

School

Honors listed

Sister M. Davida Morgan, Principal, Gate of Heaven School, announces the second quarter report card honors:

FIRST HONORS: Grade 4-205 - Kristen Cashore, Shannon Stair.

SECOND HONORS: Grade 4-205 - Mark Dittl; Mark Finarelli; Danielle Freeman; Caitlin Garvey, Amy Beth Hannigan, Joseph Heppding, Lynn Hill, William Misson, Jennifer Phillips, Sean Reynolds, Corin Schall.

SECOND HONORS: GRADE 5-207 - Amy Freeman, Mary Ann Johnson, Patricia McGovern, Marlo Sholtis, Susan Shultz, Carrie Snell, Jessica Tower.

GRADE 5-211 - Darren Buss, Maria Farris, Margaret Gilgallon, Brian Jezuit, Jeffrey Malak, Brendan McGovern, James Moran, Valerie Phillips.

GRADE 6-217 - John P. Gilgallon, Lauren O'Neill, Carrie Reid, Susannah Stair, Christine Stuart, Heather Walaitis.

GRADE 6-216 - Christine Berzich, Laura Cashore, Lisa Ford, Brigitte Scott, Eric Williams.

GRADE 7-215 - Virginia Johnson, Darlene Phillips, Gregory Stahovec, Shane Williams.

GRADE 8-213 - Maria Bigus, Christine Casterline, Jonelle Fabian, Michael Farris, Wendy Kuniskas, Heather Malonis, Melissa Malonis, Patricia Roginski, April Yatsko.

Common Science

Joe Jeffers, Ph.D.

(EDITOR'S NOTE: "Common Science" is a science column written by Joe Jeffers, Ph.D. Jeffers received the Ph.D. in molecular biology and biochemistry from Purdue University. He teaches chemistry and biology at Ouachita Baptist University in Arkadelphia, Arkansas. "Common Science" is sponsored by The National Science Foundation and appears periodically in The Dallas Post.)

Everyone has eaten good biscuits - light, flaky, beautiful enough to adorn the cover of a Betty Crocker cookbook. Everyone has also been faced with those other biscuits, some like rocks, some like rubber balls. What does it take to make a good biscuit? In the hands of some folks it's an art; for everybody it's science. Read on.

Moses ate unleavened bread, a flat, chewy concoction that did not contain the ingredient that makes breads light. What makes breads light? Two things, a gas to make the dough rise and a structure to trap the gas. Moses' bread had the structure, but there was nothing to generate the gas. Leaven was missing. Yeast is used to provide leaven. As the yeast grows they convert sugar to starch to carbon dioxide and ethyl alcohol. The carbon dioxide (CO₂) is a gas that makes the dough rise. Modern breads and rolls, of course, are made using yeast.

The structure that traps the CO₂ develops from a couple of proteins found in wheat flour. Gliadin becomes gluey when it soaks up water; glutenin becomes rubbery. Neither of these qualities would seem attractive to a bread maker. However, if gliadin and glutenin are forced together as they take up water, they form gluten, a combination of the two that has just the right amount of cohesiveness and elasticity. As a result the dough holds together, yet it can stretch and expand.

Gluten is formed by kneading the dough. If it is not kneaded enough, too little gluten will form and the dough will be difficult to handle. It will tear easily and stick to anything. If it is kneaded too long, too much gluten will form and the dough will become rubbery. The tendency to form too much gluten is controlled by adding an antirubber ingredient - shortening. Shortening is a fat that coats strands of gluten, waterproofing them, thus preventing their continued growth. It "shortens" the average gluten strand and makes the dough more manageable. This elastic structure traps CO₂ as the yeast ferments, causing the dough to rise.

There is only one problem with this process. It takes time. Two hours or more are required for the dough to rise, be punched down to sub-divide the gas cells and rise again. When that kind of time is not available, quick breads fill the void. There is where biscuits come in. Instead of using a biological leavening like yeast, a chemical leavening is needed. Baking soda, sodium bicarbonate, gives off CO₂ when it is heated. It does not produce good

biscuits, however, because it off CO₂ when it is heated. It does not produce good biscuits, however, because it is too stable. It doesn't decompose soon enough. As a result the dough is setting by the time the temperature is high enough to release some CO₂. Baking powder is used instead. It contains sodium bicarbonate and an acid which allows sodium bicarbonate to release CO₂ sooner. In this case sodium bicarbonate is a base or alkali that is neutralized by an acid, giving off CO₂ and water. As long as the materials remain dry, there is no reaction. Corn starch is added as a filler to absorb moisture and increase the shelf life of the baking powder. Most baking powders actually contain two acids, one that reacts with sodium bicarbonate at room temperature (calcium acid phosphate) and another that reacts in the oven (sodium aluminum sulfate).

Biscuit dough is kneaded slightly to form just enough gluten so it will roll without tearing and form into layers. Each layer has gluten coated with fat. As the biscuits bake, the fat layer melts. Water vaporizes into steam and the dough separates into flakes. Couple that with the action of CO₂ and beautiful, light biscuits result. Bring on the butter and jam or gravy.

Let's take a closer look at this biscuit chemistry. Any acid will cause baking soda to release CO₂. In fact many biscuit recipes use reduced amounts of baking powder while adding baking soda and an acid ingredient like buttermilk. To demonstrate the ability of the acid materials to neutralize sodium bicarbonate and release CO₂, conduct the following kitchen experiments. Add a teaspoon of baking powder to a glass of water. Notice the speed at which the bubbles are released. Now add one teaspoon of baking soda to each of six glasses of water. Stir to dissolve. Notice if bubbles (CO₂) are forming in the water. To one glass add cream of tartar; to another add vinegar. Similarly add to the other glasses lemon juice, apple juice and honey. All of these are acidic enough to cause CO₂ to form. Do they all cause bubble formation at the same speed? Warm the sixth glass of solution in a saucepan to see if heat will cause CO₂ to be released. Since some bubbles will form from heating just water, you may wish to heat a second sauce pan containing water for comparison. As you can see from the baking powder solution, a steady, gentle release of CO₂ is desirable for biscuits. From the experiments above, if you were out of baking powder, what ingredients could you substitute for it?

The kitchen is a wonderful laboratory for learning about chemistry. Additional inside views of the chemistry of cooking can be found in "The Cookbook Decoder" or "Culinary Alchemy Explained" by Arthur E. Grosser (Beaufort Books, New York). Ask your library or bookstore to order it. Bon appetit!



Planning events

Students of Gate of Heaven School, Dallas, became involved in planning special events for Catholic Schools Week this week. Shown here during a planning session are, from left, seated, William Austin, Shannon Dowd, and Steve Sennett. Standing, Debby Wysocki, seventh grade teacher; Tony Finarelli, and Susan Ryan.

LCCC nursing program reaccredited

The Nursing Department at Luzerne County Community College has recently been notified by the National League of Nursing (NLN) that its two-year associate degree nursing program has been reaccredited for another eight year period to 1993.

To add icing to the cake, the NLN has also informed Ruth Seeherman, director of the LCCC nursing program, that the report which was submitted for the accreditation review be used as a model report for other colleges and universities seeking accreditation or reaccreditation.

The nursing program at Luzerne County Community College, which is currently in its second decade of operation, has graduated approximately 800 students since its inception in 1973. Of those 800 graduates from the two year associate degree program, only six have not passed the State Certification test for registered nurses, with three never taking the examination.

The 1985 nursing graduating class continued this fine record with 96 percent of the class successfully passing the State Board Exam and one graduate having an almost unheard of "perfect" score.

The accreditation review process included a review by an NLN Council which was comprised of specially selected directors of nursing programs throughout the country. The Council gave the LCCC nursing program a "full" approval rating and no progress report will be

required.

In commenting on the accreditation approval Seeherman noted, "It certainly is very gratifying to receive such a high rating after all the work the nursing department staff has done to prepare for the review. And, it certainly is an advantage to our graduating students who wish to continue their studies. Students wanting to transfer to a four-year baccalaureate degree program are accepted only if they are a graduate from an NLN accredited institution."

Prior to the review by the NLN Council, a three-day visit to the community college was made by two representatives from the NLN for the purpose of getting a first-hand view of the operation of the nursing department. The NLN representatives met with the college's nursing staff and students, and attended various clinical classes and department meetings.

The LCCC report that was submitted to the NLN gave an overview of the college's two-year curriculum which includes a combination of classroom instruction and clinical experiences. The students obtain their clinical experience at area hospitals as well as other community agencies.

Students enrolled in the nursing program at LCCC are required to complete a variety of core courses including Basic Nursing, Maternal-Child Nursing, Anatomy and Physiology I and II, and Physical and Mental Illness.

Computer-assisted instruction and

interactive video have been incorporated into the clinical lab portion of the nursing program providing students with access to information at convenient times. And, successful completion of the program allows the graduates to sit for the state certification test for registered nurses.

DALLAS SCHOOL NEWS

DAWN ROTHROCK

MICHELE FARRIS KRISTYN POST

CARLA ORLANDO, daughter of Mr. and Mrs. James Orlando of Trucksville has been involved in several activities at Dallas. These include track, senior steering committee, construction crew for plays, and student council where she served as vice-president and treasurer. She was also active in hockey where she was a player and manager. Carla works part-time at Bargain's Galore. In her free time, she likes to write poems and watch Alfred Hitchcock movies. Her future plans include attending The School for International Training in Vermont to study International Politics.

CRAIG SCALES is the son of Mrs. Henry Scales. He plays basketball and football for recreation. Craig works at Kentucky Fried Chicken. His future plans include attending LCCC then Johnson and Wales to study Culinary Arts.

BARB CICERO is the daughter of Joseph and Barbara Cicero. Barb likes to be with her friends, listen to music, and attend games of any kind. Barb also babysits in her free time. She plans to attend college to major in elementary education.

GEORGE METZ is the son of Mr. and Mrs. George Metz of Carverton. He has been involved in key club, senior steering committee, student council, volleyball and drama. His interests include physics and electronic devices. In his free time, George likes to read. He plans to attend Penn State to major in Electrical Engineering Electronics.

MICHELE CHIMOCK is the daughter of Mr. and Mrs. Daniel

Chimock of Dallas. In the spring she will be involved in track for her final season. She likes to ski and go out in her free time. Michele hopefully plans to study Criminal Justice at Wilkes College, and later to join the police academy.

RUSS WILLIAMS is the son of Mr. and Mrs. Daniel Williams of Shavertown. His school activities include: volleyball, yearbook, senior steering committee, and key club. In his free time, Russ likes to play volleyball. He'd like to attend Flagler College of St. Augustine to major in accounting.

MARIANNE REVIE currently lives in Dallas. She enjoys to ski in her free time. She plans to attend King's College on a part time study basis to study psychology.

KURT WILLIAMS is the son of Mr. and Mrs. Wayne Williams of Dallas. Kurt works part time at the Mobile gas station and Ranch Wagon. He enjoys hunting, fishing and going out with friends. After high school Kurt plans on joining the service.

PLAY TRYOUTS for the spring musical Guys and Dolls are being held this week. Good luck to all future stars!

AS IT LOOKS NOW, the seniors will be going to Montreal in May for their class trip. We seniors cannot wait!

CONGRATULATIONS to the wrestling team for its win over Valley View.



Aid Night held

Over 200 high school students and their parents attended Financial Aid Night held recently at the Wilkes-Barre Campus of The Pennsylvania State University. College loans, scholarships, grants and work-study possibilities were addressed by Lorraine Mrackoski, seated left, Penn State financial aid coordinator; and Dr. Peter Yasenchak, seated right, regional director of the Pennsylvania Higher Education Assistance Agency (PHEAA). Standing, Dean John R. Murphy, director of student programs and services; Helen Stager, Opportunities in Technology grant coordinator; and Margie Esopi, Educational Opportunity Program (EOP) coordinator.

PSU awards scholarships

Penn State Wilkes-Barre Campus has awarded 28 scholarships to outstanding students who matriculated at The University this semester.

According to John Murphy, director of student programs and services, the scholarship winners are an accomplished group. They include captains of varsity athletic teams, class officers, editors of student publications and National Merit semifinalists.

Murphy noted that the scholarship winners had a mean GPA (grade point average) of 3.7, with 4 point representing the top attainable. Four of them actually had a perfect 4 point average over their high school careers, he said, adding that 19 of them had graduated from high school with highest honors.

Penn State Wilkes-Barre Campus Advisory Board Scholarships, made possible by money contributed to the Wilkes-Barre Campus Annual Fund, were awarded to the following new students: David M. Adams, Laceyville; Desiree Caldwell, Tunk-

hannock; Nancy E. Coleman, LeRaysville; Kimberly Corby, Tunkhannock; Leanne Cordisco, Wilkes-Barre; Ellen A. Davis, Westfield; Vincent A. DeGuisto, Plains; Ken Dohl, Edwardsville; Michelle A. Estus, Hunlock Creek; Jeffrey D. Gatcha, Nanticoke; Jeffrey W. Hontz, Shickshinny; Robert M. Jarolin, Nanticoke; Frank X. Kotz, Nanticoke; Patrick Musinski, Brooklyn, N.Y.; Robert J. Nixon, Sweet Valley; Robert W. Panatieri, Plains; Robert J. Paranch, Pittston; Scott W. Rhubright, Laceyville; Glenn P. Roberts, Wilkes-Barre; Melanie Shemo, Wilkes-Barre; Eric Supey, Trucksville; and Ken F. Yarmey, Forty Fort.

Winners of Penn State Wilkes-Barre Campus Scholarships are Mark Bomber, Wilkes-Barre; James Cusick, Ashley; Robert W. Stevens, Shickshinny; Stephen B. Teller, Wilkes-Barre; Michelle Yefko, Wilkes-Barre and Richard Zika, Tunkhannock.

GATE OF HEAVEN SCHOOL NEWS

MICHAEL FARRIS APRIL YATSKO

THE FIRST GRADERS are busy with their new short-and-long vowel puzzles and are doing some nice projects with them. Sr. Catherina's children made Catholic Schools Week buttons for the teachers and staff.

MISS WYSOCKI'S SEVENTH GRADE STUDENTS began working on a Personalized Valentine project. They will exchange these on Valentine's Day. They also assisted Mrs. Millie Jones in making the banner for Catholic Schools Week which will be part of the Mass Celebration on First Friday, Feb. 7th.

CATHOLIC SCHOOLS WEEK is half over but there is still a lot of activity for the rest of the week. Today is Teacher Appreciation Day and we have a talent show from 12:30 on in the gym. Today we make our own Sundaes. Sounds Great!

Thursday is Student Appreciation Day and the students will enjoy a turkey dinner with all the trimmings. "Jungle Book" will be shown to all at 12:30. Sports Night will begin about 7 p.m. and we will see Dads playing sons and Moms playing daughters in a game of basketball.

The primary students will enjoy a game of Dodge Ball.

Students will dress up in rainbow colors today. No sneakers; no jeans.

FRIDAY we will celebrate Catholic Schools Week Mass at 9 a.m. At this mass there will be a collection for the Missions. After Mass the 6th, 7th and 8th grade students will attend a Summit Meeting in the gym. In the afternoon, children from grades one to eight will participate in a Reading Assembly.

Friday evening, Ron Reino will take us through a dance in the gym beginning at 8:30 till 11 p.m.

THE GATE OF HEAVEN PTG will sponsor a Mardi Gras in the gym Saturday evening beginning at 9 p.m. with Terry McNulty, DJ from WARM. Donation \$10. Refreshments will be served.

MRS. SESSON'S FOURTH GRADE STUDENTS are preparing to enter the AAA safety contest. Also the whole school has entered the Ertley Car of the Future contest.

MELISSA MALONIS is the daughter of Mr. and Mrs. Luke Malonis of Dallas. In her spare time, Melissa enjoys swimming, cycling and water skiing. Missy is a member of our cheerleading squad and hopes to continue this in high school. Melissa has chosen Dallas High for her next four years. Later, she hopes to attend Penn State and become a lawyer.



SAT coaches

The Dallas Senior High School is continuing its program of providing college bound students with the opportunity of brushing up on their verbal and math skills in readiness for the Scholastic Aptitude Test (SAT). In order to attempt to accommodate to all students, the coaching courses will be offered at the following times: Monday evenings 5:30 to 7:30 and 7:30 to 9:30 and Tuesday from 3 to 5. Math sessions will be Saturday from 9:30 to 11:30 a.m. and Thursday from 6 to 8 p.m. It is important for college bound students who plan to take SAT's on March 15, 1986 to register in the guidance office for these sessions. The sessions will continue through March 13. Anyone desiring information about the courses should contact Mrs. Pat Russin at 675-5201. Shown here, from left, are Donna Trebilcock, Verbal Session teacher and Leonard Mataczak, Math teacher.