## Please note: These minutes are pending Board approval. Board of Education Newtown, Connecticut

Minutes of the Board of Education meeting on April 5, 2016 at 7:00 p.m. in the council chambers at 3 Primrose Street.
K. Alexander, Chair
J. Erardi
M. Ku, Vice Chair
J. Davila
D. Leidlein, Secretary
R Bienkowski
K. Hamilton
6 Staff
J. Vouros
12 Public
R. Harriman-Stites
1 Press
A. Clure

Mr. Alexander called the meeting to order at 7:02 p.m.
MOTION: Mrs. Ku moved that the Board of Education go into executive session to discuss pending claims and litigation regarding a certified staff member. Mr. Vouros seconded. Motion passes unanimously.

Item 1 - Executive Session
Item 2 - Pledge of Allegiance
Item 3 - Celebration of Excellence
Gregg Simon introduced the Newtown High School Girls Dance Team and spoke about their awards this year. They were the SWC Champions in Hip Hop and Jazz, the State Champions in Jazz and were State runner-up in Hip Hop. He also introduced Anthony Falbo, junior wrestler, who won the Lowell Holiday Tournament where he was selected the tournament's Most Outstanding Wrestler, and he also won the Guilford Tournament, Timberland Invitational, Greater Hartford Open, the Eagle Classic and Ridgefield Challenge. For 2015-2016 Anthony was the Southwest Conference Champion, CIAC Class LL State Champion, CIAC State Open Champion and New England Champion. All students received certificates of achievement from the Board.

Item 4 - Executive Session Possible Vote - none taken
Item 5 - Consent Agenda
MOTION: Mrs. Ku moved that the Board of Education approve the consent agenda which includes the minutes of March 15, 2016, the Newtown High School field Trip, the donations to Newtown Middle School and the Newtown Public Schools, the child rearing leaves of absence for Elizabeth Murphy and Stephanie Johnson, the resignations for retirement for Carolyn Monahan and Janet Vollmer, the resignation of Gregg Simon, and the correspondence report Mrs. Leidlein seconded. Mrs. Ku made minor typographical corrections.
Motion passes unanimously.
Item 6 - Public Participation
Tagen Doherty, 58 Mountain View Drive, read comments on the fund raising policy on behalf of Tamera Doherty who could not attend.

## Item 7 - Reports

Chair Report: Mr. Alexander stated that Legislative Council questions on the budget had been answered and he will attend their meeting tomorrow night at 6:30 p.m. School Security Officers were discussed at their last meeting with potentially reducing two with one being at Sandy Hook

School and one at the high school. They rejected that recommendation from their subcommittee.

Superintendent's Report:
Dr. Erardi said the Future Forecast Committee this week would discuss detailed information pertaining to issues around closing and reopening a school building. The senior class of 2016 will be taking a safety survey. In May he along with Tom Kuroski and Mark Pompano will speak to every senior English class prior to them taking the survey which consists of five questions regarding their perception of safety and security in the school.
There will be an item on the next agenda regarding having a transportation consultant to do a detailed analysis of the present system. This will be the last year the middle school moving up ceremony will be held at the O'Neill Center. Over 70\% of the parents would like it moved back to Newtown so it will be held here in 2017. District wellness brochures for staff were provided.

Ms. Hamilton asked what Transportation Advisory Services will be reviewing at the next meeting.
Dr. Erardi said they understand the standard of cost in districts. They would offer the Board advice on a standard of performance showing no bias or prejudice with an analysis of a possible proposal.
Mr. Clure asked if they would do a review if a school will close.
Dr. Erardi said they will respond to information they get from the Board and district.
Student Representatives:
Kayla Disibio said the high school hosted a "How to Spend your Summer Fair" to give students options for what they could do for work or volunteering this summer. The college fair was also held.

Rilind Abazi stated that Student Government was hosting a blood drive tomorrow. NICE Club had a Japanese culture day afterschool. The Global Voice Club fundraiser was held to benefit children in Ecuador. The Spanish delegation also arrived March 30 which included 20 students.

Committee reports:
Mrs. Ku said the Policy Committee is working on the 3000 series as well as policies outside this series which we need to consider at this time.
Ms. Hamilton noted in their meeting agenda they would be discussing policies 3323 and 3310 and asked to have them sent to her to see the changes.

Mrs. Leildein said the Technology Committee discussed current technology items and the replacement plan with possible equipment leasing options. We also looked at a bring-your-own device policy as well as technology budgets in other districts. We checked into wifi in schools and improvement in cellular reception. The CIP Committee met regarding current items and our technology group reviewed numbers for the high school auditorium. They are looking at possibly adding the storage building at the high school and the Hawley and middle school ventilation projects for year five. They also discussed the transportation and food service contracts.

Mr. Vouros said the Curriculum \& Instruction Committee discussed school start times. Mrs. Harriman-Stites spoke about the Future Forecast Committee's three possible scenarios which are closing the middle school, an elementary school or closing no school. The committee
is looking for direction from the Board regarding whether they just want a list of pros and cons and what should be discussed at our next meeting.
Mr. Vouros said it is important to bring back our ideas at the next meeting.
Item 8 - Old Business
MOTION: Mr. Vouros moved that the Board of Education approve the revisions to policy 1314/1324 Fund Raising. Mrs. Leidlein seconded.

Mrs. Ku feels we need to look at this policy again to define some parameters.
Ms. Hamilton asked if the committee spoke to people selected from the high school to work on athletic issues.
Dr. Erardi said this policy was vetted through the high school administration. Changes recommended were to allow what was to happen through the athletic director and coaches for the spring season. Once we hire an athletic director we will bring it back to the Board. If it's approved tonight we will have something back after discussion with the new athletic director.

Ms. Hamilton said language that speaks to specific sports should not be in the policy. If we are planning on changing it maybe we shouldn't make changes now. There should be a form filled out by parents and students on where they want to fund raise.
Dr. Erardi said the present issue is that we have a policy that is problematic with the three sports listed. This will allow the hockey team to fund raise before their season.

Mrs. Leidlein said that instead of listing the sports why not just list those sports that are not fully funded by the Board.
Mrs. Harriman-Stites said it was hard to define fully funded. Some teams are not fully funded and need to have fund raisers. The hockey team is funded in part.

Mr. Vouros asked when the new athletic director position would be filled.
Dr. Erardi stated that we would bring the job description and salary to the next meeting and will advertise with a closing date of June 1.
Mr. Vouros feels we should leave it as the policy committee revised and wait for the new athletic director.

MOTION: Ms. Hamilton moved to amend the policy to remove the whole last paragraph with the three bullets until it's revised by the policy committee. Mr. Clure seconded for discussion.

Mr. Vouros was not in agreement and should wait for the new athletic director.
Mrs. Harriman-Stites did not agree with the amendment.
Ms. Hamilton suggested passing the amendment and bringing it back to the Board for a second read.
Dr. Erardi said this policy will come back in three or four months. We are trying to move this forward with action tonight.

Vote on amendment: 3 ayes, 4 nays (Mr. Alexander, Mr. Clure, Mrs. Harriman-Stites, Mr. Vouros) Motion fails.
Dr. Erardi said the original conversation a year ago was to counter the mindset of a high school student if they fund raise. The back story is the harder they fund raiser the better chance to be on the team. This policy is to allow a program we do not fund to allow students to fund raise for that sport.

Vote on revisions to policies: 4 ayes, 3 nays (Ms. Hamilton, Mrs. Leidlein, Mr. Clure) Motion passes
Ms. Hamilton was uncomfortable passing a policy that will come up for change.
Policy 1700:
Motion: Mrs. Leidlein moved that the Board of Education approve the revisions to policy 1700 Otherwise Lawful Possession of Firearms on School Property. Mr. Clure seconded. Motion passes unanimously.

AP Computer Science Principals Pilot Course:
MOTION: Mrs. Leidlein moved that the Board of Education approve the pilot course AP
Computer Science Principals. Mr. Vouros seconded.
Ms. Hamilton asked to include answers to questions with the minutes.
Motion passes unanimously.
High School Graduation and Middle School Moving Up Dates:
MOTION: Mrs. Ku moved that the Board of Education set the 2016 Newtown High School Graduation date for June 11 at 9:30 a.m. and the Middle School Moving-Up Ceremony for June 8 at 5:30 p.m. with both being held at the O' Neill Center. Mr. Vouros seconded. Motion passes unanimously.

## Item 9 - New Business

K-12 Science Self-study Presentation:
Mrs. Davila introduced the presenters which included Chris Canfield, Drew Hall, Jill Bracksieck, Beth Iacofano and Kim Lowell. Cathy Leja, Peter Bernson and Jim Ross worked on the presentation but were unable to attend.
After the presentation there was a discussion with the Board.
Mrs. Leidlein said that years ago there were state guidelines regarding the number of minutes there should be for teaching certain subject.
Ms. Hamilton asked how we lined up.
Dr. Erardi said there are gaps where K-4 students don't have science at all. It makes sense to have guidance for grades K-12 and share when there are crossroad times are for students and parents. It is essential for students to know where they must land.

Item 10 - Public Participation - none
MOTION: Mrs. Leidlein moved to adjourn. Mr. Clure seconded. Motion passes unanimously. Item 11- Adjournment
The meeting adjourned at 9:54 p.m.
Respectfully submitted:

## Newtown Middle School

Thomas R. Einhorn
Principal


James E. Ross
Assistant Principal

11 Queen Street
Newtown, Connecticut 06470-2172
(203) 426-7642

March 21, 2016

Dear Dr. Erardi,
We have received a donation in the amount of $\$ 1,200.00$ to be used for financial aid for students wishing to go on the $8^{\text {th }}$ grade trip to Washington D.C. We received this through the generosity of Ms. Margaret Belden, of 3 Oak Ridge Drive, Newtown. Ms. Belden has a set of triplets in $8^{\text {th }}$ grade here at NBS.

Would you please present this to the BOE so that we may accept it?


Tom Einhorn

Technical Visits International
1363 E. Pepper Way, Arcadia, CA 91006

March 23, 2016
Mr. Ron Bienkowski
Newtown Public Schools
3 Primrose Street
Newtown, CT 06470
Dear Mr. Bienkowski:
Dr. Daisuke Fujita had the pleasure of visiting Newton Public Schools and meeting with Dr. Erardi and Mr. Pompano on March 18th. Dr. Fujita also visited Hawley Elementary School as well.

Please find enclosed a donation check in the amount of $\$ 500$ to Newtown Public Schools on behalf of Dr. Fujita in appreciation.

If you have any questions related to the donation, please let me know, or you can also talk to Judy Blanchard, who kindly assisted us in the coordination of Dr. Fujita's visit.

All the best,


Matthew Taylor

[^0]FIELD TRIP BUS REQUEST FORM
Teacher Making Request: $\qquad$ Eclehardt Date: $3 / 30 / 16$
Other Staff Involved: Bob Findley, Samos Perperly, Tor Whittington, Conou Kouatch
Date of Proposed Field Trip: $4 / 616$ to $4 / 10 / 16$
Class/Group Involved: $\qquad$ Color Guard
Number of Students Scheduled to Make Trip: $\qquad$ ( 3
Other Adults (non-teachers) Chaperoning the Trip (list names): Brenda and Brian Ruslco Debbie and Dan Glaser, Kerry Mckinley

Destination: $\qquad$ Dayton, OH - WGI World Championships
Place and Time of Departure: Reed School 4/6/16 at 5:00 am.
Estimated Time of Return: $\qquad$
Special Arrangements (i.e. stopping at a restaurant, picnic, etc.) TBA
Estimated Cost of Transporation: $\quad \$ 9850.00$ - Peter Pan
Estimated Cost per Student: $\qquad$ 1145.00

Other Information: $\qquad$

PRINCIPAL APPROVAL BY SIGNATURE: $\qquad$ Poongra DATE: $\qquad$ 3-3 OVERNIGHT/OUT-OF-STATE FIELD TRIP BE APPROVAL: $\qquad$ DATE: $\qquad$
Billing Information
Bill to: $\qquad$
$\qquad$
$\qquad$
Pricing: $\qquad$ Hours @ $\qquad$ per hour = $\qquad$
$\qquad$ Miles @ $\qquad$ per mile $=$ $\qquad$
Minimum Charge: $\qquad$
Total Charge per Bus: $\qquad$
Confirmation
Information taken by: $\qquad$ Date Confirmed: $\qquad$
Confirmed by: $\qquad$ Recorded in Book: $\qquad$

Dr. Erardi, Superintendent

Newtown Public Schools
3 Primrose St.
Newtown, CT 06470
March 8, 2016

Dear Dr. Erardi,

I am writing to request a leave of absence for the 2016-2017 school year. I am expecting my third child on April 29, 2016. I would like to take the year for child-rearing purposes. This decision has come after much deliberation. As a long-time resident of Sandy Hook, a graduate of Newtown schools, and daughter of a Newtown teacher, I view Sandy Hook School as a second family. I know the transition to the new Sandy Hook School will be trying for some, and it is important to me that I am supportive of the community. I wish I could be in two places at one time, which is why this decision has been so hard. I thank you for giving me the opportunity to once again teach in this outstanding district. Please consider my request for a leave of absence, so that I can once again join my Newtown colleagues in the fall of 2017.

Sincerely,
$\underset{\substack{\text { Bet t - Murphy } \\ \text { Ben Murphy }}}{ }$

Dr. Joseph Erardi, Superintendent
Newtown Public Schools
3 Primrose Street
Newtown, CT. 06470

Dear Dr. Erardi:
Please accept my resignation as a first grade teacher at Sandy Hook School as of the last school day of the 2015/2016 school year.

Sandy Hook School has been an important part of my life for the last 35 years. Three of my four boys matriculated through Sandy Hook while I became actively involved in their PTA and then worked as a resource aide. It was here at Sandy Hook that I was inspired to pursue a teaching degree. After teaching in Bethel for 11 years, I returned to Sandy Hook as a first grade teacher and have been here for 15 years. I loved the school as a parent and I have loved working here.

While I look forward to retirement, I will miss working with the wonderfully dedicated people who make up the Newtown Public School System.

Sincerely,
Gyre Nowaker
Carolyn E. Monahan

Cc: Kathy Gombos
Tim Napolitano

Dr. Joseph Erardi, Superintendent
Newtown Public Schools

## 3 Primrose Street

Newtown, CT. 06470

## Dear Dr. Erardi:

I am writing this letter to ask you to accept my resignation for retirement as a kindergarten teacher at Sandy Hook School. This would take effect on the last school day of the 2015/2016 school year.

This is not an easy decision as Sandy Hook School has been a part of my life for the past 29 years. Prior to teaching at Sandy Hook School, I spent 8 years teaching in Eastchester, NY. My two boys attended Sandy Hook School while I became actively involved in their PTA. I substituted in the Newtown system for a short time and then worked as an educational assistant at Sandy Hook School in the reading department with Jean Klein.

In 1995 I was hired by Dr. Reed to teach kindergarten and have worked under the direction of Ron Vitarelli, Donna Page, Dawn Hochsprung, and Kathy Gombos. They have all worked very hard to make Sandy Hook School such a special place. As a parent and educator I know how fortunate I was to spend my career working with such wonderful colleagues.

As the new school opens, I wish a smooth transition to all as I look forward to my retirement. I will miss working with all of the wonderfully dedicated people who make up the Newtown School System.

Sincerely,

Newtown High School
12 BERKSHIRE ROAD
SANDY HOOK, CT 06482
(203) 426-7646

FAX (203) 426-6573


March 29, 2016
Dr. Joseph Erardi
Superintendent of Newtown Public Schools
I am writing to formally notify you that I am resigning my position as the Newtown High School Athletic Director at the end of the 2015-2016 school year. It has been my honor and privilege to serve this school district as a Teacher, Curriculum Coordinator, Coach and Athletic Director for the past 30 years.

I've loved spending my entire career in one school district and will cherish all of the memories that I have of Newtown which has become my second home. Thank you for the opportunity to serve the children of Newtown.


Newtown High School Athletic Director

Dr. Joseph Erardi
Newtown BOE Superintendent
11 Primrose Street
Newtown, CT 06705

Ref: Formal Request for Leave of Absence

Dear Dr. Erardi and Board Members,
As my husband and I anticipate the arrival of our two babies, we have discussed many scenarios in regards to the balance of childcare, finance's, logistics and the well-being of our family. We have decided to pursue what we believe is best for our new family. Once my 12 week FMLA leave ends in mid-September, I kindly request a leave of absence from my position at the middle school as the $7^{\text {th }}$ and $8^{\text {th }}$ grade French teacher for the academic year of 2016-17. Upon your approval of this, I plan to return to work for Newtown Public Schools on the first day of school the following academic year of 2017-18.

Thank you for your support and attention to this matter.

Sincerely,


| Date | Name |  |
| :--- | :--- | :--- |
| $3 / 18 / 16$ | Wolfgang Halbig | FOI Requests |
| $3 / 21 / 16$ | Wolfgang Halbig | FOI Requests |
| $3 / 21 / 16$ | Mary Burnham | Kindergarten |
| $3 / 23 / 16$ | Kinga Walsh | budget |
| $3 / 23 / 16$ | Scott Barnum | Scholarship opportunities |
| $3 / 25 / 16$ | Wolfgang Halbig | FOI requests |
| $3 / 25 / 16$ | Wolfgang Halbig | SHS |
| $3 / 28 / 16$ | Wolfgang Halbig | SHS |
| $3 / 30 / 15$ | Sarah and Bernard | Girls golf fees and funding |
| $3 / 31 / 16$ | Daniela Monsalve | Transportation to HAT |
| $3 / 31 / 16$ | Jillian Gibney | Feeding the Need |
| $4 / 1 / 16$ | Mary Burnham | Common Core |
| $4 / 1 / 16$ | Wolfgang Halbig | FOI Request |
| $4 / 1 / 15$ | John Buonaito | Region 12 Stem |
| $4 / 2 / 16$ | Bill Barber | Graduation date |
| $4 / 4 / 16$ | Tamara Doherty | Fundraising |

Administrative Report
Tuesday, April $5^{\text {th }}$

1. Update: Future Forecast Committee
2. Class of 2016: Safety Survey
3. Transportation Consultant
(Attachment \#2)
4. Moving Up Ceremony: 2016 WCSU / 2017 NHS
5. District Wellness
(Attachment \#3)


Richard A. Mills, Jr.
Phone: (860) 251-5706
Fax: (860) 251-5315
rmills@goodwin.com

# CONFIDENTIAL ATTORNEY-CLIENT PRIVILEGED COMMUNICATION 

April 4, 2016

## VIA ELECTRONIC MAIL

Dr. Joseph V. Erardi, Jr.
Superintendent
Newtown Public Schools
3 Primrose Street
Newtown, CT 06470

## Re: Implications and Process for Closing and Reopening a School Building

Dear Joe:
You have asked for our advice concerning several issues related to the possible closure of a school building. Specifically, you have asked for our advice regarding (1) the implications and process for closing a current school program in a building and using the building for another educational purpose, or alternatively, relinquishing the building to the Town of Newtown; and (2) the process for seeking to reopen a building to be used for educational purposes after it has been relinquished to the Town.

When a school building is being used for school purposes, the Board of Education has control over the building. However, once a building is no longer used for school purposes, control over the building reverts back to the municipality. The Board of Education would maintain control of a building even if the Board changes the specific educational purpose that the building is used for, as long as it continues to be used for school purposes. If the Board determines that a particular building will no longer be used for school purposes, however, the Board should formally vote to relinquish control of the property back to the Town of Newtown. These issues are discussed in further detail below.

Dr. Erardi
April 4, 2016
Page 2

## I. Board Control of Buildings Used for School Purposes and Steps for Relinquishing Control of Buildings No Longer Used for School Purposes

Under Sections 10-240 and 10-241 of the Connecticut General Statutes, the municipality, as distinguished from the local board of education, owns the district's school buildings, together with the land on which those buildings are located. However, Section 10-220 of the statutes provides that the board of education "shall have the care, maintenance and operation of buildings, lands, apparatus and other property used for school purposes and at all times shall insure all such buildings and all capital equipment contained therein against loss in an amount not less than eighty percent of the replacement cost." (Emphasis added). Thus, under the express provisions of Section 10-220, the board of education has control of school buildings only for so long as those buildings continue to be used for school purposes. Once such buildings are no longer used for school purposes, they are no longer subject to the control of the board of education, and control over the property reverts to the municipality.

Although the term "school purposes" is not defined in the statute, we believe that term extends to any use directly related to the district's educational programs. Such uses would obviously include the instruction of students, including in an alternative education program, see Conn. Gen. Stat. § 10-74j (authorizing boards of education to provide alternative education), along with such other uses such as the district's administrative operations and the storage of the district's equipment and supplies. Thus, so long as Newtown is using a building for any school purpose, control over that building rests with the Board (along with the responsibility for maintaining the facility and insuring the facility and any capital equipment located at the facility against loss). However, based on Section 10-220, once a particular building (or other property) ceases to be used for school purposes, control over that building would revert to the Town of Newtown.

Should the Board determine that a building is no longer being used for school purposes, the Board should formally vote to relinquish control of the building(s) back to the Town. Although once a building is no longer used for school purposes control over a building reverts back to the Town by operation of law, we believe it is important for the Board to vote formally to relinquish such control, and to then notify the Town in writing that the Board has voted to do so. Both the vote and the written notification are important in order to avoid any misunderstanding as to which party has the responsibility to maintain and care for the building, and to insure the building against loss.

Dr. Erardi
April 4, 2016
Page 3

## II. Regaining Control of Buildings Once Relinquished to Town

Based on Section 10-220, once a Board of Education relinquishes control over a building to the municipality, the Board of Education no longer has control over that building. At that point, the control of the building rests solely with the municipality. As a result, the Board of Education would not be able to regain control over such a building and use it for school purposes without the approval of the Town.

We hope this analysis is helpful to you and the Board. We would be happy to discuss these issues with you and the Board.

Very truly yours,


Richard A. Mills, Jr. Peter J. Maher

TRANSPORTATION ADVISORY SERVICES
Mark A. Walsh, CMC
President
3181 Valley Dr.
Walworth, NY I4568
(800) 233-3251
(315) 986-1901 (fax)
(585) 749-5325 (cell)
Serving the U.S. from
offices in NY and FL

## SERVICES:

## District Efficiency

 StudiesPro's and Con's of Privatization

Bid/RFP Development
Redistricting assistance
Troubleshooting
Targeted Studies
Contract Analysis
Renew vs Rebid Analysis

Operational Audits
MEMber:
CASBO
NYSASBO
MC USA

March 24, 2016

Ronald Bienkowski
Director of Business
Newtown Public Schools
3 Primrose Street
Newtown, CT 06470
Dear Mr. Bienkowski,

Thank you for the opportunity to submit the enclosed proposal for Transportation Consulting Services for the Newtown Public Schools. Additional information about our firm is available on our website, including a detailed client list.

We believe that TAS is uniquely qualified to offer these services to the District. Over the past 29 years we have conducted numerous transportation studies focused on generating operating efficiencies, enhancing services, and exploring program options. We are dedicated to serving the school district marketplace (we do not work for contractors; we do not sell products or services; we do not spread our focus to other areas such as public sector maintenance fleets; and we do not accept fees or commissions). Additionally, TAS offers the District extensive knowledge of Connecticut student transportation services. This experience is critical as you conduct a review of all contract options available to the District.

As you know, we have a detailed knowledge of the District from our previous engagements. Additionally, we have recently completed contract reviews for the New Britain Public Schools, Danbury Public Schools, and the Stamford Public Schools. The TAS approach is one based on providing pragmatic recommendations for services that will work. We have constructed a proposal that will provide the District with specific ideas and suggestions relative to your transportation contracts, including options for any renewal negotiations or recommendations for any future bids. We will explain to the District the basis for our recommendations, and the potential impact of moving in each direction. We are independent and not burdened by financial or political issues that could cloud our judgment or recommendations.

We stand ready to discuss our proposal, and we would welcome an opportunity to make any adjustments that may be necessary if we have misinterpreted your needs and interests. As you evaluate our submission, please feel free to contact any of our $500^{+}$current or former clients. We are very proud of our past efforts.

All of us at TAS look forward to again working with the Newtown Public Schools.
Sincerely,


Mark A. Walsh, President
Certified Management Consultant


Submitted by:
Mark A. Walsh, CMC
TRANSPORTATION ADVISORY SERVICES
3181 Valley Drive
Walworth, NY 14568
(800) 233-3251

MWalsh $(a$ TransportationConsultants.com
March 24, 2016

## SCOPE

Based upon our telephone conversation of March 18, 2016, our knowledge of the District from previous engagements, and our extensive experience for the past 29 years, we have compiled an outline of the topics that will be covered in this consulting proposal. The items below are not listed in any prioritized order, but all are considered to be part of a valuable analysis for the District.

1. Contract Operations - TAS will evaluate your current contracts, including the bid specifications that form the basis for the contracted services. We will review the District's Contractor oversight process, contract compliance procedures, invoice verification processes, cost elements, non-mandated services, and more. As part of this review, TAS will request an opportunity to interview the local All Star representatives. If future contract changes are appropriate, we will provide specific recommendations for the District to consider.
2. Financial - An important consideration will be the financial impact that any proposed changes could have upon the District. Included in our review will be an analysis of regional transportation costs that have been collected from the recent survey process. We will identify areas where these costs may not be applicable (or misleading) to the Newtown program, and areas where they may be illustrative of opportunities for the District in future contracts.
3. Fleet - We will review the fleet profile and utilization. The use of appropriate sized and configured vehicles is important as the District reviews contract options for the future, including rebidding or renewing.
4. Contract Options - TAS wil provide specific recommendations to the District on the pro's and con's of each potential approach for future contracts, including negotiations with the current contractor for a renewal, or the rebidding of the contract(s) through specification development and new bids.

Included will be such considerations as:

- Service quality under the current contract(s)
- Competitiveness of the rates
- Terms and conditions that should be addressed in future contracts
- Likelihood of competition, and the quality of said competition
- Impact on the District and the staff members
- Transition issues, including routing
- Timelines for the various options

5. Routing - Although we don't "ride the routes", we do look at the methodologies that the District/Contractor utilizes to establish routes. We typically recommend a ridership audit to determine the actual run times, scheduled ridership, actual ridership, and down times. This is an important function as we explore potential cost saving options, including routing
modifications and consolidations. It is not uncommon for a District to hear that the buses are "half-empty". The process will determine the actual utilization and will make recommendations for changes if the demographics and policies allow modifications.
6. Audit - The purpose of this type of contract study is not to audit the system, but rather to review the program and provide substantive recommendations. As a part of our review, we will evaluate all operating areas through reviews of materials, interviews with stakeholders, and tests compared to standard practices. A study of this type becomes very helpful as the District evaluates operating options and develops long-term plans for the transportation program.

Potential areas of efficiency can have very long term benefits. A savings of one bus, the elimination of the need to add an additional bus, or changes in contract terms or conditions, can provide short term savings that continue in future years. Additionally, specific recommendations from knowledgeable consultants who offer practical experience can result in significant savings over the near and long term.
7. Overall Analysis - TAS will provide the District with specific recommendations for the future direction of contracted services, including insights relative to the potential benefits of modifying various aspects of the program. The result of the study will be specific recommendations for the future operation of the program... from independent consultants who are well-recognized as the industry leaders in this area.

The TAS recommendations will come from a firm that is truly independent and pragmatic. TAS does not operate any buses; we do not sell any products or services that could cloud our recommendations; we are not a part of any organization that is affiliated with any industry groups; and we are not "theoreticians". TAS offers real-world recommendations from consultants with both public and private sector experience. These critical perspectives are not available from any other consulting firm.

## METHODOLOGY

We would be prepared to begin the data collection portion of the study within one week of the acceptance of our proposal. Subsequent to the receipt of the information requested, we would begin our "on-site" interviews and evaluations, with two-three weeks notice. Our final report to the District would be available within 60 to 90 days after the initial on-site interviews, assuming that the information and resources that will be necessary for the District to provide are available in a timely fashion.

If appropriate, updates and recommendations will be provided to the District throughout the course of the study as they are developed. In particular, any modifications that could be implemented for the 2016-2017 school year would be communicated during our review. It has always been our practice to provide ideas and suggestions throughout the course of a study. Over the past 29 years of providing dedicated consulting services, we have found many districts that begin to implement recommendations immediately.

The following would be a typical schedule for the engagement given our understanding of the District and the current time schedule. TAS will discuss with the District a specific timeline for the engagement once the study is undertaken.

Action<br>Acceptance of TAS proposal<br>Issuance of data collection instrument<br>Data collection<br>On-site interviews at District<br>Data analysis<br>Final recommendations

## Dates

Apr ' 16
Apr '16
Apr '16
May '16
Apr-June '16
June ' 16

The engagement as envisioned in this proposal would entail the development of the data collection survey and the review of District operating information, written policies and procedures, and contract(s), prior to our first on-site visit. In order to allow us to compile data and schedule appropriate interviews and meetings throughout the engagement, the assistance of a District liaison will be required. As a part of our review, we suggest that interviews be established with a number of people, including Administrators, Athletic Director, Special Education Director, Building Principals, Contractor representatives, and any interested Board Members or citizens.

TAS would expect to have reasonable access to District personnel, projections and records. We request that one District official be designated as the liaison to facilitate our access to information, and to insure that we provide the District with the type of reporting that you desire.

TAS will utilize various members of our consulting/operations staff as the demands require. However, Mark Walsh, TAS President, will be assigned as the Project Leader. Mr. Walsh has received the intemationally recognized Certified Management Consultant designation, demonstrating his commitment to the highest ethical standards, his extensive experience, and his
professional recognition within the industry. Mr. Walsh is the only student transportation consultant in the United States to receive this designation.

Any modifications to the approved program would be detailed in writing and District approval would be requested. The estimated costs of any modifications would be made available to the District prior to such request for approval.

## BENEFITS

## TO DISTRICT：

It would be our intention to have this consulting engagement result in：
X Detailed recommendations on changes that could be made to the transportation program to maximize the cost－effectiveness of the program．

区 A third－party review of the operation and services of the Contractor，including potential service level changes．

Q Specific recommendations for the future operation of the Newtown Public School District transportation program．
$\boxed{x}$ A detailed analysis of the various options for future contracts，including the pro＇s and con＇s of renewal negotiations and／or rebidding services．

区 An independent review of a non－educational，but highly visible，responsibility of the District．The final report will serve as a management resource for the Administration and the Board of the Newtown Public Schools．

## OF RETAINING TAS：

$\boxed{\text { TAS }}$ is an independent consulting firm with an extensive and proven record of successful transportation program reviews．．．many of them in the Newtown region．

凹 TAS offers the Newtown Public Schools professional consultants with unique qualifications not found with any other firm．We provide both public and private sector perspectives that are a＂must＂to truly evaluate the pro＇s and con＇s of modifying the protocols of a student transportation program．

区 Newtown Public Schools will retain a firm which has provided service to more than 500 districts and agencies，in twenty－one states，over the past twenty－nine years． 50 of these districts are in Connecticut，including our past work for the Newtown Public Schools．This experience offers the District a level of confidence that will assist with public analysis of the program．

区 Based upon our proven consulting services，TAS has become the Nation＇s largest dedicated student transportation consulting firm．We are very proud of our past efforts， and we provide the District with a listing of all of our past clients．．．not just a＂refined＂ list．We also encourage prospective clients to discuss with our past clients our professionalism，pragmatic recommendations，and detailed reports that serve as an on－ going management resource．

## FEE STRUCTURE

Based upon this proposal, we have established the cost of this engagement to be $\$ 9,680$, plus expenses not to exceed $\$ 1,500$. This fee structure includes the services described in the Scope portion of this proposal and is predicated on no more than two dedicated on-site trips to the District. We will require the assistance of the District to efficiently schedule required interviews, and any meetings with outside groups or presentations to District officials.

## Terms:

A. Retainer payable upon acceptance of proposal.................................. $\$ 3,000.00$
B. Progress payment upon completion of on-site interviews. $\$ 3,000.00$
C. Balance due within two weeks after submission of the final report
D. Expenses will consist of personal auto mileage at the IRS approved rate (currently 54 cents per mile for 2016), tolls, lodging, meals, printing, and shipping charges, with the amount of the expenses not to exceed $\$ 1,500$. Should the District request services or visits that are not envisioned as a part of the basic study, related expenses shall be charged to the District and the not-to-exceed "cap" may be modified by mutual consent. Expense reimbursements are due within two weeks of submittal. TAS will endeavor, whenever possible, to coordinate all trips with other client visits to the Region in order to share expenses.

## Incremental Services:

Should the District request additional consulting work not envisioned in this proposal, TAS would provide these services at a per diem rate of $\$ 880$, billable in half-day increments for all study and travel time, plus applicable out-of-pocket travel expenses. We will be glad to quote specific cost proposals for any additional work should that be appropriate.

## Acceptance:

To signify the District's acceptance of this proposal, please provide us with a duly authorized Purchase Order, specifying your acceptance of the terms and conditions of this proposal. TAS will then issue the District an invoice for the retainer. If additional contract documents are required by District policy, please submit them to us for completion.

This proposal and the related charges will remain effective for 60 days from the date of issuance. After this date, TAS reserves the right to notify the District of modifications in the scope and/or fees of the proposal.

## New Program Application

## What will the program be called? Give a brief description of the program:

## AP Mobile CSP (Computer Science Principles)

AP Computer Science Principles is a new AP computer science course designed to give students foundational computing skills, and an understanding of the real-world impact of computer programming and innovations. This course is designed to be the equivalent to a first-semester introductory college computing course. AP Computer Science Principles course will complement AP Computer Science A and will focus on the fundamentals of computing, including problem-solving, large-scale data, the Internet, and cybersecurity.

According to the curriculum developers at Mobile CSP, "This course will [allows students to] learn computer science by building socially useful mobile apps. In addition to programming and computer science principles, the course is project-based and emphasizes writing, communication, collaboration, and creativity.

This course is supported by the Mobile Computer Science Principles Project (Mobile CSP), a NSF-funded effort to provide a broad and rigorous introduction to computer science based on App Inventor, 'a mobile programming language for Android devices. The course is based on the College Board's emerging Advanced Placement (AP) Computer Science Principles curriculum framework for introductory computer science." (Mobile CSP)
"The course covers the 7 Big Ideas and 6 Computational Thinking Practices (see below). During the course, students complete two collaborative programming projects and an individual research and writing project on the impact of a recent, computing innovation that appeals to the student. These projects conform to the College Board's two performance tasks on programming and impact. The emerging CS Principles AP course will use these performance tasks, in addition to a written exam, as a primary means for a student to demonstrate what they've learned." (Mobile CSP)

To see a brief ( 4 min ) overview of App Inventor and the course go to YouTube

## Big Ideas

- Big Idea 1: Creativity
- Big Idea 2: Abstraction
- Big Idea 3: Data and Information
- Big Idea 4: Algorithms
- Big Idea 5: Programming
- Big Idea 6: The Internet
- Big Idea 7: Global Impact


## Computational Thinking Practices

- P1: Connecting Computing
- P2: Creating Computational Artifacts
- P3: Abstracting
- P4: Analyzing Problems and Artifacts
- P5: Communicating
- P6: Collaborating
"Mobile CSP is being taught in 70 schools across the country, including over 30 in Connecticut and Massachusetts with teacher professional development (PD) in the summer and academic year support." (Mobile CSP)


## Mobile CSP Participating Teachers (Mobile CSP)

*CT Schools are bolded
Academy of Aerospace and Engineering, Academy of Engineering and Green Technology, Academy of

AP Computer Science Principles aims to appeal to a broader audience by allowing flexibility for the use of a variety of computing tools and languages in the course and also by emphasizing how computing innovations affect people and society. The course is designed to introduce students to relevant computing topics, providing an understanding of the fundamental concepts of programming, its breadth of application and its potential for transforming the world we live in...

Currently the College Board offers AP Computer Science A, which focuses on programming skills. The course teaches students how to code in a specific language (Java) and has historically appealed to students who already demonstrate an interest in programming as a career path...

Students who take AP Computer Science Principles learn to create computational artifacts and are encouraged to apply creative processes when developing these artifacts to solve problems. Through these experiences, students learn the role and impact of technology and programming as a means to solve computational problems and create exciting and personally relevant artifacts. Students design and implement innovative solutions using an iterative process similar to what artists, writers, computer scientists and engineers use to bring ideas to life..." (National Science Foundation)

## 2. What research is available about the effectiveness of this program/pilot or research project?

"In development since 2008, AP Computer Science Principles was created with significant support from the National Science Foundation. The College Board worked with more than 50 leading high school and higher education computer science educators who piloted the course at their institutions. This rigorous process of development and testing has yielded a course that not only reflects the latest scholarship in the field, but provides students with a relevant and engaging learning experience.

Over 90 colleges and universities have stated their support for the course, with the majority anticipating they will award college credit for high exam scores." (The College Board)

## 3. How does the program/pilot align with the core beliefs of the Newtown Public Schools?

AP Mobile Computer Science Principles clearly aligns with the core beliefs of the Newtown Public Schools. First and foremost, advanced placement courses innately set high expectations for students in order to inspire higher level of performance. They require dedication, effort and persistence in order to achieve success as well as to achieve one's full potential. Furthermore, this course will expand learning opportunities in computer science for individuals which are essential for the 21 st century. As an educational institution, we need to prepare our students to not only be good users of technology, but to be the creators of technology.

In regards to the core values and beliefs of Newtown High school, students in this course will have the opportunity to complete mandated graduation standards. Throughout the course students will develop creative and critical thinking and problem solving skills as they learn computer science concepts in an interactive, hands-on environment.


## 7. What are the staffing implications?

Based on current course offerings and existing section numbers, we are able to offer this course with no implication on staffing. Students will simply be offered an additional opportunity to expand their knowledge and experience in Computer Science and STEM related courses. Enrollment numbers will determine which technology courses will run.

## 8. Do you anticipate that this will become a mandated program/pilot or research project?

 This will not become a mandated program or course. It will remain an elective offering in the BEAT Department.9. When and how will the initial start-up curriculum be written prior to initiation of the program/pilot or research project?
The curriculum for this course has already be written, researched, revised, approved and implemented in schools across Connecticut and Massachusetts. The Mobile CSP course is aligned with the new AP CS Principles curriculum framework. This framework is based on the seven big ideas of computer science, enduring understandings, learning objectives and six computational thinking practices.
To see this alignment click here
To view the curriculum click here
10. What is the plan for pre implementation training and follow-up training?

Kristin Violette has applied for the Mobile CSP professional development seminar which consists of a 4 week course in the summer of 2016 followed by support throughout the school year. This is at no cost to the Newtown district.
11. What are the projected costs for planning and future implementation? (i.e. Curriculum development, instruction resources, staff training)

Questions regarding the AP Computer Science Principles Course:

Participation in the research project and what student data will be shared - what are our commitments and how will student privacy be supported?

During the school year teachers will be expected to work with the project research team to gather data from students--e.g., student and parental consent forms, a pre- and post-course questionnaire, completed rubrics for the student performance tasks, final exam, etc.. Please see the attached consent form and letter used this year by the project which were available upon request. These explain the research and how we keep information private.

Recruiting an appropriate number of students of targeted demographics (females, minority students, and disabled students) - What is an appropriate number of students? Isn't this reverse discrimination?

The AP CSP course was created specifically to broaden participation in CS courses, especially AP CS. An example of what should not happen is that students who already have programming experience (e.g AP CS A (JAVA) students are the only ones recruited. The course should be open to everyone and all students should be invited to take the class and try CS. See step 4 here https://advancesinap.collegeboard.org/stem/computer-science-principles/bring-csp-to-yourschool

If there is a student who does not want to participate in the study, will they still be able to take the course?

Answer: Mobile CSP has a research study component that is for the National Science Foundation. If a student wishes not to participate in the study (that is very rare), they do not have to. They can take the course (and the AP exam) with or without participating in the research.

## CONSENT FORM FOR RESEARCH STUDY

Mobile CSP: Using Mobile Learning to Teach Computer Science Principles in Schools TeachIT - Scaling Mobile CSP Professional Development Online 2015-2016

## Project Leaders:

Ralph Morelli, Professor of Computer Science, Trinity College
ralph.morelli@trincoll.edu, (860) 297-2220
Chinma O. Uche, President, Connecticut Computer Science Teachers Association cuche@crec.org, (860) 757-6363
Jennifer Rosato, Asst. Professor of Computer Science/Information Systems, College of St. Scholastica jrosato@css.edu, 218-723-6152
Chery Takkunen, Associate Professor and Chair of Graduate Education, College of St. Scholastica ctakkune@css.edu, 218-723-7052

## Evaluation Consultant

Lawrence M Baldwin, lawrence.baldwin@verizon.net, (508) 655-8744

DESCRIPTION: Your child is being asked to participate in a voluntary research study—Mobile CSP: Using Mobile Learning to Teach Computer Science in Schools and TeachIT - Scaling Mobile CSP Professional Development Online. Please see the accompanying letter for more details about this project.

As part of this research study, your child is being asked to:

- Complete a pre- and post-course interest and attitude survey
- Allow the research team to analyze course assessment results (i.e., performance tasks, examinations) and student grades to gauge the effectiveness of the course.

Also, your child's teacher will video record two 20 minute episodes of their teaching. The focus of the video is on the teacher and not the students. This will allow the teacher to reflect on their teaching practice for the purpose of improving instruction and student learning. It is possible that your child
might be in the video. Your child will not be identified in the video with the possible exception of the teacher stating the child's first name.

RISKS AND BENEFITS: The risks associated with this study are minimal. There is an extremely small risk that the security of the data could be compromised, and a small risk that students could feel anxiety or discomfort while completing the surveys or assessments and during video recording. Your student's decision whether or not to participate in this study will not affect their grade or standing. The evaluation team will keep all records strictly confidential and all student identifiers will be replaced with random ID numbers, once pre/post data matching has occurred. All research materials will be destroyed, and hard copies shredded, within three years of the completion of the project. The teacher reflection videos will be shared with other project participants and facilitators using a secure password protected environment. A few of the videos from the project may be shared on a public repository where other teachers could view them to learn about best practices in teaching computer science. The large majority of the videos will ONLY be shared with project participants and staff in a password protected and secure environment (Video Reflection Sharing). A small percentage of the videos will be identified and shared for other teachers and stakeholders to view on a public repository (Video Lesson Repository). These videos will reflect best practice teaching strategies in computer science education.

In addition to providing your student with a rigorous, AP-level introduction to Computer Science, the benefits of participation include contributing to a research study that can help develop a computer science curriculum that is appropriate for high school students.

SUBJECT'S RIGHTS: If you have read this form and have decided to allow your child to participate in this project, please understand their participation is voluntary and you have the right to withdraw your consent at any time without penalty.

STUDENT NAME (Print)
DATE $\qquad$

1. Student Data Collection: I DO give permission to allow my child to participant in the collection of student data including surveys and course assessment results.

PARENT/GUARDIAN SIGNATURE
2. Video Reflection Sharing: I DO give permission to include my child's image on video recording as my child participates in the project for the purposes of teacher reflection. No last names will be heard or appear on the video and the videos will remain in a secure and password enabled environment.
$\qquad$
3. Video Lesson Repository: I DO give permission to include my child's image on video recordings as my child participates in the project for the video lesson repository. No last names will be heard or appear on the video. The video will be shared with others outside of the project on a video web repository site.

PARENT/GUARDIAN SIGNATURE

August 24, 2015
Dear Parent or Guardian

We are writing to tell you about a course that your child is starting which is part of a research project funded by two National Science Foundation grants - Mobile CSP: Using Mobile Learning to Teach Computer Science Principles in Schools and TeachIT -Scaling Mobile CSP Professional Development Online. The course teaches students to use App Inventor - a programming language used to create apps for Android Smart Phones and Tablets. In addition to teaching programming, the course teaches students about the Internet and more generally about how computers are used in current society. The teaching materials used in the course are based on the Computer Science Principles curriculum, a framework that is being developed by the College Board as part of its effort to create a new Advanced Placement course in Computer Science. Earlier versions of this curriculum have been taught at several different universities and high schools across the country over the last four years.

This past summer your child's teacher sought out and received training on how to teach the Mobile CSP curriculum. In order to gauge the success of the Mobile CSP curriculum we need to collect information from the students (and teachers). We plan to use a survey at the beginning and end of the course to gather information about your child's attitudes about the course and about Computer Science. In addition, we need to examine the projects that the students prepare and exams they take and the grades they receive in order to see how well they learn the course material. All this information will be completely confidential. We will assign each student with a randomly assigned number and will store all information about a student with that number and not their names. Any reports on the research will be in summary form in which no student is individually identifiable. The teachers will receive summary reports, but not information on individual students.

To help the teachers in the project reflect on their own teaching practice and to help us identify best practices in computer science teaching, your child's teacher will video record two teaching episodes of about 20 minutes while teaching the Mobile CSP Curriculum. These videos will be viewed by the teacher and shared with the project staff. The focus of the videos is on the teacher's practice and not on the students. The students in the video will not be identified, with the exception of a child's first name if the teacher states it in the video. A few of the videos from the overall project will be used to educate other teachers. These selected videos would be shared on a project website for other computer science teachers.

We are writing to you because we need your permission to collect this information since your child is under 18 years of age. We are asking your child for permission as well. You or your child can withhold this permission without affecting the grade your child receives in the course in any way. To provide permission, please sign the form that accompanies this letter, and have your child take it to his or her Computer Science teacher. We will collect the forms from the Computer Science teachers. The form describes the research and the risks it involves (which are minimal).

We hope very much that you will give your permission and sign the form. Thank you in advance.

## Project Leaders:

Ralph Morelli, Professor of Computer Science, Trinity College
ralph.morelli@trincoll.edu, (860) 297-2220

Chinma O. Uche, President, Connecticut Computer Science Teachers Association cuche@crec.org,(860)757-6363

Jennifer Rosato, Asst. Professor of Computer Science/Information Systems, College of St.Scholastica jrosato@css.edu, (218) 723-6152

Chery Takkunen, Associate Professor and Chair of Graduate Education, College of St. Scholastica ctakkune@css.edu, (218) 723-7052

## Evaluation Consultant

Lawrence M Baldwin, lawrence.baldwin@verizon.net, (508) 655-8744

## Community Relations

## Fund-Raising and Solicitation

Fund-raising shall be authorized under conditions that do not conflict with instructional programs. Fund-raising refers to the raising of non-appropriated funds for the educational benefit of students and their school funds.

Fund-raising shall be permitted by Kindergarten through $12^{\text {th }}$ grade students, provided such activities are approved in writing and carefully monitored and regulated by the school Principal or a designee.

Each Principal shall develop and maintain a list of all approved fund-raising activities and report all activities to the Superintendent pursuant to procedures issued by the Superintendent.

The Superintendent will furnish the School Board with an up-to-date listing of all fund-raising activities being conducted by the school division.

No organization or individual shall solicit funds, sell memberships, articles or in any other way collect or seek to collect money from the employees of the school system except with the approval of the Board of Education.

Fundraising will take place only after the club or team roster has been finalized within the present school year with the following exception.

- If a team is not fully funded by the Newtown Board of Education they are allowed to fundraise with no restrictions. The only teams allowed to fund-raise with no restrictions are hockey, boys volleyball and girls golf.
- Players listed on the varsity roster at the end of preceding season are allowed to fundraise for the following year with no guarantee they will be on the team.
- Teams that did not cut during the previous two seasons are allowed to fundraise with no restrictions.


## Regulation

## Community Relations

## Fund-Raising and Solicitation

Guidelines

- No freshmen are permitted to fundraise until the team is chosen
- It is understood and made clear that no Newtown High School student-athlete will be compelled or coerced to fundraise.


## Community Relations

## Otherwise Lawful Possession of Firearms on School Property

Notwithstanding the otherwise lawful possession of firearms defined in Section 53a-3, ("any sawed eff shotgun, machine gum, rifle, shotgun, pistol, revolver or other weapon, whether loaded or unloaded from which a shot may be discharged") in or on the real property comprising school district property by persons who hold a valid state or local permit to carry a firearm and would otherwise legally traverse school property with an unloaded firearm for the purpose of gaining access to public or private lands open to hunting or for other lawful purposes, such entry into Board of Education Offices or onto school property by these persons for these purposes is prohibited by the Board of Education.

The issuance of a permit to carry a pistol, revolver or other firearms does not authorize the possession or carrying of a pistol, revolver or other firearms on school district property. The Board of Education prohibits such possession on school district property.

The Board of Education may employ or enter into an agreement for public school security services with a firearm, as defined in state law, only with a sworn member of a local police department or a retired state or local police officer, or retired federal law enforcement agents and retired police officers from an out-of-state police department, as stipulated in P.A. 13-188 10-244a.

Students and staff are prohibited by the Board of Education from possessing firearms for any reason, whether otherwise lawful or not, in or on the real property comprising the public or private elementary or secondary school or at a school sponsored activity as defined in Subsection (h) of Section 10-233a.

## (cf. 5114 - Suspension/Expulsion/Exclusion/Removal)

Legal Reference: Connecticut General Statutes
29-28 Permit for sale at retail of pistol or revolver. Permit to carry a pistol or revolver. Confidentiality of name and address of permit holder. (as amended by PA P.A. 98-129)
29-33 Sale, delivery or transfer of pistol and revolvers. Documentation requirements. Waiting period. Exempted transactions. Penalty. (as amended by PA P.A. 98-129)
52a-3 Definitions.
53a-217b Possession of a weapon on school grounds: Class
D felony. (as amended by PA P.A. 01-84)
P.A. 13-188 An Act Concerning School Safety

10-244a Employment of persons to provide security services in a public school while in possession of a firearm (as amended by P.A. 14-212 and P.A. 14-217) P.A. 14-217 Section 254 of "Budget Implementer Bill"
P.A. 14-212 An Act Concerning the State Education Resource Center

## Science


@
Newtown Public Schools

## Elementary Science: K-6



Jill Bracksieck ~ Peter Bernson ~ Drew Hall

## Elementary Science Content

|  | Life | Earth | Physical | Technology |
| :---: | :--- | :--- | :--- | :--- |
| K | Living Things | Weather Conditions | Properties of Matter | Building Materials |
| 1 | Seeds and Plants, <br> Animal Adaptations | Sun and Shadows | Pushes and Pulls | Measurement |
| 2 | Life Cycle of Plants | All About Soil | Properties of Matter | Nutrition |
| 3 | Plant and Animal <br> Adaptations | Rocks and Minerals | States of Matter | Conservation |
| 4 | Ecosystems | Water Cycle | Force and Motion | Electricity and <br> Magnetism |
| 5 | Human Senses | Earth, Moon and Sun | Sound and Light | Optical Devices |
| 6 | Ecosystems | Water and Weather | States of Matter | Pollution |

## Math/Science Specialist's Role

Oversee math and science instruction in our buildings.
Meet regularly to ensure consistent implementation of curriculum between buildings and to maintain vertical alignment.

Manage, maintain and organize all science materials. Oversee building science budget and re-order consumable/live materials.

Teach, co-teach, or facilitate some science lessons.

Provide professional development and resources to classroom teachers.
Coach teachers, as needed, in the delivery of science units/content.

## Differentiation in Science

## All children experience the same content and process skills.

Differentiation may include:

Writing assignments and journal work.

Inquiry labs where students design or tailor their own investigations.

Choice or assignment of non-fiction books based on reading level.

Flexible grouping and questioning strategies.

## Time Spent on Science: K - 4

30-45 minutes of content time per day is shared between Science, Social Studies, Health/Wellness (including Second Step) and Computer Lab.

Sample schedule:

|  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Week 1 | Health | Science | Computer Lab | Science | Science |
| Week 2 | Health | Science | Computer Lab | Science | Science |
| Week 3 | Health | Science | Computer Lab | Science | Science |
| Week 4 | Health | Social Studies | Computer Lab | Social Studies | Social Studies |
| Week 5 | Health | Social Studies | Computer Lab | Social Studies | Social Studies |
| Week 6 | Health | Social Studies | Computer Lab | Social Studies | Social Studies |

## Time Spent on Science: 5-6

There are four 40 minute Science periods per 6 day cycle.

## Science at Newtown Middle School

Beth laciofano - 8th grade science teacher/8th grade department coordinator Jim Ross - Assistant Principal


## 7th Grade Science Content

- Earth Science (layers of the Earth, Plate Tectonics, landforms etc)
- Cells (organelles, using a microscope,)
- STS Food Safety \& Preservation,
- Human Body System (Digestive, Respiratory, Circulatory, Muscular, Skeletal, frog dissection)
- Physics (forces, simple machines etc.)
- Science process skills
- Lab writing, summaries, data analysis


## 8th Grade Science Content

- Astronomy (Reasons for the Seasons, Phases of the Moon, Eclipses/Tides)
- Physics (Forces and Motion)
- Life Science (Reproduction/ Genetics/ Nervous System/ Endocrine System)
- Density
- Scientific Method is taught throughout the year.
- There is an emphasis, this year, on data analysis and interpretation as well as summary writing.

Students using Play-Doh to further their understanding of mitosis


## Differentiation in Middle School Science

All children experience the same content and process skills.

- Classes are heterogeneous.
- Differentiation of learning tasks occurs, but learning targets remain the same for all students.
- The level of questions asked is varied.
- Higher level content is discussed to challenge the strong students.
- Assignments/ assessments are differentiated to meet the needs of all students.
- Students have choice when choosing many assignments/ projects.
- Flexible grouping.

1st place science fair winners!


## Strong Science Students

## Attributes of a strong middle school science student:

- Can critically think
- Has strong basic skills
- Is able to problem-solve
- Is a self-directed learner
- Has a curiosity about science



## Science



## at

## Newtown High School

Christian Canfield-Department Chair, Chemistry Teacher Kim Lowell-Physics Teacher


## Science Acronym Glossary

## Courses <br> IPES = Integrated Physical \& Earth Science <br> Bio $=$ Biology <br> Chem = Chemistry <br> Phys $=$ Physics

Levels
CPA $=$ College Prep A
CPB $=$ College Prep B
CP = College Prep
H = Honors





Physics Sequences
\& Math
Requirements



## Anatomy \& Physiology <br> CP, Honors

Biotechnology/Forensics
CP, Honors

$\square$
AP Physics 1
$\square$
AP Physics 2

## AP Physics 1\&2

AP Physics C

## AP Science Electives



## Science Recommendations

## Teachers put course recommendations into PowerSchool after considering current:

- Science grade
- Work ethic
- Math level (chemistry \& physics)


## Freshman Science

## Students taking Algebra I in 8th grade may be recommended for Honors Biology as freshmen

- Math grade 85
- Science grade of 95


## Science Overrides

- Students may request to override a teacher recommendation. (ex. CP IPES to Honors IPES)
- They may override level recommendations but not prerequisites (ex. Students recommended for Honors Chemistry may not override to AP Chemistry)


## The Effect of Math Course on Honors Physics Grades

Semester Grades

Above Algebra 2
Semester Grades

Algebra 2
Semester Grades


## The Effect of Math Level on Honors

 Physics Grades

## Newtown High School CAPT Scores

| Year | \%At/Above Goal | \%At/Above Proficiency |
| :---: | :---: | :---: |
| 2010 | 63.8 | 95.2 |
| 2011 | 62.6 | 93.4 |
| 2012 | 75.4 | 97.1 |
| 2013 | 72.9 | 95.3 |
| 2014 | 72.1 | 94.7 |
| 2015 | 73.7 | 95.9 |


| Three Dimensions of Science NRC: "combine to form each NGSS" |  |
| :---: | :---: |
| Dimension | Categories/Classifications |
| 8 Practices | Asking Questions and Defining Problems <br> Developing and Using Models <br> Planning and Carying Out Investigations <br> Analyzing and Interpreting Data <br> Using Mathematics, Information and Computer Technology, and Computational Thinking <br> Constructing Explanations and Designing Solutions <br> Engaging in Argument From Evidence <br> Obtaining, Evaluating, and Communicating Information |
| 7 Cross-Cutting Concepts | Concepts relating to Patterns, Similarity, and Diversity Concepts relating to Cause and Effect Concepts relating to Scale, Proportion and Quantity Concepts relating to Systems and System Models Concepts relating to Energy and Matter Concepts relating to Structure and Function Concepts relating to Stability and Change |
| 4 Disciplinary Core Ideas <br> "Content" | Physical Sciences Domain <br> Life Sciences Domain <br> Earth and Space Sciences Domain <br> Engineering, Technology, \& Applications of Science Domain |

## Thank You!


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