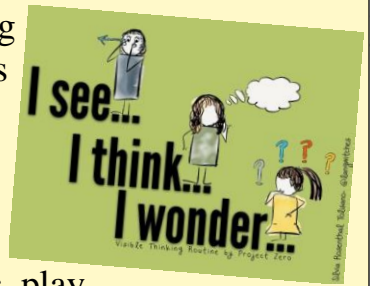


**To report child abuse  
or neglect call toll free  
1-800-342-3720 or  
[ocfs.ny.gov/main/cps](http://ocfs.ny.gov/main/cps)**



# #LearningatGR Home Connection – Edition 4:

Capturing a child’s natural curiosity always provides a great learning moment. Our school is focusing on how to celebrate/honor these moments with students as we integrate inquiry into science lessons, during makerspace/learning lab and during other learning opportunities. One way we help students notice their own curiosities is having them notice when their brain says, “I wonder.” This occurs naturally as we read, solve problems, make connections during any interaction, look at art, sing music, play games and so on. To encourage your child to inquire about their world, help them notice when they say “I wonder” and then honor it. See some of the links below for more details. I especially like the third link as it provides 10 tips for parents. The 1<sup>st</sup> link is really good for families with children aged 3-6. The 2<sup>nd</sup> link shares a monthly science challenge you could do with your kids.



## **Inquiry Resources for Families:**

<https://www2.ed.gov/about/inits/ed/earlylearning/talk-read-sing/stem-toolkit-families.pdf>

<http://www.gstbores.org/stem/>

<https://families.naeyc.org/learning-and-development/child-development/10-tips-support-children%E2%80%99s-science-learning>

## #LearningatGR in March!



# "We Succeed Because The Stars Lead!"

## CHARACTER

O  
R  
N  
E  
R  
In March, 304 students (74%) earned a character award for demonstrating respect in our school.

### April's Trait is:

Character Education

## Responsibility

- Be reliable and dependable
- Do your part at home, school and in your community
- Think before you act
- Take ownership of your actions

Character Matters  
Horseheads Central School District

## Substitutes Needed:

The Horseheads Central School District is seeking applications for substitute teachers, bus drivers and substitute teaching assistants.

For information, please visit:

<http://www.horseheadsdistrict.com/subteach.html>

Human Resources Office: 739-5601, x4211

e-mail: [hcsdinfo@horseheadsdistrict.com](mailto:hcsdinfo@horseheadsdistrict.com)

We are looking forward to Rafe Martin visiting our school on April 7, 2017 as this year's special author. He has written popular book's like [The Rough Face Girl](#).



## Horseheads Central School District

### Our Mission

#### "Quality Education for All"

The Mission of the Horseheads Central School Community is to provide a quality education for all within a nurturing environment, which promotes excellence, growth, and a sense of civic responsibility.

### Our Vision

*We, the Horseheads School Community, want a district that:*

- is nurturing and responsive.
- strives for balance in a supportive, safe, encouraging environment.
- recognizes the need for continual improvement in an ever-changing world.
- has a clearly defined focus on learning outcomes, collaboration, and support systems.
- creates an environment within which everyone can thrive and achieve his/her highest potential.

### Our Beliefs

*We believe:*

- everyone can achieve his/her highest potential.
- trust is essential for growth.
- learning is cooperative.
- programs are inclusive.
- success will be nurtured and expected.
- learning is performance-based.
- decisions are data-based.
- responsibility, respect, and results guide our every effort.



### Exit Outcomes

*The Horseheads Central School graduate will be ...*

- a life-long learner
- a caring, productive citizen
- an effective communicator
- a creative problem-solver
- a quality decision-maker
- a healthy, well-rounded person

The Horseheads Central School District offers educational programs without regard to actual or perceived race, color, weight, national origin, ethnic group, religion, religious practice, disability, sex, sexual orientation, or gender (including gender identity and expression). Inquiries regarding this notice may be made to Judy Christiansen, Title IX and DASA Coordinator, or Kim Williams, Section 504 Coordinator, Horseheads Central School District, One Raider Lane, Horseheads NY 14845, (607) 739-5601.






The Dignity Act Coordinator (DAC) for Gardner Road Elementary is Patrick Patterson. Complaints regarding discrimination, harassment, or bullying of any student should be referred to Patrick Patterson at (607) 739 – 6347. The Dignity Act Coordinator for the Horseheads Central School District is Judith Christiansen. Mrs. Christiansen may be reached at One Raider Lane, Horseheads, NY 14845, 607-739-5601, x4211.






# Gardner Road Elementary School



Mon	Tue	Wed	Thu	Fri
3 <i>Day 3</i>	4 <i>Day 4</i>	5 <i>Day 5</i>	6 <i>Day 6</i>  <i>BOE Budget Workshop HS MMC 6:00</i>	7 <i>Day 1</i>  <i>Author Visit: Rafe` Martin</i>  <i>Report Cards Home</i>
10 <i>No School</i>  	11 <i>No School</i>  <div style="border: 2px solid blue; padding: 5px;"><p style="text-align: center;"><u><b>Character Education Connection—Responsibility</b></u></p><p>Choose an area for your child’s school materials to build independence. Involve children in shopping &amp; meal planning. Have your child help with age-appropriate household chores. Help your child make sure all school assignments are complete.</p></div>	12 <i>No School</i>	13 <i>No School</i>  	14 <i>No School</i>  
17 <i>No School</i>  	18 <i>Day 2</i>  <i>Principal Chat 5:30 GRPTO Meeting 6:00</i>	19 <i>Day 3</i>	20 <i>Day 4</i>	21 <i>Day 5</i>  <i>GRPTO Ice Cream Social &amp; Book Fair</i>
24 <i>Day 6</i>	25 <i>Day 1</i>	26 <i>Day 2</i>	27 <i>Day 3</i>  <i>3-4 Town Hall</i>	28 <i>Day 4</i>  <i>PK, K-2 Town Hall  Parent input due for class placements 2017-2018</i>

# Horseheads Central Schools 2016-2017 School Calendar

 = Snow Days Used

Approved - 3/31/16

Updated as of March 17, 2017

\* Early Dismissal Drill

SEPTEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14*	15
16	17	18	19	20	21	22
23/30	24/31	25	26	27	28	29

NOVEMBER						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

DECEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JANUARY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

MARCH						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

APRIL						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24	25	26	27	28	29

MAY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JUNE						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

**School Not in Session:**




- Labor Day 9/5
- Columbus Day 10/10
- Veterans Day 11/11
- Thanksgiving Break 11/23 - 11/25
- Winter Recess 12/23 - 1/2
- Martin Luther King, Jr Day 1/16
- President's Day 2/20
- Spring Recess and Good Friday 4/10 - 4/17\*
- Memorial Day Recess 5/29 - 5/30\*

**\* Pending the use of Snow Days**

- ½ Days (A.M.)**
- 6/20 (7 - 8 Only),
- 6/21 (PreK - 8 Only)
- 6/22 (PreK - 6 Only)
- Full Days Off**
- 1/30/17 (7 - 12 Only)
- 6/16/17 (PreK - 6 Only)
- 6/22/17 (7 - 8 Only)

**Parent/Teacher/Conference**  
 ½ Day A.M. (PreK - 6 Only)  
 Nov. 10, 2016  
 Full Day (PreK - 6 Only)  
 Nov. 18, 2016

**LEGEND**

-  **Conference Days**  
(9/6, 10/21, and 3/10)
-  **Schools Closed\***
-  **Regents Exams**  
(Tentative)

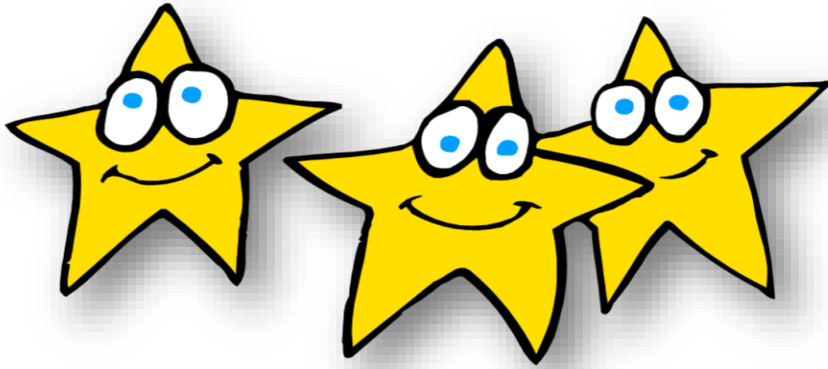
**Priority of Make-up Days\***

- If 1 snow day No make-up
- If 2 snow days No make-up
- If 3 snow days No make-up
- If 4 snow days May 26, 2017
- If 5 snow days April 17, 2017
- If 6 snow days May 30, 2017
- If 7 snow days April 10, 2017
- If 8 snow days April 11, 2017
- If 9 snow days April 12, 2017
- If 10 snow days April 13, 2017

Last Day: 7-8: 6/21/17  
 Last Day: PreK-6: 6/22/17

**First Day of School PreK - 9:**  
 Wednesday, September 7, 2016

**First Day of School 10 - 12:**  
 Thursday, September 8, 2016



**GARDNER ROAD PTO APRIL 2017  
NEWSLETTER**

***I SCREAM, YOU SCREAM,  
WE ALL SCREAM FOR ICE CREAM!***



**It's finally here!!** The time has come for the annual Gardner Road Ice Cream Social. You won't want to miss out on all the fun. In addition to make your own ice cream sundaes there will be dancing in the gym with Mr. Monks, raffle baskets, and vendors. Please come join us. Bring your family and friends and help us out with this fundraising event. We can't wait to you all there!!!!

**No School:  
April 10 – 17  
Spring Recess**

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**Principal Chat/PTO  
Meeting:  
April 18<sup>th</sup> at  
5:30/6:00 p.m.  
Gardner Road  
School Library**

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**Spring Book Fair:  
April 18-25**

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**Ice Cream Social:  
April 21<sup>st</sup> 6:00 p.m.  
Gardner Road  
School**

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**PTO BOARD:**

President: Jenny McKenzie  
Vice President: Jennie Fisk  
Treasurer: Jen Hourihan  
Secretary: Amy Crandall

[pto.gardnerroad@gmail.com](mailto:pto.gardnerroad@gmail.com)



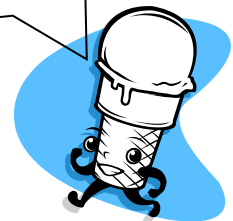
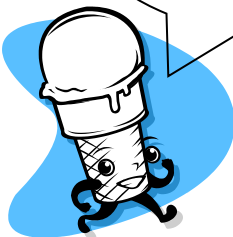
GARDNER ROAD PTO INVITES YOU TO ATTEND

- WHAT:** ANNUAL ICE CREAM SOCIAL
- WHEN:** FRIDAY, APRIL 21st AT 6PM
- WHY:** ICE CREAM! RAFFLES! DANCING! VENDORS!

**COME JOIN US FOR SOME ICE CREAM, SHOP AT OUR VENDORS, AND TRY YOUR LUCK AT WINNING THE RAFFLE FOR SOME GREAT GIFT BASKETS.**

Like us on Facebook!  
[www.facebook.com/pages/Gardner-Road-Elementary-PTO](http://www.facebook.com/pages/Gardner-Road-Elementary-PTO)

Check out our webpage!  
[gardnerroadpto.weebly.com/](http://gardnerroadpto.weebly.com/)

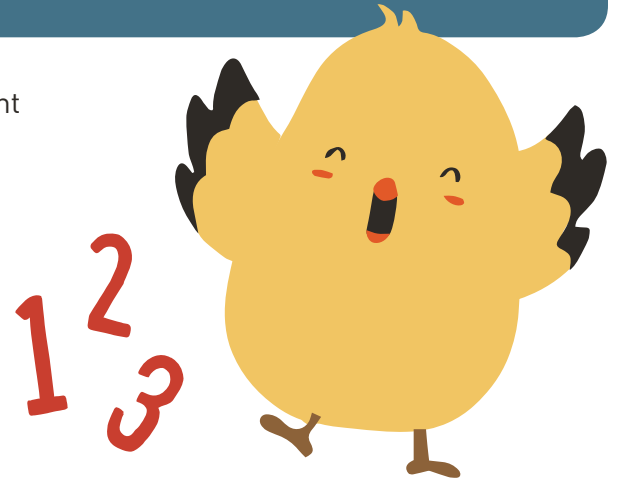




# LET'S TALK, READ AND SING ABOUT STEM!

## TIPS FOR FAMILIES WITH YOUNG CHILDREN

Children begin discovering the world around them from the moment they are born. When you talk, read and sing with your child, you're helping her learn. It can be as simple as counting your baby's toes during bath time, asking your toddler a question about the sky, or encouraging preschool-age children to build with blocks! In fact, very young children can learn some of the basic concepts underlying **science, technology, engineering and math** (STEM). You can discover STEM with your child in many ways. Talk, read, sing, play, sign or use other ways to communicate – whatever works best for your family.



For children with disabilities or developmental delays, communicate with your service providers and keep each other informed of your child's individual learning style and methods you are using to make your child's language environment as rich as possible.

While we provide some tips, we know every child is unique. As always, you should do what is best and developmentally appropriate for your child.

### WHAT IS STEM?

"STEM" stands for **science, technology, engineering and math**. STEM can refer to the subjects individually or one or more working together, but can also mean a way of doing things that includes solving problems, asking questions and exploring the world around us.

For example, children learn about the concept of technology when they're exploring tools or simple machines. These can be items they use every day like a pair of scissors, or things they might see like the wheels of a car as they walk outside.

For young children, we focus on STEM through exploration, play and building curiosity about the world and the way things work. STEM learning is important for everyone and can happen anytime, anywhere. The real-life skills that people develop when learning STEM help make everyone better problem-solvers and learners.

For parents of children who are learning English or speak another language themselves, talk about STEM in your **home language**, in English, or both. Research shows that bilingual children have an easier time understanding math concepts and developing strong thinking skills. When families use their native language, it helps children foster a rich sense of self. Bilingual students have certain cognitive and social benefits that facilitate success in school and life.

*Source: Zelasko, N., & Antunez, B. (2000).*

*If your child learns in two languages.*

*National Clearinghouse for Bilingual Education.*



The following tips include **STEM words** (in bold) that you can use with your child.

## TIPS FOR INFANTS

- *Let's Observe the World!* Observing is important in **science**. Everywhere you go, talk about what you see and describe what your baby is looking at or pointing to: "Wow, I see that **big, blue** truck too! Look at the black spinning wheels! **How many** wheels does it have all together? **1, 2, 3, 4** wheels. **Four** wheels **all together**."
- *Use All Your Senses*. At the grocery store, discover the smell, feel and taste of different items with your child. Hold an orange and say, "What does an orange look like? Feel like? It's **round** and **smooth**." At home, hold a dish towel and say, "A dish towel is a **rectangle** and **feels soft**." Encourage your baby to explore these objects with their senses.
- *Count, Rhyme and Sing*. Use **numbers** as you go about your day together. Sing simple number songs like "**One, two**, buckle your shoe." Repetitive songs like "The Wheels on the Bus" or "Los Cinco Hermanitos" help babies learn **patterns** too!
- *Would You Like More?* During meal time, you can teach about the idea of "**more**" – the first step toward understanding **addition**. As you feed your baby, pause and ask if she wants **more**. Wait to see how she responds to your questions and follow her cues.
- *Link Words with Actions*. When you move your baby from one position or place to another, put words to your actions. Say "**up, up, up**" when you lift your baby from the changing table, crib, or floor. When you place him down, say "now **down** you go to play!" These simple words build the foundation for later math and engineering skills.

## TIPS FOR TODDLERS

- *Let's Count Cars*. When walking down the sidewalk or in a parking lot, count the cars together as you pass them: "**1, 2, 3, 4, 5**. We passed **five** cars to get to the store." You can also count buses or other vehicles together while you are outside.
- *Explore Sizes*. Ask your child to **compare** the sizes of measuring spoons when cooking. Use words like **smallest, small, medium, big, bigger, and biggest** to describe each spoon.
- *Whole and Half*. At meal time, show your child a **whole** piece of toast and cut it in **half**. Then say, "These two pieces are the same size. They're called **halves**."
- *Let's be Scientists!* At the grocery store, have your child hold two different pieces of fruit in their hands. Ask, "Which one is **heavier**? Which one is **lighter**?" Ask other questions that encourage observation and description, like "Which fruit is red? Can you find the yellow fruit?" Exploring together builds skills for future **scientists**!
- *Compare Amounts*. At dinner, compare the size of your food portions. Say, "You have **more** carrots than I do. I have **fewer** carrots than you."
- *Cause and Effect*. Stand in the bathroom and turn the lights off and on. "When I flip the switch **up**, the light goes on! What will happen if I flip it **down**?" They are learning about technology!
- *What Rolls?* Spheres are **round, three-dimensional** shapes. Look around your environment for something that is a sphere and **predict** what would happen if you dropped it on the ground. Would it roll? Bounce? Spin? If it's safe to do so, drop the sphere and check your **prediction**!
- *Enjoy a Shape Snack*. Offer a **square** (or **rectangle**) cracker. Cut a piece of cheese into a **triangle**. Talk about and trace each shape with your finger before you eat it.
- *Count Hugs & Kisses*. Before putting your toddler to bed, ask if they want two kisses or three kisses. **Count aloud** as you give each kiss. You can count hugs too!
- *Sing about STEM!* Songs with **repeated phrases** like "Old MacDonald Had a Farm," "Wheels on the Bus," or "Los Cinco Hermanitos" can teach children about patterns.

## TIPS FOR PRESCHOOLERS

- *Why? Questions.* When young children ask “**why?**” questions, they are being scientists! As a parent, you don’t have to have the right answers to help your child learn about STEM. You can respond by saying, “**That’s a good question. How can we find out together?**” Have fun and be co-discoverers.
- *Laundry Time is Talk Time.* When folding laundry with your child, make a **pattern** with socks. Line them up like this: **big, small, big, small, big, small.** Then, have fun **matching** the pairs of socks together. Every time you find the right pair, say, “It’s a **match!**”
- *Setting the Table.* While setting the table, ask your child tell you **how many** forks you need for everyone to have one, and then count them out loud together. You can talk about **texture** too. How does a napkin feel **compared to** a plate?
- Sing simple **number songs** and nursery rhymes like “Counting in Twos,” “One Banana, Two Bananas,” “Five Little Monkeys,” and “Tres Pececitos.”
- *Let’s Measure.* In the kitchen, point out and read the lines on the measuring cups and spoons as you prepare dinner. Talk about how **half** the onion gets used for the soup. Let your child fill and pour using different measurement methods: **one cup** of cornmeal for the cornbread; **two tablespoons** of oil to cook the chicken.
- *Go on a Shape Hunt.* You can discover shapes all around you. “The window is a **rectangle**. Look, it has **four sides** and **four corners**. Let’s see **how many** rectangles we can find.” Or, “The mirror is shaped like an **oval**.” It’s fun to make shapes too. Using a stick, draw a shape in sand or dirt while at the park. See if your preschooler would like to try. Practice making **BIG circles** and then **little** ones, **BIG squares** and **little** ones, etc.
- *Math Walk and Talk.* Take a math walk on the way to the bus. As you walk, play a game where you and your child need to take “**four big** steps,” find “**six** pebbles” or touch “**seven** green leaves.” Ask and work together to solve how many questions, such as “**How many** steps from the front door to the sidewalk?”
- *What Comes Next?* You can use snack time to make patterns: place a strawberry, a cracker, and a slice of cheese in a repeated line across the plate. On a walk, use a **BIG-step, little-step pattern**. Ask your child, “What comes next?”
- *Let’s Build!* Give your child safe, everyday **materials** like cardboard, tubes, string, fabric and tape. You can also provide simple **tools** and machines like scissors, rulers and wheels. Allow your child to get creative and work together to **build, engineer** and **problem solve!** After you finish building, talk together about why you built the **design** the way you did and what tools made it easier.



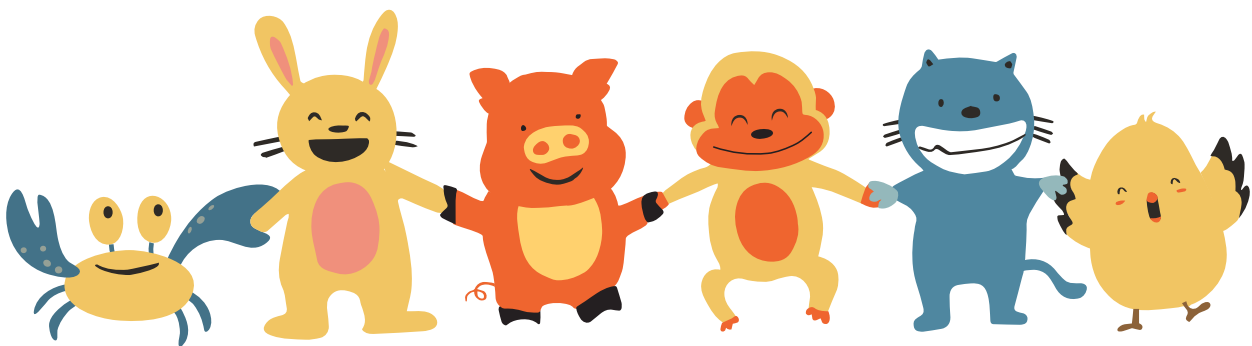


You can find more tips like these—as well as videos, information, and more—at [Too Small to Fail](#) and [Let's Talk about Math](#). Other early childhood STEM resources can be found at the [Early Childhood Learning & Knowledge Center](#). Track your child's development by using the [Milestones Moments Booklet](#). If you have concerns about your child's development, including their language development, talk to your child's primary care provider.

For more information on developmental and behavioral screening, visit [Birth to Five: Watch Me Thrive! and Learn the Signs. Act Early](#). For more information on early learning, please visit the [National Center on Early Childhood Development, Teaching, and Learning \(NCECDTL\)](#), [Head Start's Center on Quality Teaching and Learning](#), [Early Head Start National Resource Center](#) and the U.S. Department of Education early learning webpage.

For more information on working with young children who are learning more than one language, please visit [Head Start's National Center for Cultural and Linguistic Responsiveness](#) and the [National Clearinghouse for English Language Acquisition \(NCELA\)](#). For more information on making the language environment richer for children with developmental disabilities or delays, please visit the [Center for Early Literacy Learning](#), and [Facts about Developmental Disabilities](#). For resources on building language, see the [Talk, Read, and Sing Together Every Day!](#) tip sheets.

These resource materials are provided for the user's convenience. The inclusion of these materials is not intended to reflect its importance, nor is it intended to endorse any views expressed, or products or services offered. These materials may contain the views and recommendations of various subject matter experts as well as hypertext links, contact addresses and websites to information created and maintained by other public and private organizations. The opinions expressed in any of these materials do not necessarily reflect the positions or policies of the U.S. Departments of Education and Health and Human Services. The U.S. Departments of Education and Health and Human Services do not control or guarantee the accuracy, relevance, timeliness, or completeness of any outside information included in these materials.





# Math+Science Connection

Intermediate Edition

Building Understanding and Excitement for Children

Gardner Road Elementary School  
Principal

## INFO BITS



### Open-door angles

Doors in your house are the perfect place for hands-on practice with angles. Take turns opening or closing a door and asking, "Acute, right, or obtuse?" Partially open a door, and it's an acute angle. Open it straight out, and it's a right angle. Open it wider, and it's obtuse.

### Habitat for rent

Help your child think about what animals need to survive (shelter, food, water). Then, have her choose an animal (monkey) and write a classified ad for a home that will meet its needs. *Example:* "Tall tree in a tropical rain forest. Large river nearby for drinking. Plenty of leaves, fruit, and insects to eat."

### Book picks

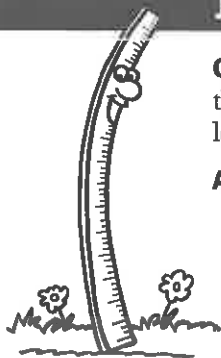
■ *The Man Who Counted: A Collection of Mathematical Adventures* (Malba Tahan) combines an adventure story with interesting math puzzles.

■ Learning about the solar system is fun when planets tell the story themselves. Dan Green's *Astronomy: Out of This World!* contains fascinating facts and details along with cartoon illustrations your youngster is sure to love.

### Just for fun

**Q:** What has three feet but no legs or arms?

**A:** A yard.



## Fractions of fun

Understanding fractions is much easier when your child can visualize them. Here are ideas to help her see—and use—fractions.

**Keep a diary.** Show her that fractions are a part of everyday life. For a week, have her record and illustrate each one she notices. For instance, she might write, "We had a half day of school today," or "Mom asked for  $1\frac{1}{3}$  pounds of turkey at the store." How many examples can she find and draw?

**Play a game.** Have each player cut a sheet of construction paper into six horizontal strips. She should leave the first one whole and then cut the second one in half (fold it, and cut along the fold), and the others into thirds, fourths, sixths, and eighths. With bits of masking tape, label a die:  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{6}$ ,  $\frac{1}{8}$ , and "wild." To play, roll the die, and lay the matching



piece of paper on your whole strip (for "wild," choose any piece). The goal is to be the first one to fill your strip without overlapping any pieces (*example:*  $\frac{1}{2} + \frac{1}{4} + \frac{1}{4} = 1$  whole strip).

**Put in order.** Together, make a set of fraction cards, with one fraction per index card ( $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{4}$ ,  $1\frac{1}{2}$ ,  $1\frac{3}{4}$ , 2). Shuffle the cards, and see how quickly your youngster can put them in order. Then, while she closes her eyes, lay the cards in order but leave out a few. Give her the missing cards, and have her put them where they go. 🎲

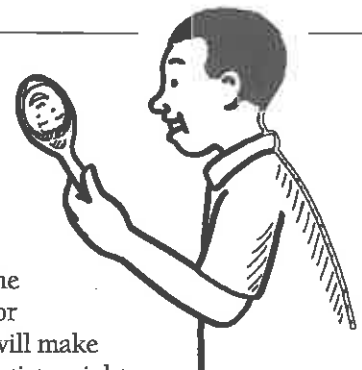
### Look at me!

Help your youngster learn about the science of optics with this mealtime activity.

Have him look at himself in a clean spoon. What happens if he looks in the bowl of the spoon? (He's upside down.) What happens on the other side? (He's right side up.)

Next, have him bring his finger toward the spoon and watch what happens on each side. The bowl (the *concave* side) will magnify his finger, or make it look larger. The back (the *convex* side) will make his finger look smaller. Ask your child how scientists might use this information to make eyeglasses, cameras, or telescopes.

**Tip:** He can remember which side is which by thinking of concave as "caves in." 🎲

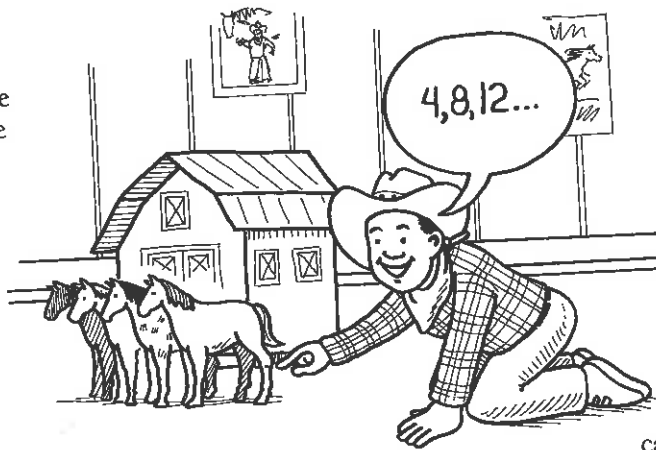


# Multiply and divide

Learning to multiply and divide can be more about *thinking* than memorizing. Strategies like these can help your child practice.

## Make it fun


Practice using toys or food. If your child collects toy animals, you might ask, "How many legs do 4 horses have?" He can "skip count" the legs by 4s (4, 8, 12, 16) to see that  $4 \times 4 = 16$ . If he has 17 pretzels and wants to give 3 friends an equal amount, he can "deal them out." He'll see that each person gets 5, and there are 2 left over. ( $17 \div 3 = 5$ , remainder 2)



## Use what you know

Encourage your youngster to look for clues to help him solve problems. For  $8 \times 7$ , he could consider other facts he knows. "I know 4 groups of  $7 = 28$ . I need 8 groups, so I can double that answer.

If  $28 + 28 = 56$ , then  $8 \times 7 =$


56." For  $30 \div 5$ , he might say, "I know  $10 \div 5 = 2$ . There are three 10s in 30, and  $3 \times 2 = 6$ . So  $30 \div 5$  must be 6." 

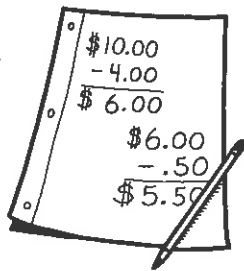
## Q & A Ask math questions

**Q:** *I've never felt comfortable with math. How should I talk to my children about what they're learning in math class?*

**A:** Try to show enthusiasm for what your youngsters are doing in math. You might ask them each day at dinner or homework time what they studied in math that day.

Let them explain the concepts they're working on, and follow up with questions. For instance, if they're learning about decimals, you could ask how decimal points are used in money (they separate the parts of a dollar from the whole dollar).

Then, when your children finish their homework, have them show you how they solved a few problems. As they explain their methods to you, they'll be reinforcing their own skills. And they'll be proud to be teaching you something! 




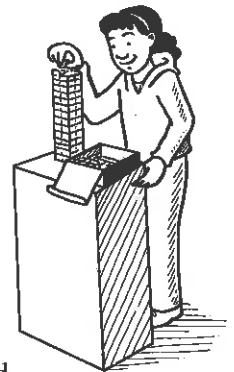
## MATH CORNER

### Find, build, compute

What do a shoebox, book, and refrigerator have in common? They are all rectangular prisms, or solid shapes with rectangles for their faces (sides). Encourage your child to explore geometry with this common shape.

**Volume.** Let her build a rectangular prism out of dice, sugar cubes, or same-sized Legos. Her model should be solid, with no hidden spaces. When she finishes, have her figure out the volume (count the cubes along the height, width, and length, and multiply the three numbers together). To check her math, she can take apart her structure and count all the cubes.

**Dimensions.** Give your youngster 36 blocks, and see how many different sizes of rectangular prisms she can build. Have her record dimensions of each one. *Examples:*  $2 \times 2 \times 9$  and  $2 \times 3 \times 6$ . What do the sets have in common? (Each product equals 36.) 



## SCIENCE LAB

### Save your breath


Your youngster can inflate a balloon without using his breath. A chemical reaction will do the job for him!

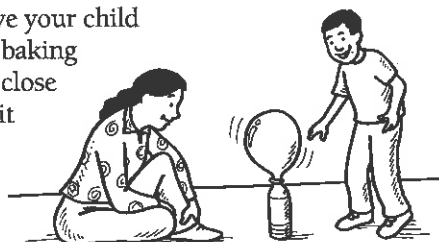
**You'll need:** empty plastic soda bottle (20 fl. oz.),  $\frac{1}{4}$  cup water, 1 tsp. baking soda, uninflated balloon, lemon juice

**Here's how:** Have your child add the water and baking soda to the bottle, close the cap, and swirl it around until the water is cloudy. Then, help him stretch out the

balloon and place the opening over the top of the bottle, leaving a small space. He should very quickly add a little lemon juice, seal the balloon completely over the bottle, and shake lightly.

**What happens?** The balloon inflates.

**Why?** When you mix an acid (lemon juice) with a base (baking soda), they create carbon dioxide. The molecules spread out as the gas forms, pushing against the walls of the balloon and causing it to inflate. 



## OUR PURPOSE

To provide busy parents with practical ways to promote their children's math and science skills.

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