

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

Minutes of the Board of Education meeting held virtually on April 21, 2020 at 7:00 p.m.

M. Ku, Chair
D. Delia, Vice Chair
D. Cruson, Secretary
D. Leidlein
J. Vouros
R. Harriman-Stites
D. Zukowski
H. Jojo (absent)
M.Chand (absent)

L. Rodrigue
A. Uberti
R. Bienkowski
1 Staff
1 Public

Mrs. Ku called the meeting to order at 7:10 p.m. with Board members joining virtually and members of the public joining by phone. The meeting was also being recorded.

The Board members on video were Dan Delia, Dan Cruson, Debbie Leidlein, Rebekah Harriman-Stites and Deb Zukowski. John Vouros joined by phone. Dr. Rodrigue, Mr. Bienkowski, Mrs. Uberti, and Dr. Longobucco joined on video and there was one member of the public by phone.

Item 1 – Pledge of Allegiance

Item 2 – Consent Agenda

MOTION: Mr. Delia moved that the Board of Education approve the consent agenda which includes the minutes of March 19, 2020 and March 26, 2020, the donation to Newtown Middle School, and the correspondence report. Mr. Cruson seconded. Motion passes unanimously.

Item 3 - Public Participation - None

Item 4 – Reports

Chair Report: Mrs. Ku asked to hold off on subcommittee meetings unless something required immediate attention. She would send the FOI requirements to subcommittee chairs regarding compliance. She thanked the Communication Committee for their newsletter. The Governor issued an executive order requiring the Legislative Council to pass the budget for next year.

Superintendent's Report: Dr. Rodrigue said that being back from spring break we have resumed our lunch distribution. From March 18 to April 20 at Head O'Meadow we served 465 lunches, at the middle school we distributed 2,026 and at the high school we distributed 2,527. The staffing report was included for the month of April which shows two retirements including Keith Hedin, music teacher at Newtown Middle School and Donna Perugini, art teacher at Head O'Meadow and Hawley Schools, and the resignation of Ashley Aquirre-Galan, a special education teacher at Newtown High School. There were no new hires this month. We are paying all noncertified and salaried employees including spring coaches who are working remotely with their teams. There has been a delay in paying bus drivers because some had applied for unemployment but there were reasons on their end also. Mr. Bienkowski has been in contact with All-Star and they will start to get their first checks next Friday. Fran Rabinowitz, head of CAPSS, said that the school districts are all in different places with bus company negotiations. Lori Hoagland and Ryan Eberts prepared food and provided it for essential medical workers at Danbury hospital which was much appreciated.

Committee Reports: Mr. Delia reported on the CIP/Finance subcommittee meeting of April 9 where they discussed the non-lapsing fund. They also talked about a field proposal for work on high school back fields and combining the field projects. There was a discussion about

removing things from the CIP which were the purchase of land, the gas and water lines at HOM, and fuel cells for the high school. They reviewed the impact of COVID 19 on schools and the surplus that will ensue from that.

Mr. Cruson said the Communication Committee is scheduled to meet May 4 and he would like to have that meeting. We planned to have a quarterly newsletter but since we missed the April meeting, we aren't sure if we will have quarterly reports this year.

Mr. Vouros said we were doing the second read of the Algebra and Statistics curricula tonight. Mrs. Ku stated that the students will be back for future meetings.

Financial Report:

MOTION: Mr. Delia moved that the Board of Education approve the financial report for the month ending March 31, 2020. Mr. Cruson seconded.

Mr. Bienkowski presented his report and highlighted all major activities since February. He spoke about the savings in the salary account and in benefits due to salaries which will not be required. We have an increase of \$11,000 in professional services, \$127,000 in purchased property services, and \$227,000 from other purchased services. Regarding transportation, the final negotiations with the bus company will not be concluded for a couple of months. This shows a significant fund balance but is predicated that operations don't resume before the end of the school year.

This is a rough estimate but indicated there will be a significant positive expenditure balance. There are no expected changes regarding the Excess Cost Grant which was deposited last month. However, because of two students that left our district, they take their grant money with them so it will go down for us by about \$130,000.

Mrs. Zukowski noted that a lot of things increasing our balance are mostly consumables. She asked if there were other items like textbooks we aren't buying or things we were planning to buy but put off.

Mr. Bienkowski said we would have put off buying things to be consumed in the classrooms and we are working on the textbook account. There is a significant balance in the salaries with an increase of \$227,000 this month. The total balance is \$553,000 mostly from the salaries and supplies account.

Mr. Delia asked if there was any advantage of buying energy for next year since it's cheap now. Mr. Bienkowski said the fuel oil was put out in a bid with the Town in February. It's a little less than \$2 per gallon. Regarding electricity, we are locked in through November. December through June is available for us to lock in so we are watching that.

Mrs. Uberti said you will probably see some of the instructional expenses such as textbooks in the next report. We just started talking about preparing for next year so we are looking at textbooks. There just hasn't been time before now.

Mr. Vouros asked that when students return to school in September will there be a lag in their learning. He asked if fourth graders will have the learning materials they need that they missed at the end of this year going into fifth grade.

Mrs. Uberti said they would have a plan in place for that and are in active discussions as to what that will look like.

Mr. Delia asked if there was anything the administrators needed immediately to help support the students.

Dr. Rodrigue said we were good now. It was critical to get technology to the students and still be utilized. Mrs. Uberti alluded to putting together the reentry plan and support plan for next year. She thanked Mr. Delia for asking and we would come to the Board when we need something.

Mrs. Ku said in terms of the public health piece she would like us to think about that going forward because things might be very different next year and what we should do this year regarding public health concerns for next year and know what kinds of things we will need.

Dr. Rodrigue said the reentry plan and student support is not just academics. There is also a lot of talk about the social emotional and health pieces.

Mrs. Leidlein asked if there was any directive from the State for a requirement that students wear protective equipment. We would need to have a supply and know what the cost would be.

Dr. Rodrigue said there has been no directive at this point. We have a call with the Commissioner tomorrow and with the Governor the end of the week. We will know within two weeks if we will come back this year and what it will look like for PPE for staff and students.

Motion passes unanimously.

Item 5 – Old Business

Non-lapsing Account:

Dr. Rodrigue said we talked a lot about how we earmarked special education in that fund and emphasized there will be education costs and needs and referred to Mr. Bienkowski's document regarding the balance and potential activity. She suggested taking the expense for the Hawley School HVAC project out of this fund. She also included the potential for partially paying for the high school turf replacement and putting the high school front and rear turf and field work together. Parks and Rec can handle some of the preliminary excavation work for the back field. We are having this discussion based on the needs we have right now.

Mr. Bienkowski sent the Board a revised schedule due to an error in the calculation on the original one. We will have a balance of \$520,000 in this account. \$63,000 is for special education costs for next year. The other three are the field turf replacement, engineering costs for the Hawley HVAC project and the costs for COVID 19 of \$250,000. We won't ask for that until well into next year but we need to reserve money for that. For Hawley HVAC project at the next meeting the Board should make a motion to utilize \$300,000 of money in the fund for that purpose. We have the right to ask for that amount from the existing non-lapsing account. We would need to start in the next couple of months.

Mr. Delia emphasized that Mrs. Leidlein and Mrs. Zukowski brought up points to try to reduce the impact on tax payers. It's important we specify uses for these funds and that we have a plan for this money.

Mrs. Zukowski asked if we will have a CIP/Finance subcommittee meeting prior to the next Board meeting.

Mr. Bienkowski said the next meeting is May 14.

Mrs. Zukowski said in terms of the \$300,000 for engineering, she asked if we should talk to the Board of Finance to see if there are any limits in spending to address this amount.

Mr. Bienkowski said we were in agreement at the CIP meeting and if this was an action on the next Board meeting we would send a letter to the Board of Finance that the Board of Education voted to recommend using \$300,000 to pay for the engineering study for Hawley School which would allow us to use those funds.

Mrs. Ku said this account can be defined more precisely as we move on before the end of the year. Right now we need to talk about the \$300,000. The Legislative Council would have put this on the referendum for voters to vote on.

Mrs. Zukowski said we have this excessive amount of money and would help the town if we put it to good use. She didn't interpret from their discussion that there was a consensus from the CIP/Finance committee. We should engage the other town boards so that everyone agrees this makes sense prior to actually doing it. Make it clear to engage other committees on this decision.

Mrs. Ku asked if she was in agreement to use the money for the Hawley HVAC.

Mrs. Zukowski said the CIP/Finance subcommittee did not make a resolution. Maybe they can have a special meeting to discuss this.

Mrs. Harriman-Stites was definitely in favor of going that route. She was comfortable spending this money now knowing we have a cushion and it takes something off the tax burden and CIP.

Mr. Cruson was not as comfortable taking the \$300,000 from the non-lapsing account at this time because there are a lot of unknowns as far as what money we might need for next year. Mr. Vouros agreed with Mrs. Harriman-Stites in using the money outlined by Mr. Bienkowski.

Mrs. Leidlein said we are talking about \$300,000 for engineering expenses and taking it from projected the \$1.7M surplus. It's not a major deduction from that amount. She is in favor but is concerned if something dramatically happened that would change that \$1.7M number. She asked when we would have to make that decision and agreed to use it for the Hawley project especially since the money would not have to be bonded. It makes sense but she would want to reevaluate and make adjustments if the \$1.7M amount changes.

Mr. Bienkowski appreciated the members being cautious on how the money would be spent. Last year's non-lapsing balance was \$520,000. We could have made a recommendation for the \$300,000 to come from that balance last year. With the projected balance for next year he is comfortable with spending the \$300,000. We have May and June which is a short month. We order things in June for the next year and we will still have a balance. He is not worried about something that would cause us to use a significant amount from the \$1.7M. We would put the RFP out now for the engineering firms. He feels if the Board is in agreement it would make sense to notify the Board of Finance and let them know we want to do that. We could make that request and include the other items on the list to let them know our thinking on the account.

Dr. Rodrigue stated there was a Legislative Council meeting tomorrow. One of the items discussed will be part of this along with the CIP. She wanted them to know what we have earmarked for spending and the rationale behind it. The Board of Finance allows us to spend funds but also needs to know what we are spending it on.

Mrs. Ku said the Legislative Council was going to have this on the referendum to be able to get a good start in planning.

Mr. Cruson understood that we want to ask the Board of Finance to take \$300,000 from the current non-lapsing fund balance to cover the HVAC. That's different from saying we will have money at the end of the year and want to use this money. This is two different discussions. We are using our potential funds at the end of this year for this project.

Mr. Delia wondered if there was away to spend the money in our budget as a surplus instead of what's in the non-lapsing fund.

Mrs. Ku was worried about doing that because we are bypassing the process that many boards are involved in. We normally ask the Board of Finance about the non-lapsing fund. The Legislative Council doesn't have authority for the non-lapsing fund.

Mr. Bienkowski said the Legislative Council doesn't have any say or authority in this. As long as the Board of Finance has a consensus with our recommendation it would be good. He was hesitant to try to encumber that money in our operating budget. The expenses won't be incurred until the 2020-21 year. In our presentation we would show the \$520,000 would drop to \$220,000 and potentially increase by \$1.2M for a new non-lapsing balance of \$1.5.

Mrs. Leidlein stated that her concern going that route is transparency because in future years how do we explain making decisions just for the needs of certain funds instead of the way the process is set up.

Mr. Bienkowski said we started using this fund last year when we requested money for the HVAC for the middle school and Hawley School, and Sandy Hook lightening protection. We didn't request anything in 2019-20 so the amount increased. It might be helpful to show a \$300,000 usage in the non-lapsing account.

Mrs. Zukowski was concerned that we would then be defining the use of the non-lapsing account for what might come up next. The Finance committee wants to take a look at the non-lapsing account to ensure the fund achieves its purpose. The committee should make recommendations to the Board.

Mrs. Ku said conversations with the Legislative Council and Board of Finance will come up in the next couple of weeks. There are mixed conversation about this but we want to know where we are headed.

Mrs. Zukowski stated we are taking this seriously and trying to propose a concrete purpose which will take a little time. The unexpected money could be used and this should be discussed.

Mrs. Leidlein said that Mr. Bienkowski cautioned the subcommittee in setting up a rigid protocol when we could use the money instead of it being shouldered by the community and if we could use funds to offset some of the costs which would be beneficial for the Town.

Mrs. Harriman-Stites said we have put this on the Policy Committee agenda but are waiting for the CIP/Finance Committee. We can discuss this and better define the policy. We should make a decision if we need to make it or just get a feeling from the Board tonight if that wasn't the intention of the discussion.

Mrs. Ku said we will have to talk with the other boards. Four Board of Education members are in favor of using the account for the \$300,000. We should take a vote on this in the near future.

Curriculum Approvals:

MOTION: Mr. Delia moved that the Board of Education approve the Algebra I Foundations Part 1 Curriculum. Mr. Cruson seconded. Motion passes unanimously.

MOTION: Mr. Delia moved that the Board of Education approve the Statistics Curriculum. Mr. Cruson seconded. Motion passes unanimously.

Item 6 – New Business

End-of-year Grading Plan:

Dr. Rodrigue spoke about this plan which includes a pass/fail model. Numeric values are assigned to a pass, a pass with distinction, and a fail. We looked at not including anything in

the GPA status from the last quarter. It would also not place any value in the work during the distance learning.

Dr. Rodrigue thanked Dr. Longobucco, Mrs. Amodeo, Mrs. Krupa, Mrs. Uberti, Mr. Einhorn and Mr. Correia for developing this plan to fit our district. We wanted to recognize student work for the whole year. We also built in the expectation that if a student failed with a low grade in a previous quarter or trimester those grades would be changed to a 60. Many students are putting in a great deal of effort which should be respectively recognized. We took the guidance of the State and made it an option along with our grading practices. We wanted to have value to quarter four but should not have as much weight attached to it. There are no final exams at the middle school or high school so grades warrant a lesser weight. The elementary practice of standards based reporting was looked at also. Teachers will select two standards they can speak to positively for students in an end-of-year narrative to end the year at their level as well. We have discussed this with other districts also and will be sharing our plan. We have shared this with the union, principals and with more staff moving forward.

Dr. Longobucco said it was important to note that talking to 25 other districts this is a very comprehensive plan and touches every learner wherever they are. There will be no one who goes down with their grade. At the high school level our students will have a transcript like they get each year with an adjusted weighting.

Mrs. Leidlein appreciated the thought and fairness in this plan. This provides a safety net for students and those in a school setting who might be suffering from the fatigue and monitoring their own learning and stress of this situation. She very much supports this plan.

Dr. Rodrigue said the difficult piece of the pass/fail model is there wasn't an understanding of what that looked like. Student work could have been devalued but we care about our students and their work all year and we are recognizing that.

Mrs. Harriman-Stites agreed with Mrs. Leidlein and appreciated the thoughtfulness that went into this plan and the concern about all students and their parents during this distance learning. It touches every student and family. She asked how this will be communicated from different sources to parents and students and at what point will student choose the p+, p, or the numerical option.

Dr. Rodrigue said that the communication piece is critical and feels very strongly that what we put out to our parents comes from a variety of sources, including principals. It will be concise explaining what the grades mean and when the level needs to be chosen. We are looking at June to have those decisions into the system. The communication has to be again and again and through PTAs also.

Dr. Longobucco said we are tentatively looking at June 8 so it gives our teachers seven school days and gives the high school students time to make the decision. She will be in communication with Mrs. Amodeo, Mrs. Krupa, and Mrs. Uberti on this.

Mrs. Zukowski noted that Dr. Rodrigue said this was not a typical pass/fail type of paradigm. Students can elect what grade they want for each course which is wonderful. She noted that information regarding the Reed School examples on page 3 seemed contradictory and also questioned the high school example on the next to last page where any students would let an 89 sit and take a pass/fail, or not take a 92.

Dr. Longobucco said that high school student 4 chose the traditional numerical grade was just an example. We are giving students a choice. Regarding the Reed School example, those are errors and have been fixed. An F would rise to a 64.

Dr. Rodrigue said we spoke to Dr. Correia about fixing that. This was a working document they tried to get ready for this meeting and will not be sent to parents.

Dr. Longobucco shared an additional chart with various examples of grading.

Mr. Vouros asked when the parents will see these charts with explanations and hoped it would be sooner than later so the students know what is happening.

Dr. Rodrigue said as soon as we have shared this with you the principals will share with their staff and understand what they need to do to accomplish this. There are districts still just thinking about this. It will relieve a lot of families as to what will happen at the close of the year.

Mr. Vouros said it was vital that especially in the 5/6 and 7/8 schools there are guidelines for the teachers so they are all operating from the same grading manual and there's no confusion.

Dr. Rodrigue said there are other components innately part of the learning plan which is consistency in subject areas or grade levels, late work, and how we are supporting students. It has to be part of the learning plan for next year also.

Mr. Delia said it was a wonderful plan, extremely relieving, and sensitive to the children and families and he applauded their efforts. His one suggestion was to spell it out as crystal clear as possible that this is for families and students and that we are here for them.

Mrs. Zukowski was concerned that the D, C, B, A students only had two options for all classes of either pass/fail or all classes being graded traditionally. Would it make sense to put in the best scenario for students where there is a highest possible hybrid for all courses?

Dr. Longobucco said they will make it clear that they can select different options for each class. Students get a Y1 for each class which goes into the GPA calculations. She met with the student representatives, Milan and Hannah, and shared this and they were thrilled and relieved and that it touches all students no matter what grade level.

Mrs. Ku was very happy about this plan which was very thoughtful and thanked them for all of their work.

Minutes of March 3, 2020:

MOTION: Mr. Delia moved that the Board of Education approve the minutes of March 3, 2020. Mr. Cruson seconded. Vote: 6 ayes, 1 abstained (Mrs. Harriman-Stites) Motion passes.

Non-renewal List:

MOTION: Mr. Delia moved that the Board of Education approve the 2019-2020 non-renewal list. Mr. Cruson seconded. Motion passes unanimously.

Item 7 – Public Participation

Carolyn Reed, 18 Sugarloaf Road, emailed the Board today. She congratulated Dr. Rodrigue on the grading system and that her junior will be relieved.

Mrs. Ku thanked Dr. Rodrigue, Mrs. Uberti, Dr. Longobucco, Mr. Bienkowski and all of the staff working so hard the past month in this difficult environment. It is very much appreciated.

MOTION: Mr. Delia moved to adjourn. Mr. Cruson seconded. Motion passes unanimously.

Item 8 – Adjournment

The meeting adjourned at 9:12 p.m.

Respectfully submitted:

Daniel J. Cruson, Jr.
Secretary

Newtown Middle School

Thomas R. Einhorn
Principal



James E. Ross
Assistant Principal

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

February, 2020

Dear Dr. Rodrigue,

Please request the Board of Education to allow us to accept a donation in the amount of \$300.00 from Diamond Electrical Supply. These funds are being donated to our Drama Department and will be used to purchase materials needed for our upcoming play, Willie Wonka Jr. Edition.

Thank you in advance for your support.

A handwritten signature in black ink, appearing to read 'Tom Einhorn', with a long horizontal flourish extending to the right.

Tom Einhorn

Principal, NMS

Correspondence Report
03/03/2020 – 04/20/2020

| Date | Name | Subject |
|-------------|------------------|---|
| 03/03/20 | Kathy June | February 18 Minutes |
| 03/03/20 | Kathy June | School Calendar |
| 03/04/20 | Kathy June | School Visits |
| 03/05/20 | Kiley Gottschalk | BOF 3.9.20 Agenda |
| 03/05/20 | Michelle Ku | Q&A for LC Education Committee |
| 03/06/20 | Kathy June | Letter to Parents and Staff (Virtual Learning Plan) |
| 03/10/20 | Ellen Andrews | School Closure and Covid 19 |
| 03/11/20 | Joanne Morris | CIP Agenda and documents for meeting 3/12/20 |
| 03/11/20 | Joanne Morris | CIP Agenda and documents for meeting 3/12/20 (Cancellation Notice) |
| 03/11/20 | Michelle Ku | Planning (for potential Covid Closure) |
| 03/11/20 | Chunwen Luo | Please proactively, instead of reactively, close our schools, NOW (Covid related) |
| 03/11/20 | Chunwen Luo | Please proactively, instead of reactively, close our schools, NOW (Covid related) |
| 03/12/20 | Michelle Ku | BOE Informational: Important Update from the Superintendent (March 13 th Professional Development Day) |
| 03/13/20 | Michelle Ku | District Plans (Closure of district due to Covid-19) |
| 03/13/20 | Kathy June | Letter from Dr. Rodrigue (parent letter regarding closure) |
| 03/13/20 | Kathy June | BOE Meeting Cancellation |
| 03/16/20 | Michelle Ku | Special Meeting |
| 03/16/20 | Michelle Ku | Distance Learning Plan (Forwarded Letter to Parents) |
| 03/16/20 | Lorrie Rodrigue | Distance Learning Letter to Parents and Staff |
| 03/17/20 | Susan Lang | Important Letter from NFT President Tom Kuroski |
| 03/17/20 | Michelle Ku | Trial run (Testing Video Conferencing For Board Meeting) |
| 03/17/20 | Michelle Ku | Draft letter to staff to be sent Wednesday (Thank you for hard |

| | | |
|----------|--------------------------|---|
| | | work on distance learning) |
| 03/18/20 | David Roach | Support (Thank you for showing support) |
| 03/18/20 | Kathy June | BOE Mailing – March 19, 2020 |
| 03/18/20 | Michelle Ku | Re: BOE Mailing – March 19, 2020 (Details of attendance options) |
| 03/18/20 | Richard and Diane Fisher | Whitsons Employees Payroll |
| 03/18/20 | Jackie Ceci | Payment for Whitsons employees |
| 03/22/20 | Michelle Ku | Fwd: Superintendent Update – March 22 (Letter sent to parents) |
| 03/23/20 | Michelle Ku | LC Education Committee Q&A 3/23 Part B (Answers to LC Education Committee Budget Questions) |
| 03/24/20 | Sarah Connell | BOE Policy Subcommittee Cancelled for 3/25/20 |
| 03/24/20 | Michelle Ku | Meetings – your response needed (Scheduling a special meeting) |
| 03/24/20 | Kathy June | Special Meeting Agenda |
| 03/26/20 | Lucia Kortze | (Questions about spring break and D.C. trip) |
| 03/31/20 | Lorrie Rodrigue | (Video from Sandy Hook students in recognition of teachers and staff) |
| 04/02/20 | Michelle Ku | Update on Budget Discussions (by Legislative Council) |
| 04/02/20 | Kathy June | April 7 BOE Meeting (cancellation notice) |
| 04/07/20 | Michelle Hiscavich | 2020 NAMM Best Communities Award |
| 04/09/20 | Kiley Gottschalk | BOF Agenda 4.13.20 |
| 04/15/20 | Kathy June | BOE Mailing – April 21, 2020 |
| 04/17/20 | Kathy June | Revised April Agenda |
| 04/17/20 | Kathy June | Revised April Agenda |
| 04/20/20 | Kathy June | Board Packet Information |
| 04/20/20 | Lorrie Rodrigue | Revised (Updated end of the year grading plan) |
| 04/20/20 | Lorrie Rodrigue | Response to Questions (on updated grading plan) |

TO: Lorrie Rodrigue, Superintendent
FROM: Suzanne D'Eramo, Director of Human Resources
RE: Superintendent's Report – Certified Staffing Update for April 2020
DATE: April 20, 2020

APRIL 2020

Retirements:

Keith Hedin – NMS music teacher
Donna Perugini – HOM/HAW art teacher

Resignations:

Ashley Aquirre-Galan – NHS SPED teacher

New Hires:

None

Business and Non-Instructional Operations

Non-Lapsing Education Fund

The Newtown Board of Education (Board) may request the Town's Board of Finance deposit into a non-lapsing account any unexpended funds from the Board's prior fiscal year general operating budget, provided such amount does not exceed one percent (1%) of the total budgeted appropriation for education for such prior fiscal year pursuant to C.G.S. 10-248a.

Prior to any expenditure from the Non-Lapsing Education Fund the Board of Education shall vote to authorize such spending. The transfer of monies shall follow the process as laid out in policy 3160 (Budget Procedures and Line Item Transfers).

The Board may designate these funds for a specific purpose. The Board will expend these funds for such previously designated specific purpose except that they may also be used for other extraordinary or emergency expenditures which may be necessary but not otherwise budgeted.

The account shall be subject to the annual audit as required by State statute. The Board shall review the fund balance on an annual basis.

(cf. 3160 – Budget Procedures and Line Item Transfers)

Legal Reference: Connecticut General Statutes
 10-222 Appropriations and budget
 10-248a Unexpended education funds account

Policy adopted: April 4, 2017

NEWTOWN PUBLIC SCHOOLS
Newtown, Connecticut

BOE Non-Lapsing Fund Balance and Potential Activity

| | Reserved for Special Ed \$63,000 | Unreserved | Total Non Lapsing |
|---|--|------------|----------------------|
| Amount reserved for Special Education | | | \$63,000 |
| Amount reserved for General Non-Lapsing | | \$457,334 | \$457,334 |
| Current Total Balance Non-Lapsing Fund 6/30/2019 | | | \$520,334 |
| February 29, 2020 Projected Expenditure Balance | | \$291,303 | \$291,303 |
| Total Projected Balance Non-Lapsing Fund 2/29/2020 | | | \$811,637 |
| Potential additional COVID 19 Expenditure Balance - March 31, 2020 | | \$941,502 | \$941,502 |
| Total PROJECTED Balance Non-Lapsing Fund 3/31/2020 | | | \$1,753,139 |

POTENTIAL USES/INITIATIVES FOR NON-LAPSING FUNDS:

| | | | |
|---|-------------|-------------|------------------|
| Offset partial CIP expenditures for Turf replacement projects at NHS | | (\$350,000) | (\$350,000) |
| Cover the engineering expense for HAW HVAC project (Town saves debt service) | | (\$300,000) | (\$300,000) |
| Additional costs related to COVID 19 beyond Requested Budget for 2020-21 | | (\$250,000) | (\$250,000) |
| Set aside for unexpected Special Education expenses | (\$300,000) | | (\$300,000) |
| Total PROJECTED Balance Non-Lapsing Fund | | | \$553,139 |

| POTENTIAL ACCOUNT BREAKDOWN | Reserved for Special Ed | Unreserved | Total Non Lapsing |
|---|----------------------------|----------------------|----------------------|
| Amount reserved for Special Education | \$363,000 | | \$363,000 |
| Amount reserved for General Non-Lapsing | | \$253,139 | \$253,139 |
| Total Anticipated Balance Non-Lapsing Fund after above initiatives | \$363,000 | \$253,139 | \$616,139 |

Formula did not take into account the \$63,000 already reserved for Special Ed.

| CORRECTED POTENTIAL ACCOUNT BREAKDOWN | Reserved for Special Ed | Unreserved | Total Non Lapsing |
|---|----------------------------|------------------|----------------------|
| Amount reserved for Special Education | \$363,000 | | \$363,000 |
| Amount reserved for General Non-Lapsing | | \$190,139 | \$190,139 |
| Total Anticipated Balance Non-Lapsing Fund after above initiatives | \$363,000 | \$190,139 | \$553,139 |

Newtown Alternative Learning Plan

End-of-Year Grading

Introduction

In response to the Governor's call for school closure in March, Newtown's *Alternative Learning Plan* was created to provide flexible learning opportunities through a "remote" platform outside of the traditional classroom. Regardless of the length of school closure, our plan guided teachers across all grade levels and departments to engage students through a combination of print and digital instructional resources and tools so that learning could continue. The Alternative Learning Plan set out to accomplish several goals:

- Ensure continuity of learning during what might result in an extended closing
- Promote access to information needed for distance learning
- Encourage student independence and ownership of learning

The framework for the learning plan aligned with several ideals at the heart of the District's belief system: *collaboration, consistency, and communication*. Staff and leaders recognized early on that students would not have the same access to teachers during this period of time and may not have the same supports associated within a traditional school environment. Therefore, the alternative learning plan sought to make certain that all families received access to technology, clear directions around content and instructional activities, as well as communication regarding the use of digital and interactive tools to support students at home.

Moreover, teachers understood the delicate balance between flexibility and maintaining common expectations while delivering instruction, offering support, and assessing student learning. Teachers' priorities concentrated on facilitating student engagement and monitoring student progress, while remaining mindful of the obvious challenges posed by a distance learning format. It is important to note that the Newtown Alternative Learning Plan encouraged the use of formative assessments through a digital instructional format. Formative assessments evaluate "in-process" or ongoing learning in order to monitor student progress.

Although the Connecticut State Department of Education (CSDE) noted that educational decisions, including student assessment and grading, typically rest with individual districts, they underscored the fact that students and families would be facing unprecedented challenges in the midst of this global crisis. As a result, the CSDE offered guidance for districts regarding assessment of student learning and grading practices. As part of the State's guidelines, districts were encouraged to adopt a P/F (Pass/Fail) model for the month(s) in which students worked remotely.

In alignment with the CSDE recommendations, the End-of-Year Grading Plan incorporates a P/F option into existing grading practices and honors student effort, performance, and improvement. The grading plan also minimizes the negative impact on students as a result of distance learning

and provides an opportunity for students to maintain or improve their end-of-year performance. While the District has adopted a P/F option for Grades 5-12, we wanted to assure students that their achievement over the course of the year would be equally valued.

End-of-Year Grading

Through the Alternative Learning Plan, students were provided both print and digital tools (such as tablets and Chromebooks), and elementary teachers developed appropriate activities in reading, writing, and math, as well as special areas. Grade level teams worked collaboratively to identify common assignments to measure student progress and continue to provide meaningful and timely feedback to students. As part of the end-of-year evaluation at the elementary level only, teachers will be asked to develop a final **narrative** for each student that focuses on specific standards in which students showed progress over the course of the school year (e.g., reading, writing, math), as well as participation. These narratives will celebrate student effort and improvement evidenced throughout the year.

In grades 5-12, teachers used Google Classroom to deliver content and provide digital instructional opportunities for students. While learning has been asynchronous at all levels, teachers continued to connect with students and monitor ongoing learning and progress. The end-of-year evaluation modifications at the intermediate, middle, and secondary levels were specifically designed to recognize students for their effort, progress, and academic achievement demonstrated prior to and during distance learning. It was important to staff and school leaders that students at these levels still be afforded recognition for their achievement and/or academic improvements.

Thus, the following adjustments will be made for students in grades 5-12:

- Decreasing the weighting of the final quarter for NMS and NHS, as well as the final trimester at Reed.
- Eliminating final exams.
- Distributing greater weight for the previous quarters/trimesters for Reed, NMS, and NHS
- Increasing scores from the previous grading period equivalent to an F to reflect a grade of 60.
- Providing an option of P (Pass) for students at NMS and NHS whose grade is 85 or lower and students at Reed whose grade is below a B-.
- Providing an option of P+ (Pass with Distinction) for students at NMS and NHS whose grade is 86+.
- Allowing students at NMS and NHS the option to maintain a traditional grading practice.
- Continuing to calculate scores into a student's GPA.

The following charts outline modified grading expectations, new semester or trimester calculations, and typical samples of students adjusted final grades:

| Elementary Schools (K-4) |
|--|
| <p>For classroom teachers, "narrative only" to include the following:</p> <p>1-2 positive only comment(s) on participation. 1-2 comments (on each) reading, writing and math progress based on what has been measured over the course of the year (not limited to the time of distance learning).</p> <p>Special area teachers will provide a "narrative only" to acknowledge students who made the effort to participate. No comments will be included for those students.</p> <p>The boxes for the "achievement of standard" will be shaded.</p> |
| Reed Intermediate School (5-6) |
| <p><u>Step 1- Reduce the weighting of T3 on overall grades</u></p> <p>New Calculations-</p> <ul style="list-style-type: none">• $Y1 = (T1) 40\% + (T2) 40\% + (T3) 20\%$ <p>Additional Information-</p> <ul style="list-style-type: none">• T3 Grades between a D- and C+ inclusively will be given a grade of P for Pass.• T3 Grades B- and higher will remain as the appropriate alpha grade.• T3 Failing Grades (31%-64%) will be given an F.• Incomplete (I) will be used for students with extenuating circumstances. Students who earn a T3 Failing Grade (0-30%) will receive an Incomplete (I) and will have an extended opportunity to complete any missing assignments.• ALL Incomplete grades to be resolved by September 2020. |

Student Examples:

| | T1 | T2 | T3 | End of Year |
|----------------------------------|---------|---------|---------|-------------|
| Student 1 - Traditional | 92 / A- | 88 / B+ | 70 / C- | 83 / B |
| Student 1 - Alternative Learning | 92 / A- | 88 / B+ | 79 / P | 88 / B+ |
| Student 2 - Traditional | 77 / C+ | 72 / C- | 70 / C- | 73 / C |
| Student 2 - Alternative Learning | 77 / C+ | 72 / C- | 79 / P | 76 / C |
| Student 3 - Traditional | 65 / D- | 72 / C- | 76 / C | 71 / C- |
| Student 3 - Alternative Learning | 65 / D- | 72 / C- | 79 / P | 71 / C- |
| Student 4 - Traditional | 80 / B- | 74 / C | 64 / F | 71 / C- |
| Student 4 - Alternative Learning | 80 / B- | 74 / C | 64 / F | 74 / C |

Newtown Middle School (7-8)

Step 1- Reduce the weighting of Q4 on overall grades, eliminate Final Exams.

New Calculations-

- $Y1 = (Q1)28.33\% + (Q2)28.33\% + (Q3)28.33\% + (Q4)15.01\%$

Step 2- Student selection of end of year grading option - June 8th

Option #1- Pass/Fail

- Q4 Grades between 30 - 64 will be given a Fail (F).
- Fail (F) will be given a numerical grade of 64.
- Q4 Grades between a 65-85 will be given a Pass (P).
- Pass (P) will be given a numerical grade of 85.
- Q4 Grades between 86-100 will be given a Pass with Distinction (P+)
- Pass with Distinction (P+) will be given a numerical grade of 93.
- Grades below 30 will be given an Incomplete (I) to offer an opportunity for students to complete missing work.
- Those with a grade higher than a 93 should choose **Option #2.**

Option #2- Traditional Grading

- Students will receive the earned numerical value for Q4.

Additional Information (for both Option 1 & 2)

- For ALL classes, teachers will raise all Q3 failing grades to 60.
- P/P+/F will be reflected in Q4 grades on PowerSchool.
- Incomplete (I) will be used for students with extenuating circumstances.
- ALL Incomplete grades to be resolved by September 2020.
- Students will only submit a change request if they would like Option #2.
- Option #2 change requests will be submitted through Google Forms in June.
- No Q4 Honor Roll.

Student Examples:

Please note that “Traditional” refers to the percentage weighting under normal circumstances as seen below for reference.

$$Y1 = Q1(25\%) + Q2(25\%) + Q3(25\%) + Q4(25\%)$$

Option #1 = Pass/Fail with adjusted calculation

Option #2 = Numerical Grade with adjusted calculation

| | Q1 | Q2 | Q3 | Q4 | Y1 |
|--------------------------------|----|----|----|----|-------|
| Student 1 Traditional | 70 | 67 | 50 | 64 | 62.75 |
| Student 1- Option #1 | 70 | 67 | 60 | 64 | 65.42 |
| Student 1- Option #2 | 70 | 67 | 60 | 64 | 65.42 |
| Student 2 - Traditional | 67 | 68 | 66 | 72 | 68.25 |
| Student 2- Option #1 | 67 | 68 | 66 | 85 | 69.7 |
| Student 2- Option #2 | 67 | 68 | 66 | 72 | 67.75 |
| Student 3- Traditional | 90 | 87 | 85 | 87 | 87.25 |
| Student 3- Option #1 | 90 | 87 | 85 | 93 | 88.18 |
| Student 3- Option #2 | 90 | 87 | 85 | 87 | 87.28 |
| Student 4- Traditional | 95 | 92 | 90 | 88 | 91.25 |
| Student 4- Option #1 | 95 | 92 | 90 | 93 | 92.43 |
| Student 4- Option #2 | 95 | 92 | 90 | 88 | 91.68 |

Student Example: NMS Classes that had a Midterm Exam (E1):

- $Y1 = (Q1)25\% + (Q2)25\% + (E1)10\% + (Q3)25\% + (Q4)15\%$

| | Q1 | Q2 | E1 | Q3 | Q4 | E2 | Y1 |
|--------------------------------|----|----|----|----|----|-----|-------|
| Student 5 - Traditional | 96 | 94 | 88 | 94 | 89 | 88 | 92.2 |
| Student 5 - Option #1 | 96 | 94 | 88 | 94 | 93 | N/A | 93.75 |
| Student 5 - Option #2 | 96 | 94 | 88 | 94 | 89 | N/A | 93.15 |

Newtown High School (9-12)

Step 1- Reduce the weighting of Q4 on overall grades, eliminate final exams.

New Calculations-

- $Y1 = (Q1)25\% + (Q2)25\% + (E1)10\% + (Q3)25\% + (Q4)15\%$
- $S2 = (Q3)75\% + (Q4)25\%$
- $Q4 = (Q4 \text{ Classes Only}) 100\%$ (Physical Education & Health)

Step 2- Student selection of end of year grading option - June 8th

Option #1- Pass/Fail

- Q4 Grades between 30 - 64 will be given a Fail (F).
- Fail (F) will be given a numerical grade of 64.
- Q4 Grades between a 65-85 will be given a Pass (P).
- Pass (P) will be given a numerical grade of 85.
- Q4 Grades between 86-100 will be given a Pass with Distinction (P+)
- Pass with Distinction (P+) will be given a numerical grade of 93.
- Grades below 30 will be given an Incomplete (I) to offer an opportunity for students to complete missing work.
- Those with a grade higher than a 93 should choose **Option #2.**

Option #2- Numerical Grading

- Students will receive the earned numerical value for Q4.

Additional Information (for both Option 1 & 2)

- For ALL classes, teachers will raise all Q3 failing grades to 60.
- GPA continues based on Y1 Grades.
- P/P+/F will be reflected in Q4 grades on PowerSchool.
- P/P+/F will not be reflected on a transcript, only Y1 will be reported.
- Incomplete (I) will be used for students with extenuating circumstances.
- ALL Incomplete grades to be resolved by September 2020.
- Students will only submit a change request if they would like Option #2.
- Option #2 change requests will be submitted through Google Forms in June.
- No Q4 Honor Roll.

Student Examples:

Please note that “Traditional” refers to the percentage weighting under normal circumstances as seen below for reference.

$$Y1 = Q1(20\%) + Q2(20\%) + E1(10\%) + Q3(20\%) + Q4(20\%) + E2(10\%)$$

Option #1 = Pass/Fail with adjusted calculation

Option #2 = Numerical Grade with adjusted calculation

| | Q1 | Q2 | E1 | Q3 | Q4 | E2 | Y1 |
|--------------------------------|----|----|----|----|----|-----|-------|
| Student 1 - Traditional | 70 | 58 | 63 | 58 | 65 | 63 | 62.8 |
| Student 1 - Option #1 | 70 | 58 | 63 | 60 | 85 | N/A | 66.05 |
| Student 1 - Option #2 | 70 | 58 | 63 | 60 | 65 | N/A | 63.5 |
| Student 2 - Traditional | 73 | 75 | 73 | 78 | 75 | 73 | 74.8 |
| Student 2 - Option #1 | 73 | 75 | 73 | 78 | 85 | N/A | 76.55 |
| Student 2 - Option #2 | 73 | 75 | 73 | 78 | 75 | N/A | 75.05 |
| Student 3 - Traditional | 89 | 85 | 87 | 82 | 90 | 87 | 86.6 |
| Student 3 - Option #1 | 89 | 85 | 87 | 82 | 93 | N/A | 86.65 |
| Student 3 - Option #2 | 89 | 85 | 87 | 82 | 90 | N/A | 86.2 |
| Student 4 - Traditional | 96 | 94 | 88 | 94 | 97 | 88 | 92.2 |
| Student 4 - Option #1 | 96 | 94 | 88 | 94 | 93 | N/A | 93.75 |
| Student 4 - Option #2 | 96 | 94 | 88 | 94 | 97 | N/A | 94.35 |

Final Thoughts

From the first moment Newtown Public Schools moved to an alternative learning model, teachers set a new benchmark for professionalism, working collaboratively to implement an environment for students and families that recognized the ongoing need for flexibility, equity, connection, and support. Both anecdotal and quantitative information have shown evidence of students' efforts, perseverance, and self-direction despite working in an environment outside of the traditional classroom environment. Parents who suddenly found themselves thrust into a supportive "facilitator" role at home remained focused as genuine partners with staff and school leaders in the best interest of their children. This partnership has made it possible for our students to find a level of success.

As we move forward, careful thought and planning must be given to the year(s) ahead of us. The result of this global crisis will leave an indelible mark on families, students, and staff. Discussions by school staff and leaders around the State have appropriately focused on potential learning gaps, social/emotional needs, and additional resources that may be necessary to mitigate both anticipated and unanticipated educational issues in the future.

Newtown Public Schools, like other districts, will continue to think ahead and make plans to support our students. An internal committee of Newtown educators and leaders will be called upon in May 2020 to formulate a plan prior to moving students into the next school year. Feedback will be solicited from staff, parents, Board of Education members, and members of PEAC (Parent Educator Advisory Council) as part of the process so that the Newtown community remains true partners in maintaining the highest level of educational quality for all learners.

**NON-RENEWAL LIST
2019-20**

Non-Renewals for Budgetary Reasons

| | |
|-----------------------|---|
| <u>Sandy Hook/HOM</u> | Janna Stratman - .6FTE PE |
| <u>K-4 Elem</u> | Marisa Basso - .5FTE Spanish |
| <u>Middle School</u> | Christopher Miller - social studies Kathryn Spallone – math interventionist |
| <u>High School</u> | Veronica Egas - .8 Spanish Brianna Williams - .6FTE English Christopher Siano - assistant principal |

**Non-Renewals as a Matter of Protocol
One Year Contracted/Long-term Substitute Positions**

| | |
|--------------------------|--|
| <u>Sandy Hook</u> | Sabina Rae – LT sub Kyle Unger – LT sub |
| <u>Middle Gate</u> | Denise Strong – LT sub |
| <u>Reed Intermediate</u> | Jennifer Aurelia – 1 year contract |
| <u>Middle School:</u> | Christina Chase – 1 year contract |
| <u>High School:</u> | Melissa Guillemette – 1 year contract |

NEWTOWN PUBLIC SCHOOLS
Newtown, Connecticut

ENROLLMENT REPORT AS OF March 31, 2020 - Schools closed as of 3/16/20 - Coronavirus

Current Monthly Enrollment

Cumulative Year-to-Date

| Grade | Feb(e) | Added | Left | Mar | Aug 26th | Added | Left | Mar |
|--------------------------|--------|-------|------|-------|----------|-------|------|-------|
| | 2020 | | | 2020 | 2019 | | | 2020 |
| K | 248 | 2 | 1 | 249 | 245 | 9 | 5 | 249 |
| 1 | 258 | 3 | 0 | 261 | 259 | 8 | 6 | 261 |
| 2 | 264 | 1 | 0 | 265 | 263 | 6 | 4 | 265 |
| 3 | 263 | 2 | 2 | 263 | 265 | 7 | 9 | 263 |
| 4 | 290 | 1 | 1 | 290 | 290 | 4 | 4 | 290 |
| Total Elementary | 1,323 | 9 | 4 | 1,328 | 1,322 | 34 | 28 | 1,328 |
| 5 | 275 | 1 | 0 | 276 | 277 | 1 | 2 | 276 |
| 6 | 286 | 0 | 0 | 286 | 285 | 3 | 2 | 286 |
| Total Intermediate | 561 | 1 | 0 | 562 | 562 | 4 | 4 | 562 |
| 7 | 339 | 1 | 1 | 339 | 342 | 4 | 7 | 339 |
| 8 | 338 | 1 | 0 | 339 | 342 | 3 | 6 | 339 |
| Total Middle | 677 | 2 | 1 | 678 | 684 | 7 | 13 | 678 |
| 9 | 352 | 1 | 2 | 351 | 347 | 8 | 4 | 351 |
| 10 | 358 | 1 | 5 | 354 | 358 | 6 | 10 | 354 |
| 11 | 383 | 2 | 1 | 384 | 384 | 4 | 4 | 384 |
| 12 | 412 | 0 | 1 | 411 | 426 | 2 | 17 | 411 |
| Total High | 1,505 | 4 | 9 | 1,500 | 1,515 | 20 | 35 | 1,500 |
| <u>Special Education</u> | | | | | | | | |
| Pre-Kdg | 90 | 4 | 0 | 94 | 76 | 23 | 5 | 94 |
| Community Partnership | 15 | 0 | 1 | 14 | 16 | 0 | 2 | 14 |
| Out-of-Town | 38 | 2 | 1 | 39 | 40 | 4 | 5 | 39 |
| TOTAL K-12 | 4,209 | 22 | 16 | 4,215 | 4,215 | 92 | 92 | 4,215 |
| | ===== | ==== | ==== | ===== | ===== | ==== | ==== | ===== |

ENROLLMENT BY SCHOOL

| | | | | | | | | |
|--------------------------|-------|------|------|-------|-------|------|------|-------|
| Hawley | 299 | 5 | 3 | 301 | 304 | 8 | 11 | 301 |
| Sandy Hook | 367 | 1 | 1 | 367 | 368 | 9 | 10 | 367 |
| Middle Gate | 361 | 2 | 0 | 363 | 354 | 13 | 4 | 363 |
| Head O' Meadow | 296 | 1 | 0 | 297 | 296 | 4 | 3 | 297 |
| Total | 1,323 | 9 | 4 | 1,328 | 1,322 | 34 | 28 | 1,328 |
| Reed Intermediate | 561 | 1 | 0 | 562 | 562 | 4 | 4 | 562 |
| Middle School | 677 | 2 | 1 | 678 | 684 | 7 | 13 | 678 |
| High School | 1,505 | 4 | 9 | 1,500 | 1,515 | 20 | 35 | 1,500 |
| <u>Special Education</u> | | | | | | | | |
| Pre-Kdg | 90 | 4 | 0 | 94 | 76 | 23 | 5 | 94 |
| Community Partnership | 15 | 0 | 1 | 14 | 16 | 0 | 2 | 14 |
| Out-of-Town | 38 | 2 | 1 | 39 | 40 | 4 | 5 | 39 |
| TOTAL K-12 | 4,209 | 22 | 16 | 4,215 | 4,215 | 92 | 92 | 4,215 |
| | ===== | ==== | ==== | ===== | ===== | ==== | ==== | ===== |

(e) = End Of Month

check 0 0 0 0 0 0 0 0

NEWTOWN PUBLIC SCHOOLS
Newtown, Connecticut

ELEMENTARY CLASS SIZES AS OF March 31, 2020

| Grade | Hawley | Sandy Hook | Middle Gate | Head O' Meadow | Reed | TOTAL | check |
|------------------|----------------------|----------------------|----------------------|----------------------|------|--------------|-------|
| Pre K | | 94 | | | | 94 | 0 |
| K | 15 14 15 14 | 17 17 16 17 | 18 18 18 17 | 18 17 18 | | | |
| Total K | 58 | 67 | 71 | 53 | | 249 | 0 |
| 1 | 21 20 20 | 17 16 18 17 | 16 15 16 16 | 17 17 17 18 | | | |
| Total 1 | 61 | 68 | 63 | 69 | | 261 | 0 |
| 2 | 19 19 20 | 20 20 19 20 | 18 18 18 19 | 19 18 18 | | | |
| Total 2 | 58 | 79 | 73 | 55 | | 265 | 0 |
| 3 | 19 19 18 | 16 20 20 18 | 20 20 21 21 | 26 25 | | | |
| Total 3 | 56 | 74 | 82 | 51 | | 263 | 0 |
| 4 | 17 18 17 16 | 20 19 20 20 | 19 19 18 18 | 23 23 23 | | | |
| Total 4 | 68 | 79 | 74 | 69 | | 290 | 0 |
| Total K-4 | 301 | 367 | 363 | 297 | | 1,328 | 0 |
| <i>check</i> | 0 | 0 | 0 | 0 | | 0 | |

**Board of Education
Newtown, Connecticut**

Minutes of the Board of Education special meeting on March 19, 2020 at 12:00 p.m. in the council chambers at 3 Primrose Street.

M. Ku, Chair
D. Delia, Vice Chair
D. Cruson, Secretary
D. Leidlein
J. Vouros
R. Harriman-Stites
D. Zukowski
H. Jojo (absent)
M.Chand(absent)

L. Rodrigue
A. Uberti
R. Bienkowski

Mrs. Ku called the meeting to order at 12:00 p.m.

Item 1 – Pledge of Allegiance

Mrs. Ku stated that we would be recording this meeting on Google Meet and it would also be streaming on the Town website. Mrs. Harriman-Stites, Mr. Delia, Mrs. Leidlein, and Mrs. Zukowski attended the meeting remotely. Mrs. Ku clarified this unusual meeting format due to conflicting circumstances but wanted to provide government meetings to the public and be safe. She thanked everyone involved for helping to set this up including Carmella Amodeo and George Yagop in the Technology Department.

Item 2 – Discussion of COVID-19 Waiver and Distance Learning

Dr. Rodrigue thanked all staff members and the leadership team especially Mrs. Uberti and Dr. Purcaro for thinking ahead well in advance to prepare the alternative learning plan. We received the waiver and implemented this plan. Parents had multiple communications from us. We did not do this so we could get out earlier. We felt this was good for students and the right thing to do to keep them engaged. Many districts were not prepared. We have been asked for our plan by multiples districts. She thanked Mrs. Ku for supporting that and the leadership team. This is not easy and people have to be patient.

Mrs. Uberti said we are transitioning from a supplemental learning phase to actual distance learning under our plan. The high school was ready to start with true online learning but there are other challenges in the lower grade levels. The elementary teachers are working on creating lessons to include new learning. There are a lot of challenges in balancing the workload for students by the parents. We are also trying to provide training for parents and will upload a digital resource page for our website to provide training for staff and parents. Another challenge is ensuring equity to make sure we are consistent in what we are doing and supplying lessons for special education students and those receiving ELL services. We will look to rolling this down to third and second grade students which offers the best way to provide distance learning to them.

Dr. Rodrigue stated that we are providing devices to parents who need them. We are also dealing with students receiving free and reduced lunch but we put the free lunch offer it out to the entire community. She thanked Joe Stango and his Whitsons staff for providing food to be picked up at Head O'Meadow School, the middle school and the high school on Mondays and Wednesdays.

Mrs. Ku recognized Dr. Rodrigue's forward thinking and support of the administrative staff which made our district a leader in the State giving students an opportunity to learn and seeing ahead to what was going to come and where we are now. These are not ideal circumstances for students but this plan will bridge the gap to when they come back to school. She was proud of the district for this all-hands approach.

Mr. Cruson clarified that when the State announced the waiver it was for 10 days.
Dr. Rodrigue said this is now for the duration of the closure until further notice.

Mrs. Zukowski asked if there was a way parents could get things from their child's locker.
Dr. Rodrigue said we've been doing this and making appointments to meet them.
Mrs. Uberti said at the K-8 schools the administrators are getting the needed materials and leaving them in the vestibule for parents to retrieve.
Dr. Rodrigue will check on the procedure at the high school.

Mrs. Leidlein shared Mrs. Harriman-Stites' question which was how we were dealing with the student accommodations such as OT services.
Dr. Rodrigue said that case managers and special education teachers are working closely with students and are reaching out to families and continue to send modifications. Regarding OT and BT services, they are reaching out to family members and will send additional activities to meet those needs. The State has been very flexible. The special education department is working to find alternative strategies. We encouraged parents to reach out to us, principals and teachers with any concerns. Counselors are also in touch with their families.

Mr. Delia asked if there was a plan for SBAC and SAT testing.
Dr. Rodrigue stated that the SAT schedule was moved a week and AP testing could be rescheduled. When the governor speaks March 30 or 31 things may change again.

Mr. Cruson said that as we progress it would be helpful to share with parents when the school year will end.
Dr. Rodrigue was waiting for clarification because the governor stated that all districts could land on their ending date but there are mixed messages to where that is.

Mrs. Harriman-Stites' question was about the expectation for the level of completion and level of mastery on assignments going home.
Mrs. Uberti said that was hard to answer right now because some parents are looking for more work and some find it very challenging. We feel the classroom teachers are the best persons to reach out to with individual concerns. We will collaborate with the principal and grade levels to fill the gaps. The message now is classroom teachers should be contacted by parents.

Mrs. Zukowski asked if there is a plan to help teachers bring everyone back to where they should be when they return to class.

Mrs. Uberti said that's a future phase of planning.
Dr. Rodrigue said there is a big difference between the grade levels. The high school students are used to working on line but it's different at the elementary levels and it's new to students and parents. We need to have some flexibility. We understand what families are going through and students are doing the best they can with their parents.

Mr. Delia asked about outplacements.
Dr. Rodrigue said we would transport as long as transportation is running and the facilities are open.

Mr. Cruson said distance learning started yesterday with K-4 delayed until Monday and asked if this will affect those students at the end of the year.

Mrs. Uberti said we planned supplemental learning activities and developed a time when they would switch over. We had to create a transitional period when they would switch over. Staff needed more time to develop lesson plans and they will share their lesson plans. As long as we move grade levels at the same pace and all four schools are doing the same thing we will deal with what was next.

Mr. Cruson said it makes more sense to start them on a Monday.

Dr. Rodrigue stated that elementary parents needed a little more time to prepare for the school work to begin.

Mr. Vouros said it was important to remember the elementary teachers are reaching out to each household to be sure parents and students know what they are doing on a daily basis. He saw firsthand that it's working very well.

Item 3 – Box Lunch Program through Whitsons

Dr. Rodrigue said Mrs. Amodeo worked with Whitsons to create a survey for parents which is sent to Whitsons to process which is working well.

Mrs. Ku said we have community members interested in helping.

Dr. Rodrigue agreed and there were volunteers also at the Board level also but we decided to limit it to staff because of the virus.

Item 4 – Discussion and Possible Action on the April Recess

Dr. Rodrigue said we had three snow days and two non-distance learning days for a total of five days altogether. If these days are counted and if we come back at some point before the April break she suggests to not cancel the break. We have less than the number of days that we would need to cancel the April break. Teachers are stressed as many have their own children dealing with this along with teaching their students. She recommends going with the break and just adding other days to the school year.

Mrs. Ku was not sure if we know enough information to make that decision. Feedback from the public would be useful.

Mr. Cruson was always in favor of having spring break even if we had a rough winter but if we used the break as education time it could potentially move back our end date. With the uncertainty of whether we are going back it would help to decide on end of the year activities. Taking the April break and ending earlier in June would be better. He would continue following the calendar.

Mrs. Zukowski asked if there could be some flexibility in considering the April break but we could use it as catch up time and an optional week with teachers and parents opting in for a way to help students.

Dr. Rodrigue stated this time is being counted as school days for teachers. She was not sure if having the April break as an optional week would work out because we would have to pay teachers which means they would be working on a week they didn't work before.

Mr. Vouros was in favor of leaving the April break as is because the teachers, students and parents need it. He agreed with Mrs. Zukowski that when we get back there would be a

discussion on how these students will regroup by class or grade level so those who need extra help will get it. Students that are not where they need to be will get the help they need and catch up before moving to the next grade level.

Mrs. Uberti said regarding the April break and depending where we are, that could be valuable time for central office and the Technology Department if we are looking at another phase of when students might return.

Mr. Delia said it was critical that everyone gets the break and he would not support changing anything on the calendar.

Mrs. Leidlein was in support of not changing it and Mrs. Harriman-Stites agreed.

Mrs. Ku recognized that everyone was putting in a huge amount of effort so she isn't in favor of removing the spring break.

Financial Report and Transfer for the Month ending February 29, 2020:

MOTION: Mr. Cruson moved that the Board of Education approve the financial report and transfer for the month ending February 29, 2020. Mr. Vouros seconded.

Mr. Bienkowski said we received the first installment of the Excess Cost and Agency Placement Grant based on the December data submission. This first receipt is based on a State calculated rate at 74.8% and amounts to \$1,409,141. He recommends transferring \$100,000 from the special education contingency fund to the special education out-of-district tuition line. This fund was established to be used for this purpose. Emergency repairs were required at Sandy Hook School, Newtown Middle school and Newtown High School.

Mrs. Zukowski asked the impact of the shutdown on next month's financial report and where we are spending more and where we are not spending.

Mrs. Ku noted that would be discussed in the next agenda item.

Mr. Delia asked if it was better to wait on transferring from the contingency fund until the end of the year.

Mr. Bienkowski said it was appropriate to transfer now. We used it the end of last year.

Regarding the Board of Finance and the Legislative Subcommittee meetings, it is a continuing topic of why we haven't used it. We know this isn't going to change so it makes sense to do it so we can demonstrate we are expending it in accordance with what the original intention was.

Dr. Rodrigue said the Legislative Council talked about when Mr. Bienkowski took money from other accounts instead of using the contingency. That led us to use it when we needed it.

Mr. Cruson said if we had money left from the contingency fund we could put in a fund at the end of the year. He asked if we have a positive balance if part of it could be put in the contingency fund and part in the nonlapsing account.

Mr. Bienkowski said that nothing would prevent us from doing that as long as the Board agreed.

Mrs. Ku stated that conversations at the Board of Finance and Legislative Council levels indicated some confusion about the nonlapsing account and if special education money could be used for special education funds. Prior to all of the changes, the CIP/Facilities Committee was going to take up that discussion.

Motion passes unanimously.

Item 6 – Fiscal and Personnel Implications of COVID on the District

Dr. Rodrigue said there are a lot of unknowns regarding areas we will not spend and difficult to predict.

Mr. Bienkowski said we are dealing with uncharted territory but a number of accounts will be impacted because schools are closed. Accounts negatively impacted would be medical-related costs because we have waived all copays and onsite fees for COVID-19 testing and treatments. That will come out of our self-insurance fund, which would be .1%. Another area is services we bill to other districts such as the pre-school program so the parents deserve a refund. Also, school lunches being provided because there is no fund that Whitsons has so it will be our responsibility.

Offsetting these are a number of items because of no activities in the schools. They include custodial/maintenance overtime, security overtime, substitutes, tutors, springtime activities, Fica and Medicare will be less, there will be no staff training, savings in the water account, classroom repairs of instructional equipment which will be on hold but we are looking at buildings repairs that can't be done when students are in the buildings, staff travel, class travel for field trips, all supplies, electricity with the schools being set on night mode, bus fuel and overall bus contract adjustments. He spoke to All-Star Transportation and they still have fixed costs to pay.

There are significant dollars that can accumulate at approximately \$600,000 to close to \$1M. The \$600,000 is without transportation and tuition. Tuition contracts have to be reviewed to see how they are paid.

He had a conversation with EdAdvance regarding transportation for out-of-district students. We won't get a determination of the balance until students return to school. Whatever is left over would go into the nonlapsing account. We have \$500,000 in that account now

Mr. Vouros asked the position we are taking presenting this to the Legislative Council.

Mr. Bienkowski said we will continue with our adopted budget. We aren't going to suggest any of these will impact that budget.

Mr. Vouros was concerned about them suggesting that we reduce our budget by \$600,000.

Dr. Rodrigue agreed with Mr. Bienkowski that we should not change our approach because we are at the Legislative Council phase now. She would hate to have the unknowns impact that in some way. We have no idea of what legal implications and medical costs will be.

Mrs. Ku asked how we are going to make sure students are on the same level when they come back to school.

Dr. Rodrigue said that OT and PT services will continue over the summer. Compensatory services need to be made up after July 1.

Mrs. Zukowski said it could be possible we have enough overall net money to ensure focusing on bringing students up to where they were if this hadn't occurred. She hoped the Legislative Council doesn't cut the operational budget. Students need to learn as well as they are capable of learning.

Mr. Delia asked if teachers were being provided the additional resources they require to provide the students with what they need.

Dr. Rodrigue stated that we have had lots of professional development and this is occurring every day between staff. With technology and library media services we have what we need.

Mrs. Uberti said we don't need a lot of supplies because we aren't face-to-face with students and we are also providing training.

Mrs. Ku stated this brought to light the importance of technology.

Mr. Vouros said if we don't return this year and the students comeback in August, we would need to have plans in place and enough staff to get them to where they need to be. He hopes some of this money could be used to provide the personnel to infuse into the classrooms to help because this will not be easy for teachers to do on their own.

Mr. Cruson asked if besides All-Star, were there other contracted services not being used now. Mr. Bienkowski said any type of maintenance service contracts are continuing. We need to look at special education contracts and the expectation for paying.

Mr. Delia asked that since teachers are working at home if there were any modifications for evaluations and things of that nature and new teacher requirements to make sure teachers know they're appreciated and not adding additional pressures at this point.

Dr. Rodrigue said at the State level they relaxed the teacher evaluation and wants the districts to focus on students and learning now and using distance learning. Our focus is to support teachers so they can support students in a new way and they are truly being recognized. Our staff has done an amazing job.

Mrs. Ku asked how the employees of contracted services like All-Star, the special education transportation and Whitsons are being addressed.

Mr. Bienkowski said they are all private employers. For our public employees we pay the unemployment that someone is eligible to receive. Private employees in the school system are eligible for unemployment compensation for the school breaks and over the summer. We can't interfere in that process of unemployment. The unemployment office has been overwhelmed since this began which will impact the State budget.

MOTION: Mr. Cruson moved to adjourn. Mr. Vouros seconded. Motion passes unanimously.

Item 7 – Adjournment

The meeting adjourned at 1:40 p.m.

Respectfully submitted:

Daniel J. Cruson, Jr.
Secretary

**Board of Education
Newtown, Connecticut**

Minutes of the Board of Education special meeting on March 26, 2020 in the council chambers at 3 Primrose Street at 3:00 p.m.

M. Ku, Chair
D. Delia, Vice Chair
D. Cruson, Secretary
D. Leidlein
J. Vouros
R. Harriman-Stites
D. Zukowski
H. Jojo (absent)
M.Chand(absent)

L. Rodrigue
A. Uberti
R. Bienkowski

Mrs. Ku called the meeting to order at 3:00 p.m.

Board members present were Dan Cruson, John Vouros and herself. The other Board members were on video as well as Anne Uberti and three members of the public on the phone line. The meeting was also being recorded.

Item 1 – Public Participation – None

Item 2 – Update on Distance Learning

Dr. Rodrigue thanked the leadership team, staff, parents and students who have stepped up using distance learning. We are working on revising areas in our plan and listening to parent and staff feedback. We continue to provide Chromebooks to families. Mrs. Amodeo and the tech staff have been phenomenal. We are providing devices starting with fourth grade students. Superintendents are sharing their distance learning plans. Universities and colleges are also sharing their knowledge and expertise. Another communication will be sent to parents to update them on the plan. Part of this situation is social isolation. Parents want their children to see their teachers and we will work that out with the staff.

Mr. Vouros asked if there was any way for each class to see each other so they can connect with one another and their teacher.

Dr. Rodrigue said that right now we are working on teachers connecting with their class. It's more difficult for younger students. It's too early to look at that possibility.

Mr. Cruson addressed K-2 students getting Chromebooks and Ipads and asked if they specifically had to be Ipads which might be difficult for some families.

Dr. Rodrigue said with both we are trying to be more interactive. We are making sure to supply devices for families.

Mrs. Uberti said the device for K-1 students is a tablet because it's easier for them to navigate.

Item 3 – Update on Memorandum of Understanding with Bargaining Units

Dr. Rodrigue worked these out with our unions and they are already practicing what is included in them. We are honoring their contracts in good faith. We worked on the remote instruction which was a change in the working conditions that prompted the MOUs. We discussed this with every union and the common theme in all is closure-related work which is the difference in the classroom and the most important component. Some are very specific around time and documentation. The target is four hours for teachers. We have an understanding with paras that their work will be around professional development. They are online with safe schools, working with professional development opportunities, and training. Some may even be able to work with teachers. The nurses MOU is also straightforward and they could work remotely.

They have SNAP and are doing reports as well as reaching out to families in need. She reached out to unions and asked that they continue reaching out to families. Also, if the Town needed nurses to help out we would see if they might be interested. Custodians are working on a rotation schedule. It's working out well with security as they are sharing being at the three schools during the free lunch distribution. We had a good faith understanding with all unions, wanted to keep people safe, and it makes sense to enter into these agreements with each union in the best interest of the district.

Mr. Delia asked if teacher evaluations have to be part of the MOU.

Dr. Rodrigue said they should not because the evaluation and support plan was waived for teachers by the State.

Mrs. Ku stated that we would not put in any issues that would be dictated by the State in an MOU.

Dr. Rodrigue said these MOUs would be in effect for the rest of the contract term.

Mr. Cruson appreciated that the bargaining units were willing to enter into these MOUs and support the district during this time.

Dr. Rodrigue said we have a good relationship with our unions and thanked all of them.

Mrs. Zukowski was pleased to see that we are protecting our staff during this time and asked if the MOUs covered the entire employee base and if others who worked for the district like substitute teachers were covered.

Dr. Rodrigue stated that substitute teachers are hired on a daily basis so they won't be covered. Our Care Navigator is still working with families so we are keeping her position as whole. Also, the BCBA's are contracted and we are working with them individually.

Mrs. Zukowski asked if custodians who normally worked during the day had to substitute in the evening, would that custodian be paid the night shift differential.

Dr. Rodrigue said we moved the night shift to the day shift so no one will work in the evening. There will be less hours to keep people safe and working remotely if possible

Mrs. Zukowski asked if the MOUs were legal with Dr. Rodrigue's signature for the Board of Education and why the Chair wasn't signing to make it official.

Mrs. Ku said that past practice is the Superintendent has the ability to make these MOUs and update the Board on them. The Superintendent will sign and that's not uncommon.

Mrs. Zukowski said that maybe in the future instead of Newtown Board of Education for the signature it would just say Superintendent.

Mrs. Ku stated that the Board designates the Superintendent to sign for the Board.

Item 4 – Transportation Contract

Mr. Cruson will abstain due to a conflict.

Dr. Rodrigue stated that she and Mr. Bienkowski spoke to All-Star regarding the bus drivers getting paid. We also looked at the transportation savings we would get while school is not in session. It was important to negotiate with them on a way to pay the drivers and see a savings for us. Mr. Delia sent questions which included the number of buses we use which is 54. If school doesn't reopen, the number of non-bus days would be 58. If we go back on April 20, there will be 17 school days remaining. He also asked the cost per day per bus which is \$150.

In speaking with John Dufour today, there will be more realized savings because we would only pay the drivers and negotiate later what savings they could pass on to the district.

Mr. Bienkowski said there are many components that make up the daily rate such as payments on loans they have, rent for parking the buses, and insurance. Also, we could see a savings on other items. If we pay the drivers they will just bill us for the drivers and on nothing else the rest of the year. The rent for buses and our costs for propane fuel will be saved because there would be no transportation for athletic events and field trips. We will just be paying for labor.

Dr. Rodrigue said Mr. Dufour is in the process of negotiating with their vendors for possible savings for them. She was confident and comfortable after that phone call. We will talk again after April 20.

Mr. Delia thanked them for talking with them and to pass along his sincere thanks for working with us.

Mrs. Harriman-Stites was thrilled to be able to pay the bus drivers and asked what portion of the \$150 per day was the labor cost.

Mr. Bienkowski said that was the initial figure we calculated. All-Star will do a detailed calculation based on the average hours each one drives because the rates are not the same for each driver.

Dr. Rodrigue said the All-Star manager and staff in the office are getting paid.

Mrs. Zukowski asked if there were aids on the buses.

Mr. Bienkowski said there are monitors on the special education vans and they will be included in the payroll based on average hours.

Item 5 – Discussion of Contracts

Whitsons Contract:

Dr. Rodrigue said Whitsons is a self-sufficient organization.

Mr. Bienkowski stated this is an enterprise fund because money generated takes care of its operation. The lunches we are providing will be paid by the Board of Education for approximately \$66,000 and charged to contracted services.

Dr. Rodrigue said Joe Stango and his staff members hand out lunches so they will get paid. Social services also reached out to Whitsons about helping to distribute food in the community.

Mrs. Harriman-Stites asked how much of the \$66,000 could be paid by federal funding.

Dr. Rodrigue was not sure about federal funding because we wanted to open this up to everyone. We aren't sure how much of that funding we would be eligible for.

Mrs. Harriman-Stites stated that a friend in Wisconsin told her they were using bus drivers to deliver breakfast and lunch in that town.

EdAdvance Transportation Contract:

Dr. Rodrigue stated that EdAdvance still transports any students to private facilities that are open. We had the option of paying the bill for the whole year and the remaining amount would be credited to us next year.

Mr. Bienkowski said that EdAdvance decided to pay drivers throughout shutdown as the right thing to do. They are revenue driven and said we could pay 50% of the bill just for the drivers

but if we pay it all they would credit us the other 50% next year. He recommends paying the full amount so there will be a reduced transportation cost next year.

Mrs. Ku said this was consistent with what we are hearing with MOUs and contracts without costing the district extra money.

Mr. Delia appreciates everything that everyone is doing. There is a tremendous amount of pressure on Dr. Rodrigue and the staff and he sees how hard everyone is working and appreciates what they've done.

Mrs. Ku thanked Dr. Rodrigue, Mr. Bienkowski and Suzanne D'Eramo for working with all the groups to come to these agreements to ensure the district is supporting everyone while fulfilling our mission to educate our students.

MOTION: Mr. Cruson moved to adjourn. Mr. Vouros seconded. Motion passes unanimously.

Item 6 – Adjournment

The meeting adjourned at 4:00 p.m.

Respectfully submitted:

Daniel J. Cruson, Jr.
Secretary

**Board of Education
Newtown, Connecticut**

Minutes of the Board of Education meeting on March 3, 2020 in the council chambers at 3 Primrose Street at 7:30 p.m.

| | |
|-----------------------------|---------------|
| M. Ku, Chair | L. Rodrigue |
| D. Delia, Vice Chair | A. Uberti |
| D. Cruson, Secretary | R. Bienkowski |
| D. Leidlein | 6 Staff |
| J. Vouros | 2 Press |
| R. Harriman-Stites (absent) | 2 Public |
| D. Zukowski | |
| H. Jojo | |
| M.Chand | |

Mrs. Ku called the meeting to order at 7:30 p.m.

Item 1 – Pledge of Allegiance

Mrs. Ku spoke about Debbie Leidlein who has been on the Board of Education for 10 years which is an amazing accomplishment. She is kind, deliberate and an incredibly fair and thoughtful leader. We have been lucky to have her contributions and leadership these past 10 years.

Dr. Rodrigue thanked Mrs. Leidlein on behalf of the staff, students, and families for her service and important work on the Board of Education for the last decade. She went above and beyond in advocating for children and education.

Mrs. Leidlein stated that she believes in giving back to the community. Being an educator made her commit to the Board of Education as opposed to other boards to make a difference for her children and those in the community. She has enjoyed her time on the Board and will carry this the rest of her life. She appreciates the opportunity to serve Newtown in this capacity.

Item 2 – Celebration of Excellence

Item 3 – Consent Agenda

MOTION: Mr. Delia moved that the Board of Education approve the consent agenda which includes the Newtown High School field trips, the donation to Head O'Meadow School, the donation to Newtown High School, and the acceptance of the correspondence report.

Mr. Cruson seconded.

Mrs. Leidlein asked to remove the high school trips from the consent agenda.

Mrs. Ku said they would be discussed at the end of the meeting.

Motion passes unanimously.

Item 4 – Public Participation

Item 5 – Reports

Chair Report: Mrs. Ku said that after the discussion about how to handle the correspondence report and after considering desires of the Board that were split, she was hopeful to limit the report but she consulted with the Board attorney and concluded because of the sensitive nature of emails it was not worth the sometimes legal risk that may come with it, including the first amendment rights. We will continue the way we have been doing it. It is prudent to air on the side of caution. The Board of Finance made a \$100,000 reduction to the Board of Education budget and will present to the Legislative Council the next evening. They will be talking about long-term budget planning. March 11 is the CAFE Day on the Hill when they host the board of education members to discuss legislation coming up. Mrs. Ku hopes to have another Board

self- evaluation in April after the budget passes. We received a letter from NEASC for the two-year progress report for Newtown High School and listed several points they were pleased to learn about.

Mr. Vouros asked her to read the items.

Mrs. Ku named a few from the list which included that they were pleased with our extensive work on the curriculum and the creation of the professional learning communities. They also need to be updated if we have any changes in the school including the name of the principal and/or superintendent.

Superintendent's Report: Dr. Rodrigue spoke about the letter she sent regarding the coronavirus and there are no reported cases in Connecticut but we continue to take our cues from the Health Department and CDC. The Town and school officials met this this morning and spoke about future concerns and what impact it will have on school and actions that might be needed to put into place if we consider closing a school or the district. We are asking everyone to stay calm, keep children home when sick, wash hands frequently and reach out to Donna Culbert in the Health Department. We decided to cancel overseas trips because the CDC said there should be no unnecessary travel.

She and Mrs. Harriman-Stites toured the agriscience program at Shepaug Valley and Megan Bennett, Superintendent, will be here at a future Board meeting with updates. This is the first evening of sharing the Superintendent's Spotlight which came out of our PEAC group. It is Mrs. Carla Tischio's fifth grade class at Reed.

Committee Reports:

Mr. Vouros spoke about the two math curriculum discussed at the recent Curriculum and Instruction Committee meeting which will be presented tonight.

Mr. Cruson said the Communications Subcommittee met on February 24 to define what the committee is doing going forward and while the schools and Superintendent are responsible for communicating with the parents and staff, they will reach out to the community. They will meet once a month and send a newsletter quarterly which the Board will review before it's sent. They also talked about the budget newsletter and will use the points of pride as the basis and expand on that. Mr. Cruson also went to Sandy Hook School for "Reading Across America" along with other Board members which was very enjoyable.

Newtown High School Student Reports:

Ms. Jojo reported the third quarter was in full swing and winter sports were wrapping up.

Mr. Chand stated that the production of Pippin will be held the end of this month along with the junior prom. Student Government hosted a talent show and the Science Bowl team is competing at UCONN this weekend.

Mrs. Jojo also stated that many clubs are holding fundraisers for charities of their choice with Unified Sports raising money for Special Olympics Connecticut.

Mr. Chand shared that the dance team won states on February 29 for the third consecutive year in a row. The gymnastics team finished third in the state championship.

Ms. Jojo spoke about the importance of educating students on the coronavirus. At the recent NICE meeting they talked about risk factors when traveling and the importance of keeping students informed.

Mr. Chand said seniors are hearing from colleges and have begun the decision process of where they want to go. They are also looking at scholarships and some are still visiting schools. Overall the morale at the high school is high.

Item 7 – New Business

Algebra 1 Foundations Part 1 Curriculum and Statistics Curriculum:

Gene Hall and Chris Pearson gave a presentation on these curricula.

Mr. Delia asked why this was just a high school class.

Dr. Longobucco replied that it was for special education students.

Mr. Delia asked if staff was being trained to implement the statistics curriculum.

Mr. Pearson said he taught this for the last four years and also took a class at Tufts to be able to teach AP statistics. We discuss the classes and put in the best qualified teachers.

Mr. Delia asked if any other resources were needed.

Mr. Pearson replied that the text we use is strong and also prepares students for the AP test.

Mr. Delia inquired if there was any crossover into business classes or Capstone Projects to which Mr. Pearson said the opportunity to cross into the Capstone Project is more in political science classes.

Mr. Delia said one part was writing a RAFT article.

Mr. Pearson said RAFT is an acronym we use when they get a project.

Mrs. Zukowski asked if there are viral models like epidemiology which would look at the coronavirus and the probability of it spreading.

Mr. Pearson said that would fall more into the exponential growth function of Algebra I or II.

Mrs. Zukowski asked if former students come back and talked about that class.

Mr. Pearson said he has had students come back who took statistics in college and knew a lot of what they were taught.

Dr. Rodrigue said RAFT was the writing strategy and stands for Role Audience Format Topic.

Mr. Delia said this type of math class could guide them in a direction almost to a career and thanked them for their hard work.

Action on Policies:

MOTION: Mr. Delia moved that the Board of Education approve Bylaw 9326. Mr. Cruson seconded.

Mrs. Zukowski noted that the Policy Committee was supposed to come back to the Board after reviewing this policy. The new policy says a sign will be posted on this room but not the room where the subcommittees meet. The other change was the presiding officer would ask if anyone would be recording, which was removed. Her question was if this policy meant to protect the Board to say we will tell them of all recordings we know of, or to reassure people that when they speak they have a good chance of not being taped if they are expecting not to be taped.

Mr. Cruson said it was next to impossible to police what people are doing at meetings even if we adjusted the policy to say people should make it known.

Motion passed unanimously.

MOTION: Mr. Delia moved that the Board of Education approve Bylaw 9327 Electronic Mail Communications. Mr. Cruson seconded.

Mr. Cruson said the previous discussion was to make a change and Mrs. Harriman-Stites went through the chair to add the sentence "Board members are encouraged to use district provided or approved electronic mail accounts" which would be at the end of the first paragraph.

MOTION: Mr. Cruson moved to add the sentence "Board members are encouraged to use district provided or approved electronic mail accounts" at the end of the first section. Mr. Vouros seconded.

Mrs. Zukowski wondered if it should be the "district provided and approved" or "Board of Education provided and approved" if in the future the Board of Education members would not continue on the district email system. It might be more appropriate for the district to suggest an email system and have it be a Board of Education vote, as opposed to a district vote or the Superintendent would suggest the preferred email system.

Mr. Delia agreed to change the wording to Board approved email service rather than district approved.

Mrs. Leidlein said the Board of Education is doing the work of the district. Also, if there is an FOIA request, that often times goes through our IT department and if we are not using the district email it could cause a difficult situation for the district to assist us in gathering those emails.

Mrs. Ku agreed with the motion that the district provides an email for the Board and we are encouraged to use it.

Dr. Rodrigue said the Newtown Public Schools is the district and agreed with Mrs. Leidlein. District is used throughout policies and it means Newtown Public Schools.

Vote on changing the wording: 4 ayes, 2 nays (Mr. Delia, Mrs. Zukowski) Motion passes.
Vote on policy: 5 ayes, 1 nay (Mr. Delia) Motion passes.

MOTION: Mr. Delia moved that the Board of Education approve Bylaw 9330 Board/School District records. Mr. Cruson seconded.

Mrs. Zukowski referred to the bottom of page "b" new text added regarding scanners to copy a public record and made the following motion.

MOTION: Mrs. Zukowski moved to amend the motion for the Board to move the words at the top of page "c" to the end of the previous paragraph and remove the wording on the \$20 flat fee. Mr. Cruson seconded.

Vote on the amendment: Motion passes unanimously.

Vote on policy: Motion passes unanimously.

MOTION: Mr. Delia moved that the Board of Education approve Bylaw 9350 Hearings to be rescinded. Mr. Cruson seconded.

Mrs. Cruson said we are rescinding this policy because it's covered in other policies. Motion passes unanimously.

Minutes of January 28, 2020:

Mrs. Ku stated that a motion was made by Mr. Delia and Mr. Cruson on these minutes so we would pick up the discussion. We have Mrs. Zukowski's changes. Overall, the minutes only need to reflect the motions and votes required by law. The essence of a discussion is important

but not sure if it's more important than individual discussions by people needing to be part of the minutes.

Mrs. Zukowski provided changes to these minutes and said she had never been called into question when on other boards and believes the minutes are the main place people go to get information about meetings and she wants to be represented true to who she is and what she contributes. She stated that sometimes she says the wrong word from what she wanted to say. Mrs. Harriman-Stites said the spirit of what we say should be captured. She stood by her requested changes which she reviewed.

Mrs. Ku suggested a motion for all of the changes.

MOTION: Mrs. Zukowski moved that the Board of Education accept the three requested changes to the January 28, 2020 minutes. Mr. Cruson seconded.

Mrs. Zukowski believed these changes better reflect the spirit of what was said. One was a factual error that needs to be corrected.

Mr. Delia said that capturing the spirit he worries would open up a can of worms. Minutes should reflect what was said. It's not the job of anyone to try to figure out what someone means when they said something. It's just the best recollection of what was said, written down and then moved on.

Mrs. Zukowski said her recommendations reflected the words actually said in the transcript. Mrs. Ku looked at the transcript and there were some things Mrs. Zukowski asked to remove from the minutes that are not what she was proposing to replace, which concerns her. She was using "in today's business environment" but that was not in the transcript. Mrs. Zukowski explained why she wanted to add those words.

Mrs. Ku said that using the money from the special education fund is being removed from what she said.

Mrs. Zukowski said she was talking about a business model of having a 7-12 program at Chalk Hill in a separate building and think regionally to ensure sustainability of the program. It's not the words but the concepts.

Mrs. Leidlein asked if we are re-discussing the entire topics or discussing the minutes and what was discussed at the meeting which isn't on this agenda. We are just trying to clarify what was actually said at the meeting and what is represented in the minutes. It isn't up to Ms. June to try to determine what concepts are being discussed at a given time. We try to represent our thoughts at that time. We can't do this with minutes of every meeting. If that were to be the case, then she would recommend just recording in the minutes the motions and votes.

Mr. Vouros said it was important to recognize that the passion Mrs. Zukowski brings to the table will come through and doesn't necessarily have to be pages of transcript. The trust factor will increase as her tenure on the Board increases. It is not necessary for us to say everything we feel we need to say.

Mr. Cruson said these motions are legitimate corrections to the minutes.

Mrs. Zukowski honestly believes her changes are more reflective of her words. There were some complicated topics she wanted reflected properly.

Mrs. Leidlein said she wouldn't be opposed to adding words actually said if there weren't words actually said that were removed from the minutes and also the idea we are rearranging words to fit in certain areas that may have been implied in other areas.

Mr. Delia asked Mrs. Zukowski if she said "in today's business environment."
Mrs. Zukowski said she did not.

Vote on amendment: 2 ayes, 4 nays (Mrs. Ku, Mr. Cruson, Mrs. Leidlein, Mr. Vouros) Motion fails.

Vote on minutes of January 28, 2019: 5 ayes, 1 nay (Mrs. Zukowski) Motion passes.

Minutes of February 4, 2020:

Mrs. Ku said there is a motion on the table from the last meeting.

Mrs. Zukowski explained her changes.

MOTION: Mrs. Zukowski moved to accept the two corrections to the February 4, 2020 minutes.
Mr. Cruson seconded.

Mrs. Zukowski said on page 2, paragraph 3, she wanted to change "art and science" to "art and music" because she meant to say "music."

Mr. Delia said she said "art and science" other times too and it makes sense to say that. We can't change minutes to reflect what we meant to say.

MOTION: Mr. Delia made a friendly amendment to split the motion to discuss each one individually. Mr. Cruson seconded. Vote: 4 ayes, 2 nays (Mrs. Ku, Mr. Vouros) Motion passes.

Mrs. Ku said we are here to talk about the district and the time doing this takes away from that. If we do this, it takes hours to go back at videos to make sure every word is correct. She was not in favor of changing things.

Vote on page 2 changes as proposed: 1 aye, 5 nays (Mrs. Ku, Mr. Delia, Mr. Cruson, Mrs. Leidlein, Mr. Vouros) Motion fails.

Mr. Cruson feels that page 1 changes are accurate and is a fair change to make.

Vote on page 1 changes: 4 ayes, 2 nays (Mrs. Ku, Mrs. Leidlein) motion passes.

Vote on February 4, 2020 minutes as amended: Motion passes unanimously.

School Calendars:

MOTION: Mr. Delia moved that the Board of Education approve the 2020-2021 and 2021-2022 school calendars. Mr. Cruson seconded.

Dr. Rodrigue decided on calendars for the next two years and these have been through multiple discussions with the leadership team, Teacher Forum, Climate and Culture, and PTA Presidents. Positive feedback was the flexibility of the April professional development day if weather was not favorable during the year and using it as a full day of school instead. We also made it more consistent to have mornings be two-hour delays and afternoons three-hour dismissals for professional development.

Motion passes unanimously.

Minutes of February 18, 2020:

MOTION: Mr. Delia moved that the Board of Education approve the minutes of February 4, 2020. Mr. Cruson seconded. Vote: 5 ayes, 1 abstained (Mr. Vouros) Motion passes.

MOTION: Mr. Delia moved that the Board of Education approve the high school field trips.

Mr. Cruson seconded.

Mrs. Leidlein supports that the Superintendent be in touch with the Health Department, the State Board of Education, and the CDC because she was concerned about how things are changing at a rapid pace and even if we approve these trips we give the Superintendent the authority to cancel them without the Board needing to reconvene and vote. This decision would be with the recommendation provided by our community or State Health Department.

Mrs. Zukowski seconded.

Dr. Rodrigue appreciated that and it would be in alignment with her decision for overseas travel. The Board agreed.

Motion passes unanimously.

Item 8 – Public Participation

Keith Alexander, 8 Fawnwood Road, spoke as a former Board member and said that Mrs. Leidlein has a particular way of making it clear about trying to get everything done for the children. He appreciated that when he was on the Board.

MOTION: Mrs. Leidlein moved to adjourn. Mr. Cruson seconded. Motion passes unanimously.

Item 9 – Adjournment

The meeting adjourned at 9:46 p.m.

Respectfully submitted:

Daniel J. Cruson, Jr.
Secretary

**NEWTOWN BOARD OF EDUCATION
MONTHLY FINANCIAL REPORT
March 31, 2020**

SUMMARY

The March financial follows this summary indicating that the Board of Education spent approximately \$5.1M; \$3.9M on salaries with the balance of \$1.2M for all other objects.

The projected balance has increased dramatically due to the COVID-19 school shutdown. This report and the numbers presented are done so with the assumption that schools will continue to be shut down and not resume activities again by the end of the fiscal year of June 30, 2020. Should classes resume, many of these balances will decrease with the suspended services being reactivated. A highlight of the summary balances that changed since the February report is as follows:

- 100 Salaries: an increase of \$270,000, major sub-object areas contributing to this increased balance for services which will not be required are: Teachers salaries \$34,000; Tutors \$38,000; Substitutes \$110,000; Activity Advisors \$6,000; Staff development \$15,000; Substitute Nurses \$18,000; Custodians \$10,000; Custodial Overtime \$27,000; Security Overtime \$9,000; other Special Education salaries \$3,000.
- 200 Employee Benefits: a decrease of approximately \$5,000, from an expected decrease in FICA and Medicare of \$15,000 and a potential increase of \$20,000 for unemployment.
- 300 Professional Services: an increase of approximately \$11,000 from a combination of additional Professional Services (legal) of about \$29,000 offset by a reduction in Staff Development Services of about \$40,000.
- 400 Purchased Property Services: an increase of approximately \$127,000, a balance which accumulates from the following: water \$12,000; building repairs \$10,000; classroom equipment repairs and replacements \$105,000.
- 500 Other Purchased Services: an increase to the estimated overall balance of \$227,000, which comes from remaining anticipated balances in all of these sub accounts. Contracted Services will produce \$34,000, Transportation \$131,000, Communication \$25,000, Printing \$6,000, Tuition \$6,000 and Student Travel and Mileage \$25,000. Transportation is the wild card in this category as final negotiations with the bus company will not be concluded for a couple of months. The partial agreement is that all drivers will be paid immediately while other fleet facility and operating costs need to be negotiated. This number may be a very conservative number at this time.
- 600 Supplies: a balance increase of \$272,000 from the following: instructional and library supplies \$84,000, office supplies \$17,000, plant supplies \$13,000, Electricity \$91,000, Natural Gas \$16,000, fuel for vehicles \$9,000, textbooks \$42,000. Electricity is likely to

produce more as the shutdown dramatically reduces our consumption and cost. Likewise, the fuel for propane buses will be dependent on a final liquidation price.

- 700 Property: a balance increase of \$34,000 resulting from favorable prices on additional authorized purchases and a delayed need to provide speech & learning equipment for eligible students.
- 800 Miscellaneous: which represents district memberships will provide approximately \$5,800 additional due to the shutdown.

Please note that while this report predicts a significant fund balance, it is predicted on not resuming operations prior to the end of the fiscal year. Should we be fortunate enough to start school again, in May or June, many of these predictions will change and the balance would decline. Also note that our payroll encumbrance system in the new financial software is not working as intended so there may be additional variances, either way in our regular salary accounts.

This should not be considered a precise financial prediction as we are dealing with an unprecedented situation with many moving pieces impacted by COVID-19, for us as well as for all the vendors we do business with. It is based on the latest information available including reasonable assumptions where no definitive direction exists.

There are no expected changes with regards to the Excess Cost Grant which was deposited last month. The State has indicated we will receive our remaining balance based on our March data submission.

March revenue receipts included local tuition and other miscellaneous fees.

We will continue to monitor expected expenses.

Ron Bienkowski
Director of Business
April 9, 2020

TERMS AND DEFINITIONS

The Newtown Board of Education's Monthly Financial Report provides summary financial information in the following areas:

- Object Code – a service or commodity obtained as the result of a specific expenditure defined by eight categories: Salaries, Employee Benefits, Professional Services, Purchased Property Services, Other Purchased Services, Supplies, Property, and Miscellaneous.
- Expense Category – further defines the type of expense by Object Code
- Expended 2018-19 – unaudited expenditures from the prior fiscal year (for comparison purposes)
- Approved Budget – indicates a town approved financial plan used by the school district to achieve its goals and objectives.
- YTD Transfers – identified specific cross object codes requiring adjustments to provide adequate funding for the fiscal period. This includes all transfers made to date.
- Current Transfers – identifies budget transfer recommended for current month action.
- Current Budget – adjusts the Approved Budget calculating adjustments (+ or -) to the identified object codes.
- Year-To-Date Expended – indicates the actual amount of cumulative expenditures processed by the school district through the month-end date indicated on the monthly budget summary report.
- Encumbered – indicates approved financial obligations of the school district as a result of employee salary contracts, purchasing agreements, purchase orders, or other identified obligations not processed for payment by the date indicated on the monthly budget summary report.
- Balance – calculates object code account balances subtracting expenditures and encumbrances from the current budget amount indicating accounts with unobligated balances or shortages.
- Anticipated Obligation - is a column which provides a method to forecast expense category fund balances that have not been approved via an encumbrance, but are anticipated to be expended or remain with an account balance to maintain the overall budget funding level. Receivable revenue (i.e., grants) are included in this column which has the effect of netting the expected expenditure.
- Projected Balance - calculates the object code balances subtracting the Anticipated Obligations. These balances will move up and down as information is known and or decisions are anticipated or made about current and projected needs of the district.

The monthly budget summary report also provides financial information on the State of Connecticut grant reimbursement programs (Excess Cost and Agency Placement Grants and Magnet Grant Transportation). These reimbursement grants/programs are used to supplement local school district budget programs as follows:

Excess Cost Grant – (Current Formula) this State of Connecticut reimbursement grant is used to support local school districts for education costs of identified special education students whose annual education costs exceed local prior year per pupil expenditure by 4 ½. Students placed by the Department of Child and Family Services (DCF) are reimbursed after the school district has met the prior year's per pupil expenditure. School districts report these costs annually in December and March of each fiscal year. State of Connecticut grant calculations are determined by reimbursing eligible costs (60%-100%) based on the SDE grant allocation and all other town submittals.

Magnet Transportation Grant – provides reimbursement of \$1,300 for local students attending approved Magnet school programs. The budgeted grant is \$37,700 for this year.

The last portion of the monthly budget summary reports school generated revenue that are anticipated revenue to the Town of Newtown. Fees and charges include:

- Local Tuition – amounts the board receives from non-residents who pay tuition to attend Newtown schools. Primarily from staff members.
- High school fees for parking permits.
- The final revenue is miscellaneous fees, which constitute refunds, rebates, prior year claims, etc.

**NEWTOWN BOARD OF EDUCATION
2019-20 BUDGET SUMMARY REPORT
FOR THE MONTH ENDING - MARCH 31, 2020**

| OBJECT CODE | EXPENSE CATEGORY | EXPENDED 2018 - 2019 | 2019 - 2020 APPROVED BUDGET | YTD TRANSFERS 2019 - 2020 | CURRENT BUDGET | YTD EXPENDITURE | ENCUMBER | BALANCE | ANTICIPATED OBLIGATIONS | PROJECTED BALANCE |
|-----------------------------------|--------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------|--------------------|---------------|--------------|----------------------------|----------------------|
| <u>GENERAL FUND BUDGET</u> | | | | | | | | | | |
| 100 | SALARIES | \$ 48,042,992 | \$ 50,205,315 | \$ - | \$ 50,205,315 | \$ 32,486,511 | \$ 16,840,189 | \$ 878,616 | \$ 374,939 | \$ 503,676 |
| 200 | EMPLOYEE BENEFITS | \$ 11,165,888 | \$ 11,093,340 | \$ - | \$ 11,093,340 | \$ 8,497,075 | \$ 1,977,638 | \$ 618,628 | \$ 627,980 | \$ (9,352) |
| 300 | PROFESSIONAL SERVICES | \$ 767,554 | \$ 797,835 | \$ - | \$ 797,835 | \$ 488,314 | \$ 121,797 | \$ 187,724 | \$ 179,901 | \$ 7,823 |
| 400 | PURCHASED PROPERTY SERV. | \$ 2,243,310 | \$ 2,292,742 | \$ - | \$ 2,292,742 | \$ 1,613,343 | \$ 319,762 | \$ 359,637 | \$ 214,663 | \$ 144,974 |
| 500 | OTHER PURCHASED SERVICES | \$ 8,901,602 | \$ 9,111,879 | \$ 100,000 | \$ 9,211,879 | \$ 6,390,509 | \$ 2,740,719 | \$ 80,651 | \$ (54,384) | \$ 135,035 |
| 600 | SUPPLIES | \$ 3,784,438 | \$ 3,671,332 | \$ - | \$ 3,671,332 | \$ 2,291,682 | \$ 206,483 | \$ 1,173,167 | \$ 709,826 | \$ 463,341 |
| 700 | PROPERTY | \$ 756,806 | \$ 757,572 | \$ - | \$ 757,572 | \$ 399,768 | \$ 360,784 | \$ (2,980) | \$ 17,966 | \$ (20,946) |
| 800 | MISCELLANEOUS | \$ 62,869 | \$ 74,395 | \$ - | \$ 74,395 | \$ 58,612 | \$ 5,030 | \$ 10,753 | \$ 2,500 | \$ 8,253 |
| 910 | SPECIAL ED CONTINGENCY | \$ - | \$ 100,000 | \$ (100,000) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL GENERAL FUND BUDGET | | \$ 75,725,459 | \$ 78,104,410 | \$ - | \$ 78,104,410 | \$ 52,225,813 | \$ 22,572,401 | \$ 3,306,195 | \$ 2,073,390 | \$ 1,232,805 |
| 900 | TRANSFER NON-LAPSING | | | | | | | | | |
| GRAND TOTAL | | \$ 75,725,459 | \$ 78,104,410 | \$ - | \$ 78,104,410 | \$ 52,225,813 | \$ 22,572,401 | \$ 3,306,195 | \$ 2,073,390 | \$ 1,232,805 |

**NEWTOWN BOARD OF EDUCATION
2019-20 BUDGET SUMMARY REPORT
FOR THE MONTH ENDING - MARCH 31, 2020**

| OBJECT CODE | EXPENSE CATEGORY | EXPENDED 2018 - 2019 | 2019 - 2020 APPROVED BUDGET | YTD TRANSFERS 2019 - 2020 | CURRENT BUDGET | YTD EXPENDITURE | ENCUMBER | BALANCE | ANTICIPATED OBLIGATIONS | PROJECTED BALANCE |
|-------------|--|-------------------------|-----------------------------------|---------------------------------|----------------------|----------------------|----------------------|-------------------|----------------------------|----------------------|
| 100 | SALARIES | | | | | | | | | |
| | Administrative Salaries | \$ 3,926,453 | \$ 4,156,163 | \$ - | \$ 4,156,163 | \$ 3,093,183 | \$ 1,058,108 | \$ 4,872 | \$ 3,953 | \$ 919 |
| | Teachers & Specialists Salaries | \$ 30,602,780 | \$ 31,770,823 | \$ - | \$ 31,770,823 | \$ 19,466,295 | \$ 12,121,438 | \$ 183,090 | \$ - | \$ 183,090 |
| | Early Retirement | \$ 40,000 | \$ 32,000 | \$ - | \$ 32,000 | \$ 32,000 | \$ - | \$ - | \$ - | \$ - |
| | Continuing Ed./Summer School | \$ 89,327 | \$ 94,514 | \$ - | \$ 94,514 | \$ 76,400 | \$ - | \$ 18,114 | \$ 12,609 | \$ 5,505 |
| | Homebound & Tutors Salaries | \$ 150,895 | \$ 162,236 | \$ - | \$ 162,236 | \$ 60,681 | \$ 27,308 | \$ 74,247 | \$ 3,500 | \$ 70,747 |
| | Certified Substitutes | \$ 629,852 | \$ 652,430 | \$ - | \$ 652,430 | \$ 489,900 | \$ 77,775 | \$ 84,755 | \$ (26,000) | \$ 110,755 |
| | Coaching/Activities | \$ 621,521 | \$ 652,752 | \$ - | \$ 652,752 | \$ 357,147 | \$ 133 | \$ 295,472 | \$ 289,472 | \$ 6,000 |
| | Staff & Program Development | \$ 226,225 | \$ 213,494 | \$ - | \$ 213,494 | \$ 89,681 | \$ 7,990 | \$ 115,822 | \$ 100,000 | \$ 15,822 |
| | CERTIFIED SALARIES | \$ 36,287,053 | \$ 37,734,412 | \$ - | \$ 37,734,412 | \$ 23,665,288 | \$ 13,292,753 | \$ 776,372 | \$ 383,533 | \$ 392,838 |
| | Supervisors/Technology Salaries | \$ 879,898 | \$ 934,371 | \$ - | \$ 934,371 | \$ 691,745 | \$ 216,411 | \$ 26,215 | \$ 12,122 | \$ 14,093 |
| | Clerical & Secretarial Salaries | \$ 2,261,580 | \$ 2,339,317 | \$ - | \$ 2,339,317 | \$ 1,683,487 | \$ 654,740 | \$ 1,090 | \$ - | \$ 1,090 |
| | Educational Assistants | \$ 2,577,377 | \$ 2,783,832 | \$ - | \$ 2,783,832 | \$ 1,935,504 | \$ 852,620 | \$ (4,292) | \$ - | \$ (4,292) |
| | Nurses & Medical Advisors | \$ 734,534 | \$ 779,871 | \$ - | \$ 779,871 | \$ 482,821 | \$ 278,742 | \$ 18,308 | \$ - | \$ 18,308 |
| | Custodial & Maint. Salaries | \$ 3,116,314 | \$ 3,212,091 | \$ - | \$ 3,212,091 | \$ 2,293,535 | \$ 840,026 | \$ 78,531 | \$ 12,000 | \$ 66,531 |
| | Non-Certied Adj & Bus Drivers Salaries | \$ 12,745 | \$ 25,022 | \$ - | \$ 25,022 | \$ 15,627 | \$ 9,395 | \$ - | \$ - | \$ - |
| | Career/Job Salaries | \$ 48,376 | \$ 141,195 | \$ - | \$ 141,195 | \$ 82,374 | \$ 106,936 | \$ (48,116) | \$ (42,000) | \$ (6,116) |
| | Special Education Svcs Salaries | \$ 1,172,425 | \$ 1,271,345 | \$ - | \$ 1,271,345 | \$ 851,891 | \$ 421,875 | \$ (2,421) | \$ (8,716) | \$ 6,295 |
| | Attendance & Security Salaries | \$ 580,533 | \$ 605,759 | \$ - | \$ 605,759 | \$ 425,574 | \$ 166,691 | \$ 13,494 | \$ - | \$ 13,494 |
| | Extra Work - Non-Cert. | \$ 104,484 | \$ 110,362 | \$ - | \$ 110,362 | \$ 119,621 | \$ - | \$ (9,259) | \$ 17,000 | \$ (26,259) |
| | Custodial & Maint. Overtime | \$ 228,815 | \$ 235,738 | \$ - | \$ 235,738 | \$ 210,218 | \$ - | \$ 25,520 | \$ 1,000 | \$ 24,520 |
| | Civic Activities/Park & Rec. | \$ 38,858 | \$ 32,000 | \$ - | \$ 32,000 | \$ 28,825 | \$ - | \$ 3,175 | \$ - | \$ 3,175 |
| | NON-CERTIFIED SALARIES | \$ 11,755,939 | \$ 12,470,903 | \$ - | \$ 12,470,903 | \$ 8,821,223 | \$ 3,547,436 | \$ 102,244 | \$ (8,594) | \$ 110,838 |
| | SUBTOTAL SALARIES | \$ 48,042,992 | \$ 50,205,315 | \$ - | \$ 50,205,315 | \$ 32,486,511 | \$ 16,840,189 | \$ 878,616 | \$ 374,939 | \$ 503,676 |

**NEWTOWN BOARD OF EDUCATION
2019-20 BUDGET SUMMARY REPORT
FOR THE MONTH ENDING - MARCH 31, 2020**

| OBJECT CODE | EXPENSE CATEGORY | EXPENDED 2018 - 2019 | 2019 - 2020 APPROVED BUDGET | YTD TRANSFERS 2019 - 2020 | CURRENT BUDGET | YTD EXPENDITURE | ENCUMBER | BALANCE | ANTICIPATED OBLIGATIONS | PROJECTED BALANCE |
|-------------|-------------------------------------|-------------------------|-----------------------------------|---------------------------------|----------------------|---------------------|---------------------|-------------------|----------------------------|----------------------|
| 200 | EMPLOYEE BENEFITS | | | | | | | | | |
| | Medical & Dental Expenses | \$ 8,179,822 | \$ 8,058,967 | \$ - | \$ 8,058,967 | \$ 6,065,585 | \$ 1,977,388 | \$ 15,994 | \$ 9,125 | \$ 6,869 |
| | Life Insurance | \$ 84,680 | \$ 87,134 | \$ - | \$ 87,134 | \$ 64,774 | \$ - | \$ 22,360 | \$ 21,547 | \$ 813 |
| | FICA & Medicare | \$ 1,499,915 | \$ 1,534,045 | \$ - | \$ 1,534,045 | \$ 1,027,995 | \$ - | \$ 506,050 | \$ 491,050 | \$ 15,000 |
| | Pensions | \$ 809,692 | \$ 864,842 | \$ - | \$ 864,842 | \$ 810,536 | \$ 250 | \$ 54,056 | \$ 55,306 | \$ (1,250) |
| | Unemployment & Employee Assist. | \$ 59,858 | \$ 87,000 | \$ - | \$ 87,000 | \$ 49,048 | \$ - | \$ 37,952 | \$ 50,952 | \$ (13,000) |
| | Workers Compensation | \$ 531,920 | \$ 461,352 | \$ - | \$ 461,352 | \$ 479,136 | \$ - | \$ (17,784) | \$ - | \$ (17,784) |
| | SUBTOTAL EMPLOYEE BENEFITS | \$ 11,165,888 | \$ 11,093,340 | \$ - | \$ 11,093,340 | \$ 8,497,075 | \$ 1,977,638 | \$ 618,628 | \$ 627,980 | \$ (9,352) |
| 300 | PROFESSIONAL SERVICES | | | | | | | | | |
| | Professional Services | \$ 574,753 | \$ 590,802 | \$ - | \$ 590,802 | \$ 376,750 | \$ 93,240 | \$ 120,812 | \$ 171,901 | \$ (51,089) |
| | Professional Educational Serv. | \$ 192,800 | \$ 207,033 | \$ - | \$ 207,033 | \$ 111,564 | \$ 28,557 | \$ 66,912 | \$ 8,000 | \$ 58,912 |
| | SUBTOTAL PROFESSIONAL SERV. | \$ 767,554 | \$ 797,835 | \$ - | \$ 797,835 | \$ 488,314 | \$ 121,797 | \$ 187,724 | \$ 179,901 | \$ 7,823 |
| 400 | PURCHASED PROPERTY SERV. | | | | | | | | | |
| | Buildings & Grounds Services | \$ 694,509 | \$ 708,805 | \$ - | \$ 708,805 | \$ 478,110 | \$ 192,252 | \$ 38,443 | \$ 38,443 | \$ - |
| | Utility Services - Water & Sewer | \$ 132,669 | \$ 147,645 | \$ - | \$ 147,645 | \$ 107,097 | \$ - | \$ 40,548 | \$ 29,127 | \$ 11,421 |
| | Building, Site & Emergency Repairs | \$ 550,790 | \$ 460,850 | \$ - | \$ 460,850 | \$ 379,470 | \$ 45,759 | \$ 35,621 | \$ 35,621 | \$ - |
| | Equipment Repairs | \$ 300,958 | \$ 338,819 | \$ - | \$ 338,819 | \$ 186,401 | \$ 15,180 | \$ 137,238 | \$ 9,000 | \$ 128,238 |
| | Rentals - Building & Equipment | \$ 271,749 | \$ 272,923 | \$ - | \$ 272,923 | \$ 195,391 | \$ 46,385 | \$ 31,147 | \$ 30,832 | \$ 315 |
| | Building & Site Improvements | \$ 292,635 | \$ 363,700 | \$ - | \$ 363,700 | \$ 266,874 | \$ 20,187 | \$ 76,639 | \$ 71,639 | \$ 5,000 |
| | SUBTOTAL PUR. PROPERTY SERV. | \$ 2,243,310 | \$ 2,292,742 | \$ - | \$ 2,292,742 | \$ 1,613,343 | \$ 319,762 | \$ 359,637 | \$ 214,663 | \$ 144,974 |

NEWTOWN BOARD OF EDUCATION
2019-20 BUDGET SUMMARY REPORT
FOR THE MONTH ENDING - MARCH 31, 2020

| OBJECT CODE | EXPENSE CATEGORY | EXPENDED 2018 - 2019 | 2019 - 2020 APPROVED BUDGET | YTD TRANSFERS 2019 - 2020 | CURRENT BUDGET | YTD EXPENDITURE | ENCUMBER | BALANCE | ANTICIPATED OBLIGATIONS | PROJECTED BALANCE |
|-------------|---------------------------------------|-------------------------|-----------------------------------|---------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------------|----------------------|
| 500 | OTHER PURCHASED SERVICES | | | | | | | | | |
| | Contracted Services | \$ 619,306 | \$ 631,536 | \$ - | \$ 631,536 | \$ 467,910 | \$ 65,361 | \$ 98,265 | \$ 56,000 | \$ 42,265 |
| | Transportation Services | \$ 4,180,892 | \$ 4,323,600 | \$ - | \$ 4,323,600 | \$ 2,911,411 | \$ 995,055 | \$ 417,135 | \$ 237,135 | \$ 180,000 |
| | Insurance - Property & Liability | \$ 400,457 | \$ 407,947 | \$ - | \$ 407,947 | \$ 378,481 | \$ - | \$ 29,466 | \$ - | \$ 29,466 |
| | Communications | \$ 140,237 | \$ 160,926 | \$ - | \$ 160,926 | \$ 103,811 | \$ 24,469 | \$ 32,646 | \$ - | \$ 32,646 |
| | Printing Services | \$ 32,114 | \$ 33,057 | \$ - | \$ 33,057 | \$ 13,439 | \$ 13,152 | \$ 6,467 | \$ - | \$ 6,467 |
| | Tuition - Out of District | \$ 3,330,730 | \$ 3,328,479 | \$ 100,000 | \$ 3,428,479 | \$ 2,368,412 | \$ 1,600,194 | \$ (540,127) | \$ (358,519) | \$ (181,608) |
| | Student Travel & Staff Mileage | \$ 197,866 | \$ 226,334 | \$ - | \$ 226,334 | \$ 147,046 | \$ 42,488 | \$ 36,800 | \$ 11,000 | \$ 25,800 |
| | SUBTOTAL OTHER PURCHASED SERV. | \$ 8,901,602 | \$ 9,111,879 | \$ 100,000 | \$ 9,211,879 | \$ 6,390,509 | \$ 2,740,719 | \$ 80,651 | \$ (54,384) | \$ 135,035 |
| 600 | SUPPLIES | | | | | | | | | |
| | Instructional & Library Supplies | \$ 885,366 | \$ 819,252 | \$ - | \$ 819,252 | \$ 573,683 | \$ 81,549 | \$ 164,021 | \$ 80,000 | \$ 84,021 |
| | Software, Medical & Office Supplies | \$ 189,356 | \$ 216,843 | \$ - | \$ 216,843 | \$ 112,610 | \$ 67,502 | \$ 36,731 | \$ 20,000 | \$ 16,731 |
| | Plant Supplies | \$ 366,651 | \$ 375,000 | \$ - | \$ 375,000 | \$ 260,926 | \$ 43,285 | \$ 70,790 | \$ 45,000 | \$ 25,790 |
| | Electric | \$ 1,433,462 | \$ 1,384,117 | \$ - | \$ 1,384,117 | \$ 830,159 | \$ - | \$ 553,958 | \$ 346,658 | \$ 207,300 |
| | Propane & Natural Gas | \$ 426,559 | \$ 434,914 | \$ - | \$ 434,914 | \$ 249,269 | \$ - | \$ 185,645 | \$ 91,145 | \$ 94,500 |
| | Fuel Oil | \$ 97,798 | \$ 81,000 | \$ - | \$ 81,000 | \$ 48,580 | \$ - | \$ 32,420 | \$ 32,420 | \$ - |
| | Fuel for Vehicles & Equip. | \$ 246,113 | \$ 203,992 | \$ - | \$ 203,992 | \$ 112,695 | \$ - | \$ 91,297 | \$ 56,297 | \$ 35,000 |
| | Textbooks | \$ 139,133 | \$ 156,214 | \$ - | \$ 156,214 | \$ 103,761 | \$ 14,148 | \$ 38,305 | \$ 38,305 | \$ - |
| | SUBTOTAL SUPPLIES | \$ 3,784,438 | \$ 3,671,332 | \$ - | \$ 3,671,332 | \$ 2,291,682 | \$ 206,483 | \$ 1,173,167 | \$ 709,826 | \$ 463,341 |

**NEWTOWN BOARD OF EDUCATION
2019-20 BUDGET SUMMARY REPORT
FOR THE MONTH ENDING - MARCH 31, 2020**

| OBJECT CODE | EXPENSE CATEGORY | EXPENDED 2018 - 2019 | 2019 - 2020 APPROVED BUDGET | YTD TRANSFERS 2019 - 2020 | CURRENT BUDGET | YTD EXPENDITURE | ENCUMBER | BALANCE | ANTICIPATED OBLIGATIONS | PROJECTED BALANCE |
|-------------|-------------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------|--------------------|---------------|--------------|----------------------------|----------------------|
| 700 | PROPERTY | | | | | | | | | |
| | Capital Improvements (Sewers) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Technology Equipment | \$ 576,182 | \$ 550,000 | \$ - | \$ 550,000 | \$ 350,721 | \$ 186,313 | \$ 12,966 | \$ 12,966 | \$ - |
| | Other Equipment | \$ 180,624 | \$ 207,572 | \$ - | \$ 207,572 | \$ 49,047 | \$ 174,471 | \$ (15,946) | \$ 5,000 | \$ (20,946) |
| | SUBTOTAL PROPERTY | \$ 756,806 | \$ 757,572 | \$ - | \$ 757,572 | \$ 399,768 | \$ 360,784 | \$ (2,980) | \$ 17,966 | \$ (20,946) |
| 800 | MISCELLANEOUS | | | | | | | | | |
| | Memberships | \$ 62,869 | \$ 74,395 | \$ - | \$ 74,395 | \$ 58,612 | \$ 5,030 | \$ 10,753 | \$ 2,500 | \$ 8,253 |
| | SUBTOTAL MISCELLANEOUS | \$ 62,869 | \$ 74,395 | \$ - | \$ 74,395 | \$ 58,612 | \$ 5,030 | \$ 10,753 | \$ 2,500 | \$ 8,253 |
| 910 | SPECIAL ED CONTINGENCY | | \$ 100,000 | \$ (100,000) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | TOTAL LOCAL BUDGET | \$ 75,725,459 | \$ 78,104,410 | \$ - | \$ 78,104,410 | \$ 52,225,813 | \$ 22,572,401 | \$ 3,306,195 | \$ 2,073,390 | \$ 1,232,805 |

| <u>REVENUES</u> | | 2019-20 APPROVED BUDGET | RECEIVED | BALANCE | % RECEIVED |
|--|--|-------------------------------|----------|----------|---------------|
| <u>BOARD OF EDUCATION FEES & CHARGES - SERVICES</u> | | | | | |
| LOCAL TUITION | | \$38,950 | \$28,910 | \$10,040 | 74.22% |
| HIGH SCHOOL FEES FOR PARKING PERMITS | | \$20,000 | \$20,000 | \$0 | 100.00% |
| MISCELLANEOUS FEES | | \$5,000 | \$3,446 | \$1,554 | 68.91% |
| TOTAL SCHOOL GENERATED FEES | | \$63,950 | \$52,356 | \$11,594 | 81.87% |

NEWTOWN BOARD OF EDUCATION

BUDGET SUMMARY REPORT

"FOR THE MONTH ENDING - MARCH 31, 2020"

OFFSETTING REVENUE INCLUDED IN ANTICIPATED OBLIGATIONS

| OBJECT | EXPENSE CATEGORY | BUDGETED | CURRENT BUDGET | 1st ESTIMATE | STATE ESTIMATE - 13-Jan | Feb RECEIVED | May ESTIMATED |
|----------------------------------|-----------------------------------|-----------------------|----------------|-----------------------|-------------------------|-----------------------|------------------------------------|
| 100 | SALARIES | \$ (54,463) | \$ - | \$ (54,463) | \$ (34,983) | \$ (34,856) | \$ (26,140) \$ (8,716) |
| 200 | EMPLOYEE BENEFITS | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - \$ - |
| 300 | PROFESSIONAL SERVICES | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - \$ - |
| 400 | PURCHASED PROPERTY SERV. | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - \$ - |
| 500 | OTHER PURCHASED SERVICES | \$ (1,467,089) | \$ - | \$ (1,467,089) | \$ (1,850,850) | \$ (1,844,127) | \$ (1,383,001) \$ (461,126) |
| 600 | SUPPLIES | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - \$ - |
| 700 | PROPERTY | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - \$ - |
| 800 | MISCELLANEOUS | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - \$ - |
| TOTAL GENERAL FUND BUDGET | | \$ (1,521,552) | \$ - | \$ (1,521,552) | \$ (1,885,833) | \$ (1,878,983) | \$ (1,409,141) \$ (469,842) |
| 100 | SALARIES | | | | | | |
| | Administrative Salaries | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Teachers & Specialists Salaries | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Early Retirement | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Continuing Ed./Summer School | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Homebound & Tutors Salaries | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Certified Substitutes | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Coaching/Activities | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Staff & Program Development | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | CERTIFIED SALARIES | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Supervisors/Technology Salaries | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Clerical & Secretarial salaries | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Educational Assistants | \$ (5,386) | \$ - | \$ (5,386) | \$ - | \$ - | \$ - |
| | Nurses & Medical advisors | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Custodial & Maint Salaries | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Non Certified Salary Adjustment | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Career/Job salaries | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Special Education Svcs Salaries | \$ (49,077) | \$ (49,077) | \$ (34,983) | \$ (34,856) | \$ (26,140) | \$ (8,716) |
| | Attendance & Security Salaries | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Extra Work - Non-Cert | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Custodial & Maint. Overtime | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Civic activities/Park & Rec | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | NON-CERTIFIED SALARIES | \$ (54,463) | \$ - | \$ (54,463) | \$ (34,983) | \$ (34,856) | \$ (26,140) \$ (8,716) |
| | SUBTOTAL SALARIES | \$ (54,463) | \$ - | \$ (54,463) | \$ (34,983) | \$ (34,856) | \$ (26,140) \$ (8,716) |
| 200 | EMPLOYEE BENEFITS | | | | | | |
| | SUBTOTAL EMPLOYEE BENEFITS | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

"FOR THE MONTH ENDING - MARCH 31, 2020"

OFFSETTING REVENUE INCLUDED IN ANTICIPATED OBLIGATIONS

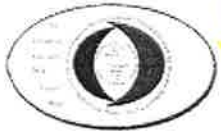
| OBJECT | EXPENSE CATEGORY | BUDGETED | CURRENT BUDGET | 1st ESTIMATE | STATE ESTIMATE - 13-Jan | Feb RECEIVED | May ESTIMATED |
|--------|-------------------------------------|---------------------|---------------------|----------------|-------------------------|----------------|---------------|
| 300 | PROFESSIONAL SERVICES | | | | | | |
| | Professional Services | \$ - | \$ - | | | | \$ - |
| | Professional Educational Ser. | \$ - | \$ - | | \$ - | | |
| | SUBTOTAL PROFESSIONAL SVCS | \$ - \$ - | \$ - \$ - | \$ - | \$ - | \$ - | \$ - |
| 400 | PURCHASED PROPERTY SVCS | | | | | | |
| | SUBTOTAL PUR. PROPERTY SER. | \$ - \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 500 | OTHER PURCHASED SERVICES | | | | | | |
| | Contracted Services | \$ - | \$ - | | \$ - | | |
| | Transportation Services | \$ (329,230) | \$ (329,230) | \$ (371,702) | \$ (370,351) | \$ (277,744) | \$ (92,607) |
| | Insurance - Property & Liability | \$ - | \$ - | | \$ - | | |
| | Communications | \$ - | \$ - | | \$ - | | |
| | Printing Services | \$ - | \$ - | | \$ - | | |
| | Tuition - Out of District | \$ (1,137,859) | \$ (1,137,859) | \$ (1,479,148) | \$ (1,473,776) | \$ (1,105,257) | \$ (368,519) |
| | Student Travel & Staff Mileage | \$ - | \$ - | | \$ - | | |
| | SUBTOTAL OTHER PURCHASED SER | \$ (1,467,089) \$ - | \$ (1,467,089) \$ - | \$ (1,850,850) | \$ (1,844,127) | \$ (1,383,001) | \$ (461,126) |
| 600 | SUPPLIES | | | | | | |
| | SUBTOTAL SUPPLIES | \$ - \$ - | \$ - \$ - | \$ - | \$ - | \$ - | \$ - |
| 700 | PROPERTY | | | | | | |
| | SUBTOTAL PROPERTY | \$ - \$ - | \$ - \$ - | \$ - | \$ - | \$ - | \$ - |
| 800 | MISCELLANEOUS | | | | | | |
| | Memberships | | | | | | |
| | SUBTOTAL MISCELLANEOUS | \$ - \$ - | \$ - \$ - | \$ - | \$ - | \$ - | \$ - |
| | TOTAL LOCAL BUDGET | \$ (1,521,552) \$ - | \$ (1,521,552) \$ - | \$ (1,885,833) | \$ (1,878,983) | \$ (1,409,141) | \$ (469,842) |

Difference, 1st estimate to States Estimate \$ (6,850) 75% 25%

Excess Cost and Agency placement Grants are budgeted at 75%. \$ (1,521,552)

The first state estimate is at 74.8% reimbursement (this represents \$6,850 less than our internal 1st estimate). \$ (1,878,983)

Amount beyond budgeted \$ (357,431)



Newtown Public Schools
Algebra I Foundation I

Newtown High School > Grade 9 > Mathematics > Algebra I Foundation I

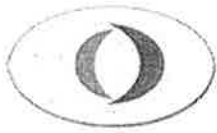
4 Curriculum Developers

| | Lessons | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|--|---------|---------|-----------|----------|----------|----------------|-------------|-------------|-------------|-------------|-------|
| Unit: | | 1 2 3 4 | 5 6 7 8 9 | 10 11 12 | 13 14 15 | 16 17 18 19 20 | 21 22 23 24 | 25 26 27 28 | 29 30 31 32 | 33 34 35 36 | 37 38 |
| Real Numbers <input checked="" type="checkbox"/> | 0 | █ | | | | | | | | | |
| Operations <input checked="" type="checkbox"/> | 0 | | █ | | | | | | | | |
| Equations and Inequalities <input checked="" type="checkbox"/> | 0 | | | | | █ | | | | | |
| | | 1 2 3 4 | 5 6 7 8 9 | 10 11 12 | 13 14 15 | 16 17 18 19 20 | 21 22 23 24 | 25 26 27 28 | 29 30 31 32 | 33 34 35 36 | 37 38 |



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Unit Planner: Real Numbers Algebra I Foundation I

Newtown High School > 2019-2020 > Grade 9 > Mathematics > Algebra I
Foundation I > Week 1 - Week 6

Last Updated: Friday, January 31, 2020 by
Charlotte Manos

Real Numbers

Hall, Eugene; Manos, Charlotte; Oliveri, Danielle; Raccio, Keristen

- [Unit Planner](#)
- [Lesson Planner](#)

Concept-Based Unit Development Graphic Organizer (Download)

Unit Web Template (Optional)

Concepts / Conceptual Lens

Please attach your completed Unit Web Template here

Concept: The Number System

- Integers
- Whole numbers
- Natural numbers
- Rational numbers
- Irrational numbers

Lens: Origins

Generalizations / Enduring Understandings

Strand 1: Real Numbers

Concepts:

- Integers
- Whole numbers
- Natural numbers
- Rational numbers
- Irrational numbers

Generalizations:

Integers, whole numbers, natural numbers, rational numbers, and irrational numbers form the real number system.

Guiding Questions

Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]

Factual:

- What is the difference between a repeating and terminating decimal?
- What is an integer?
- What is a whole number?
- What is the difference between a rational and irrational number?
- What is a rational number?
- What is an irrational number?
- What is a natural number?

Conceptual:

- Which methods can be used to compare rational numbers?
- How can a number line be used to order rational numbers?
- How can knowledge about adding integers aid in adding rational numbers?
- How can knowledge about subtracting integers

aid in subtract rational numbers?

- Why is the product of two negative rational numbers positive?

Provocative:

- **Are either fractions, decimals, or percents more effective depending on the circumstance?**

Standard(s)

Connecticut Core Standards / Content Standards

CCSS: Mathematics

CCSS: Grade 7

The Number System

7.NS.A. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

7.NS.A.2d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

Mathematical Practice

MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

MP.1. Make sense of problems and persevere in solving them.

MP.2. Reason abstractly and quantitatively.

MP.3. Construct viable arguments and critique the reasoning of others.

MP.4. Model with mathematics.

MP.5. Use appropriate tools strategically.

MP.6. Attend to precision.

MP.7. Look for and make use of structure.

MP.8. Look for and express regularity in repeated reasoning.

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Objective(s)

Bloom/ Anderson Taxonomy / DOK Language

Students will...

- Identify real numbers
- Place real numbers on a number line

Critical Content & Skills

What students must **KNOW and be able to DO**

Students will be able to:

- Classify real numbers
- Place real numbers on a number line

Core Learning Activities

Classify real numbers

- Understand that a rational number is an integer divided by an integer.
- Convert rational numbers to decimals using long division
- Write decimals as fractions in simplest form using equivalent fractions.

Place real numbers on a number line

- Order rational numbers by converting them to decimals and then graphing them on a number line.
- Find the distance between two rational numbers using a number line.
- Find the absolute value of integers.

Assessments

Review-Real Numbers

Formative: Written Test

1. CW-Ordering Numbers.pdf

Resources

Professional & Student

Department developed materials on Google Drive

Student Learning Expectation & 21st Century Skills

Information Literacy

Critical Thinking

Spoken Communication

Written Performance

Interdisciplinary Connections

Writing

- Use formal writing techniques along with precise math vocabulary.

Science

- Determine the appropriate unit for an application problem.



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Unit Planner: Operations Algebra I Foundation I

Newtown High School > 2019-2020 > Grade 9 > Mathematics > Algebra I
Foundation I > Week 7 - Week 18

Last Updated: Friday, January 31, 2020
by Charlotte Manos

Operations

Hall, Eugene; Manos, Charlotte; Oliveri, Danielle; Raccio, Keristen

- [Unit Planner](#)
- [Lesson Planner](#)

Concept-Based Unit Development Graphic Organizer (Download)

Unit Web Template (Optional)

Concepts / Conceptual Lens

Please attach your completed Unit Web Template here

Concept: Operations

- Order of operations
- Substitution

Lens: Origins

Generalizations / Enduring Understandings

Strand 1: Operations

Concepts:

- Order of operations
- Substitution

Generalizations:

The use of order of operations after substitution provides evaluations.

Guiding Questions

Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]

Factual:

- How can the product or quotient of two rational numbers determine the positivity or negativity?
- What is the difference between the opposite and the absolute value of a number?
- How are integers with different signs added?
- What is the order of operations?
- What is substitution?

Conceptual:

- How is the sign for the sum of two numbers predicted?
- How are adding integers and subtracting integers related?
- How can knowledge about adding integers aid in adding rational numbers?
- How can knowledge about subtracting integers aid in subtracting rational numbers?
- Why is the product of two negative rational numbers positive?

Provocative:

- Does order matter when evaluating expressions?

Standard(s)

Connecticut Core Standards / Content Standards

CCSS: Mathematics

CCSS: Grade 6

The Number System

6.NS.B. Compute fluently with multi-digit numbers and find common factors and multiples.

6.NS.B.3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

Expressions & Equations

6.EE.A. Apply and extend previous understandings of arithmetic to algebraic expressions.

6.EE.A.2a. Write expressions that record operations with numbers and with letters standing for numbers.

6.EE.A.2c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

6.EE.A.3. Apply the properties of operations to generate equivalent expressions.

CCSS: Grade 7

The Number System

7.NS.A. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

7.NS.A.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

7.NS.A.1a. Describe situations in which opposite quantities combine to make 0.

7.NS.A.1b. Understand $p + q$ as the number located a distance $|q|$ from p , in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.

7.NS.A.1c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.

7.NS.A.1d. Apply properties of operations as strategies to add and subtract rational numbers.

7.NS.A.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.

7.NS.A.2a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.

7.NS.A.2b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.

7.NS.A.2c. Apply properties of operations as strategies to multiply and divide rational numbers.

7.NS.A.2d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

7.NS.A.3. Solve real-world and mathematical problems involving the four operations with rational numbers.

Expressions & Equations

7.EE.A. Use properties of operations to generate equivalent expressions.

7.EE.A.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.

7.EE.A.2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related.

7.EE.B. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

7.EE.B.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.

CCSS: HS: Num/Quantity

Mathematical Practice

MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

MP.1. Make sense of problems and persevere in solving them.

MP.2. Reason abstractly and quantitatively.

MP.3. Construct viable arguments and critique the reasoning of others.

MP.4. Model with mathematics.

MP.5. Use appropriate tools strategically.

MP.6. Attend to precision.

MP.7. Look for and make use of structure.

MP.8. Look for and express regularity in repeated reasoning.

CCSS: HS: Algebra

Arithmetic with Polynomials & Rational Functions

HSA-APR.A. Perform arithmetic operations on polynomials.

HSA-APR.A.1. Understand that polynomials form a system analogous to the integers, namely, they are closed

under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

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Objective(s)

Bloom/ Anderson Taxonomy / DOK Language

Students will...

- Apply order of operations under the real number system

Critical Content & Skills

*What students must **KNOW and be able to DO***

Students will be able to:

- Apply order of operations under the real number system

Core Learning Activities

Apply order of operations under the real number system

- Add integers with the same sign or with different signs.
- Show that the sum of a number and its opposite is 0 using the Additive Inverse Property.
- Subtract integers by adding their opposites.
- Multiply integers with the same sign and with different signs.
- Evaluate expressions with whole number exponents by using repeated multiplication.
- Divide integers with the same sign and with different signs.
- Evaluate expressions involving division by using substitution and the order of operations.
- Add rational numbers with the same sign or with different signs.
- Evaluate expressions involving rational numbers by using substitution.
- Subtract rational numbers with the same sign and with different signs.
- Multiply and divide rational numbers with the same sign and with different signs.
- Identify and combine like terms.
- Apply the distributive property.

Assessments

Review-Operations

Formative: Written Test

[25. Review-Evaluating and Distributive property.pdf](#)

Review-Operations with Fractions

Formative: Written Test

[12. Quick Check-Operations with Fractions.pdf](#)

Resources

Professional & Student

Department developed materials on Google Drive

Student Learning Expectation & 21st Century Skills

Information Literacy

Critical Thinking

Spoken Communication

Written Performance

Interdisciplinary Connections

Writing

- Use formal writing techniques along with precise math vocabulary.

Science

- Calculate distance using operations.

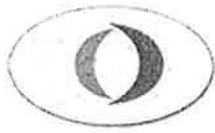
Architecture

- Calculate the dimensions of a house.



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Unit Planner: Equations and Inequalities Algebra I Foundation I

Newtown High School > 2019-2020 > Grade 9 > Mathematics > Algebra I
Foundation I > Week 19 - Week 38

Last Updated: Friday, January 31, 2020
by Charlotte Manos

Equations and Inequalities

Hall, Eugene; Manos, Charlotte; Oliveri, Danielle; Raccio, Keristen

- Unit Planner
- Lesson Planner

Concept-Based Unit Development Graphic Organizer (Download)

Unit Web Template (Optional)

Concepts / Conceptual Lens

Please attach your completed Unit Web Template here

Concept: Equations and Inequalities

- properties of equality
- linear equations
- proportions
- solution
- number line
- linear inequalities

Lens: Balance

Generalizations / Enduring Understandings

Strand 1: Equations

Concepts:

- properties of equality
- linear equations
- proportions
- solution

Generalizations:

Properties of equality determine the solution(s) of linear equations and proportions.

Strand 2: Inequalities

Concepts:

- number line
- linear inequalities

Generalizations:

Properties of equality determine solutions of linear inequalities.

A number line represents solutions to a linear inequality.

Guiding Questions

Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]

Factual:

- What are the properties of equality? (S1/S2)
- What is an equation? (S1)
- What is a proportion? (S2)
- What does equality mean? (S1)
- What is an inequality? (S2)
- What is the solution to a linear equation? (S1)
- What is the solution(s) to a linear inequality? (S2)
- When does the inequality sign change direction? (S2)
- What are possible types of solutions? (S1/S2)

Conceptual:

- How is a proportion used to solve comparative word problems? (S1)
- What is the difference between a solution(s) for a linear equation and a linear inequality? (S1/S2)
- How are the properties of equality applied to solve linear equations and linear inequalities? (S1/S2)
- How is a linear inequality represented on a

number line? (S2)

- How are the number of solutions identified in an equation or inequality? (S1/S2)
- How can a percent be represented as a proportion? (S1)

Provocative:

- Can linear equations and linear inequalities be used effectively to model real world situations? (S1/S2)

Standard(s)

Connecticut Core Standards / Content Standards

CCSS: Mathematics

CCSS: Grade 6

Ratios & Proportional Relationships

6.RP.A. Understand ratio concepts and use ratio reasoning to solve problems.

6.RP.A.3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.

The Number System

6.NS.A. Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

6.NS.A.1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.

Expressions & Equations

6.EE.B. Reason about and solve one-variable equations and inequalities.

6.EE.B.5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

6.EE.B.6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

6.EE.B.7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.

6.EE.B.8. Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

CCSS: Grade 7

Ratios & Proportional Relationships

7.RP.A. Analyze proportional relationships and use them to solve real-world and mathematical problems.

7.RP.A.2b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.

7.RP.A.2c. Represent proportional relationships by equations.

Expressions & Equations

7.EE.B. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

7.EE.B.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.

7.EE.B.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

7.EE.B.4a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.

7.EE.B.4b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.

CCSS: Grade 8

Expressions & Equations

8.EE.C. Analyze and solve linear equations and pairs of simultaneous linear equations.

8.EE.C.7. Solve linear equations in one variable.

8.EE.C.7a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).

8.EE.C.7b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

CCSS: HS: Num/Quantity

Quantities

HSN-Q.A. Reason quantitatively and use units to solve problems.

HSN-Q.A.1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

HSN-Q.A.2. Define appropriate quantities for the purpose of descriptive modeling.

HSN-Q.A.3. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

CCSS: HS: Algebra

Seeing Structure in Expressions

HSA-SSE.A. Interpret the structure of expressions.

HSA-SSE.A.1. Interpret expressions that represent a quantity in terms of its context.

HSA-SSE.A.1a. Interpret parts of an expression, such as terms, factors, and coefficients.

HSA-SSE.A.1b. Interpret complicated expressions by viewing one or more of their parts as a single entity.

HSA-SSE.A.2. Use the structure of an expression to identify ways to rewrite it.

HSA-SSE.B. Write expressions in equivalent forms to solve problems.

HSA-SSE.B.3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

Creating Equations

HSA-CED.A. Create equations that describe numbers or relationships.

HSA-CED.A.1. Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

HSA-CED.A.4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.

Reasoning with Equations & Inequalities

HSA-REI.A. Understand solving equations as a process of reasoning and explain the reasoning.

HSA-REI.A.1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

HSA-REI.B. Solve equations and inequalities in one variable.

HSA-REI.B.3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

Mathematical Practice

MP.The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

MP.1. Make sense of problems and persevere in solving them.

MP.2. Reason abstractly and quantitatively.

MP.4. Model with mathematics.

MP.6. Attend to precision.

MP.7. Look for and make use of structure.

MP.8. Look for and express regularity in repeated reasoning.

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Objective(s)

Bloom/ Anderson Taxonomy / DOK Language

Students will..

- solve linear equations and inequalities
- represent the solution to inequalities on a number line
- solve proportions
- model real-world applications

Critical Content & Skills

What students must **KNOW and be able to DO**
Students will be able to...

Core Learning Activities

Solve linear equations and inequalities by applying properties of equality.

- solve linear equations and inequalities by applying properties of equality.
- construct the solution to an inequality on a number line.
- set up and solve proportions.
- model a real-world problem with an equation/inequality and interpret the solution.

- Recognize the proper order of applying properties of equality.
- Demonstrate the process of solving linear equations and linear inequalities.
- Interpret the solution to a linear inequality on a number line.

Construct the solution to an inequality on a number line.

- Given the solution to an inequality on a number line write the inequality.
- Represent the solution to an inequality on a number line.

Set up and solve proportions.

- Solve a proportion.
- Write and solve a proportion given a comparative word problem.

Model a real-world problem with an equation/inequality and interpret the solution

- Construct and solve an equation or inequality given a real-world problem.
- Describe the solution(s) in a sentence.
- Model real world applications of percentages using proportions.

Assessments

Resources

Professional & Student

Department developed materials on Google Drive

Student Learning Expectation & 21st Century Skills

Interdisciplinary Connections

Information Literacy

Critical Thinking

Spoken Communication

Written Performance

Writing

- Express solutions to equations, inequalities, and proportions in full sentences.

Consumer Sciences

- Convert recipe to double, triple, half the amount.

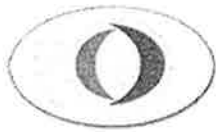




6 Curriculum Developers

| | Lessons | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---------|---------|-----------|----------|----------|----------------|-------------|-------------|-------------|-------------|-------|
| | | 1 2 3 4 | 5 6 7 8 9 | 10 11 12 | 13 14 15 | 16 17 18 19 20 | 21 22 23 24 | 25 26 27 28 | 29 30 31 32 | 33 34 35 36 | 37 38 |
| Unit: | | | | | | | | | | | |
| Exploring and Understanding Data | 0 | █ | | | | | | | | | |
| Exploring Relationships Between Variables | 0 | | █ | | | | | | | | |
| Gathering Data | 0 | | | █ | | | | | | | |
| Randomness and Probability | 0 | | | | █ | | | | | | |
| From the Data at Hand to the World at Large | 0 | | | | | | | | █ | | |
| | | 1 2 3 4 | 5 6 7 8 9 | 10 11 12 | 13 14 15 | 16 17 18 19 20 | 21 22 23 24 | 25 26 27 28 | 29 30 31 32 | 33 34 35 36 | 37 38 |





Unit Planner: Exploring and Understanding Data Statistics

Newtown High School > 2019-2020 > High School > Mathematics > Statistics >
Week 1 - Week 8

Last Updated: Today by Megan
Carroll

Exploring and Understanding Data

Barry, Joanna; Carroll, Megan; Chiucarello Jr., Lawrence; Dominick, Lauren; Pearson, Christopher; Sherman, Karen

- [Unit Planner](#)
- [Lesson Planner](#)

Concept-Based Unit Development Graphic Organizer (Download)

[Unit Web Template \(Optional\)](#)

Concepts / Conceptual Lens

Please attach your completed Unit Web Template here

Concepts: Exploring and Understanding Data

- data
- 5 W's
- population
- sample
- variables
- distribution
- categorical displays
- area principle
- marginal distribution
- conditional distribution
- independence
- association
- quantitative displays
- shape, center, spread
- 5-number summary
- variance
- standard deviation
- Normal distribution
- 68-95-99.7 rule
- Standard Normal model
- z-score
- percentile

Lens: Relationships

Generalizations / Enduring Understandings

Strand 1: Understanding Data

Concepts:

- data
- 5 W's (who, what, when, where, why)
- population
- sample

Guiding Questions

Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]

Factual

- What are the 5 W's? (S1)
- What is variance? Standard deviation? (S3)
- What are some examples of categorical displays?

- variable

Generalization: Data reveals information regarding variables about a specific sample to generalize about a population. The 5 W's provide context for data.

Strand 2: Categorical Data

Concepts:

- distribution
- categorical displays
- area principle
- marginal distribution
- conditional distribution
- independence
- association

Generalization: Categorical displays show the distribution of a variable, including marginal and conditional distributions. Categorical displays that adhere to the area principle show independence and associations of variables.

Strand 3: Quantitative Data

Concepts:

- quantitative displays
- shape, center, spread
- 5-number summary
- variance
- standard deviation

Generalization: Shape, center, spread (using variance and standard deviation), and 5-number summaries describe and compare quantitative displays.

Strand 4: The Normal Model

Concepts:

- Normal distribution
- 68-95-99.7 rule
- Standard Normal model
- z-score
- percentile

Generalization: The Standard Normal model compares Normal distributions using z-scores, percentiles, and the 68-95-99.7 rule.

(S2)

- What are some examples of quantitative displays? (S3)
- What is a z-score? (S4)
- What is the Area Principle? (S2)
- What are the pieces of a 5-number summary? (S3)
- What are the formulas for variance and standard deviation? (S3)

Conceptual

- How are samples and populations related? (S2)
- How can the 68-95-99.7 rule be used to describe a Normal model? (S4)
- How can data be differentiated between categorical and quantitative? (S2/S3)
- When is it appropriate to use different measures of center and spread? (S3)
- How can marginal and conditional distributions be used to prove independence or association? (S2)

Provocative

- What are the benefits and limitations of using the standard normal model to describe a set of unimodal symmetric data? (S3)

Standard(s)

Connecticut Core Standards / Content Standards

CCSS: Mathematics

CCSS: HS: Stats/Prob

Interpreting Categorical & Quantitative Data

HSS-ID.A. Summarize, represent, and interpret data on a single count or measurement variable

HSS-ID.A.1. Represent data with plots on the real number line (dot plots, histograms, and box plots).

HSS-ID.A.2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

HSS-ID.A.3. Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).

HSS-ID.A.4. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets and tables to estimate areas under the normal curve.

HSS-ID.B. Summarize, represent, and interpret data on two categorical and quantitative variables

HSS-ID.B.5. Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal and conditional relative frequencies). Recognize possible associations and trends in the data.

Mathematical Practice

MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

MP.1. Make sense of problems and persevere in solving them.

MP.2. Reason abstractly and quantitatively.

MP.3. Construct viable arguments and critique the reasoning of others.

MP.4. Model with mathematics.

MP.5. Use appropriate tools strategically.

MP.6. Attend to precision.

MP.8. Look for and express regularity in repeated reasoning.

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Objective(s)

Bloom/ Anderson Taxonomy / DOK Language

Students will:

- Analyze categorical and quantitative data
- Display categorical and quantitative data
- Construct a normal model using sample statistics

Critical Content & Skills

*What students must **KNOW and be able to DO***

Students will be able to:

- identify the 5-W's of data
- classify a variable as categorical or quantitative

Core Learning Activities

Identify the 5-W's of data

- describe in context the who, what, when, where, why, and how given a sample

- choose an appropriate display given a set of data
- summarize the distribution of a variable

- classify a variable as categorical or quantitative

Choose an appropriate display given a set of data

- create a histogram to analyze data
- create a boxplot to analyze data
- create a frequency table to analyze data
- create a stem and leaf plot to analyze data
- create a bar chart to analyze data
- create a pie chart to analyze data
- create a dot plot to analyze data

Summarize the distribution of a variable

- describe the shape, center, spread of a distribution
- calculate the variance and standard deviation
- compare marginal and conditional distributions
- create a 5-number summary for a distribution
- apply the 68-95-99.7 rule for Normal models and interpret the results
- find percentiles for a Normal model

Assessments

Unit 1 assessments
Summative: Written Test
[Unit 1 assessments.pdf](#)

Resources

Professional & Student
 Stats in Your World
 Bock & Mariano
 2012 (Pearson)

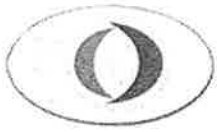
Student Learning Expectation & 21st Century Skills

[Information Literacy](#)
[Critical Thinking](#)
[Spoken Communication](#)
[Written Performance](#)

Interdisciplinary Connections

Students analyze data from two cross country meets and write an article about it. (Physical Education and Journalism)
[chap 5 project xc.pdf](#)





Unit Planner: Exploring Relationships Between Variables Statistics

Newtown High School > 2019-2020 > High School > Mathematics > Statistics >
Week 9 - Week 12

Last Updated: Today by Megan
Carroll

Exploring Relationships Between Variables

Barry, Joanna; Carroll, Megan; Chiucarello Jr., Lawrence; Dominick, Lauren; Pearson, Christopher; Sherman, Karen

- [Unit Planner](#)
- [Lesson Planner](#)

Concept-Based Unit Development Graphic Organizer (Download)

Unit Web Template (Optional)

Concepts / Conceptual Lens

Please attach your completed Unit Web Template here

Concept: Exploring Relationships Between Variables

- Scatter plots
- Direction, form, and strength
- Correlation coefficient
- Response and explanatory variable
- slope
- linear regression line
- intercept
- extrapolation
- residuals

Lens: Relationships

Generalizations / Enduring Understandings

Strand 1: Scatterplots

Concepts:

- scatterplots
- direction, form, and strength
- correlation coefficient
- response variable
- explanatory variable

Generalization: Scatterplots show the direction, form and strength (as measured by the correlation coefficient) between an explanatory variable and response variable.

Strand 2: Linear Regression

Concepts:

- slope
- linear regression line
- intercept
- extrapolation

Guiding Questions

Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]

Factual

- What are the possible ways to describe direction, form and strength of a scatterplot? (S1)
- What is the response variable? Explanatory variable? (S1)
- What is the correlation coefficient? (S1)
- What is the formula to find a residual? (S2)
- What is the general form for a linear regression line? (S2)

Conceptual

- How are direction, form and strength described in context? (S1)
- How are response variables differentiated from explanatory variables? (S1)
- How is the slope of the linear regression line

- residuals

Generalization: A linear regression line, defined by a slope and intercept, models the relationship between quantitative data while avoiding extrapolation. Residuals can help quantify the extremity of data points around a linear regression line.

related to standard deviation and the correlation coefficient? (S2)

Provocative

- Are predictions from a linear relationship always reliable? (S2)

Standard(s)

Connecticut Core Standards / Content Standards

CCSS: Mathematics

CCSS: HS: Stats/Prob

Interpreting Categorical & Quantitative Data

HSS-ID.B. Summarize, represent, and interpret data on two categorical and quantitative variables

HSS-ID.B.6. Represent data on two quantitative variables on a scatter plot and describe how the variables are related.

HSS-ID.B.6a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.

HSS-ID.B.6b. Informally assess the fit of a model function by plotting and analyzing residuals.

HSS-ID.B.6c. Fit a linear function for scatter plots that suggest a linear association.

HSS-ID.C. Interpret linear models

HSS-ID.C.7. Interpret the slope (rate of change) and the intercept (constant term) of a linear fit in the context of the data.

HSS-ID.C.8. Compute (using technology) and interpret the correlation coefficient of a linear fit.

HSS-ID.C.9. Distinguish between correlation and causation.

Mathematical Practice

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MP.2. Reason abstractly and quantitatively.

MP.3. Construct viable arguments and critique the reasoning of others.

MP.4. Model with mathematics.

MP.5. Use appropriate tools strategically.

MP.6. Attend to precision.

MP.7. Look for and make use of structure.

MP.8. Look for and express regularity in repeated reasoning.

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Objective(s)

Bloom/ Anderson Taxonomy / DOK Language

Students will:

- analyze a scatter plot
- fit a linear model to data
- make predictions using a line of best fit

Critical Content & Skills

*What students must **KNOW and be able to DO***

Students will be able to:

- create and analyze a scatterplot
- calculate a correlation coefficient
- create and analyze a linear regression line
- predict trends using a linear regression line

Core Learning Activities

Create and analyze a scatterplot

- given a set of data, create a scatterplot
- describe direction, form, and strength of a scatterplot
- given a set of data, determine if a linear model is appropriate

Calculate a correlation coefficient

- calculate a correlation coefficient using a calculator

Create and analyze a linear regression line

- create a linear regression line using a calculator
- calculate and interpret the slope of a linear regression line
- calculate and interpret the intercept of a linear regression line

Predict trends using a linear regression line

- use the linear regression line to predict a response given an explanatory variable
- describe the relationship between the correlation coefficient and the z-score given a data point

Assessments

Unit 2 Assessments
Summative: Written Test
[Unit 2 assessments.pdf](#)

Resources

Professional & Student
Stats in Your World
Bock & Mariano
2012 (Pearson)

Student Learning Expectation & 21st Century Skills

Information Literacy

Critical Thinking

Spoken Communication

Written Performance

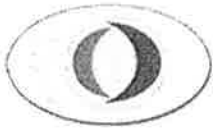
Interdisciplinary Connections

Students are asked to write an investigative report regarding cigarette consumption. (Health, journalism)
Unit 2 RAFT project.pdf



Atlas Version 9.5

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Unit Planner: Gathering Data Statistics

Newtown High School > 2019-2020 > High School > Mathematics > Statistics >
Week 13 - Week 18

Last Updated: Today by Megan
Carroll

Gathering Data

Barry, Joanna; Carroll, Megan; Chiucarello Jr., Lawrence; Dominick, Lauren; Pearson, Christopher; Sherman, Karen

- [Unit Planner](#)
- [Lesson Planner](#)

Concept-Based Unit Development Graphic Organizer (Download)

Unit Web Template (Optional)

Concepts / Conceptual Lens

Please attach your completed Unit Web Template here
Gathering Data

- Sample Statistic
- Population Parameter
- Sampling Methods
- Bias
- Design
- Control
- Treatment
- Response
- Randomization
- Trials
- Response Variable

Lens: Representation

Generalizations / Enduring Understandings

Strand 1: Sampling

- Sample statistic
- Population parameter
- Sampling methods
- Bias

Generalization: Proper sampling methods provide an unbiased sample statistic that can help make inferences about a population parameter.

Strand 2: Experimental Design

- Design
- Control
- Treatment
- Response

Generalization: A proper experimental design shows the response of a variable from a treatment when compared

Guiding Questions

Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]
Factual

- What are the different sampling methods? (S1)
- What constitutes a representative sample? (S1)
- What is bias? (S1)
- What are the different types of bias? (S1)
- What are different methods to ensure randomization? (S3)
- What are the treatments and the responses in an experiment? (S2)
- What are different experimental designs? (S2)

Conceptual

- How does bias influence a sample? (S1)
- How does experimental design impact its results? (S2)
- How do surveying techniques impact the survey

to a control group.

Strand 3: Simulation

- Randomization
- Trials
- Response variable

Generalization: A simulation can mimic the uncertainty of a response variable using randomness to conduct multiple trials.

results? (S1)

- What are the advantages and disadvantages to each sampling method? (S1)

Provocative

- Are real-world situations modeled through simulations? (S3)
- Can true randomness exist? (S3)

Standard(s)

Connecticut Core Standards / Content Standards

CCSS: Mathematics

CCSS: HS: Stats/Prob

Making Inferences & Justifying Conclusions

HSS-IC.B. Make inferences and justify conclusions from sample surveys, experiments and observational studies

HSS-IC.B.3. Recognize the purposes of and differences among sample surveys, experiments and observational studies; explain how randomization relates to each.

HSS-IC.B.4. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.

HSS-IC.B.5. Use data from a randomized experiment to compare two treatments; justify significant differences between parameters through the use of simulation models for random assignment.

HSS-IC.B.6. Evaluate reports based on data.

Mathematical Practice

MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

MP.1. Make sense of problems and persevere in solving them.

MP.2. Reason abstractly and quantitatively.

MP.3. Construct viable arguments and critique the reasoning of others.

MP.4. Model with mathematics.

MP.5. Use appropriate tools strategically.

MP.6. Attend to precision.

MP.7. Look for and make use of structure.

MP.8. Look for and express regularity in repeated reasoning.

Objective(s)

Bloom/ Anderson Taxonomy / DOK Language

Students will:

- apply all sampling methods to a set of data
- construct simulations to model real world situations
- identify sampling methods and bias given a survey in context
- differentiate between a sample statistic and a population parameter
- generate random numbers using technology

Critical Content & Skills

*What students must **KNOW and be able to DO***

Students will be able to:

- determine the most efficient sampling method based on the given situation
- identify possible bias based on sampling method
- design an experiment based on the given situation
- carry out and interpret the results of simulations

Core Learning Activities

Determine the most efficient sampling method based on the given situation

- choose the most efficient sampling method by balancing efficiently using time and resources while still insuring random and accurate population representation
- apply stratifying and cluster sampling when appropriate and unbiased
- apply simple random sampling when possible

Identify possible bias based on sampling method

- identify potential under-coverage when cluster sampling or stratified sampling
- identify potential response bias and non-response bias when conducting voluntary or non-anonymous surveys

Design an experiment

- identify a control and response variable
- identify and analyze the placebo effect when appropriate
- compare experiment results appropriately and in context

Carry out and interpret the results of simulations

- generate random numbers using technology
- define response variables and trials appropriately
- interpret results appropriately and in context

Assessments

Unit 3 Assessments
Summative: Written Test
[Unit 3 assessments.pdf](#)

Resources

Professional & Student
Stats in Your World
Bock & Mariano
2012 (Pearson)

Student Learning Expectation & 21st Century Skills

Information Literacy

Critical Thinking

Spoken Communication

Written Performance

Interdisciplinary Connections

Students are asked to write a school newspaper article regarding a free throw percentage of a star athlete. (physical education and journalism)

Unit 3 RAFT project.pdf



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Unit Planner: Randomness and Probability Statistics

Newtown High School > 2019-2020 > High School > Mathematics > Statistics >
Week 19 - Week 28

Last Updated: Today by Megan
Carroll

Randomness and Probability

Barry, Joanna; Carroll, Megan; Chiucarello Jr., Lawrence; Dominick, Lauren; Pearson, Christopher; Sherman, Karen

- [Unit Planner](#)
- [Lesson Planner](#)

Concept-Based Unit Development Graphic Organizer (Download)

Unit Web Template (Optional)

Concepts / Conceptual Lens

Please attach your completed Unit Web Template here

Concept: Randomness and Probability

- Combinations
- Permutations
- Fundamental Counting Principle
- Law of Large Numbers
- Probability
- Probability rules
- Law of Large Numbers
- Binomial Model
- Bernouli Trials
- Expected Value
- Diagrams
- Disjoint events
- Independent events

Lens: Patterns

Generalizations / Enduring Understandings

Strand 1: Counting

Concepts:

- Combinations
- Permutations
- Fundamental Counting Principle

Generalization: Combinations, permutations, and the Fundamental Counting Principle determine the number of all possible outcomes of an event.

Strand 2: Probability

Concepts:

- Probability
- Probability rules
- Diagrams
- Disjoint events

Guiding Questions

Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]

Factual

- What is a combination? (S1)
- What is a permutation? (S1)
- What is the Fundamental Counting Principle? (S1)
- What do Venn diagrams and tree diagrams look like? (S2)
- What are the conditions for Bernoulli Trials? (S3)
- What are the formulas for the binomial model and expected value? (S3)

Conceptual

- When is it appropriate to use a Venn diagram compared to a tree diagram? (S2)

- Independent events
- Law of Large Numbers

Generalization: The Law of Large Numbers states that the as the number of trials of an event increases the relative frequency of a variable approaches its true probability. Diagrams support probability rules which determine outcomes for disjoint and independent events.

Strand 3: Probability Models

- Binomial Model
- Bernoulli Trials
- Expected value

Generalization: Given a random variable, Bernoulli Trials, the Binomial Model and expected value describe its long term probability.

- How can two events be proved independent? (S2)
- Can events be both disjoint and independent? (S2)
- What can short term results tell about long term probabilities? (S2)
- How can combinations and permutations be used to more efficiently solve complex probability problems? (S1)

Provocative

- Under what circumstances can the Law of Large Numbers be trusted? (S2)
 - In what real world settings might expected value be used to maximize efficiency or profit? (S3)

Standard(s)

Connecticut Core Standards / Content Standards

CCSS: Mathematics

CCSS: HS: Stats/Prob

Conditional Probability & the Rules of Probability

HSS-CP.A. Understand independence and conditional probability and use them to interpret data

HSS-CP.A.1. Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").

HSS-CP.A.2. Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.

HSS-CP.A.3. Understand the conditional probability of A given B as $P(A \text{ and } B)/P(B)$, and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.

HSS-CP.A.4. Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities.

HSS-CP.A.5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations.

HSS-CP.B. Use the rules of probability to compute probabilities of compound events in a uniform probability model

HSS-CP.B.6. Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A and interpret the answer in terms of the model.

HSS-CP.B.7. Apply the Addition Rule, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$, and interpret the answer in terms of the model.

HSS-CP.B.8. (+) Apply the general Multiplication Rule in a uniform probability model, $P(A \text{ and } B) = P(A)P(B|A) = P(B)P(A|B)$, and interpret the answer in terms of the model.

HSS-CP.B.9. (+) Use permutations and combinations to compute probabilities of compound events and solve

problems.

Using Probability to Make Decisions

HSS-MD.A. Calculate expected values and use them to solve problems

HSS-MD.A.1. (+) Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.

HSS-MD.A.2. (+) Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.

HSS-MD.A.3. (+) Develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated; find the expected value.

HSS-MD.A.4. (+) Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value.

HSS-MD.B. Use probability to evaluate outcomes of decisions

HSS-MD.B.5. (+) Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.

HSS-MD.B.5a. Find the expected payoff for a game of chance.

HSS-MD.B.5b. Evaluate and compare strategies on the basis of expected values.

HSS-MD.B.6. (+) Use probabilities to make fair decisions

HSS-MD.B.7. (+) Analyze decisions and strategies using probability concepts

Mathematical Practice

MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

MP.1. Make sense of problems and persevere in solving them.

MP.2. Reason abstractly and quantitatively.

MP.3. Construct viable arguments and critique the reasoning of others.

MP.4. Model with mathematics.

MP.5. Use appropriate tools strategically.

MP.6. Attend to precision.

MP.7. Look for and make use of structure.

MP.8. Look for and express regularity in repeated reasoning.

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Objective(s)

Bloom/ Anderson Taxonomy / DOK Language

Students will:

- recognize the difference between permutations and combinations
- understand that random phenomena are unpredictable in the short term but show long-run regularity
- determine the number of outcomes of an event
- know how and when to apply the probability rules
- recognize when events are disjoint and when events are independent
- find probability models and recognize when to use a Binomial Model
- find and interpret the meaning of the expected value of a random variable

Critical Content & Skills

*What students must **KNOW and be able to DO***

Students will be able to:

- count the number of outcomes of an event
- find the probability of a random event
- apply the probability rules to calculate simple and conditional probability of disjoint and independent events
- determine whether events are independent or disjoint
- construct diagrams to model outcomes
- create probability models
- calculate and interpret the meaning of expected value

Core Learning Activities

Count the number of outcomes of an event

- apply the Fundamental Counting Principle
- calculate the number of outcomes using permutations
- calculate the number of outcomes using combinations

Find the probability of a random event

- apply the Law of Large Numbers to find the probability over time
- explain the Law of Large Numbers
- explain the Law of Averages

Apply the probability rules to calculate simple and conditional probability of disjoint and independent events

- understand and apply the Probability Assignment Rule
- calculate probabilities by applying the Complement Rule
- calculate probabilities by applying the Addition Rule
- calculate probabilities by applying Multiplication Rule
- calculate probabilities by applying conditional probability rules

Determine whether events are independent or disjoint

- given an event, determine whether an event is independent

| | |
|---|--|
| | <ul style="list-style-type: none"> • given an event, determine whether an event is disjoint • determine whether an event can be both disjoint and independent <p>Construct diagrams to model outcomes</p> <ul style="list-style-type: none"> • construct a tree diagram to model outcomes and use the diagram to calculate probabilities • construct venn diagrams to model outcomes and use the diagram to calculate probabilities • construct two way tables to model outcomes and use the table to calculate probabilities • construct a relative frequency histogram and use the histogram to calculate probabilities <p>Create probability models</p> <ul style="list-style-type: none"> • check conditions to see if Bernoulli Trials are appropriate • Bernoulli Trial • apply the Binomial Model • apply the Binomial model to the Normal Model when appropriate <p>Calculate and interpret the meaning of expected value</p> <ul style="list-style-type: none"> • calculate expected value • interpret the expected value of a distribution • apply the expected value to make decisions |
| <p>Assessments</p> <p>Unit 4 assessments</p> <p>Summative: Written Test</p> <p>Unit 4 Assessments.pdf</p> | <p>Resources</p> <p><i>Professional & Student</i></p> <p>Stats in Your World</p> <p>Bock & Mariano</p> <p>2012 (Pearson)</p> |
| <p>Student Learning Expectation & 21st Century Skills</p> <p>Information Literacy</p> <p>Critical Thinking</p> <p>Spoken Communication</p> <p>Written Performance</p> | <p>Interdisciplinary Connections</p> <p>Students will design and run trials on a game of chance. They will calculate expected value of profit and compare expectations and post game results in context. (Art)</p> <p>Chapter 16 RAFT carnival.docx</p> <p>Carnival Rubric.docx</p> |





Unit Planner: From the Data at Hand to the World at Large Statistics

Newtown High School > 2019-2020 > High School > Mathematics > Statistics >
Week 29 - Week 37

Last Updated: Today by Megan
Carroll

From the Data at Hand to the World at Large

Barry, Joanna; Carroll, Megan; Chiucarello Jr., Lawrence; Dominick, Lauren; Pearson, Christopher; Sherman, Karen

- [Unit Planner](#)
- [Lesson Planner](#)

Concept-Based Unit Development Graphic Organizer (Download)

Unit Web Template (Optional)

Concepts / Conceptual Lens

Please attach your completed Unit Web Template here

Concept: Using Data in the Real World

- confidence interval
- margin of error
- sample statistic
- population parameter
- null hypothesis
- alternative hypothesis
- assumptions and conditions
- hypothesis test
- statistically significant

Lens: Relationships

Generalizations / Enduring Understandings

Strand 1: Confidence Intervals

- confidence interval
- margin of error
- sample statistic
- population parameter

Generalization: A confidence interval defined by a margin of error and a sample statistic makes a statement about a population parameter.

Strand 2: Hypothesis Testing

- null hypothesis
- alternative hypothesis
- assumptions and conditions
- hypothesis test
- statistically significant

Generalization: A hypothesis test determines if data is statistically significant by creating null/alternative hypotheses and checking assumptions/conditions.

Guiding Questions

Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]

Factual

- What is the formula to calculate margin of error? (S1)
- What symbols are used for sample statistics and population parameters? (S1)
- What notation is used for the null and alternative hypothesis? (S2)
- What assumptions and conditions must be passed to proceed with each type of confidence interval and hypothesis test? (S1/S2)
- What ways can technology assist in running hypothesis tests and finding confidence intervals? (S1/S2)

Conceptual

- How is a confidence interval for a proportion different from a confidence interval for a mean? (S1)

- How are results of a confidence interval interpreted? (S1)
- How is it decided which assumptions and conditions are necessary to check? (S1/S2)
- How do two-sample tests compare to one-sample tests? (S2)
- How can a sample size be determined to reach a targeted margin of error? (S1)
- How is a t-distribution different from a normal model? (S2)
- What real world situations allow for confidence intervals and hypothesis testing to be used? (S1/S2)

Provocative

- Is it possible to confirm or accept the null hypothesis? (S2)
- Are there situations when a decision rule should be changed in a hypothesis test? (S2)
- Can two different conclusions be reached given the same results in a hypothesis test? (S2)

Standard(s)

Connecticut Core Standards / Content Standards

CCSS: Mathematics

CCSS: HS: Stats/Prob

Making Inferences & Justifying Conclusions

HSS-IC.A. Understand and evaluate random processes underlying statistical experiments

HSS-IC.A.1. Understand that statistics is a process for making inferences about population parameters based on a random sample from that population.

HSS-IC.A.2. Decide if a specified model is consistent with results from a given data-generating process, e.g. using simulation.

HSS-IC.B. Make inferences and justify conclusions from sample surveys, experiments and observational studies

HSS-IC.B.3. Recognize the purposes of and differences among sample surveys, experiments and observational studies; explain how randomization relates to each.

HSS-IC.B.4. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.

HSS-IC.B.5. Use data from a randomized experiment to compare two treatments; justify significant differences between parameters through the use of simulation models for random assignment.

HSS-IC.B.6. Evaluate reports based on data.

Using Probability to Make Decisions

HSS-MD.B. Use probability to evaluate outcomes of decisions

HSS-MD.B.6. (+)Use probabilities to make fair decisions

HSS-MD.B.7.(+) Analyze decisions and strategies using probability concepts

Mathematical Practice

MP.The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

MP.1. Make sense of problems and persevere in solving them.

MP.2. Reason abstractly and quantitatively.

MP.3. Construct viable arguments and critique the reasoning of others.

MP.4. Model with mathematics.

MP.5. Use appropriate tools strategically.

MP.6. Attend to precision.

MP.7. Look for and make use of structure.

MP.8. Look for and express regularity in repeated reasoning.

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Objective(s)

Bloom/ Anderson Taxonomy / DOK Language

Students will:

- make statistical statements about population parameters
- compare data sets to make decisions about a population
- organize data in an appropriate way to assist in decision making

Critical Content & Skills

*What students must **KNOW and be able to DO***

Students will be able to:

- create and interpret a confidence interval
- conduct a hypothesis test
- interpret the results of a hypothesis test
- identify and check the proper assumptions and conditions for a hypothesis test or confidence interval

Core Learning Activities

Create and interpret a confidence interval

- calculate a 1 proportion z-interval, 1 proportion t-interval
- calculate standard error, margin of error, and find critical value
- calculate sample size for based on margin of error
- calculate changes in margin of error based on changes of sample size
- describe how changes in confidence level affect the size of the interval

Conduct a hypothesis test

- state null and alternative hypothesis
- check assumptions and conditions
- conduct a 1 proportion z-test, 1 sample t-test, 2 proportion z-test, 2 sample, t-test
- select and construct the appropriate model (Normal distribution, t-distribution)
- for a t-distribution, calculate the degrees of freedom
- find p-value

Interpret the results of a hypothesis test

- compare p-value to alpha
- interpret the p-value in context
- determine if it is appropriate to reject or fail to reject the null hypothesis
- interpret the conclusion in context
- identify potential Type I and Type II error

Assessments

Unit 5 assessments
Summative: Written Test
[Unit 5 assessments.pdf](#)

Resources

Professional & Student
 Stats in Your World
 Bock & Mariano
 2012 (Pearson)

Student Learning Expectation & 21st Century Skills

[Information Literacy](#)
[Critical Thinking](#)
[Spoken Communication](#)
[Written Performance](#)

Interdisciplinary Connections

Students analyze SAT data from a fictional school to compare results to a statewide average, as well as differences between subject area and genders. Students create a brochure for a college using this information.
 (Art)
[SAT Raft chapter 19.docx](#)

