

SCIENCE PROJECTS KEEP KIDS BUSY THIS SPRING

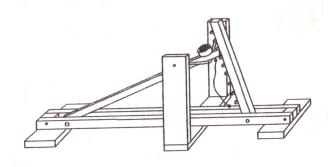
GRANDPA RIEL HELPS IN DESIGN AND CONSTRUCTION - Late February and March have been and will be busy times for some of the kids who are involved in the great catapult and paddle boat design and test projects. We know for sure that Jason, Jessica and Michael ar involved in the contest, and we have helped Jessica and Michael with the building of catapult devices, with assistance from Jason and Megan, as well as moms Carol and Margaret. The Jessica model, the first one built, already has been through one contest and came out an easy winner. The objective, in each case, was to build a device powered by a spring or elastic propellant, which will accurately throw a tennis ball into a target which may be located anywhere between 2 and 5 meters away from the launch line. Bach device has to be calibrated, so that the owner, with only one practice shot, can hit or come close to a small target. The Mehan device, shown in the sketch at the right uses a bungee cord as the energy source. The Benesch model, shown in the photograph, is very similar in concept, but uses a rubber tube whose length can be adjusted to increase or decrease the degree of stretch as needed to achieve the desired distance. The key concept for achieving the desired degree of distance control is the locking device which sets the loaded catapult at a selected energy level. This idea, used in both devices, is necessary to get consistent distance control. We understand that there will be additional trials later on this month, and we anxiously await the results. We understand that Jason has made the paddle boat team, the reflections team, (light directed by several mirrors) and the tree leaf finders team. Jessica is on the catapult team and the tri-athlete team, which involves both an obstacle course and questions on science. Apparently Jessica and Michael will be competing against each other in the catapult contest. We wish everyone in the contest the best of luck, and remind you that everyone is a winner by virtue of the things they learn in the contest.

Another project now actively in work at both the Mehan and Benesch families involves the building of a model paddle wheel boat, powered by two rubber bands. In this case the objective is to achieve the greatest distance, after a designated number of rotations of the paddle wheel. Plans are being made to develop one or more concepts for this contest.

In addition to the above projects, we have word that KEvin recently carried out a study on some of the characteristics of the planets. This study was inspired by an obscure but interesting observation made many, many years ago by several astronomers, and generally referred to as Bodes Law. This law defines a simple mathematical series relationship which accurately predicts the distance each planet is from the sun. Kevin examined other planetary characteristics to see if similar relationships could be identified. An abstract of his report follows.



JESSICA BENESCH WITH HER TENNIS BALL CATAPULT, "BIG SHOT". THEY WON FIRST PLACE IN THE INITIAL CONTEST AND ARE FINE TUNING THE DEVICE FOR THE FINALS SCHEDULED FOR LATE MARCH.



THIS DRAWING ILLUSTRATES SOME DETAILS
OF THE SECOND GENERATION CATAPULT AS
DESIGNED AND BUILT BY MICHAEL, MEGAN
AND GRANDPA. IT ALSO IS BEING FINE TUNED
FOR THE FINAL CONTEST.

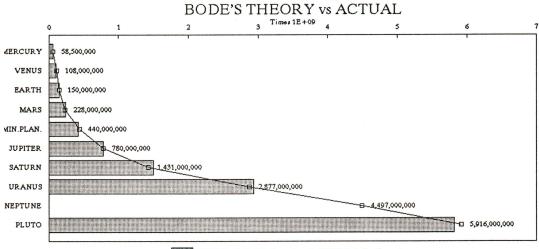
The Riel Family Newsletter

Catch the News



March, 1993

PLANETS DISTANCE from the SUN



THEORY(km) ACTUAL(km)

IS THERE ANOTHER BODES LAW?

Kevin Riel

The project got its beginning with the discovery of Bodes Law. Bodes Law is an amazing relationship between the planets of the solar system. Originally it assisted astronomers to locate some of the planets and for some time many thought it would give us a clue to the history of the Solar System. But to date no underlying theory has been found and Bodes Law merely helps people remember the distance from the sun by its mysterious mathematical equation. The experiment is to search for numerical relationships among the planets like that of Bodes Law. To find relationships or show that there are no others might give clues to the birth of our planet. The project proceeds by studying other aspects of the planets and graphs them to find some kind of numerical relations just like Bodes Law. It will categorize the study into three main groups: size, time and light. Then take these observations along with Bodes observations about distance and compare them together to look for cross similarities.

Except for very obvious cause and effect relations (like size to mass) my project failed to discover any other numerical correlation among the planets. What was surprising was the total lack of predictability among the planets which made Bodes Law even more remarkable.

BIRTHDAY CELEBRATIONS

There were two important birthday celebrations recently. Michael celebrated his 12th by a trip with Grandma to the Science Museum. They saw an exciting film on the extinguishing of oil well fires in Kuwait. After lunch they took in the movie Groundhog Day.

Brett celebrated his 10th on a rainy day, starting off with a rousing ping pong game with Bruce and Grandpa. Grandpa, Grandma and Bryce then headed for the Presidio Golf course for a round, but just as we arrived the rain came pouring down. We decided to head for Chuck-E-Cheese for

lunch and some indoor games. As we left the sun came out, so we headed back to Presidio, and found the course open. Brett hit some great shots, and may have been denied a hole in one on No 18 by a tree branch which slightly deflected an otherwise perfect shot. It ended up as an almost birdy and a tap in par. Grandma then took Brett to see the movie Homeward Bound (second time for both). It was a nice day in spite of the rain, HAPPY BIRTHDAY TO MICHABL AND BRETT!!!

MARCH RIRTHDAY CALENDAR

Margaret Riel	March 6	43
Jessica Benesch	March 17	10
Craig Hartman	March 19	10
Jeff Benesch	March 23	41

LAST MONTHS PUZZLES SOLVED

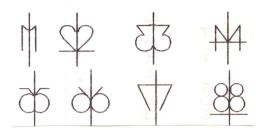
The Jessica Special, as solved by Grandpa. See Jessica for her answers.

1. 88 K's on a P Keys on a Piano
2. 12 N's on a C Names on a Calendar ???

3. 4 T's on a C Tires on a Car
4. 11 P's on a T Players on a Football Team

5. 64 S's on a C Squares on a Checkerboard

JUNIORS CHALLENGE



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1. FILM CLIPS ABOUT ATLANTIC RESORT	BURMUDA SHORTS
2. ENGLISH HEAT HAVE	LONDON BROIL
3. FIRE DANCERS SUFFER FROM IT	GRILLED SOLE
4. PAN BAD ACTOR	ROAST HAM
5."THE SHIM CLUB IS NON OPEN"	
6. MILD PUNISHMENT	
7. UNDERSIZED GOAT	
8. SPANKING	
9. EXAMINATION FOR AMNESIA	BLANK CHECK
10. DECEMBER 21, OFFICIALLY	
11. ATTORNEY'S APARTMENT	LEGAL PAD
12. IRRITATING BEAUTY	CHAFING DISH
13. BELGIAN CHILDREN	
14. "LIVED HAPPILY EVER AFTER", "FINIS," ETC.	

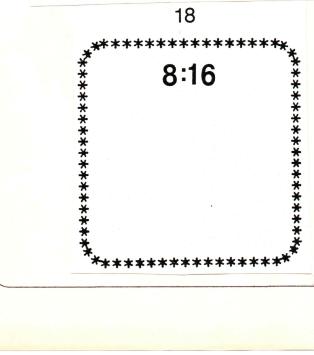
We had only one submittal this month, by Kevin Riel. He was not able to solve the Jessica puzzle, but got all but one of the Seniors puzzle answers. Kevin helped Tim with the Junior puzzle, and they solved it correctly, together. However, Kevin does not qualify as a Junior, hence his answer cannot be counted.

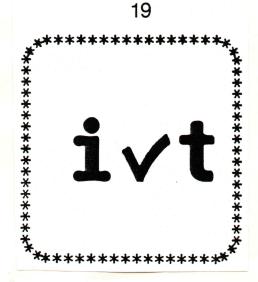
THIS MONTHS SENIOR PUZZLE

For this month we have one simple question for you to reason out. Here is the question. "Place a lighted candle about 10 feet away from a bass drum. How can you blow out the candle by hitting the drum?" Hint - you may add something to the drum. Please think this one over, and write a short answer on how to do it, and why it works. Let us remind you that parents are not eligible, they are smart enough already.

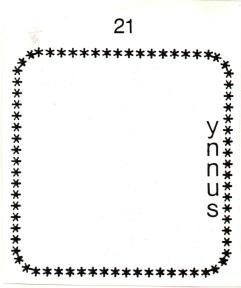
THIS MONTHS JUNIOR PUZZLE

For this month we are trying out some more "wacky wordies". Written answers only, please.









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Catch the News



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ANOTHER PAMILY MEMBER TAKES UP PART TIME TRACKING CAREER

We learned recently that Aunt Francie has a new part time job in the teaching profession. She just recently completed a training course, and now is ready to teach other beautician how to use a new permanent wave chemical being marketed by a prominent company. A company salesperson sets up appointments at various beauty shops, and Francie will teach the operators how and why to use this new product. There even is some chemistry involved, and Grandpa Riel is explaining to Francie the nature of amino acids, proteins, acids and bases, and how the chemicals interact with hair to impart the desired curls. This is only a part time activity, on days off, but it gives Francie something to do in her spare time, and the extra money comes in handy.

BOB AND KARLA CREERRATE THEIR 10TH ANNIVERSARY

February 18, 1993 was a special day for Bob and Karla, their 10th wedding anniversary. For this special occasion Bob arranged a surprise for Karla. Unknown to her he made all the arrangements for a week end vacation. On the day of departure he secretly packed their luggage, and hid it in the car. He told Karla that he was going to teach that evening, and they went to Karla's parents so she could stay there while Bob was teaching. He then convinced her to ride to the airport with him, supposedly to pick up a friend. He managed to get her into the airport, and then on the plane, with her still not knowing where they were going. Finally, the pilot announced their flight time to Las Vegas, and then she knew what was going on. Robert reports that they made and lost money at the casinos, but had a great time. CONGRATULATIONS TO BOB AND KARLA ON THEIR 10THIN

OTHER FUN THINGS

Grandpa and Grandma Riel got a special treat on February 19, when they got to baby sit for Craig, Curtis, Michelle, Scott, Katie, David and Annie, all at the same time. There was a great deal of pool shooting, ping pong,

and other toys and games. Each child had his/her own lunch, provided by Aunts Birdy and Listy, and lunch was served almost any time anyone got hungry. In the afternoon Birdy and Bob (yes, Listy and Bruce were occupied elsewhere, came over and we all went to see the movie "Homeward Bound". It was a fun day.

VACATIONS/TRAVEL

We learned recently that Francie treated Brett and Bryce to a surprise visit to Disneyland last month. They drove up in the afternoon, spent the night in a hotel, and the following day at the park. Francie reports that there are some great new exhibits now open, and they really enjoyed the visit.

Speaking of travel, Aunt Margaret was on the road again, this time to San Francisco. She is co-authoring a book chapter, with two other persons who thus far have been behind schedule in their share of the task. Margaret therefore pinned them down to a working weekend to get on with the task. She left San Diego an a Saturday morning, and worked all week-end on the book. On Monday she attended a conference at Standford University, and flew back to home late Monday night. The next morning she went to the Convention Center to give a talk at a Society meeting. On Tuesday she gave a three hour session at a UCSD class. We understand she rested on Wednesday.

Not to be outdone by all this fun and travel, Grandpa and Grandma are off again to Laughlin, in mid-March. This time Bob and Karla are going along, and we all are looking forward to a fun vacation. We will have a complete story for the next issue.

JOKE OF THE MONTH

We thought you might enjoy this little cartoon we found in an old get well card Francie sent to Carol many years ago, on a sick day.



Dear Dad Riel,

RUNNY NOSE DEPARTMENT

I'm seeing all the signs that the Riel "GRAPEVINE" is hard at work. I think it's wonderful that everyone cares. I'm taking time to write this now, so that there will not be any chance for misinformation. We all know how stories can get twisted around when passed from person to person. As a seasoned RFNL reporter, I will do my best to bring "all of our readers" up to speed with what is going on in the Hartman household.

The scuttle butt going around is that I am sick. Okay it's true. The problem is, however, we still don't know what it is ! It started a year ago or more with the thyroid problem, Graves Disease. Graves is an Autoimmune Disease. As you may recall, I was treated with radiation and have been on synthetic thyroid hormone and will be for the rest of my life. I had hoped that that would be the end of my medical problems. Not so... Over the last six months a separate but connected Autoimmune disorder has effected my eye sight. It causes a thickening of the muscles and other tissues behind my eyes which is pushing my eye balls outward. This in turn has caused very serious double vision. must wear corrective lenses, but they don't help a lot. There is no way to know how bad it will get but it may stop on its own. If it continues to deteriorate, surgery may be needed. The surgery involves cutting out the skull behind the eye which opens into a sinus cavity. The other possibility would involve radiation to the eyes. I was told that this only has about a fifty percent success rate and could cause Cancer later on. In the meantime I live with it, and I drive slower. There is also a thickening of the skin on my legs at the shin area but it's no big deal, kind of ugly, but not painful.

In recent months a whole new set of symptoms have begun to plague me, and these are a little more serious. Of these symptoms, joint, muscle and spinal pain have been the worst. My Endocrinologist suspects that I have Systemic Lupus Erythmetosis, the same disease my Mom has. The blood tests that he performed were not 100% conclusive and therefore has referred me to a Rheumatologist. My first battery of blood tests with him have also revealed little. He too suspects Lupus and/or Rheumatiod Arthritis, both of which are Autoimmune Diseases. I hope he's wrong as both are disabling and without any known cure. The only thing that is known at this point is that I have something wrong with my spine. X-rays found (two days ago) that there is some kind of damage to my spine. I will know more about that next week (3-17-93) when I go to Grossmont Hospital for more sophisticated imaging. In the meantime I am very uncomfortable. I live on pain killers, Prednisone, and two different antiinflammatory drugs.

Another symptom that has been making it difficult to work has been extreme fatigue. My blood tests two days ago show that I am very anemic due to some internal bleeding. Here again, I don't have any answers but I will know more on 3-19-93 when I see my Gastrointerologist. I have had chronic diarrhea for at least a year. He will be looking for bowel or colon cancer. I don't think it's either...but what do I know?

The worst part of all of this is not knowing. Very little is known about the autoimmune system. These diseases are very difficult to diagnose. My Mom went through many years of this testing and being misdiagnosed. I have learned a lot from her, primarily, medicine is not an exacting science. All in all I'm okay with all of this. I wouldn't be honest if I said I was happy about it. I have spent a day or two kicking things and had a few good cries. I have a very strong Christian Faith and pull a lot of strength from it. Birdy is very worried and has a tough time dealing with this. I have a harder time seeing her upset than I do dealing with the physical discomforts. Marriage is a wonderful thing, together we work through these little obstacles and will come out stronger in the end. I must admit though, I'm very thankful for Listy. This "TWIN THING" is something I don't think I'll ever fully understand, but it sure works for "The Bird". An hour or two together and Birdy is "as good as new". (or is it the shopping?) ---NOT---

One last thing... with all of this health business going on, the subject of SMOKING has come up. Not to mention any names, (Mom Riel), I have not quit yet, but I promise I am going to. I just want to get some of this behind me first...and thanks for

caring.

Sincerely

Bruce Hartman R.F.N.L.

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High Ranking Official of the Innocent Bystanders (Self Elected) KEVIN RIEL

GROUP F2

CORREIA JR. HIGH

FEBRUARY 1993

Is There Another Bodes Law?

Abstract:

The projects got its beginning with the discovery of Bodes Law. Bodes Law is an amazing relationship between the planets of the Solar System. Originally it assisted astronomers to locate some of the planets, and for a time many thought it would give us a clue to the history of the Solar System. But to date no underlaying theory has been found and Bodes Law merely helps people remember the planets distance from the sun by its mysterious mathematical equation. The experiment is to search for numerical relationships among the planets like that of Bodes Law. To find other relationships or show that there are no others might give clues to the birth of our planet.

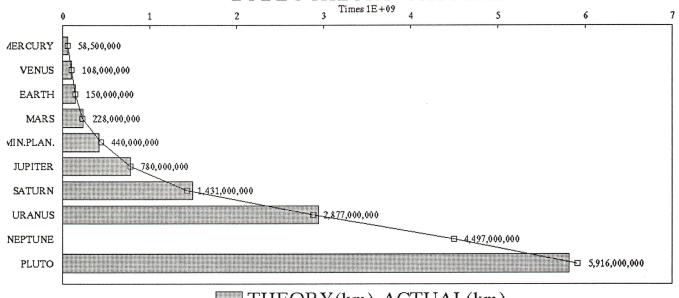
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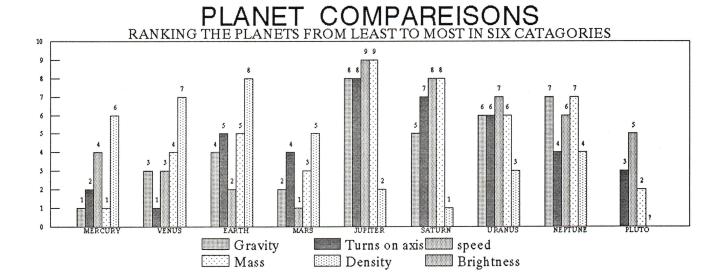
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PLANETS DISTANCE from the SUN

BODE'S THEORY vs ACTUAL



THEORY(km) ACTUAL(km)



Den Crandpay - Here I did the 1. Bernuda Shorts 2. London Briol Senior Challenge and 3. Grilled Sole even though it does'nt 4. Roast Ham count I did the 5. Pool Cue Junior Challenge with 6. Light Swith Tim becouse he needed 7. Peanut Butter help with it. Your 1# grandson, 8. Seat Belt Kevin Rid 9. Blank Check M = 1 and 10. Full Ends X Tima $\Omega = 2$ 11. Legal Pad K little 12. Chating Dist **Z=3** 13. Brussels sprouts 44/11 MA= 41 14. Book Ends 5=5 X =6 7 = \$ 7 **₩** = **%**

gp = 9

Senior & Junior

Dear Grand pa, KLMNOR I looked at this (88 K'son a P = 440 One for a long NOPQ RSTUVWXYZABC time. I don't Know if this is right but it's [12N's ona (=180) the only solution I could think TUVWXYZABC (4Ts on a C = 36) PARSTOUWXYZABODEF PORST 1P's on a FT = 308) STUVWXYZABC 645's on a C=640

ERISTY GILLINGHAM SUNNYAUP SPACE SHIP CHECK IN IT LEAN 8:16 Correct en Musty SDROW LEAN 464 BACKWADS TIME

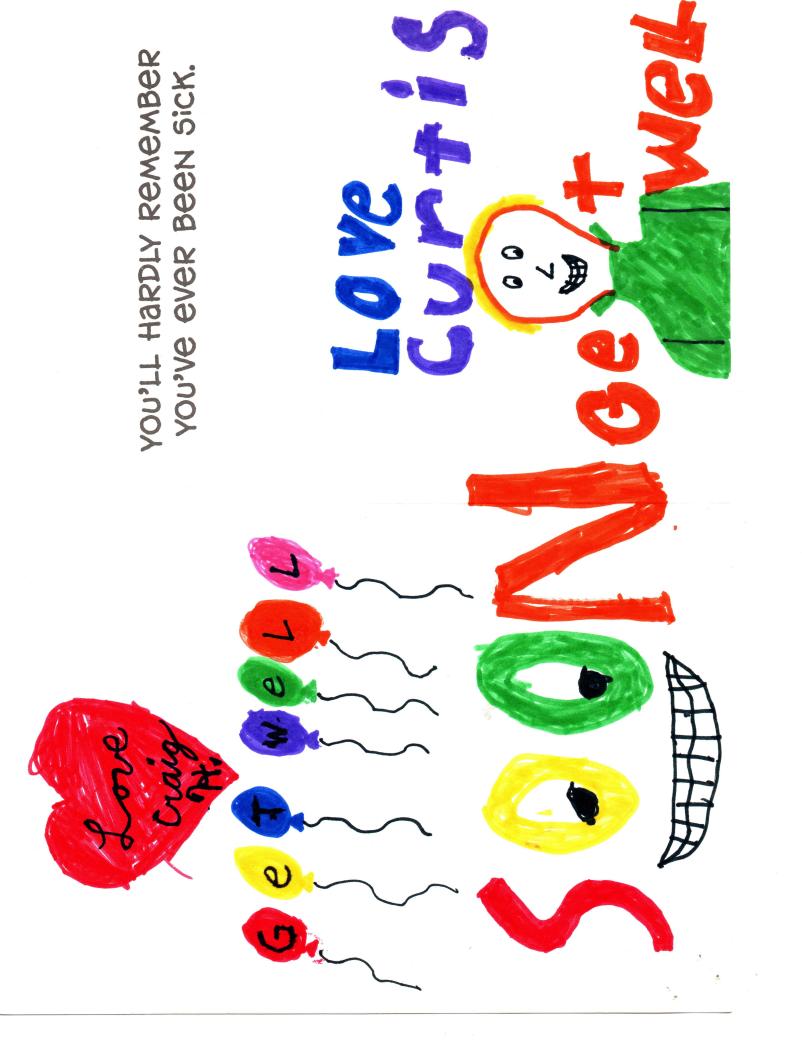
SCIENCE OLYMPIAD TEAMS Paul Ecke Central School 1993 Teams

EVENT	AWARD	PARTICIPANTS		
Paddle Boat	First Overall	Megan Riel-Mehan Mike King		
Triathlon(4)	First Overall	Kam Walton Michael Riel-Mehan Meredith Rimmer Larissa Dooley		
Save Our Earth	First Overall	Ruby Grinwald Halley Dierker		
TOTAL:	8 First Place Overalll			
Picture This (3)	Second Place	Lauren Meredith Rimmer Mary Birmbaum ALarissa Dooley		
Tennis Ball Catapult	Second Place	Megan Riel-Mehan Octavio Cartlas (Michael Riel-Mehan)		
TOTAL 5 Second Place Ribbons				
Crossword Science	Third Place	Michael Riel-Mehan Kam Walton		
Deep Blue Sea	Third Place	Lauren Orman Octavio Cartlas		
Don't Bug Me	Third Place	Nikki Rimmer		
A is for Anatomy	Third Place	Ruby Grinwald Lauren Orman		
Starry Starry Night	Third Place	Meredith Rimmer Niki Rimmer		
TOTAL	10 Third Pl	ace Ribbons		
OVERALL NUMBER OF RIBBONS 23				



HOPE YOU'LL GET BETTER AND BETTER 50 QUICK





Dear Dad,

How are you doing? I hope your legs have stopped bothering

Scott wrote a poem that I thought we could share in the family newsletter. It was very proud of himself because he just made it up at home.

If I Wor A Book

If I wor a book.
Hung on a hook.
I woodent let eneewun read me.
Cus a hook is not memore varee
Kumpftruboll.
And its not verey hard to see
wiye.

by Scott Hartman Dec. 1992