

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

Minutes of the Board of Education meeting held on November 15, 2022, at 7:00 p.m. in the Council Chambers, 3 Primrose Street.

D. Zukowski, Chair (virtually)	C. Melillo
J. Vouros, Vice Chair	A. Uberti
D. Ramsey, Secretary	T. Vadas
D. Cruson	4 Staff
J. Kuzma	1 Public
J. Larkin	
A. Plante	
K. Kunzweiler (absent)	
D. Godino	

Ms. Zukowski called the meeting to order at 7:01 p.m.

Ms. Zukowski asked Mr. Vouros to run the meeting because she was unable to attend the meeting in person.

Item 1 – Pledge of Allegiance

Item 2 – Consent Agenda

MOTION: Mrs. Kuzma moved that the Board of Education approve the consent agenda which includes the donations to Reed Intermediate School, the NHS Band, Chorus and Orchestra Field Trip to Boston, and the correspondence report. Mr. Ramsey seconded.

Motion passes unanimously.

Item 3 – Public Participation

Item 4 – Reports

Chair Report: Ms. Zukowski will share her chair report at the next Board of Education meeting.

Superintendent's Report:

Mr. Melillo reported that all of the schools celebrated Veteran's Day on Friday, November 11<sup>th</sup>. He attended a Veteran's breakfast at Newtown Middle School followed by a parade at Sandy Hook School and celebration ceremony at Newtown High School. Mr. Melillo believes having the students in school teaches them about appreciation for our Veterans. He provided an update on mandated reading programs that are required by State Legislation. There are currently six programs that are approved by the State of Connecticut. We plan to bring recommendations to the Board by early December. On November 7<sup>th</sup> the Strategic Planning group met and discussed the SWOT analysis which stands for "strengths, weaknesses, opportunities and threats". The group also shared their hopes and dreams for Newtown Public Schools. The next meeting will be on November 21<sup>st</sup>. He also sent a letter to Newtown Middle School parents regarding student walkers. The intent for the letter was to open communication between the parents and students. He also wanted the parents to be aware of the reports he was receiving from the public.

Committee Reports:

Mrs. Larkin reported on the CFF/CIP subcommittee meeting. The subcommittee discussed the Hawley HVAC project status and Mr. Gerbert provided the committee with a detailed outline of the expenses to date. The project remains to be on time and on budget with no major deviations from the schedule. Additionally, the committee made a motion to add to the agenda for a follow up conversation regarding the playground at Middle Gate Elementary School. The subcommittee will continue the conversation after the first of the year. Mrs. Larkin reported that

Mrs. Vadas provided the subcommittee with an update on the financial report. There are no significant emergency repairs to report on the building and maintenance side.

Mr. Ramsey reported on the Curriculum & Instruction subcommittee meeting. The subcommittee met on November 9<sup>th</sup>. Staci Stamm and Shawn Mullen presented the Greenery 1 & 2 curriculum. They will be presenting to the Board tonight for the first read. Mrs. Uberti provided an update on the status of the State Department of Education's K-3 reading mandate. Presentations for the five approved programs have been scheduled and will be concluded this week. A sixth program has been added and will be scheduled as soon as possible. Mrs. Uberti, along with Mrs. DiBartolo and the ELA Specialists will be reviewing the programs to determine which might be a fit for our district.

Mr. Ramsey reported on the Communications subcommittee where they discussed the recent newsletter. Unfortunately, they were unable to go over the analytics because it was sent out as a PDF. They also reviewed editing procedures to ensure future editions will go out on time.

Mr. Cruson reported on the Policy subcommittee which met November 9<sup>th</sup>. In addition to reviewing the policies for first read tonight, the subcommittee had further discussion on the consultant's policy. They decided it was not appropriate for the 4000 series and will be considering a potential policy in the 6000 series which is the "Instruction" series. The next group of policies that the subcommittee is currently working on is the technology/personnel policies. Mrs. D'Eramo and Mr. Colclough are working with the policy subcommittee on editing those policies.

#### Student Report:

Mr. Godino reported that Ms. Kunzweiler was unable to attend the meeting because dress rehearsal for the fall drama "Almost Maine", running Thursday, November 17 through Sunday, November 20. He reported that the fall sports season comes to a close as we reach the midpoint of November. Newtown High School students are very excited that The Newtown Nighthawks Express re-opened for the first time since 2020. On Veteran's Day, the staff of NHS and members of the Hawks Honors Association hosted a lunch for Veterans followed by an assembly at which the band and choir preformed. Last week was GSA Solidarity Week which offers an opportunity for students with a variety of identities to share their support for one another. NHS students also attended the 2022 Homecoming Dance.

#### Financial Report:

Mrs. Vadas presented the financial report.

MOTION: Mrs. Kuzma moved that the Board of Education approve the financial report and transfers for the month of October 31, 2022. Mrs. Larkin seconded. Motion passes unanimously.

#### Item 5 – Presentations

Staci Stamm and Department Chair, Eric Holst-Grubbe, presented the curriculum for Greenery 1 & 2. Ms. Stamm wrote this curriculum with Shawn Mullens, who was unable to attend the meeting. This class is offered in the fall and spring and can act as an elective credit or a science credit.

Mrs. Larkin asked which grades this class was available to.

Ms. Stamm answered that it is an elective open to grades 9 through 12. It provides an opportunity to have every type of student in the same room at the same time.

Mrs. Larkin asked if all five units were used in the same course.

Ms. Stamm said that depending on which time of the year they are taking the course, all but five units are discussed in the semester. It is a half-year class so students get two chances to take this course.

Mrs. Larkin can understand why students would want to take it every year.

Ms. Stamm believes that there are some students that do take it every year.

Mrs. Plante commented that she thinks this class is very cool.

Mrs. Kuzma asked what the average class size was.

Ms. Stamm answered that they currently have five sections and due to space in the greenhouse, they are capped at 14 students per section which turns out to be around 140 students per year.

Mr. Ramsey visited this class with Shawn Mullen and, after talking with students, said it was gratifying to go into the classroom and see that the curriculum was being implemented the same way it looked on paper.

Ms. Zukowski commented that she believes it is an excellent course and hope to learn something from the students.

Mr. Vouros encouraged everyone to go to visit.

Mr. Melillo said that he loved going to visit this course. Connecting this course to the food pantry and culinary program gave students a purpose. It is rare to find a course where students are so engaged that they are coming in on their own time to work in the garden or work on their sales.

Fine Arts Update:

Director of Fine Arts, Michele Hiscavich, presented some updates and accomplishments in the Fine Arts Department. She started her presentation by stating that her program is focused on "Creative Futures" and setting up a future for their students within the fine arts.

Ms. Zukowski asked how often the students go to a visual arts class during the week or six day cycle.

Ms. Hiscavich answered that at the elementary schools, the students meet once every six days. At Reed, the students meet twice every six days. At Newtown Middle School, the students meet twice every seven days for art and they meet twice a week for band, music and orchestra but there are no lessons. Lastly, at Newtown High School, the students have their music and art classes every day but are dropped twice out of the eight day rotation.

Mrs. Kuzma asked if there was a decline in interest in arts during COVID and if so, what was being done to regain interest.

Ms. Hiscavich said that they are doing things to regain interest in the students. They have gone to Reed to showcase the NMS/NHS band and choir. She also plans to create programs to help recruit elementary students in the future. Older students talking to younger students can be a powerful tool as well.

Mrs. Kuzma asked which department took the biggest decline.

Ms. Hiscavich said that music did.

Mr. Vouros thanked Ms. Hiscavich for her passion and love for the Fine Arts.

Mr. Melillo said he had the pleasure to attend many of the events and see the students in action. They have done a wonderful job and it is another instance that shows how dedicated students are coming back on their own time to practice and work on their craft. This can be a career path and colleges value music/fine arts. Mr. Melillo thanked Ms. Hiscavich for her leadership.

Item 6 - Old Business

## Second Read of Policies:

MOTION: Mrs. Kuzma moved that the Board of Education approve Policies 4118.231 and 4218.231 Alcohol, Tobacco, and Drug-Free Workplace. Mrs. Plante seconded. Motion passes unanimously.

MOTION: Mrs. Kuzma moved that the Board of Education approve to rescind Policy 4-111 Student Teachers. Mrs. Plante seconded. Motion passes unanimously.

MOTION: Mrs. Kuzma moved that the Board of Education approve to rescind Policy 4-702 Drug Free Workplace. Mr. Ramsey seconded. Motion passes unanimously.

Item 7 – New Business

## First Read of Policies:

Mr. Cruson explained that Policy 4111/4211 – Recruitment and Selection is an existing policy but the subcommittee is recommending some adjustments to better designate that the Superintendent is the one to do the recruiting and hiring for non-administrative certified and non-certified staff.

Mr. Cruson explained that Policy 2151 – Hiring School Administrators is also an existing policy. The edits are to clarify the practice of hiring administrators and the Board's role in doing so.

Mr. Cruson reported that Policy 4121 – Substitute Teachers was edited with the help of Newtown's Director of HR, Suzanne D'Eramo. The subcommittee removed language that would restrict substitutes from possibly receiving health insurance in the future.

Mr. Cruson reported that the subcommittee is recommending rescinding Policy 4-501 – Substitute Teachers and Policy 4-501.1 – Leave Provisions for Per Diem Substitutes.

MOTION: Mrs. Kuzma moved that the Board of Education approve the minutes of November 1, 2022. Mrs. Larkin seconded. Motion passes unanimously.

Item 8 – Public Participation

MOTION: Mr. Plante moved to adjourn. Mrs. Larkin seconded. Motion passes unanimously.

Item 9 – Adjournment

The meeting adjourned at 8:21 p.m.

Respectfully submitted:

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Donald Ramsey  
Secretary

# Reed Intermediate School

3 Trades Lane, Newtown, CT 06470  
Phone: (203) 270-4880 Fax: (203) 270-4899  
[ris.newtown.k12.ct.us](http://ris.newtown.k12.ct.us)

Dr. Matt Correia, Principal  
Ms. Jenna Connors, Assistant Principal



**To:** Board of Education

**From:** Reed Intermediate School

**Date:** November 4, 2022

Please be advised that Reed Intermediate School received a trumpet, clarinet and percussion set donation from Cynthia Iaropoli on November 4, 2022. Donation valued at \$500.

Cynthia lives in Newtown and her address information is as follows:

Cynthia Iaropoli  
34 Equestrian Ridge Road  
Newtown, CT 06470

Please let me know if you need further information.  
Thank you very much.

Mandi Poseno  
Executive Secretary- RIS

Newtown High School Music Families:

We are excited to share that the NHS Music Department will be traveling to Boston this spring! While many of our students visited Disney, Lake Compounce, and Washington, DC last year as members of their own ensembles, we would like to take this trip as a unified music department! This letter and linked presentation are meant to provide you and your student with an overview of our trip, so you can make an informed decision on your participation.

**Who:** All current students enrolled in a Band, Orchestra, or Choir class

**When:** Thursday April 27 - Saturday April 29, 2023

**Where:** Boston, MA. Students will have the opportunity to participate in clinics with the students and staff of the world-renowned universities and conservatories in the Boston area, see the sites, take a duck boat tour, watch the Red Sox, see the London tour of Jesus Christ Superstar, and so much more! We will be staying outside of the city, in a northern suburb.

**Estimated Cost:** \$829. This price includes: Quad occupancy rooms, overnight security at our hotel, deluxe motorcoach, 2 Breakfasts, 1 Lunch, 2 Dinners, 2 Nights at hotel, and the tour fees for our chaperones.

Payments can be made directly on our online portal - no physical checks necessary! Visit <https://spark.worldstrides.com/Tour> to register. Enter code **T63NEGF** to join our tour!

Please note that this price may fluctuate, depending on the number of students participating.

The payment schedule is:

Installment	Due Date	Quad Occupancy
Registration Fee	Nov 15, 2022	\$50.00 + \$102.00 FRP
2	Dec 1, 2022	\$222.00
3	Jan 2, 2023	\$222.00
4	Feb 1, 2023	\$222.00
5	Mar 1, 2023	FINAL BALANCE

We will be having fundraisers throughout the winter to get the price down. If your family is concerned about the cost, please contact your director.

**What to do next:** Check out [this presentation](#), complete the [commitment form](#), [register online](#), submit your deposit, be prepared for more communication regarding an in-person trip meeting, and get excited!

We are sure that many parents/guardians are interested in **chaperoning**. The number of chaperones allotted to each ensemble will be based on how many students from that ensemble join the trip. We will reach out to families once we know who is attending. Seniority and prior service will be considered.

Looking forward to a GREAT trip!  
Ms. Hiscavich, Mrs. Matson, and Mr. Ovsiew

# **Music Department Trip 2023: Boston**

**Hiscavich, Matson, Ovsiew**

## Trip Overview

- 3 Day/2 Night trip to Boston, MA. April 27-29, 2023.
- Open to all Band, Orchestra, and Choir students.
- Ensemble Clinics with local Universities/Conservatories.
- Time to explore and enjoy the sights of Boston.

The goal of this trip is not only to receive feedback on our musical performances, but also for students across ensembles to bond, and create a more cohesive and unified music department.



# Proposed Itinerary

Thursday 4/27	Friday 4/28	Saturday 4/29
<ul style="list-style-type: none"><li>• Depart NHS 12:30PM via Coach Bus</li><li>• Arrive Boston 4:30PM</li><li>• Time to explore and Dinner.</li><li>• Check in hotel TBA</li></ul>	<ul style="list-style-type: none"><li>• Breakfast</li><li>• University Clinics in the morning</li><li>• Duck Tour 1pm</li><li>• Lunch at Prudential Center</li><li>• Red Sox Game 7pm</li></ul>	<ul style="list-style-type: none"><li>• Pack hotel room</li><li>• Jesus Christ Superstar Performance at 2pm</li><li>• Depart for NHS following performance</li></ul>

# Finances

- Projected Trip Cost: \$829
  - The number of participants affects our final cost
- Tour Cost Includes:
  - Quad-occupancy room
  - Breakfast at Hotel
  - 3 Dinners + 1 lunch
  - All tour activity fees
  - Overnight hotel security
  - Basic Trip Insurance
- Trip insurance or Full Refund Protection (FRP) will be \$102

Installment	Due Date	Quad Occupancy
Registration Fee	Nov 15, 2022	\$50.00 + \$102.00 FRP
2	Dec 1, 2022	\$222.00
3	Jan 2, 2023	\$222.00
4	Feb 1, 2023	\$222.00
5	Mar 1, 2023	FINAL BALANCE

## What to do now?

- There is no longer a need to submit checks to your music teacher! Now you can directly pay online!
- Access our online portal [HERE](#)
- Our code is: T63NEGF
- Please register no later than 11/15
- Complete this [Commitment Form](#)
- Register online and submit \$50 non-refundable deposit
- Information regarding rooming, chaperones, and an in-person parent meeting will be shared as soon as we know more about who will be joining our trip

Correspondence Report  
11/01/2022 – 11/14/2022

<b>Date</b>	<b>Name</b>	<b>Subject</b>
11/01/2022	Ramsey, Donald	Correspondence Report for the BOE meeting 11/01/2022
11/01/2022	Melillo, Christopher	Update on Smart Funds and Positions
11/01/2022	June, Kathy	Oct. 31, 2022 Enrollment Report
11/01/2022	Melillo, Christopher	Bus 25
11/02/2022	McArthur, Ckynthia	Thank you!
11/06/2022	Melillo, Christopher	11/6 Superintendent's Update
11/06/2022	Gouveia, Tania	Lunch Program – Updates
11/06/2022	Zukowski, Deborra	November 6/7 2022 Week in Preview part 1
11/07/2022	Zukowski, Deborra	Fwd: November 6/7 2022 Week in Preview Part 2
11/08/2022	L K	Policy 8-302
11/11/2022	Melillo, Christopher	NMS Communication
11/11/2022	June, Kathy	BOE Mailing – November 15, 2022
11/11/2022	June, Kathy	Budget Summary Detail
11/11/2022	Laura Main	Fwd: New Email?
11/11/2022	Zukowski, Deborra	Test
11/11/2022	Deeb, Amy Marie	Thank You!
11/11/2022	Zukowski, Deborra	Fwd: Delivery Status Notification (Failure)
11/13/2022	Melillo, Christopher	11/13 Superintendent's Sunday Update
11/13/2022	Zukowski, Deborra	November 13, 2022 Week in Preview
11/14/2022	Zukowski, Deborra	Fwd: November 13, 2022 Week in Preview - Update

**NEWTOWN BOARD OF EDUCATION  
MONTHLY FINANCIAL REPORT  
OCTOBER 31, 2022**

**SUMMARY**

The fourth financial report for the year continues to provide year to date expenditures, encumbrances and information for anticipated obligations. However, it is still early in the year and we have not yet completed our account-by-account analysis. Therefore, the majority of our major objects have been projected as fully expensed in order to provide a more realistic view of our anticipated year-end balance.

The adjustments that were made over the prior month have produced a projected year-end balance of \$411,346 with the majority of adjustments being made in other purchased services, primarily transportation and out-of-district tuition, to adjust for the excess cost grant.

During the month of October, the district spent approximately \$8.1M for operations. About \$4.1M was spent on salaries with the remaining balance of \$4.0M spent on all other objects (\$2.1M was expensed on the 2<sup>nd</sup> installment of employee medical costs to the Town). All expenditures appear to be within normal limits at this time.

This report also includes transfer requests totaling \$1,229,541

- \$1,136,141 for the realignment and reclassification of administrative and teacher positions,
- \$61,900 to cover costs in contracted services
- \$31,500 for a general transportation reallocation

**MAJOR MOVERS**

**SALARY ACCOUNTS**

The overall salary object currently displays a positive position; however, there are a few sub-accounts within this category that continue to experience pressure and will remain under close watch.

- **Teacher salary accounts** - currently displays a negative balance of -\$95,418, (last month this account displayed a balance of -\$212,408). This negative balance continues to be driven by the budgeted turnover number of -\$550,000. The rationale behind this above average number was partially due to the anticipation of having a potential surplus in our non-certified staff for turnover and unfilled positions. If our non-certified positions prove to be challenging to fill, the positive balance here can be used to offset the deficit in our certified salary accounts. Going forward, we will be evaluating and analyzing both the certified and non-certified accounts as a whole.
- **Non-certified accounts** – currently displays a large projected balance due to open positions in our technology department, custodial & secretarial unions and once again in our student support areas such as paraprofessionals and behavioral therapists. Over the next few months we will be providing a deeper analysis which will include projections for all of these accounts.

## EMPLOYEE BENEFITS

The balance of this object has slipped slightly into the red due to an increase in actual costs for our 401(a)-pension plan. Employee participation increases when new employees replace our tenured employees; therefore, driving the cost upwards.

## OTHER PURCHASED SERVICES

The overall position of this object is displaying a negative balance of -\$205,974. There have been multiple changes throughout this object as outlined below.

- **Contracted Services** - currently displays a negative balance of -\$126,431. The majority of this balance is due to the inclusion of an outside service that provides behavioral therapists for our students. These students require this service as outlined in their I.E.P. We are currently contracting anywhere from 5-7 therapists as the needs do vary. The two encumbrances that are currently active total \$180,000. However, we will be reallocating a portion of this cost towards our ARP IDEA grant fund. It is still early to provide an accurate projection; although, it appears we may have approximately \$140,000 to use towards this service. This reclass will most likely take place next month.
- **Transportation** - currently displays a positive balance of \$210,000. The in-district portion of these accounts have been thoroughly analyzed and adjusted accordingly. We are still in the process of analyzing our out-of-district accounts as well as a portion of the excess cost grant that is associated with these costs. Expect a change in this balance next month as the out-of-district costs will require adjustments.
- **Insurance – Property & Liability**  
This account has slipped into a negative balance of -\$20,376 as our actual costs have come in a bit higher than our budget. This account is typically budgeted before the actual costs come in (which is usually in February) and even though we do work closely with our insurance rep to obtain an accurate budget number, we don't always land exactly on the mark. This policy is purchased through CIRMA who also happens to oversee our worker's comp costs, which on the flip side, came in below budget which will offset this deficit.
- **Communications**  
This account has also slipped into a negative balance of -\$25,555 as we have been trying to reconcile our E-Rate discounts. More information will come in over the next few months and we will have a better read on where this account will fall.
- **Out-of-District Tuition**  
This account now shows a more accurate balance for this time of year with a negative balance of -\$241,394. As you are aware, this area of the budget can be highly volatile as students can be unexpectedly outplaced into high cost educational facilities. As of now, we have fully encumbered all of our anticipated out-placed students.  
On December 1<sup>st</sup> we will be submitting our first estimated cost for OOD tuition, to the State. This cost will give us a good idea of what to expect in our excess cost grant reimbursement. Also keep in mind that this grant is now expected to be reimbursed at 70% (this is 5% less than what we typically budget) which could potentially move this account into a deeper negative state.

## **ALL OTHER OBJECTS**

Our account-by-account analysis will continue in the upcoming months and will provide more of an in-depth look at each account as more data becomes available. We will keep the board apprised of any issues or concerns as they arise.

### **Food Service Update**

The Newtown High School has recently re-opened the Nighthawk Express where students can purchase A la carte items as well as reimbursable meals. The space is located within the NHS dining area and has been closed, due to the pandemic, since March of 2020. We had our “grand re-opening” in early November and it was a big hit! The opening of this space has also eased some of the survery congestion in the main café and we will continue to add more items to this space in order to expand our student’s choice.

Chartwells will also begin serving our seniors at the Senior Center beginning November 15. Last year we had a partnership with the community center and we are very excited to continue this program under the oversight of Chartwells. Hot lunches will be served to the seniors 2-3 days per week for a minimum cost.

Our meal counts have increased over the prior totaling 63,619 meals served in the month of October. This number includes 3,221 breakfast meals and 60,398 lunches, averaging 3,180 total meals per day. Last month we averaged 2,919 meals per day.

Chartwells is eager to continue to grow this program and will be providing students with some fun and educational activities during their lunch time such as the “Mood Boost” program and “Student’s Choice”. We are hoping to implement “Mood Boost” at each school beginning in November/December. I will provide the Board with more information on these activities as soon as they become available.

### **Revenue Received**

For the month of October, the Board received \$3,056.63 in regular tuition.

### **Emergency Repairs**

There were no emergency repairs over \$5,000 for the month of October

Tanja Vadas  
Director of Business  
November 11, 2022

**NEWTOWN BOARD OF EDUCATION  
2022-23 BUDGET SUMMARY REPORT  
FOR THE MONTH ENDING OCTOBER 31, 2022**

OBJECT CODE	EXPENSE CATEGORY	EXPENDED 2021 - 2022	2022 - 2023 APPROVED BUDGET	YTD TRANSFERS 2022 - 2023	CURRENT BUDGET	YTD EXPENDITURE	ENCUMBER	BALANCE	ANTICIPATED OBLIGATIONS	PROJECTED BALANCE	% EXP
<b>GENERAL FUND BUDGET</b>											
100	SALARIES	\$ 51,681,024	\$ 53,701,233	\$ -	\$ 53,701,233	\$ 11,326,458	\$ 40,208,058	\$ 2,166,717	\$ 1,660,350	\$ 506,367	99.06%
200	EMPLOYEE BENEFITS	\$ 11,744,808	\$ 11,955,016	\$ -	\$ 11,955,016	\$ 5,741,946	\$ 4,522,797	\$ 1,690,273	\$ 1,694,321	\$ (4,047)	100.03%
300	PROFESSIONAL SERVICES	\$ 543,087	\$ 687,141	\$ -	\$ 687,141	\$ 143,591	\$ 25,565	\$ 517,986	\$ 517,986	\$ -	100.00%
400	PURCHASED PROPERTY SERV.	\$ 2,093,569	\$ 1,814,663	\$ -	\$ 1,814,663	\$ 558,055	\$ 538,808	\$ 717,800	\$ 717,800	\$ -	100.00%
500	OTHER PURCHASED SERVICES	\$ 9,327,010	\$ 10,095,326	\$ -	\$ 10,095,326	\$ 3,381,355	\$ 6,721,044	\$ (7,074)	\$ 198,901	\$ (205,974)	102.04%
600	SUPPLIES	\$ 3,474,903	\$ 3,365,464	\$ -	\$ 3,365,464	\$ 993,489	\$ 266,323	\$ 2,105,652	\$ 2,090,652	\$ 15,000	99.55%
700	PROPERTY	\$ 536,285	\$ 339,710	\$ -	\$ 339,710	\$ 39,526	\$ 38,040	\$ 262,144	\$ 262,144	\$ -	100.00%
800	MISCELLANEOUS	\$ 59,271	\$ 76,086	\$ -	\$ 76,086	\$ 55,546	\$ 3,874	\$ 16,666	\$ 16,666	\$ -	100.00%
910	SPECIAL ED CONTINGENCY	\$ -	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000	0.00%
<b>TOTAL GENERAL FUND BUDGET</b>		\$ 79,459,957	\$ 82,134,639	\$ -	\$ 82,134,639	\$ 22,239,965	\$ 52,324,509	\$ 7,570,164	\$ 7,158,819	\$ 411,346	99.50%
900	TRANSFER NON-LAPSING (unaudited)	\$ 237,879									
<b>GRAND TOTAL</b>		\$ 79,697,836	\$ 82,134,639	\$ -	\$ 82,134,639	\$ 22,239,965	\$ 52,324,509	\$ 7,570,164	\$ 7,158,819	\$ 411,346	99.50%



OBJECT CODE	EXPENSE CATEGORY	2022 - 2023		YTD		CURRENT BUDGET	YTD EXPENDITURE	ENCUMBER	BALANCE	ANTICIPATED OBLIGATIONS	PROJECTED BALANCE	% EXP
		EXPENDED 2021 - 2022	APPROVED BUDGET	TRANSFERS 2022 - 2023	2022 - 2023							
<b>100</b>	<b>SALARIES</b>											
	Administrative Salaries	\$ 4,245,732	\$ 4,312,038	\$ -	\$ -	\$ 4,312,038	\$ 1,279,196	\$ 2,916,573	\$ 116,270	\$ -	\$ 116,270	97.30%
	Teachers & Specialists Salaries	\$ 32,745,539	\$ 33,817,522	\$ -	\$ -	\$ 33,817,522	\$ 6,613,027	\$ 27,450,873	\$ (246,378)	\$ (150,960)	\$ (95,418)	100.28%
	Early Retirement	\$ 81,000	\$ 81,000	\$ -	\$ -	\$ 81,000	\$ 89,000	\$ -	\$ (8,000)	\$ -	\$ (8,000)	109.88%
	Continuing Ed /Summer School	\$ 96,279	\$ 97,846	\$ -	\$ -	\$ 97,846	\$ 63,335	\$ 35,177	\$ (667)	\$ -	\$ (667)	100.68%
	Homebound & Tutors Salaries	\$ 104,026	\$ 189,413	\$ -	\$ -	\$ 189,413	\$ 19,085	\$ 83,348	\$ 86,979	\$ 115,310	\$ (28,330)	114.96%
	Certified Substitutes	\$ 677,354	\$ 742,610	\$ -	\$ -	\$ 742,610	\$ 112,460	\$ 378,360	\$ 251,790	\$ 305,085	\$ (53,295)	107.18%
	Coaching/Activities	\$ 659,048	\$ 737,184	\$ -	\$ -	\$ 737,184	\$ -	\$ 4,000	\$ 733,184	\$ 733,184	\$ -	100.00%
	Staff & Program Development	\$ 188,833	\$ 155,128	\$ -	\$ -	\$ 155,128	\$ 29,505	\$ 6,716	\$ 118,906	\$ 118,906	\$ -	100.00%
	<b>CERTIFIED SALARIES</b>	\$ 38,797,811	\$ 40,132,741	\$ -	\$ -	\$ 40,132,741	\$ 8,205,609	\$ 30,875,047	\$ 1,052,085	\$ 1,121,525	\$ (69,440)	100.17%
	Supervisors & Technology Salaries	\$ 1,010,203	\$ 1,103,470	\$ -	\$ -	\$ 1,103,470	\$ 293,638	\$ 648,382	\$ 161,449	\$ 147,066	\$ 14,383	98.70%
	Clerical & Secretarial Salaries	\$ 2,305,020	\$ 2,361,178	\$ -	\$ -	\$ 2,361,178	\$ 595,005	\$ 1,700,060	\$ 66,114	\$ 36,338	\$ 29,776	98.74%
	Educational Assistants	\$ 2,751,027	\$ 2,965,151	\$ -	\$ -	\$ 2,965,151	\$ 524,429	\$ 2,336,305	\$ 104,417	\$ 22,993	\$ 81,424	97.25%
	Nurses & Medical Advisors	\$ 939,312	\$ 902,273	\$ -	\$ -	\$ 902,273	\$ 173,305	\$ 686,576	\$ 42,391	\$ 36,310	\$ 6,081	99.33%
	Custodial & Maint. Salaries	\$ 3,218,689	\$ 3,395,484	\$ -	\$ -	\$ 3,395,484	\$ 954,694	\$ 2,269,770	\$ 171,020	\$ 56,934	\$ 114,087	96.64%
	Non-Certified Adj. & Bus Drivers Salaries	\$ -	\$ 155,981	\$ -	\$ -	\$ 155,981	\$ -	\$ -	\$ 155,981	\$ -	\$ 155,981	0.00%
	Career/Job Salaries	\$ 122,065	\$ 171,116	\$ -	\$ -	\$ 171,116	\$ 42,375	\$ 153,194	\$ (24,454)	\$ (20,291)	\$ (4,163)	102.43%
	Special Education Svcs Salaries	\$ 1,348,349	\$ 1,456,181	\$ -	\$ -	\$ 1,456,181	\$ 286,879	\$ 1,073,574	\$ 95,728	\$ -	\$ 95,728	93.43%
	Security Salaries & Attendance	\$ 684,773	\$ 679,888	\$ -	\$ -	\$ 679,888	\$ 135,903	\$ 457,666	\$ 86,319	\$ 4,526	\$ 81,793	87.97%
	Extra Work - Non-Cert.	\$ 119,364	\$ 109,770	\$ -	\$ -	\$ 109,770	\$ 43,525	\$ 7,483	\$ 58,762	\$ 58,045	\$ 717	99.35%
	Custodial & Maint. Overtime	\$ 356,554	\$ 236,000	\$ -	\$ -	\$ 236,000	\$ 68,547	\$ -	\$ 167,453	\$ 167,453	\$ -	100.00%
	Civic Activities/Park & Rec	\$ 27,857	\$ 32,000	\$ -	\$ -	\$ 32,000	\$ 2,548	\$ -	\$ 29,452	\$ 29,452	\$ -	100.00%
	<b>NON-CERTIFIED SALARIES</b>	\$ 12,883,213	\$ 13,568,492	\$ -	\$ -	\$ 13,568,492	\$ 3,120,849	\$ 9,333,011	\$ 1,114,632	\$ 538,825	\$ 575,807	95.76%
	<b>SUBTOTAL SALARIES</b>	\$ 51,681,024	\$ 53,701,233	\$ -	\$ -	\$ 53,701,233	\$ 11,326,458	\$ 40,208,058	\$ 2,166,717	\$ 1,660,350	\$ 506,367	99.06%
<b>200</b>	<b>EMPLOYEE BENEFITS</b>											
	Medical & Dental Expenses	\$ 8,538,506	\$ 8,790,863	\$ -	\$ -	\$ 8,790,863	\$ 4,431,923	\$ 4,321,189	\$ 37,751	\$ 30,626	\$ 7,125	99.92%
	Life Insurance	\$ 88,568	\$ 87,000	\$ -	\$ -	\$ 87,000	\$ 29,366	\$ -	\$ 57,634	\$ 57,634	\$ -	100.00%
	FICA & Medicare	\$ 1,624,911	\$ 1,706,549	\$ -	\$ -	\$ 1,706,549	\$ 373,488	\$ -	\$ 1,333,061	\$ 1,333,061	\$ -	100.00%
	Pensions	\$ 954,029	\$ 852,347	\$ -	\$ -	\$ 852,347	\$ 683,645	\$ 500	\$ 168,202	\$ 192,000	\$ (23,798)	102.79%
	Unemployment & Employee Assist.	\$ 102,469	\$ 81,600	\$ -	\$ -	\$ 81,600	\$ 600	\$ -	\$ 81,000	\$ 81,000	\$ -	100.00%
	Workers Compensation	\$ 436,325	\$ 436,657	\$ -	\$ -	\$ 436,657	\$ 222,923	\$ 201,108	\$ 12,626	\$ -	\$ 12,626	97.11%
	<b>SUBTOTAL EMPLOYEE BENEFITS</b>	\$ 11,744,808	\$ 11,955,016	\$ -	\$ -	\$ 11,955,016	\$ 5,741,946	\$ 4,522,797	\$ 1,690,273	\$ 1,694,321	\$ (4,047)	100.03%
<b>300</b>	<b>PROFESSIONAL SERVICES</b>											
	Professional Services	\$ 404,089	\$ 493,643	\$ -	\$ -	\$ 493,643	\$ 112,174	\$ 8,400	\$ 373,069	\$ 373,069	\$ -	100.00%
	Professional Educational Serv.	\$ 138,998	\$ 193,498	\$ -	\$ -	\$ 193,498	\$ 31,417	\$ 17,165	\$ 144,916	\$ 144,916	\$ -	100.00%
	<b>SUBTOTAL PROFESSIONAL SERV.</b>	\$ 543,087	\$ 687,141	\$ -	\$ -	\$ 687,141	\$ 143,591	\$ 25,565	\$ 517,986	\$ 517,986	\$ -	100.00%

OBJECT CODE	EXPENSE CATEGORY	2022 - 2023		YTD TRANSFERS 2022 - 2023		CURRENT BUDGET	YTD EXPENDITURE	ENCUMBER	BALANCE	ANTICIPATED OBLIGATIONS	PROJECTED BALANCE	% EXP
		EXPENDED 2021 - 2022	APPROVED BUDGET	2022 - 2023	2022 - 2023							
400	<b>PURCHASED PROPERTY SERV.</b>											
	Buildings & Grounds Contracted Svc.	\$ 672,697	\$ 683,600	\$ -	\$ -	\$ 683,600	\$ 289,469	\$ 309,147	\$ 84,984	\$ 84,984	\$ -	100.00%
	Utility Services - Water & Sewer	\$ 160,597	\$ 144,770	\$ -	\$ -	\$ 144,770	\$ 27,146	\$ -	\$ 117,624	\$ 117,624	\$ -	100.00%
	Building, Site & Emergency Repairs	\$ 710,231	\$ 450,000	\$ -	\$ -	\$ 450,000	\$ 109,037	\$ 45,604	\$ 295,359	\$ 295,359	\$ -	100.00%
	Equipment Repairs	\$ 289,596	\$ 269,051	\$ -	\$ -	\$ 269,051	\$ 82,225	\$ 37,525	\$ 149,301	\$ 149,301	\$ -	100.00%
	Rentals - Building & Equipment	\$ 260,448	\$ 267,242	\$ -	\$ -	\$ 267,242	\$ 50,177	\$ 146,532	\$ 70,532	\$ 70,532	\$ -	100.00%
	Building & Site Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100.00%
	<b>SUBTOTAL PUR. PROPERTY SERV.</b>	\$ 2,093,569	\$ 1,814,663	\$ -	\$ -	\$ 1,814,663	\$ 558,055	\$ 538,808	\$ 717,800	\$ 717,800	\$ -	100.00%
500	<b>OTHER PURCHASED SERVICES</b>											
	Contracted Services	\$ 1,019,495	\$ 886,545	\$ -	\$ -	\$ 886,545	\$ 442,686	\$ 328,535	\$ 115,323	\$ 241,755	\$ (126,431)	114.26%
	Transportation Services	\$ 4,229,179	\$ 4,919,428	\$ -	\$ -	\$ 4,919,428	\$ 1,009,529	\$ 2,759,411	\$ 1,150,488	\$ 940,488	\$ 210,000	95.73%
	Insurance - Property & Liability	\$ 425,660	\$ 422,766	\$ -	\$ -	\$ 422,766	\$ 231,847	\$ 208,795	\$ (17,876)	\$ 2,500	\$ (20,376)	104.82%
	Communications	\$ 189,488	\$ 152,524	\$ -	\$ -	\$ 152,524	\$ 57,402	\$ 88,279	\$ 6,843	\$ 32,398	\$ (25,555)	116.75%
	Printing Services	\$ 19,859	\$ 24,789	\$ -	\$ -	\$ 24,789	\$ 2,722	\$ 2,556	\$ 19,511	\$ 21,814	\$ (2,303)	109.29%
	Tuition - Out of District	\$ 3,252,787	\$ 3,450,187	\$ -	\$ -	\$ 3,450,187	\$ 1,547,932	\$ 3,291,171	\$ (1,388,915)	\$ (1,147,521)	\$ (241,394)	107.00%
	Student Travel & Staff Mileage	\$ 190,540	\$ 239,087	\$ -	\$ -	\$ 239,087	\$ 89,237	\$ 42,297	\$ 107,553	\$ 107,467	\$ 86	99.96%
	<b>SUBTOTAL OTHER PURCHASED SERV.</b>	\$ 9,327,010	\$ 10,095,326	\$ -	\$ -	\$ 10,095,326	\$ 3,381,355	\$ 6,721,044	\$ (7,074)	\$ 198,901	\$ (205,974)	102.04%
600	<b>SUPPLIES</b>											
	Instructional & Library Supplies	\$ 799,649	\$ 854,242	\$ -	\$ -	\$ 854,242	\$ 356,951	\$ 153,316	\$ 343,975	\$ 343,975	\$ -	100.00%
	Software, Medical & Office Supplies	\$ 217,455	\$ 194,940	\$ -	\$ -	\$ 194,940	\$ 81,399	\$ 42,705	\$ 70,836	\$ 70,836	\$ -	100.00%
	Plant Supplies	\$ 423,279	\$ 366,100	\$ -	\$ -	\$ 366,100	\$ 137,709	\$ 49,978	\$ 178,413	\$ 178,413	\$ -	100.00%
	Electric	\$ 995,294	\$ 1,022,812	\$ -	\$ -	\$ 1,022,812	\$ 222,397	\$ -	\$ 800,415	\$ 800,415	\$ -	100.00%
	Propane & Natural Gas	\$ 415,377	\$ 424,980	\$ -	\$ -	\$ 424,980	\$ 54,857	\$ -	\$ 370,123	\$ 370,123	\$ -	100.00%
	Fuel Oil	\$ 88,194	\$ 63,000	\$ -	\$ -	\$ 63,000	\$ 4,982	\$ -	\$ 58,018	\$ 58,018	\$ -	100.00%
	Fuel for Vehicles & Equip.	\$ 191,173	\$ 216,258	\$ -	\$ -	\$ 216,258	\$ 35,824	\$ -	\$ 180,434	\$ 165,434	\$ 15,000	93.06%
	Textbooks	\$ 344,482	\$ 223,132	\$ -	\$ -	\$ 223,132	\$ 99,370	\$ 20,324	\$ 103,438	\$ 103,438	\$ -	100.00%
	<b>SUBTOTAL SUPPLIES</b>	\$ 3,474,903	\$ 3,365,464	\$ -	\$ -	\$ 3,365,464	\$ 993,489	\$ 266,323	\$ 2,105,652	\$ 2,090,652	\$ 15,000	99.55%
700	<b>PROPERTY</b>											
	Technology Equipment	\$ 278,825	\$ 156,024	\$ -	\$ -	\$ 156,024	\$ 26,209	\$ 12,061	\$ 117,753	\$ 117,753	\$ -	100.00%
	Other Equipment	\$ 257,460	\$ 183,686	\$ -	\$ -	\$ 183,686	\$ 13,317	\$ 25,979	\$ 144,391	\$ 144,391	\$ -	100.00%
	<b>SUBTOTAL PROPERTY</b>	\$ 536,285	\$ 339,710	\$ -	\$ -	\$ 339,710	\$ 39,526	\$ 38,040	\$ 262,144	\$ 262,144	\$ -	100.00%
800	<b>MISCELLANEOUS</b>											
	Memberships	\$ 59,271	\$ 76,086	\$ -	\$ -	\$ 76,086	\$ 55,546	\$ 3,874	\$ 16,666	\$ 16,666	\$ -	100.00%
	<b>SUBTOTAL MISCELLANEOUS</b>	\$ 59,271	\$ 76,086	\$ -	\$ -	\$ 76,086	\$ 55,546	\$ 3,874	\$ 16,666	\$ 16,666	\$ -	100.00%

OBJECT CODE	EXPENSE CATEGORY	2022 - 2023		YTD TRANSFERS		CURRENT BUDGET	YTD EXPENDITURE	ENCUMBER	BALANCE	ANTICIPATED OBLIGATIONS	PROJECTED BALANCE	% EXP
		APPROVED BUDGET	EXPENDED 2021 - 2022	2022 - 2023	2022 - 2023							
910	SPECIAL ED CONTINGENCY	\$ 100,000	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000	0.00%
<b>TOTAL LOCAL BUDGET</b>		\$ 82,134,639	\$ 79,459,957	\$ -	\$ 82,134,639	\$ 82,134,639	\$ 22,239,965	\$ 52,324,509	\$ 7,570,164	\$ 7,158,819	\$ 411,346	99.50%

900	Transfer to Non-Lapsing		\$ 237,741									
<b>GRAND TOTAL</b>		\$ 82,134,639	\$ 79,697,698	\$ -	\$ 82,134,639	\$ 82,134,639	\$ 22,239,965	\$ 52,324,509	\$ 7,570,164	\$ 7,158,819	\$ 411,346	99.50%

EXCESS COST GRANT REVENUE	EXPENDED 2021-2022	APPROVED BUDGET	STATE PROJ 18-Jan	PROJECTED 1-Mar	ESTIMATED Total	VARIANCE to Budget	FEB DEPOSIT	MAY DEPOSIT	% TO BUDGET
Special Education Svcs Salaries ECG	\$ (7,170)	\$ (320,028)	\$ -	\$ -	\$ -	\$ -			100.00%
Transportation Services - ECG	\$ (333,218)	\$ (1,300,484)	\$ -	\$ (320,028)	\$ (1,300,484)	\$ -			100.00%
Tuition - Out of District ECG	\$ (1,193,144)	\$ (1,620,512)	\$ -	\$ -	\$ (1,620,512)	\$ -			100.00%
<b>Total</b>	\$ (1,533,532)	\$ (1,620,512)	\$ -	\$ -	\$ (1,620,512)	\$ -	<b>Total*</b>	\$ -	100.00%

Variance Jan - March \$ (13,000) \$ (13,000) \$ -

APPROVED BUDGET	ANTICIPATED	RECEIVED	BALANCE	% RECEIVED
LOCAL TUITION	\$32,430	\$32,430	\$32,430	0.00%
HIGH SCHOOL FEES FOR PARKING PERMITS	\$30,000	\$30,000	\$30,000	0.00%
MISCELLANEOUS FEES	\$6,000	\$6,000	\$6,000	0.00%
<b>TOTAL SCHOOL GENERATED FEES</b>	\$68,430	\$0	\$68,430	0.00%

OTHER GRANTS	TOTAL BUDGET	21-22 EXPENSED	YTD EXPENSE	ENCUMBER	BALANCE	% EXPENSED
ESSER II	\$625,532	\$573,735	\$18,068	\$18,465	\$15,264	97.56%
ESSER III (estimated \$809k for 21-22 use)	\$1,253,726	\$709,840	\$64,577	\$427,742	\$51,567	95.89%

	Health Grant	E.C.G	E.C.S	Tuition	Misc	Other
August				\$5,225.00		
September				\$6,714.13		
October				\$3,056.63	\$927.96	
November						
December						
January						
February						
March						
April						
May						
June						
<b>Total</b>	\$0.00	\$0.00	\$0.00	\$14,995.76	\$927.96	\$0.00

**2022 - 2023  
 NEWTOWN BOARD OF EDUCATION  
 TRANSFERS RECOMMENDED  
 OCTOBER 31, 2022**

AMOUNT	FROM		TO		REASON
	CODE	DESCRIPTION	CODE	DESCRIPTION	
<b>ADMINISTRATIVE</b>					
\$25,008	100	TEACHERS & SPECIALISTS SALARIES	100	ADMINISTRATIVE SALARIES	TO COVER ADMINISTRATORS' SALARY ADJUSTMENTS
\$146,279	100	ADMINISTRATIVE SALARIES	100	TEACHERS & SPECIALISTS SALARIES	TO COVER SALARIES OF CURRENT TEACHING STAFF AND A PORTION OF BUDGETED TURNOVER SAVINGS
\$964,854	100	TEACHERS & SPECIALISTS SALARIES	500	CONTRACTED SERVICES	TO FUND 1ST INSTALLMENT OF BUS DRIVER BONUS
\$41,900	500	TRANSPORTATION SERVICES	500	CONTRACTED SERVICES	TO COVER COSTS ASSOCIATED WITH THE DISTRICT'S STRATEGIC PLAN
\$14,000	300	PROFESSIONAL EDUCATIONAL SERVICES	500	CONTRACTED SERVICES	TO ADJUST NON-PUBLIC ALLOCATED PORTION OF THE TRANSPORTATION CONTRACT
\$6,000	500	TRANSPORTATION SERVICES	500	TRANSPORTATION SERVICES	
\$31,500	500	TRANSPORTATION SERVICES			
<b>\$1,229,541</b>		<b>TOTAL TRANSFER REQUEST</b>			



The cover features a solid green background with several stylized leaves and circles in various shades of green. A large, light green leaf is the central focus, with a smaller, darker green leaf to its left. Several circles of different sizes and shades are scattered around the leaves.

# Greenery Curriculum

Newtown High School  
2022



# Unit 1: Plant Culture

## Lens - Interdependence

### Concepts:

- Environment
- Germination
- Propagation
- Integrated Pest Management
- Nursery & Farm Productivity
- Wholesale Plug Production

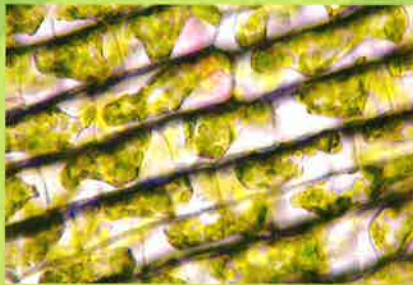
### Core Learning Activities:

- Scented Geranium Cuttings
- Banana Root Divisions
- Seed Starting (Germination)
- Preparing & Planting Plug Trays
- Applied Integrated Pest Management
- Tomato Grafting
- Air Layering Fig Plants
- Plant Profiles (Research)



# Unit 2: Plant Science

## Lens - Structure / Function



### Concepts:

- Ecosystems
- Photosynthesis
- Pollination
- Hardiness
- Dormancy

### Core Learning Activities:

- Virtual Microscope Lab & Microscope Practice
- Identification of Flower Anatomy
- Plant & Flower Life Cycles
- Cladograms
- Essential Nutrients (Slideshow, Worksheet, Test)
- Nutrient Deficiencies (Slideshow, Worksheet, Test)
- Plant Anatomy (Slideshow, Worksheet, Test)
- Plant Structure (Slideshow, Worksheet, Test)



# Unit 3: Plant Classification

## Lens - Relationships

### Concepts:

- Evolution
- Classification
- Traits
- Hosts
- Indigenous
- Invasive

### Core Learning Activities:

- Planting Native Pollinator Garden
- Using Native Plant Species
  - (Slideshow, Worksheets, Quiz)
- Dichotomous Keys Activities
- Plant Taxonomy
  - (Slideshow, Worksheet, Test)
- Applied Invasive Plant Mitigation in the Garden



# Unit 4: Composting & Soil Food Web



## Lens - Interdependence

### Concepts:

- Organisms
- Plants
- Decomposition
- Fermentation
- Soil
- Survival
- Nutrition



### Core Learning Activities:

- Composting
  - (Slideshow, Worksheet, Test)
- Properties of Soil
  - (Slideshow, Worksheet, Test)
- Making Lactobacillus Lab
- Fermented Plant Extraction Lab
- Soil Testing Activity
- Korean Natural Farm Practices Activity



# Unit 5: Enterprise Practices & Career Readiness

## Lens - Systems



### Concepts:

- Supply & Demand
- Profit
- Marketing Design
- Safety
- Enterprise
- Opportunity
- Industry

### Core Learning Activities:

- Chrysanthemums - (Slideshow, Worksheets, Quiz)
- Poinsettias - (Slideshow, Worksheets, Quiz)
- Productivity & Professionalism Practice
  - (Bi-weekly Assessment w/Rubric)
- Sales (Marketing, Supply Chain, Profit Analysis)
  - Fall Mums
  - Winter Poinsettias
  - Valentine's Day Cut Flowers
  - Spring Plants
- Design - Holiday Centerpieces, Floral Arranging
- Collaboration with Culinary Program
- Collaboration with Community Food Pantries

# CREATIVE FUTURES



Newtown Public Schools Visual and Performing Arts  
November 15, 2022

**All students will create, perform, respond and connect with understanding to all of the arts, including visual arts, music, theatre, and dance.**

**Students will develop in-depth skills in at least one art form, appreciate the importance of the arts in expressing human experiences, and be prepared to apply their arts knowledge and skills throughout their lifetime.**

Mission Statement  
Visual and Performing Arts  
Newtown Public Schools



<b><u>COVID:</u></b>	<b><u>POST-COVID:</u></b>
Not sharing tools, equipment, instruments (i.e. art supplies, power tools, Orff instruments)	Able to share tools, equipment, instruments
Clay going home in buckets	Normal classroom procedures with clay
Wiping down music stands after each use	No need to wipe everything down after every use
Masks and bell covers for wind instruments	No masks or bell covers - better sound quality
Choral students with masks (gr. 5-12) Difficult to breath properly and sing	Students singing again (without masks!) Can breath again-redeveloping breath support
Elementary students not singing (limited space)	Elementary students singing again; chorus returns!
Band and choral students 12' apart Classes in auditoriums	Students able to sit together - can hear each other! Return to our classrooms and rehearsal spaces
Performances/Productions- very limited/adapted	All performances/productions/art shows taking place
Video submission - competitions & auditions	Live competitions and auditions
No travel	Travel returns





Optical Illusion Color Wheels - Sandy Hook Gr. 4 Artists







3rd Place - National Championships



Marching Band at RIS 11/14/22



NHS Veterans Day Ceremony




Productions 2022-23

NEWTOWN HIGH SCHOOL DRAMA PRESENTS

# ALMOST, MAINE

by John Cariani



Directed by Sarah Corbin & Marisa Lopez

November 17, 18 & 19 @ 7:00  
November 20 @ 2:00

Newtown High School Auditorium  
Adults \$12 - Seniors \$10 - Students \$7

ALMOST MAINE is presented by special arrangement with Broadway Licensing, LLC, serving the Dramatic Play Service industry. (www.BroadwayLicensing.com)

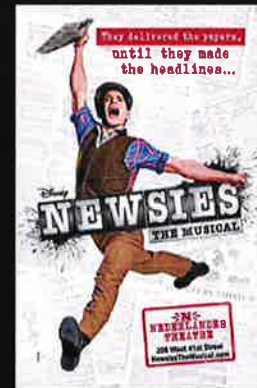
NHS Fall Drama - Opening Nov. 17  
Student run production



NHS Musical - March 2023




RIS Musical - April 2023





NMS Musical - May 2023

# HEMMA

## High School Elementary Music Mentoring Association



21  
NHS Student Mentors



THE ART of TEACHING

## ARTS HONOR SOCIETIES



24 NMS Members



40 NHS Members



25 NHS Members



31 NHS Members

A program of NAfME  
National Association for Music Education



### **Benefits of the Arts for Students**

“The arts at MIT are rooted in experimentation, risk-taking and imaginative problem-solving.  
~73% of first-year students in the last decade have been active in the arts  
Cross-disciplinary curriculum exists in all five schools at MIT.”

“The arts have never been more integral to the life of MIT nor more deserving of our focus and attention.”  
*L. Rafael Reif, MIT*

*President*

*MIT Website*

**The Benefits of Art Education for K-12 Students:** <https://www.usnews.com/education/k12/articles/the-benefits-of-arts-education-for-k-12-students>

**How Music Primes the Brain for Learning:** <https://www.edutopia.org/article/how-music-primers-brain-learning/>

**If you want your child to be more resilient, get them to join a choir, orchestra or band:**

[https://theconversation.com/if-you-want-your-child-to-be-more-resilient-get-them-to-join-a-choir-orchestra-or-band-190657?utm\\_source=facebook&utm\\_medium=bylinefacebookbutton&fbclid=IwAR2mQ5QOkTh35nQASgNRvMTDvdg46DC4llpKG4r\\_JQVuZ5Fsklp99H-H\\_gE](https://theconversation.com/if-you-want-your-child-to-be-more-resilient-get-them-to-join-a-choir-orchestra-or-band-190657?utm_source=facebook&utm_medium=bylinefacebookbutton&fbclid=IwAR2mQ5QOkTh35nQASgNRvMTDvdg46DC4llpKG4r_JQVuZ5Fsklp99H-H_gE)



# Greenery (1 & 2)

2 Curriculum Developers | Last Updated: Monday, Oct 31, 2022 by Mullen, Shawn

## Unit Calendar by Year

Unit	Au	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju																											
Lessons	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
Plant Culture	[Solid black bar]																																					
Plant Science	[Solid black bar]																																					
Plant Classification	[Dotted pattern bar]																																					
Composting & Soil Food Web	[Dotted pattern bar]																																					
Enterprise Practices & Career...	[Solid black bar]																																					

4 5 Units found



# Unit Planner: Plant Culture Greenery (1 & 2)

Newtown High School / 2022-2023 / High School / BEAT/Science / Greenery (1 & 2) / Week 1 - Week 18

Last Updated: Monday, October 31, 2022  
by Shawn Mullen

## Plant Culture

Mullen, Shawn; Stamm, Anastasia

- [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

Lens: Interdependence

Concepts: Germination, Propagation, Integrated Pest Management, Wholesale Plug Production, Nursery & Farm Productivity, Plants, Environment

<p><b>G</b> Generalizations / Enduring Understandings</p> <p>1. Germination initiates the process of seeds developing into new plants.</p> <p>2. Propagation produces a new plant from an existing one.</p> <p>3. An environment must be optimized in order to support healthy growth and sustained life</p>	<p><b>Guiding Questions</b> <i>Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]</i></p> <p><b>FACTUAL</b></p> <p>What is Germination? (G1)</p> <p>What is Propagation? (G2, G6)</p> <p>What is Integrated Pest Management? (G3, G5)</p> <p><b>CONCEPTUAL</b></p> <p>How does germination initiate the process of seeds developing into new plants? (G1)</p> <p>How does propagation produce a new plant from an existing one? (G2, G6)</p> <p>How can wholesale plug production drive nursery &amp; farm productivity? (G4)</p> <p>How does Integrated Pest Management relate to a balanced ecosystem? (G3, G5)</p> <p>In what ways can propagation be used to increase greenhouse/farm productivity? (G6)</p> <p><b>PROVOCATIVE</b></p> <p>Is Integrated Pest Management necessary for maintaining a healthy growing environment? (G3, G5)</p> <p>Should greenhouses &amp; farms allow the public to propagate their plants? (G2, G6)</p>
--	--

in plants.

4. Wholesale plug production drives nursery and farm productivity.

5. Integrated Pest Management practices create a balanced ecosystem in the greenhouse and on the farm.

6. Propagation stimulates greenhouse and farm productivity.

## Standard(s)

*Connecticut Core Standards / Content Standards*

**NGSS: Science Performance Expectations (2017)**

**NGSS: HS Life Sciences**

### **HS.Structure and Function Performance Expectations**

HS-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

HS-LS1-3. Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.

### **HS.Matter and Energy in Organisms and Ecosystems Performance Expectations**

HS-LS2-3. Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

### **HS.Interdependent Relationships in Ecosystems Performance Expectations**

HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.\*

HS-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on

biodiversity.\*

## **HS.Inheritance and Variation of Traits**

### **Performance Expectations**

HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.

HS-LS3-1. Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.

## **NGSS: Disciplinary Core Ideas**

### **NGSS: 9-12**

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#### **LS1: From Molecules to Organisms: Structures and Processes**

##### **LS1.A: Structure and Function**

Systems of specialized cells within organisms help them perform the essential functions of life. (HS-LS1-1)

##### **LS1.C: Organization for Matter and Energy Flow in Organisms**

The process of photosynthesis converts light energy to stored chemical energy by converting carbon dioxide plus water into sugars plus released oxygen. (HS-LS1-5)

## **CT: ASTE-Agricultural Science and Technology Education Standards 2014**

### **Grades 9-12**

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#### **Agriculture, Food, and Natural Resources Foundation Skills**

##### **CT-FS.06. Performance Element: Utilize and maintain tools used in AFNR.**

CT-FS.06.01. Performance Indicator: Evaluate and select the appropriate tool to perform a given task

CT-FS.06.03. Performance Indicator: Maintain tools for efficient use.

#### **Natural Resources Systems**

**Pathway Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the management of natural resources.**

**CT-NRS.01. Performance Element: Explain interrelationships between natural resources and humans necessary to conduct management activities in natural environments.**

CT-NRS.04.01. Performance Indicator: Diagnose plant and wildlife diseases and follow protocol to prevent their spread

CT-NRS.04.02. Performance Indicator: Manage insect infestations of natural resources.

#### **Plant Science**

**Pathway Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the production and management of plants**

CT-PS.02.02. Performance Indicator: Evaluate soil/media and prepare soil/growth media for use in plant systems

**CT-PS.03. Performance Element: Propagate culture and harvest plants.**

CT-PS.03.01. Performance Indicator: Demonstrate plant propagation techniques.

PS.03.02. Performance Indicator: Develop and implement a plant management plan for crop production.

CT-PS.03.03. Performance Indicator: Develop and implement a plan for integrated pest management

CT-PS.03.04. Performance Indicator: Apply principles and practices of various plant production methods to meet the needs of the market.

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 Access the interactive version of the NGSS [here](#)

### Critical Content & Skills

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

<u>Topic</u>	<u>Content</u>	<u>Skills</u>
Seeds	(What students must know in order to demonstrate Skills) <b>Explain</b> Germination: Dormancy, Moisture, Temperature, Light, Aeration	Seed Starting
	<b>Describe</b> Seed Anatomy: Seed Coat, Cotyledon, Epicotyl, Hypocotyl, Radicle, Embryo	Propagate Successfully
	<b>Identify</b> Plant Parts: Primary Roots, Tap Roots, Root Hairs, Shoots, Stems, Lateral Bud, Terminal Bud, Apical Bud, Leaves	
	<b>Recognize</b> Flower Anatomy & Physiology: Stamen, Pistil, Stigma, Anther, Style, Ovary, Sepal, Petal	
Propagation/Cutting	<b>Classify</b> Plant Tissues: Parenchyma, Collenchyma, Sclerenchyma, Permanent/Meristematic, Ground Tissue, Vascular Tissue, Dermal Tissue	Cross Pollinate Plants
	<b>Manage</b> Garden & Greenhouse Environmental Factors: Moisture, Temperature, Lighting, Aeration	Hybridization of Plants
	<b>Utilize</b> Safety Practices: Goggles, Gloves, Blades	Implement Safety Practices
	<b>Demonstrate</b> Propagation Techniques for Various Plants: Layering, Root Divisions, Asexual Reproduction, Grafting, Optimal Moisture, Optimal Temperature	Observe Environmental Factors
	<b>Demonstrate</b> use of Propagation Tools & Equipment: Scalpel, Root Hormone, Pruners	Maintain Environmental Factors
	<b>Utilize</b> Cross Pollination Techniques for Various Plants	Manage Tools & Equipment
Plugs/Liners	<b>Utilize</b> Hybridization Techniques for Various Plants	Transplanting Practices
	<b>Utilize</b> Transplanting Techniques	Preparing Soil Mediums
	<b>Identify</b> Soil Mediums: Clay, Silt, Sand, Humus, Drainage, Water retention, Aeration, Soil-less Mediums, Rockwool, Perlite, Vermiculite, Peet Moss, Coco Coir, Expanded Clay Pellets	Selecting Appropriate Soil Mediums
<b>Demonstrate</b> Plug/Liner Production/Process: Vacuum Plug Trays, Wholesale Production, Differences between Plugs & Liners (Seed Grown Juvenile Plants vs Propagated Juvenile Plants), Ebb & Flow		

Watering

**Understand** Connections Between Insects/Fungi/Bacteria for Prevention & Control of Pests

**Describe** Role of Insects: Beneficial Insects, Parasitic Insects, Plant/Insect Relationships

**Describe** Role of Fungi: Beneficial Fungi, Parasitic Fungi, Plant/Fungi Relationships

**Describe** Role of Bacteria (microbes): Beneficial Bacteria, Parasitic Bacteria, Plant/Bacterial Relationships

**Identify** Life Cycles of Pests: Egg, Larva, Pupa, Adult

**Identify** Natural Enemies (different pests have different enemies): Predator, Prey, Parasite

Monitor/Diagnose/Treat:

Prevention of Pests

Observation of Pests

Intervention of Pests

Evaluation of Pests

Develop Treatment Plan 4 Pests

IPM (Integrated Pest Management)

## Core Learning Activities

Seed Germination [Gizmo](#)

Germination [Gizmo](#)

Propagation of Plants [Notes](#)

Propagation of Plants [Worksheet](#)

Propagation of Plants [Crossword](#)

Propagation of Plants [Quiz](#)

IPM (Integrated Pest Management) [Notes](#)

IPM (Integrated Pest Management) [Worksheet](#)

IPM (Integrated Pest Management) [Crossword](#)

IPM (Integrated Pest Management) [Quiz](#)

- Scented Geranium Cuttings
- Banana Root Divisions
- Seed Starting (Germination)
- Preparing & Planting Plug Trays
- Practicing Integrated Pest Management
- Grafting Tomatoes
- Air Layering Fig Plants

- Plant Profiles (Research Project)

Assessments  
 Planting  
 Plugs/Liners  
 Summative:  
 Lab  
 Assignment  
 Planting  
 Rubric

## Resources

*Professional & Student*

### Propagation

\*\* California Rare Fruit Growers - Plant Propagation Chart, Claude Sweet

<http://www.crfg.org/tidbits/protable.html>

\*\* Carolina Biological Supply Company

Possible source for tissue culture kit

<https://www.carolina.com/>

\*\* Fisher Science Education

[https://www.fishersci.com/us/en/education-](https://www.fishersci.com/us/en/education-products.html?LBCID=28393576&href=index.jsp&store=ScienceEducation&segment=scienceEduStandard&storeId=10652)

[products.html?LBCID=28393576&href=index.jsp&store=ScienceEducation&segment=scienceEduStandard&storeId=10652](https://www.fishersci.com/us/en/education-products.html?LBCID=28393576&href=index.jsp&store=ScienceEducation&segment=scienceEduStandard&storeId=10652)

\*\* Food and Agriculture Organization (FAO) - Plant Tissue Culture: An Alternative for Production of Useful Metabolite

<http://www.fao.org/docrep/t0831e/t0831e00.htm>

\*\* Home Harvest Garden Supply - Plant Propagation

<http://plantpropagation.com/>

\*\* Kitchen Culture Kits

This site concerns tissue culture kits for "classroom and home."

<http://www.kitchenculturekit.com/>

\*\* North Carolina Cooperative Extension - Plant Propagation by Stem Cuttings: Instructions for the Home Gardener

<https://content.ces.ncsu.edu/plant-propagation-by-stem-cuttings-instructions-for-the-home-gardener>

\*\* Ohio State University - Propagating Plants, Part I

<https://plantfacts.osu.edu/movies/abstract.lasso?id=2102a>

\*\* Ohio State University - Propagating Plants, Part II

<https://plantfacts.osu.edu/movies/abstract.lasso?id=2102b>

\*\* Online Biology Book - Cell Division: Meiosis and Sexual Reproduction

<http://www2.estrellamountain.edu/faculty/farabee/biobk/BioBookmeiosis.html>

\*\* Texas A & M University - The Many Dimensions of Plant Tissue Culture Research

<https://aggie-horticulture.tamu.edu/tisscult/pltissue/pltissue.html>

\*\* Texas A & M University - Plant Propagation

<https://aggie-horticulture.tamu.edu/earthkind/landscape/plant-propagation/>

\*\* Texas A & M University - Plant Tissue Culture Information Exchange

<https://aggie-horticulture.tamu.edu/tisscult/tcintro.html>

\*\* University of Arizona - Meiosis Tutorial

[http://www.biology.arizona.edu/CELL\\_BIO/tutorials/meiosis/main.html](http://www.biology.arizona.edu/CELL_BIO/tutorials/meiosis/main.html)

\*\* University of Nebraska - How Is Tissue Culture Done?

<http://passel.unl.edu/pages/informationmodule.php?idinformationmodule=957885612&topicorder=4&>



[maxto=8&minto=1](#)

### **Integrated Pest Management**

\*\* Entomology Research Laboratory - Greenhouse IPM  
<https://www.uvm.edu/~entlab/Greenhouse%20IPM/UVMGreenhouseIPM.html>

\*\* Greenhouseipm.org - Integrated Pest Management Basics  
Open each section heading to see detailed information.  
<http://greenhouseipm.org/ipm-basics/>

\*\* Michigan State University - A guide to Greenhouse Sanitation for Growers  
A guide to preparing a greenhouse for a new growing season  
[http://www.canr.msu.edu/news/a\\_guide\\_to\\_greenhouse\\_sanitation\\_for\\_growers\\_prepare\\_now\\_sweat\\_less\\_later](http://www.canr.msu.edu/news/a_guide_to_greenhouse_sanitation_for_growers_prepare_now_sweat_less_later)

\*\* Michigan State University Extension - Integrated Pest Management for Greenhouse Crops  
<https://www.canr.msu.edu/outreach/uploads/files/7-7%20IPM%20factsheet%20JEANNE.pdf>

\*\* University of California - Best Management Practices for Bedding and Container Color Plant Production in California  
<https://mpparrella.faculty.ucdavis.edu/wp-content/uploads/sites/186/2015/02/Bedding-and-Container-Color-Plant-Best-Management-Practices.pdf>

\*\* University of Connecticut - Greenhouse Integrated Pest Management  
<http://ipm.uconn.edu/documents/view.php?id=1095>

\*\* University of Massachusetts Extension - IPM Scouting and Decision Making  
<https://ag.umass.edu/greenhouse-floriculture/fact-sheets/ipm-scouting-decision-making>

\*\* Utah State University Extension - IPM for Greenhouse and Nursery Crops  
This is a PowerPoint presentation with many photographs.  
<https://utahpests.usu.edu/slideshows/ppt/10sh-IPM-greenhouse.pdf>

Student Learning Expectation & 21st Century Skills

Information Literacy  
Critical Thinking  
Spoken Communication  
Written Performance

### Interdisciplinary Connections

Biology

Botany

Chemistry

Ecology

Environmental Science

Geology

Language Arts

Personal Financial Literacy

Business Foundations

Digital Media & Communications

Fine Arts



# Unit Planner: Plant Science Greenery (1 & 2)

Friday, October 14, 2022 12:11:11

Newtown High School / 2022-2023 / High School / BEAT/Science / Greenery (1 & 2) / Week 1 - Week 18

Last Updated: Monday, October 31, 2022  
by Shawn Mullen

## Plant Science

Mullen, Shawn; Stamm, Anastasia

- [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

Lens: Structure/Function

Concepts: Dormancy, Hardiness, Pollination, Photosynthesis, Ecosystems

G	Guiding Questions
Generalizations / Enduring Understandings	<b>Please identify the type of question: (F) Factual, (C) Conceptual, (P) Provocative [Debatable]</b>
1. Hardiness determines the environment a plant can survive in.	<p><b>FACTUAL</b></p> <p>What is pollination? (G3, G5)</p> <p>What is dormancy? (G2, G5)</p> <p>What determines hardiness? (G1, G5)</p> <p>What is photosynthesis? (G4, G5)</p> <p>What is an ecosystem? (G4)</p>
2. Dormancy functions to protect plants from harsh environments.	<p><b>CONCEPTUAL</b></p> <p>What structural systems play specific roles in the function &amp; health of plants? (G5)</p> <p>What function do pollinators serve to ensure survival of plant species? (G3, G5)</p>
3. Pollination ensures the survival of a plant species.	<p>How does photosynthesis drive the ecosystem of our plant? (G4)</p> <p><b>PROVOCATIVE</b></p>
4. Photosynthesis drives the ecosystem	<p>How might our ecosystem function if photosynthesis didn't happen? (G4)</p> <p>What is the best way to protect native pollinators? (G3, G5)</p>

of our planet.

5. Structural systems play specific roles in the function and health of a plant to promote growth, survival, and reproduction

## Standard(s)

*Connecticut Core Standards / Content Standards*

**NGSS: Science Performance Expectations (2017)**

**NGSS: HS Life Sciences**

### **HS.Structure and Function**

#### **Performance Expectations**

HS-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.

### **HS.Matter and Energy in Organisms and Ecosystems**

#### **Performance Expectations**

HS-LS1-5. Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.

HS-LS1-6. Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.

HS-LS1-7. Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.

### **HS.Inheritance and Variation of Traits**

#### **Performance Expectations**

HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.

HS-LS3-1. Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.

HS-LS3-2. Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.

**CT: ASTE-Agricultural Science and Technology Education Standards 2014**

**Grades 9-12**

**Agriculture, Food, and Natural Resources Foundation Skills**

**Pathway Content Standard: The student will demonstrate competence in the application of scientific principles and practices to all areas of agriculture**

**CT-FS.01. Performance Element: Examine the importance of health, s management systems in organizations and their importance to performance and regulatory safety, and environmental compliance.**

CT-FS.01.01. Performance Indicator: Safety with Contaminants and Equipment: Understand the concepts and procedures of handling contaminants, chemicals and related equipment in an agricultural setting.

**CT-FS.02. Performance Element: Career Success: Demonstrate those qualities, attributes and skills necessary to succeedin, or further prepare for, a chosen career.**

CT-FS.02.01. Performance Indicator: Understand the use and application of information-based technologies necessary for career success in agriculture

**Plant Science**

**Pathway Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the production and management of plants**

CT-PS.01.02. Performance Indicator: Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems.

CT-PS.01.03. Performance Indicator: Apply knowledge of plant physiology and energy conversion to plant systems

CT-PS.02.01. Performance Indicator: Determine the influence of environmental factors on plant growth.

CT-PS.02.03. Performance Indicator: Develop and implement a fertilization plan for specific plants or crops.

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**Critical Content & Skills**

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

<u>Topic</u>	<u>Content</u>	<u>Skills</u>
	(What students must know in order to demonstrate Skills)	
Plant Groups: Clades, Monocot/Dicot, Flowering/Non-Flowering, Vascular/Non-Vascular	<b>Differentiate</b> between Clade Types <b>Analyze</b> Cladogram Maps	<b>Create</b> Cladogram Maps <b>Identify</b> Monocot/Dicot, Flowering/Non-Flowering,

	<p><b>Compare</b> the functions of Monocot/Dicot Organisms</p> <p><b>Compare</b> the functions of Flowering/Non-Flowering Organisms</p> <p><b>Compare</b> the functions of Vascular/Non-Vascular Organisms</p> <p><b>Identify</b> Plant Structures: Shoots, Roots, Leaves, Flowers, Seeds, Nodes</p> <p><b>Examine</b> Plant Tissues: Parenchyma, Collenchyma, Sclerenchyma, Permanent/Meristematic, Ground Tissue, Vascular Tissue, Dermal Tissue</p> <p><b>Interpret</b> Dormancy functions: Hibernation, Weather/Climate, Drought</p> <p><b>Classify</b> Hardiness: Global Plant Hardiness Zones</p>	<p>Vascular/Non-Vascular</p> <p><b>Categorize</b> Monocot/Dicot, Flowering/Non-Flowering, Vascular/Non-Vascular</p> <p><b>Diagram</b> Monocot/Dicot, Flowering/Non-Flowering, Vascular/Non-Vascular</p> <p><b>Utilize</b> Microscopy to <b>Diagram:</b> Tissue Types, Cell Types, Cell Anatomy, Plant/Cell Organelles, etc</p> <p><b>Identify &amp; Label</b> Plant Parts, Tissue Types, Cell Types, Cell Anatomy, Plant/Cell Organelles, etc</p>
<p>Plant Parts: Tissue Types, Dormancy, Hardiness</p>	<p><b>Explain</b> the function of Germination: Dormancy, Moisture, Temperature, Light, Aeration</p> <p><b>Describe</b> Seed structure &amp; anatomy: Seed Coat, Cotyledon, Epicotyl, Hypocotyl, Radicle, Embryo</p> <p><b>Describe</b> Pollination: Flower, Pollen, Indigenous, Symbiosis, Pesticides</p> <p><b>Discuss</b> Pollinators: Insects, Mammals, Wind, Rain, Manual (Humans)</p> <p><b>Survey</b> Generation structure: Meiosis, Hybridization, Seed Saving Practices, Fertilization, Spore, Sporophyte, Sporangium, Gametophyte, Haploid, Diploid</p>	<p><b>Identify</b> Plant Life Cycle Stages</p> <p><b>Diagram</b> Plant Life Cycle Stages</p> <p><b>Manipulate</b> Plant Life Cycle Stages</p>
<p>Plant Life Cycles</p>	<p><b>Summarize</b> the function of Photosynthesis: Sunlight, Catalyst, Carbon Dioxide, Water, Glucose, Oxygen, Photons, Chloroplast, Chlorophyll</p> <p><b>Identify</b> the function of Micro/Macro Nutrients &amp; <b>Indicate</b> the function of Necessary Elements &amp; Minerals: Nitrogen, Phosphorus, Potassium, Calcium, Sulfur, Magnesium, Iron, Manganese, Copper, Zinc, Boron, Chloride, Molybdenum</p> <p><b>Recognize</b> Nutrient Deficiencies: Overwatering, Compacted Soil, Uptake, PH, Air Flow, Soil Consistency, Organic Materials</p>	<p><b>Diagram</b> Process of Photosynthesis</p> <p><b>Test</b> for Micro/Macro Nutrient Levels</p> <p><b>Diagnose &amp; Treat</b> Nutrient Deficiencies</p> <p><b>Survey</b> Elements &amp; Minerals in Garden</p> <p><b>Feed &amp; Maintain</b> Various Plants in the Garden &amp; Greenhouse</p>
<p>Plant Nutrition</p>		
<p>Core Learning Activities</p>		
<p>Microscope practice <a href="#">Virtual Microscope Lab</a></p>		

ID and Label plant parts, flower anatomy, and life cycles

Purpose games Students race to label various diagrams

From seed to fruit Label the life cycle

Photosynthesis lab (elodea) Elodea Photosynthesis Lab

Cladograms GIZMO

Essential Nutrients Slideshow

Essential Nutrients Background Information

Essential Nutrients Worksheet

Essential Nutrients Crossword Puzzle

Essential Nutrients Test

Nutrient Deficiencies Notes

Nutrient Deficiencies Worksheet

Nutrient Deficiencies Crossword

Nutrient Deficiencies Quiz

Plant Anatomy Slideshow

Plant Anatomy Background

Plant Anatomy Worksheet

Plant Anatomy Crossword

Plant Anatomy Test

Structure of Plants Slideshow

Structure of Plants Background

Structure of Plants Vocabulary

Structure of Plants VEGETATIVE MORPHOLOGY OF FLOWERING PLANTS

Structure of Plants Worksheet

Structure of Plants Crossword

Structure of Plants Test

<p>Assessmen ts</p>	<p>Resources <i>Professional &amp; Student</i></p> <p>* Reed College - Nitrogen Fixation <a href="http://www.reed.edu/biology/Nitrogen/">http://www.reed.edu/biology/Nitrogen/</a></p> <p>** e-Gro webinar - Identification of Nutrient Deficiencies (Greenhouse Plants) 42:19-minute video <a href="https://www.youtube.com/watch?v=Cq9tTqMxh2o">https://www.youtube.com/watch?v=Cq9tTqMxh2o</a></p> <p>** Greenhouse Product News - Diagnosing Bedding Plant Nutrient Deficiencies Includes descriptions and many photos <a href="http://gpnmag.com/wp-content/uploads/diagnosingbeddingplant.pdf">http://gpnmag.com/wp-content/uploads/diagnosingbeddingplant.pdf</a></p> <p>** International Plant Nutrition Institute <a href="http://www.ipni.net/">http://www.ipni.net/</a></p> <p>** Michigan State University Extension - Disease or Disorder: How Do I Tell the Difference? Part 1 Discusses common problems related to nutritional disorders and provides pictures <a href="http://www.canr.msu.edu/news/disease_or_disorder_how_do_i_tell_the_difference_part_1">http://www.canr.msu.edu/news/disease_or_disorder_how_do_i_tell_the_difference_part_1</a></p> <p>** Michigan State University Extension - Six Steps to Identifying Nutrient Deficiencies in Ornamental Plants Includes a plant nutrient deficiency key <a href="http://www.canr.msu.edu/news/six_steps_to_identifying_nutrient_deficiencies_in_ornamental_plants">http://www.canr.msu.edu/news/six_steps_to_identifying_nutrient_deficiencies_in_ornamental_plants</a></p> <p>** North Carolina State University Extension - Managing Micronutrients in the Greenhouse <a href="https://hortscans.ces.ncsu.edu/uploads/m/a/managing_51e6d89fe35b2.pdf">https://hortscans.ces.ncsu.edu/uploads/m/a/managing_51e6d89fe35b2.pdf</a></p> <p>** OFA Association of Floriculture Professionals - Geranium Nutrient Deficiencies: A Visual Primer for Grower Diagnosis &amp; Correction Includes many photographs of various nutrient deficiencies in geraniums <a href="https://www.ars.usda.gov/ARUserFiles/50820500/Publications/FertilityManagement/OFA%20geranium%20nutrient%20deficiencies.pdf">https://www.ars.usda.gov/ARUserFiles/50820500/Publications/FertilityManagement/OFA%20geranium%20nutrient%20deficiencies.pdf</a></p> <p>** Promix Training Center <a href="https://www.pthorticulture.com/en/training-center/">https://www.pthorticulture.com/en/training-center/</a></p> <p>** University of Florida - Fertilizer Management for Greenhouse Vegetables <a href="http://edis.ifas.ufl.edu/cv265">http://edis.ifas.ufl.edu/cv265</a></p>
<p>Student Learning Expectation &amp; 21st Century Skills Information</p>	<p>Interdisciplinary Connections</p> <p>Biology</p> <p>Botany</p>



Literacy  
Critical  
Thinking  
Spoken  
Communication  
Written  
Performance

Chemistry  
Ecology  
Environmental Science  
Geology  
Language Arts  
Personal Financial Literacy  
Business Foundations  
Digital Media & Communications  
Fine Arts



# Unit Planner: Plant Classification Greenery (1 & 2)

Friday, November 4, 2023 10:47 AM

Newtown High School / 2022-2023 / High School / BEAT/Science /  
Greenery (1 & 2) / Week 11 - Week 17

Last Updated: Monday, October 31, 2022 by  
Anastasia Stamm

## Plant Classification

Mullen, Shawn; Stamm, Anastasia

- [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

Lens: Relationship

Concepts: Evolution, Traits, Classification, Hosts, Survival, Indigenous, Invasive, Ecosystems

G

#### Generalizations / Enduring Understandings

1. Evolution impacts traits and relates to plant classification.
2. Hosts maintain survival of another organism.
3. Indigenous populations require similar conditions for survival.
4. Invasive organisms interrupt ecosystems.

#### Guiding Questions

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

#### FACTUAL

What is evolution? (G1)

What is a host plant? G2)

What does it mean when a plant is referred to as indigenous? (G3)

What does it mean when a plant is referred to as invasive? (G4)

What indigenous plants are common in our area? (G3)

What invasive plants negatively effect our area? (G4)

What is binomial nomenclature? (G1)

#### CONCEPTUAL

What does evolution look like in plant species? (G1)

Why are host plants considered keystone species? (G2)

How can we use the Linnaeus Classification system to identify plant species? (G1)

How does the Linnaeus Classification system demonstrate

plant species evolutionary relationships? (G1)

How does variation in traits among plant species impact binomial nomenclature? (G1)

PROVOCATIVE

What species could we plant at NHS to help pollinators mitigate the effects of local construction? (G2, G3)

Can invasive plants interrupt an ecosystem in a positive way? (G4)

## Standard(s)

*Connecticut Core Standards / Content Standards*

**NGSS: Science Performance Expectations (2017)**

**NGSS: HS Life Sciences**

### **HS.Matter and Energy in Organisms and Ecosystems Performance Expectations**

HS-LS2-4. Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.

### **HS.Interdependent Relationships in Ecosystems Performance Expectations**

HS-LS2-2. Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.

HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.\*

HS-LS2-8. Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.

HS-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.\*

### **HS.Inheritance and Variation of Traits Performance Expectations**

HS-LS3-2. Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.

HS-LS3-3. Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.

## HS.Natural Selection and Evolution

### Performance Expectations

HS-LS4-1. Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

HS-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.

HS-LS4-4. Construct an explanation based on evidence for how natural selection leads to adaptation of populations.

HS-LS4-5. Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.

## NGSS: Disciplinary Core Ideas

### NGSS: 9-12

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#### LS3: Heredity: Inheritance and Variation of Traits

##### LS3.B: Variation of Traits

Environmental factors also affect expression of traits, and hence affect the probability of occurrences of traits in a population. Thus the variation and distribution of traits observed depends on both genetic and environmental factors. (HS-LS3-2),(HS-LS3-3)

## CT: ASTE-Agricultural Science and Technology Education Standards 2014

### Grades 9-12

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#### Plant Science

**Pathway Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the production and management of plants**

CT-PS.01.01. Performance Indicator: Classify agricultural plants according to taxonomy systems

CT-PS.01.02. Performance Indicator: Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems.

CT-PS.02.01. Performance Indicator: Determine the influence of environmental factors on plant growth.

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Access the interactive version of the NGSS [here](#)

## Critical Content & Skills

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

### Content

#### Topic

(What students must know in order to demonstrate Skills)

#### Skills

Indigenous Plants

**Locate** Host Plants, Indigenous Plants, Invasive Plants, Keystone Species.

**Identify** Keystone Species within our Local

**Defend** Identification of Host Plants, Indigenous Plants, Invasive Plants.

**Discuss** the relationship of Host Plants, Indigenous Plants, Invasive Plants.

Binomial Nomenclature

**Classify** Plants: Domain, Kingdom, Phylum, Class, Order, Family, Genus, Species

Environment

**Map** Host Plants, Indigenous Plants

**Remove** Invasive Plants

**Classify** Plants with the Linnaeus System  
**Name** Plants Utilizing Binomial Nomenclature

**Compare** Characteristics of Plants using Binomial Nomenclature

**Organize** Plant Fruits & Flowers according to Characteristics within the Linnaeus System

## Core Learning Activities

Planting Pollinator Garden

Pollinator [Pathway](#) Site Assessment

Using Native Plants [Notes](#)

Using Native Plants [Worksheet 1](#)

Using Native Plants [Worksheet 2](#)

Using Native Plants [Worksheet 3](#)

Using Native Plants [Worksheet 4](#)

Using Native Plants [Crossword](#)

Using Native Plants [Quiz](#)

Classifying and Naming Plants (Taxonomy) [Notes](#)

Classifying and Naming Plants (Taxonomy) [Worksheet](#)

Classifying and Naming Plants (Taxonomy) [Crossword](#)

Classifying and Naming Plants (Taxonomy) [Quiz](#)

Using Dichotomous Keys [GIZMO](#)

Assessments

Resources

*Professional & Student*

### Using Native Plants

\*\* Minnesota Department of Natural Resources -  
Landscaping with Native Plants

A good example of information provided by a state. Includes landscaping information, plant sources, species listing, etc.  
<https://www.dnr.state.mn.us/gardens/nativeplants/index.html>

\*\* K-State University - Prairie Flowers: Hardy for Kansas  
2:12-minute video shows examples of native plants suitable for Kansas.

<https://www.youtube.com/watch?v=Wi8Nq4REB2g>

\*\* PlantNative - Making a Naturescape Plan

Choosing native trees, shrubs and herbaceous plants for an urban setting

[http://www.plantnative.org/how\\_plan.htm](http://www.plantnative.org/how_plan.htm)

\*\* PlantNative - Community Services Directory

Find national or regional organizations offering information about native plantings.

[http://www.plantnative.org/cs\\_nat\\_reg.htm](http://www.plantnative.org/cs_nat_reg.htm)

\*\* University of Florida Extension - Native Plants: An Overview

A fact sheet on how "native" is defined

<http://edis.ifas.ufl.edu/ep297>

\*\* University of Illinois - Using Native Plants in the Garden

<https://extension.illinois.edu/downloads/hkmw/45648.pdf>

\*\* Utah State University Forestry Extension - Are Native Trees Always the Best Choices?

<https://forestry.usu.edu/trees-cities-towns/tree-selection/native-trees>

\*\* Wild Ones

A not-for-profit environmental education group advocating native plants and natural landscapes

<https://wildones.org/>

### Student Learning Expectation & 21st Century Skills

Information Literacy

Critical Thinking

Spoken Communication

Written Performance

### Interdisciplinary Connections

Biology

Botany

Chemistry

Ecology

Environmental Science

Geology

Language Arts

Personal Financial Literacy

Business Foundations

Digital Media & Communications

Fine Arts



# Unit Planner: Composting & Soil Food Web Greenery (1 & 2)

Friday, November 4, 2023, 1:47 PM

Newtown High School / 2022-2023 / High School / BEAT/Science / Greenery (1 & 2) / Week 1 - Week 10

Last Updated: Monday, October 31, 2022  
by Shawn Mullen

**Composting & Soil Food Web**  
Mullen, Shawn; Stamm, Anastasia

- [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

Lens: Interdependence

Concepts: Soil, Organisms, Plants, Decomposition, Survival, Nutrition, Environment, Ecosystem

#### G Generalizations / Enduring Understandings

1. Soil, a complex living ecosystem, comprises billions of organisms from thousands of species.

2. All plants - grass, trees, shrubs, agricultural crops - depend on the soil food web for their nutrition.

3. Microorganisms can only survive in optimal conditions.

4. Decomposition of organic

#### Guiding Questions

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

#### FACTUAL

What is the soil food web? (G2)

What is decomposition? (G5)

What is a healthy ecosystem? (G1, G5)

What is PH? (G3)

What is moisture? (G3)

What is temperature? (G3)

What is air flow? (G3)

What is symbiosis? (G2, G5)

What roles do microorganisms play in the soil food web? (G2, G3)

#### CONCEPTUAL

What are optimal conditions for microorganism survival? (G3)

How does soil quality impact plant survival? (G1, G3)

How does PH Level effect soil and compost? (G3)



matter in soils is vital for the survival of any ecosystem.

5. As individual plants and soil organisms work to survive, they depend on interactions with each other.

What is the relationship between plants, soil, and nutrients? (G2, G5)

How can moisture content effect the rate of decomposition within a compost pile? (G4)

What could happen to plants if decomposition did not occur? (G4, G5)

PROVOCATIVE

What is the most effective method of starting a compost pile? (G4, G5)

Is composting food scraps from a home kitchen worthwhile? (G2)

## Standard(s)

*Connecticut Core Standards / Content Standards*

**NGSS: Science Performance Expectations (2017)**

**NGSS: HS Life Sciences**

### **HS.Matter and Energy in Organisms and Ecosystems**

#### **Performance Expectations**

HS-LS2-3. Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

### **HS.Interdependent Relationships in Ecosystems**

#### **Performance Expectations**

HS-LS2-6. Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.\*

**CT: CTE: Agricultural Science (2011)**

**Grades 9-12**

#### **Plant Science**

**A. Plant Science: Understand the concepts and skills necessary related to plant science technology.**

3. Describe the influence of soil (including growing media), water and other environmental factors on horticultural plant growth.

**CT: ASTE-Agricultural Science and Technology Education Standards 2014**

**Grades 9-12**

#### **Agriculture, Food, and Natural Resources Foundation Skills**

**CT-FS.09. Performance Element: Scientific Inquiry: Utilize scientific inquiry as an investigative method.**

CT-FS.09.02. Performance Indicator: Design and conduct a scientific investigation.

#### **Natural Resources Systems**

**Pathway Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the management of natural resources.**

**CT-NRS.01. Performance Element: Explain interrelationships between natural resources and humans necessary to conduct management activities in natural environments.**

CT-NRS.01.01. Performance Indicator: Apply knowledge of natural resource components to the management of natural resource systems

CT-NRS.01.02. Performance Indicator: Classify natural resources.

CT-NRS.02.01. Performance Indicator: Develop a safety plan for work with natural resources.

CT-NRS.06.01. Performance Indicator: Apply soil science principles to environmental service systems

**Plant Science**

**Pathway Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the production and management of plants**

CT-PS.02.02. Performance Indicator: Evaluate soil/media and prepare soil/growth media for use in plant systems

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**Critical Content & Skills**

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

TOPIC	CONTENT	SKILLS
Microbes	<b>Describe</b> the effects of "Good" Microbes and "Bad" Microbes in Compost & Soil	<b>Harvest</b> Lactobacillus bacteria from rice
	<b>Explain</b> the role of Microbes in Compost & Soil	<b>Make</b> Compost Teas
	<b>Select</b> the best method for harvesting Microbes from Compost & Soil	<b>Apply</b> Compost Teas
	<b>Manage</b> the Microbes in Compost & Soil	<b>Inoculate</b> Soil with Lactobacillus
	<b>Distinguish</b> between three groups of bacteria working at three different temperature zones: Psychrophilic, Mesophilic, and Thermophilic bacteria	
Micro & Macro Invertebrates	<b>Define</b> the role of Micro-invertebrates / Macro-invertebrates in the Food Web and Decomposition.	<b>Identify</b> the Role of Micro-invertebrates / Macro-invertebrates in the Food Web and Decomposition.
	<b>Explain</b> positive & negative effects of Micro-invertebrates / Macro-invertebrates in the Food Web and Decomposition.	<b>Predict</b> positive & negative effects of Micro-invertebrates / Macro-invertebrates in the Food Web and Decomposition in the Garden at NHS.
	<b>Explain</b> the role of PH, Moisture, Temperature, and Air Flow in maintaining a productive compost pile.	<b>Monitor</b> the moisture, pH, air flow, and temperature in our school compost pile.
Environmental Factors	<b>Define</b> the three phases that compost can be in under various temperatures: Psychrophilic, Mesophilic, and Thermophilic phases.	<b>Amend</b> the compost pile according to moisture, pH, air flow, and temperature
	<b>Explain</b> how PH, Moisture, Temperature, and Air Flow	<b>Determine</b> the current phase of the composting process by measuring the

are interdependent to one another in composting and decomposition.

temperature within the compost pile.

**Identify** Micro/Macro Nutrients & **Indicate** Necessary Elements & Minerals: Nitrogen, Phosphorus, Potassium, Calcium, Sulfur, Magnesium, Iron, Manganese, Copper, Zinc, Boron, Chloride, Molybdenum

**Identify** when it is appropriate to mix the contents of the pile according to temperature.

**Test** soil and compost for Nutrient Levels

**Make** amendment decisions based on Nutrient Level in soil and compost

**Survey** Elements & Minerals in soil and compost

**Feed & Maintain** soil and compost in the Garden & Greenhouse

**Harvest** indigenous fungi

**Monitor** campus fungi levels

**Adjust** environmental factors (PH, Moisture, Temperature, Air Flow) to ensure fungi grow and thrive.

Elements and Minerals

**Monitor** environmental factors (PH, Moisture, Temperature, Air Flow) in nutrient uptake.

**Explain** effects of environmental factors (PH, Moisture, Temperature, Air Flow) in nutrient uptake.

**Utilize** Mycorrhizal Fungi in soil and compost

Fungi

**Understand** complex interrelationship of plants & fungi

**Describe** symbiotic relationship of fungi and plants

## Core Learning Activities

Composting [Slideshow](#)

Composting [Vocabulary](#)

Composting [Worksheet](#)

Composting [Crossword Puzzle](#)

Compost [campaign](#)

soil testing and other soil based [activities](#)

Garden Soil [Lesson](#)

[Dig Deeper](#) (soil activities and games)

Compost Jin [card game](#)

compost [teas](#)

[Making LAB](#) (Lactobacillus)

[Korean](#) Natural Farming Practices

Fermented plant [extract](#) and [juices](#)

[Properties of Soil Slideshow](#)

[Properties of Soil Background Information](#)

[Properties of Soil Worksheet](#)

[Properties of Soil Crossword Puzzle](#)

## Assessments

### Properties of Soil Test

#### Summative: Written Test

[Properties of Soil Test](#)

#### Composting Test

#### Summative: Written Test

[Composting Test](#)

#### Cornell

#### Compost Quiz Game

#### Summative: Written Test

[Cornell](#)

[Composting](#)

[Quiz Game](#)

## Resources

### Professional & Student

[Cornell Composting](#)

[Composting 101](#)

[Soils 4 Teachers](#)

\*\* Colorado State University Extension - Composting Yard Waste  
<http://extension.colostate.edu/docs/pubs/garden/07212.pdf>

\*\* Cornell Waste Management Institute - Composting  
Includes resources on composting for farms, residences and businesses  
<http://cwmi.css.cornell.edu/composting.htm>

\*\* Lowe's Project Center - Making Compost  
<https://www.lowes.com/projects/gardening-and-outdoor/learn-to-compost/project>

\*\* National Public Radio - Science Friday Videos - A Compost Guru Shares His Secrets 3:59-minute video interviewing Malcolm Beck of Texas  
<https://vimeo.com/30598097>

\*\* North Carolina Cooperative Extension Service - Backyard Composting of Yard, Garden, and Food Discards  
<https://content.ces.ncsu.edu/backyard-composting-of-yard-garden-and-food-discards>

\*\* North Carolina State University - Vermicomposting for Households  
Vermicomposting uses worms in the composting process.  
<https://composting.ces.ncsu.edu/vermicomposting-2/vermicomposting-for-households/>

\*\* Ohio State University - Compost Facility Tour, Part I  
<https://plantfacts.osu.edu/movies/abstract.lasso?id=1906a>

\*\* Ohio State University - Compost Facility Tour, Part II  
<https://plantfacts.osu.edu/movies/abstract.lasso?id=1906b>

\*\* Ohio State University Extension - Composting at Home  
[http://www.therockpile.com/wp-content/uploads/2010/01/OSU\\_composting.pdf](http://www.therockpile.com/wp-content/uploads/2010/01/OSU_composting.pdf)

\*\* U.S. Environmental Protection Agency - Composting at Home  
A good basic description of composting, including lists of what should and should not be composted  
<https://www.epa.gov/recycle/composting-home>

\*\* U.S. National Arboretum - Creating Compost  
A simple description of composting  
<https://www.usbg.gov/creating-compost>

\*\* University of Florida Extension - Farm Scale Composting

[http://blogs.ifas.ufl.edu/smallfarms/2017/11/30/composting/?mc\\_cid=64fe46323f&mc\\_eid=b9bb859ac1](http://blogs.ifas.ufl.edu/smallfarms/2017/11/30/composting/?mc_cid=64fe46323f&mc_eid=b9bb859ac1)

**\*\* University of Minnesota Extension Service - Composting and Mulching**  
<https://conservancy.umn.edu/bitstream/handle/11299/54827/3296.pdf>

**\*\* University of Missouri-Columbia - Making and Using Compost**  
Includes detailed information for constructing compost piles  
<https://extension2.missouri.edu/G6956>

**\*\* Whatcom County Public Works - Easy Composting**  
Includes two methods for making compost -- an easy way and a quicker way  
<http://www.whatcomcounty.us/DocumentCenter/View/1871/Easy-Composting-PDF>

### **Soils**

**\*\* Dr. Dirt - Soil Air and Composition**  
Uses marbles, golf balls, beads, and water to illustrate soil components  
<https://www.doctordirt.org/teachingresources/idealsoil>

**\*\* Smithsonian Environmental Research Center - Dig It! The Secrets of Soil**  
Reports on an exhibit at the Smithsonian Museum of Natural History  
<http://forces.si.edu/soils/> **\*\* U.S. Department of Agriculture - FFA Students Learn To Judge Land And Soil**  
1:38-minute video showing FFA students in soils judging contest  
<https://www.youtube.com/watch?v=jj3eEbxDmr8>

**\*\* USDA Natural Resources Conservation Service (NRCS) - Soils home page**  
<https://www.nrcs.usda.gov/wps/portal/nrcs/site/soils/home/>

**\*\* USDA (NRCS) - Distribution Maps of Dominant Soil Orders**  
Shows photos of each type of soil and maps showing where those types are found.  
[https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/class/?cid=nrcs142p2\\_053589](https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/class/?cid=nrcs142p2_053589)

**Student Learning Expectation & 21st Century Skills**

Information Literacy  
Critical Thinking  
Spoken Communication  
Written Performance

### **Interdisciplinary Connections**

Biology

Botany

Chemistry

Ecology

Environmental Science

Geology

Language Arts

Personal Financial Literacy

Business Foundations

Digital Media & Communications

Fine Arts



# Unit Planner: Enterprise Practices & Career Readiness Greenery (1 & 2)

Newtown High School / 2022-2023 / High School / BEAT/Science /  
Greenery (1 & 2) / Week 2 - Week 18

Last Updated: Wednesday, June 29, 2022  
by Shawn Mullen

## Enterprise Practices & Career Readiness

Mullen, Shawn; Stamm, Anastasia

- [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*

Lens: Systems

Concepts: Enterprise, Opportunity, Industry, Supply & Demand, Profit, Marketing, Design, Safety

G

#### Generalizations / Enduring Understandings

1. The US Agriculture Industry provides a multitude of career opportunities - no farms, no food.
2. Different careers require employees to possess specific skills and traits.
3. Safety practices and systems ensure all are safe in a working environment.
4. Effective marketing and supply & demand practices drive enterprise success, measured by profit margin.

#### Guiding Questions

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

FACTUAL

What is an enterprise? (G4)

What career opportunities are available in the agriculture industry? (G1)

What skills and traits should a person possess for specific careers within the agriculture industry? (G2)

What safety practices must we follow in the lab, greenhouse, and garden? (G3)

CONCEPTUAL

What systems can be put in place to ensure all work safely in the lab, greenhouse, and garden? (G3)

What are different marketing strategies for different target consumers? (G4)

How can profit from sales efforts be guaranteed? (G4)

How does an enterprise determine which products to sell? (G4)

PROVOCATIVE

How can an organization ensure each individual and the

job they perform is vital to greater success? (G1)

What are the best ways to market a product? (G4)

What makes the design of a product aesthetically pleasing to different consumers? (G4)

## Standard(s)

*Connecticut Core Standards / Content Standards*

### **NGSS: Crosscutting Concepts**

#### **NGSS: 9-12**

##### **Crosscutting Statements**

**1. Patterns – Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.**

Patterns of performance of designed systems can be analyzed and interpreted to reengineer and improve the system.

**2. Cause and Effect: Mechanism and Prediction – Events have causes, sometimes simple, sometimes multifaceted. Deciphering causal relationships, and the mechanisms by which they are mediated, is a major activity of science and engineering.**

Systems can be designed to cause a desired effect.

**4. Systems and System Models – A system is an organized group of related objects or components; models can be used for understanding and predicting the behavior of systems.**

Systems can be designed to do specific tasks.

**7. Stability and Change – For both designed and natural systems, conditions that affect stability and factors that control rates of change are critical elements to consider and understand.**

Feedback (negative or positive) can stabilize or destabilize a system.

##### **Connections to Engineering, Technology and Applications of Science**

###### **Interdependence of Science, Engineering, and Technology**

Science and engineering complement each other in the cycle known as research and development (R&D).

### **CT: CTE: Agricultural Science (2011)**

#### **Grades 9-12**

##### **Plant Science**

**D. Marketing: Understand the sequence of the channels of distribution and marketing including their impact on the agriculture industry.**

20. Understand supply and demand principles in Agriculture, Food, and Natural Resource systems.

21. Identify strategies frequently employed in agricultural marketing programs.

22. Define the concept of profit and loss in agricultural business.

24. Explain the impact of positive customer/client relations.

**E. Career Exploration and Development: Understand the diversity of careers related to the agricultural industry and strategies to acquire and advance in an agricultural career.**

25. Identify the employability skills required for various careers in agriculture.

28. Identify ways to develop and maintain professional relationships to enhance career success.

### **CT: ASTE-Agricultural Science and Technology Education Standards 2014**

#### **Grades 9-12**

##### **Agriculture, Food, and Natural Resources Foundation Skills**

**CT-FS.02. Performance Element: Career Success: Demonstrate those qualities, attributes and skills necessary to succeed in, or further prepare for, a chosen career.**



CT-FS.02.01. Performance Indicator: Understand the use and application of information-based technologies necessary for career success in agriculture

**CT-FS.03. Performance Element: Utilize economic principles to establish and manage an AFNR enterprise.**

CT-FS.03.01. Performance Indicator: Understand the sequence of the channels of distribution and marketing including their impact on the agriculture industry.

**CT-FS.04. Performance Element: Apply principles of environment science.**

CT-FS.04.01. Performance Indicator: Observe required regulations to maintain/improve safety, health and environmental management systems.

**CT-FS.05. Performance Element: Apply safety/health practices to AFNR worksites.**

CT-FS.05.04. Performance Indicator: Assess workplace safety.

**CT-FS.07. Performance Element: Utilize appropriate management planning principles in AFNR business enterprises.**

CT-FS.07.01. Performance Indicator: Apply economic principles to AFNR systems (e.g., supply, demand and profit).

CT-FS.07.02. Performance Indicator: Apply skills with computer software to accomplish a variety of business activities.

**CT-FS.08.0. Performance Element: Utilize technology within AFNR.**

CT-FS.08.02. Performance Indicator: Relate technology advancements to the need for Continuing Education/Career Development.

**CT-FS.10. Performance Element: Technical Skills: Compare and contrast issues affecting the AFNR industry.**

CT-FS.10.01. Performance Indicator: Apply economic principles to AFNR systems (e.g., supply, demand and profit).

CT-FS.10.02. Performance Indicator: Apply skills with computer software to accomplish a variety of business activities.

CT-FS.10.03. Performance Indicator: Flexibility / Adaptability: Describe traits that enable one to be capable and willing to accept change.

**CT-FS.11. Performance Element: Systems: Examine roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment.**

CT-FS.11.01. Performance Indicator: Examine performance and goals to appreciate organizations and industries within AFNR.

**CT-FS.12. Performance Element: Systems: Identify how key organizational structures and processes affect organizational performance and the quality of products and services.**

CT-FS.12.01. Performance Indicator: Manage organizational structures and processes to better serve customers.

### **Leadership Skills**

**Pathway Content Standard: The student will demonstrate competence in the application of leadership, personal growth and career success skills necessary for a chosen profession while effectively contributing to society**

CT-LS.01.01. Performance Indicator: Action: Exhibit the skills and competencies needed to achieve a desired result

CT-LS.01.02. Performance Indicator: Relationships: Build a constituency through listening, coaching, understanding and appreciating others.

**CT-LS.02. Performance Element: Personal Growth: Develop a skill set to enhance the positive evolution of the whole person.**

CT-LS.02.03. Performance Indicator: Professional Growth: Develop awareness and apply skills necessary for achieving career success.

CT-LS.02.04. Performance Indicator: Mental Growth: Demonstrate the effective application of reasoning, thinking, and coping skills.

**CT-LS.03. Performance Element: Career Success: Demonstrate those qualities, attributes and skills necessary to succeed in, or further prepare for, a chosen career while effectively contributing to society.**

CT-LS.03.01. Performance Indicator: Communication: Demonstrate oral, written and verbal skills

CT-LS.03.03. Career Exploration and Development: Understand the diversity of careers related to the agricultural industry and strategies to acquire and advance in an agricultural career

### **Natural Resources Systems**

**Pathway Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the management of natural resources.**

**CT-NRS.01. Performance Element: Explain interrelationships between natural resources and humans necessary to conduct management activities in natural environments.**

CT-NRS.01.01. Performance Indicator: Apply knowledge of natural resource components to the management of natural resource systems

CT-NRS.03.01. Performance Indicator: Produce, harvest, process and use natural resource products

CT-NRS.05.01. Performance Indicator: Communicate natural resource information to the public

### **Plant Science**

**CT-PS.03. Performance Element: Propagate culture and harvest plants.**

CT-PS.03.04. Performance Indicator: Apply principles and practices of various plant production methods to meet

the needs of the market.

**CT-PS.04. Performance Element: Employ elements of design to enhance an environment.**

CT-PS.04.01. Performance Indicator: Create designs using plants.

CT-PS.04.02 Performance Indicator: Determine supplies needed to create landscape designs and develop a marketing plan

**Power Structural and Technical Systems (Agriculture Mechanics)**

**CT-PST.05. Performance Element: Plan, build and maintain agricultural structures.**

CT-PST.05.01. Performance Indicator: Create sketches and plans of agricultural structures.

CT-PST.05.03. Performance Indicator: Examine structural requirements for materials and procedures and estimate construction cost.

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**Critical Content & Skills**

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

<u>Topic</u>	<u>Content</u>	<u>Skills</u>
Safety	<b>Demonstrate</b> use of tools and equipment aligning with safe work habits.	<b>Exhibit</b> safe work practices in the lab, greenhouse, and garden.
	<b>Recognize</b> when others do something unsafely, and help to redirect to work more safely <b>Develop</b> purchase lists for plant sales.	Implement safe use of tools and equipment in the lab, greenhouse, and garden.
Sales, Finance, & Budgeting	<b>Determine</b> pricing for plant sales.	<b>Collaborate</b> with peers to make decisions for plant sales
	<b>Analyze</b> profit margin for plant sales. <b>Design</b> systems to monitor & document inventory, sales, and deposits.	<b>Manage</b> pricing, bookkeeping, and inventory for plant sales <b>Execute</b> plant sales
Marketing & Advertising	<b>Create</b> systems for communicating upcoming sales to consumers.	<b>Produce</b> marketing materials for distribution to bring awareness of sales to consumers.
	<b>Design</b> systems for selling products to consumers during sales periods. <b>Survey</b> past and future consumers to determine product demand	<b>Communicate</b> with consumers the methods for transactions and delivery of plants.
Agricultural & Floral Design	<b>Design</b> aesthetically pleasing outdoor landscaping that is appropriate for the project scope and function.	<b>Construct</b> aesthetically pleasing outdoor landscaping that is appropriate for the project scope and function.
	<b>Design</b> aesthetically pleasing indoor arrangements (centerpieces/wreathes/bouquets,	<b>Create</b> aesthetically pleasing indoor arrangements (centerpieces/wreathes/bouquets,

etc) of cut plants/flowers, appropriate for the project scope and function.

**Explore** careers within the Agriculture Industry

Occupational  
Preparation

**Determine** individual aptitude & interest in specific careers within the Agriculture Industry

**Discuss** logistics and management systems within the Agriculture Industry.

etc) of cut plants/flowers, appropriate for the project scope and function.

**Research** careers within the Agriculture Industry

**Express** rationale for personal aptitude & interest in specific careers within the Agriculture Industry

**Compare** logistics and management systems within the Agriculture Industry to those systems used working in our Greenhouse and Garden.

## Core Learning Activities

Productivity/Professionalism Rubric

Generic Flyer Document

Fall Mums sale

Fall Mums Flyer

Learning About Chrysanthemums Notes

Learning About Chrysanthemums Worksheet

Learning About Chrysanthemums Crossword

Learning About Chrysanthemums Quiz

Holiday Centerpiece Photos

Holiday Centerpieces Rubric

Holiday Poinsettia Sale

Video about the Paul Ecke Poinsettia Ranch

Growing Poinsettias Notes

Growing Poinsettias Worksheet

Growing Poinsettias Crossword

Growing Poinsettias Quiz

Valentines Day Carnation Sale

[Valentines Day Flyer](#)

[Spring Plant sale Flyer](#)

[Spring Sale Advertisement](#) for faculty and staff

### Assessments

#### **Career Profile**

#### **Summative: Exhibition**

develop an understanding of several jobs related to the field of Greenery, Agriculture, Botany, Farming, Soil management, Etc.

[Career Profile](#)

### Resources

*Professional & Student*

[US Dept of Agriculture Careers](#)

[Agriculture Careers Database by US Region](#)

[US Occupational Health & Safety Administration - Agricultural Operations](#)

[US Dept of Agriculture - Nat'l Institute of Farms & Agriculture - Farm Safety](#)

### Student Learning Expectation & 21st Century Skills

[Information Literacy](#)

[Critical Thinking](#)

[Spoken Communication](#)

[Written Performance](#)

### Interdisciplinary Connections

Biology

Botany

Chemistry

Ecology

Environmental Science

Geology

Language Arts

Personal Financial Literacy

Business Foundations

Digital Media & Communications

Fine Arts

## STUDENT TEACHERS

The Newtown Public Schools accepts a responsibility to provide apprentice teaching opportunities for student teachers from colleges and universities.

The Superintendent may enter into agreements with colleges and universities concerning the assignment of student teachers. Agreements that have financial obligations for the Newtown Board of Education will be submitted by the Superintendent for approval and funding. The Superintendent or his/her designee shall determine the number to be placed in the schools at any one time.

Reference: CGS 4-109,4119  
Adopted 3/12/96



## DRUG-FREE WORK PLACE

The Newtown Board of Education, working with the Superintendent, will provide a drug-free work place in accordance with applicable federal and state statutes and regulation. As such, the Newtown Board of Education certifies it will:

1. Notify all employees in writing that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the school district's work place and specify the actions that will be taken against employees for violation of such prohibitions.
2. Establish a drug-free awareness program to inform employees about the dangers of drug abuse; the district's policy of maintaining a drug-free work place; any available drug counseling, rehabilitation, and employee assistance programs; and the penalty that may be imposed on employees for drug abuse violations occurring in the work place.
3. Make it a requirement that each employee be given a copy of the statement concerning a drug-free work place.
4. Notify the employees in the required statement that as a condition of employment, the employees will abide by the terms of the statement and will notify the district of any criminal drug statute conviction for a violation occurring in the work place no later than five (5) days after such conviction.
5. Notify the federal agency within ten (10) days after receiving notice from any employee or otherwise receiving notice of such conviction.
6. Indicate to employees that their failure to report incidents of violations of this policy by other employees not only violates their obligations to the board to assist in the maintenance of a safe and healthy work place, but also denies the offending party an opportunity for rehabilitation prior to the possible occurrence of more serious actions and/or consequences.
7. Based on the severity of the incident, choose one of the following actions within thirty (30) days of receiving notice with respect to any employee who is so convicted: take appropriate personnel action against such an employee, up to and including termination; or require such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by federal, state, or local health, law enforcement, or other appropriate agency.

Reference: 10-154a, 10-221(d)

Adopted 11/19/90

Modified 10/10/95, 11/12/97

## **Personnel – Certified/Non-Certified**

### **Alcohol, Tobacco, and Drug-Free Workplace**

The purpose of this policy is to establish a workplace that is free of the effects of alcohol and second-hand smoke, and free from drug abuse. By accomplishing this purpose, the Board also seeks to promote a safe, healthy working environment for all employees and to reduce absenteeism, tardiness, and other job performance problems that may be caused by alcohol and/or drug abuse. This policy is adopted in accordance with state law and the Drug Free Workplace Act.

### **Definitions**

**“Any area”** means the interior of a school building and the outside area within twenty-five feet of any doorway, operable window or air intake vent of a school building.

**“Cannabis”** means marijuana, as defined in Conn. Gen. Stat. § 21a-240.

**“Controlled substance”** means a controlled substance in schedules I through V of section 202 of the Comprehensive Drug Abuse Prevention and Control Act of 1970 (21 U.S.C. 812), including marijuana.

**“Inhalant”** means use of products in a manner not intended and for the purpose of becoming “high” or intoxicated.

**“Electronic cannabis delivery system”** means an electronic device that may be used to simulate smoking in the delivery of cannabis to a person inhaling the device and includes, but is not limited to, a vaporizer, electronic pipe, electronic hookah and any related device and any cartridge or other component of such device.

**“Electronic nicotine delivery system”** means an electronic device used in the delivery of nicotine to a person inhaling from the device, and includes, but is not limited to, an electronic cigarette, electronic cigar, electronic cigarillo, electronic pipe or electronic hookah and any related device and any cartridge or other component of such device, including, but not limited to, electronic cigarette liquid or synthetic nicotine.

**“School property”** means any land and all temporary and permanent structures comprising the district’s school and administrative office buildings and includes, but is not limited to, classrooms, hallways, storage facilities, theatres, gymnasiums, fields, and parking lots.

**“School-sponsored activity”** means any activity sponsored, recognized, or authorized by a board of education and includes activities conducted on or off school property.

**“Smoke” or “smoking”** means the burning of a lighted cigar, cigarette, pipe or any other similar device, whether containing, wholly or in part, tobacco, cannabis or hemp.

**“Vapor product”** means any product that employs a heating element, power source, electronic circuit or other electronic, chemical or mechanical means, regardless of shape or size, to produce a vapor that may or may not include nicotine or cannabis and is inhaled by the user of such product.

Employees shall not be involved with the unlawful manufacture, distribution, possession, or use of an illegal drug, a controlled substance, or alcohol, or inhalant and shall not be under the influence of such substances while on school property or while conducting Board business on or off school property. Any employee who discovers illegal drugs, a controlled substance, or alcohol, or inhalant on school property shall notify the Superintendent or the Superintendent’s designee who shall investigate the matter.

An employee must report any conviction under a criminal drug statute for violations occurring on or off school property while on Board business to the Superintendent or his/her designee within five (5) days after the conviction. The Board will notify any agency awarding a grant to the Board of such conviction within ten (10) days thereafter.

Employees shall only use prescription drugs on school property, or during the conduct of Board business, that have been prescribed to them by a licensed medical practitioner, and such drugs shall be used only as prescribed. However, in accordance with Conn. Gen. Stat. § 21a-408a through 408q, the Board specifically prohibits the palliative use of marijuana on school property, at a school-sponsored activity, or during the conduct of Board business, and specifically prohibits employees from being under the influence of intoxicating substances during work hours.

The Board prohibits smoking, including smoking using an electronic nicotine delivery system (e.g., e-cigarettes), electronic cannabis delivery system, or vapor product, and the use of tobacco products in any area of a school building, on school property, including property owned, leased, contracted for, or utilized by the Board, or at any school-sponsored activity.

While Connecticut law allows for the legal use of marijuana under certain circumstances, because marijuana use is still prohibited under federal law, the use of marijuana at work, or outside of work if it impairs an employee’s ability to perform their job, constitutes a violation of this policy.

Violations of this policy may result in disciplinary action, up to and including possible termination of employment.

### **Employee Assistance**

In appropriate circumstances, the Board shall provide an employee with an opportunity for rehabilitation in overcoming addiction to, dependence upon or other problem with alcohol or drugs.

Employees who feel they have developed an addiction to, dependence upon, or other problem with alcohol or drugs are encouraged to seek assistance. Certain benefits for alcoholism or drug addiction are provided under the Board's group medical insurance plan. An employee may be given an opportunity to participate in a rehabilitation program that requires absence from work for bona fide treatment. Such absence may be charged to the employee's accrued and unused sick leave, subject to the provisions of the employee's collective bargaining agreement and/or any applicable Board policies and regulations.

Any request for assistance with a drug or alcohol problem will be treated as confidential and only those persons "needing to know" will be made aware of such request.

Legal References:

Connecticut General Statutes:

Conn. Gen. Stat. § 10-233a(h) (definition of school-sponsored activity)

Conn. Gen. Stat. § 19a-342

Conn. Gen. Stat. § 19a-342a

Conn. Gen. Stat. § 21a-408a through 408q (palliative use of marijuana)

June Special Session, Public Act No. 21-1

United States Code:

Pro-Children Act of 2001, 20 U.S.C. § 7973, as amended by the Every Student Succeeds Act, Public Law 114-95, § 4001

Drug Free Workplace Act, 41 U.S.C. § 8101 et seq.

## Personnel -- Certified/Non-Certified

### Recruitment and Selection

The Board of Education (Board) believes in recruiting and employing the best certified and non-certified talent available and believes that those who are most familiar with the needs of our classrooms and schools and who are also most knowledgeable about the skills and expertise needed are the ones best able to recruit and identify such talent. Therefore, the board authorizes the Superintendent or his/her designee(s) to recruit and hire the district's non-administrative certified and non-certified staff.

Further, the Board recognizes the importance of the contributions provided by a diverse workforce. Therefore, the Board believes it is important that diversity be recognized in the recruitment, hiring, promotion and assignment of personnel. The administration shall be responsible for establishing fair and sound recruitment, selection and appointment procedures that abide by the Board's Equal Employment Opportunity (P4111.1/4311.1) and Plan for Minority Recruitment and Selection (P4111.3/4211.3) policies.

On the application form, an applicant for such a position in the school district shall disclose any previous relationship with the Superintendent or any administrator or Board member. Previous relationships will include any business, financial, personal, political or family connections. Prior to hiring a candidate, the superintendent will inform the Board of any such relationship

(cf. 4115 – Evaluation)

Legal Reference: Connecticut General Statutes  
10-151 Employment of teachers. Notice and hearing on termination of contract (as amended by P.A. 12-116 An Act Concerning Educational Reform)  
10-153 Discrimination on account of marital status.  
10-183v Reemployment of teachers, as amended by P.A. 10-111, An Act Concerning Education Reform in Connecticut, P.A. 16-91, An Act Making Changes to the Teachers' Retirement System, and PA 17-173 An Act Concerning Minor Revisions and Additions to the Education Statutes  
10-220 Duties of Boards of Education.  
31-126 Unfair Employment Practices  
46a-60 Discriminatory employment practices prohibited.  
P.L. 114-95 Every Student Succeeds Act, S.1177-55, 56

Policy adopted: November 7, 2017

NEWTOWN PUBLIC SCHOOLS  
Newtown, Connecticut

## Administration

### Hiring School Administrators

The Board of Education (Board) recognizes that the Superintendent is its sole employee, and also that the district requires an administrative staff that will work productively and efficiently with the Superintendent. The Board further recognizes that administrators have a large impact on students and staff. Therefore, the Superintendent and the Board shall work cooperatively when recruiting and hiring administrative staff.

#### Hiring Procedure

There shall be a Search Committee for each open administrative position consisting of district staff and parents as the Director of Human Resources or his/her designee deems appropriate and shall also include up to two Board representatives as selected by the Board Chair. The Superintendent shall not be a member of the Search Committee. The Search Committee shall forward two or more potential candidates to the Superintendent who will form an advisory Selection Committee that includes others he/she feels warranted and up to two Board members. The Board members shall be selected by the Chair and shall not include those who served on the Search Committee for the position.

The Superintendent shall send his/her recommendation(s) to the Board at least five calendar days prior to a regular or special Board meeting in which the Board will accept or reject said recommendations. This meeting shall be held no later than one calendar month after receiving the Superintendent's selection(s). If the Board should reject all of the Superintendent's nominations, this procedure shall be repeated.

#### Alternative Procedure

Upon request of the Superintendent, the Board may vote to fully authorize the Superintendent and his/her staff to recruit and hire for a specified open position. This process may include up to two Board members, if included in said authorization.

Legal Reference: Connecticut General Statutes

10-151(b) Employment of teachers. Definitions. Tenure, etc. (as amended by P.A. 12-116, An Act Concerning Education Reform)

Policy adopted: July 30, 2015

NEWTOWN PUBLIC SCHOOLS  
Newtown, Connecticut



## **Personnel – Certified/Non-Certified**

### **Substitute Teachers**

The Superintendent shall, within budgetary provisions, make every effort to provide substitute teachers during the absence of the regular teacher. Insofar as possible, the substitute teacher shall continue the academic work of the class as planned. Teachers shall have plans prepared for use when they are absent. The substitute teacher must be qualified to implement the lesson plan and accomplish the goals set by the classroom teacher.

Suitable programs for hiring, training, assigning, orienting and evaluating the work of substitute teachers shall be provided by the District.

Rates of compensation for substitute teachers will be set by the Board of Education.

~~Substitute teachers will not participate in the health and welfare plans or other fringe benefits of the school system.~~

Retired teachers may be employed as substitute teachers without jeopardizing their retirement salary within the limits as prescribed by law.

Legal Reference: Connecticut General Statutes

10-183v Reemployment of teachers.

10-145a Certificates of qualification for teachers.

Policy adopted:

## Personnel – Certified/Non-Certified

### Substitute Teachers

#### Definitions

1. A **daily substitute teacher** is a person who has earned a Bachelor's Degree, is fully qualified to instruct in our schools and who is employed for short periods of time in the absence of the regular teacher. The Commissioner of Education may waive requirement for a Bachelor's Degree for good cause upon the request of the Superintendent of Schools.
2. A **long-term substitute teacher** is a person who substitute teaches in the same assignment for the same teacher for a period of 30 days or more.
3. A **building substitute teacher** is a person who substitute teaches wherever needed in the same school building each day according to the school calendar established annually by the Board of Education. A teaching certification is preferred but not required.

#### Payment

1. **Daily substitute teacher** – the daily substitute teacher shall be paid at the daily substitute per diem rate established by the Board of Education.
2. **Long-term substitute teacher** – the long-term substitute teacher shall be paid at the daily substitute per diem rate established by the Board of Education for the first 30 days of the assignment. Beginning with the 31<sup>st</sup> day of the continuous service, the per diem rate of pay will increase to the certified teacher salary of bachelor's step 1 as established in the current Newtown Federation of Teachers contract. The Superintendent may alter this payment schedule under certain circumstances.
3. **Building substitute teacher** – the building substitute teacher shall be paid at the building substitute per diem rate established by the Board of Education.

#### Procedure for Employment/Selection

1. All candidates for substitute teaching positions will be submit a complete application and will be interviewed by a District building administrator.
2. The Board shall only hire applicants for substitute teaching positions who comply with the reference and background checks as detailed in Board Policies P 4112.5/P 4212.5. The Board shall determine which such persons are employable as substitute teachers and maintain a list of such persons. Only those substitute teachers on the list shall fill available substitute assignments.

## **Personnel – Certified/Non-Certified**

### **Substitute Teachers**

3. Approved substitutes shall remain on such list as long as she/he is continuously employed by the Board as a substitute teacher, provided the Board does not have any knowledge of a reason that such person should be removed from the list. There is reasonable assurance of continued employment from one school year to the next unless the substitute teacher communicates in writing that they are no longer interested in accepting substitute teaching assignments.
4. The administration will ensure that all substitute teachers are trained in school rules and policies. It will be the responsibility of the Principal or his/her designee to assign a substitute to fill any vacancy by the temporary absence of a regular staff member.
5. Only substitute teachers who are fully certified teachers will be assigned to classes whose regular teachers are on long-term leaves of absence of 40 days or more unless an appropriate extension of the 40-day assignment has been granted by the Commissioner of Education.
6. Principals will attempt to maintain as much continuity as possible by engaging only one substitute for the full period of absence and will notify parents of all long-term substitutes in a timely fashion.
7. Retired teachers may be employed as substitute teachers without jeopardizing their retirement salary within the limits as prescribed by law.

## SUBSTITUTE TEACHERS

The Superintendent, or his/her designee, should make every effort to provide qualified substitute teachers who are certified either as a substitute or regular teacher. Prior to the initial placement on the substitute teacher roll, the candidate shall be required to file written references and participate in a personal interview.

Adopted 10/10/95

Leave Provisions for Per Diem Substitutes

Per diem substitute teachers, regardless of the duration of a particular assignment, will not be entitled to sick leave or any other type of leave. No pay shall be awarded for any day absent.

Long-Term Substitute Teachers

A substitute teacher may be employed by the Superintendent, subject to approval by the Board of Education, during the school year for the regular teacher whose absence will extend beyond thirty (30) days for extenuating reasons. The substitute's appointment, however, may not extend beyond the current school year. The long-term substitute will be employed at the appropriate step on the current salary schedule commensurate with training and experience.

Long-Term Leave Provisions

Long-term substitute teachers will be entitled to sick leave awarded at the rate of one-and- one-half days per month, credited on the first working day of each month. Such leave may be accumulated month by month for the duration of continued employment in the position for which the substitute was hired. Such leave accumulation shall revert to zero upon completion of the substitute teaching assignment and may not be applied toward other assignments or to regular teaching service.

No other types of leaves shall be available to substitute teachers, except leave without pay.

Adopted 2/9/71

Updated 1/25/77, 10/10/95

**Board of Education  
Newtown, Connecticut**

Minutes of the Board of Education meeting held on November 15, 2022, at 7:00 p.m. in the Council Chambers, 3 Primrose Street.

D. Zukowski, Chair (virtually)	C. Melillo
J. Vouros, Vice Chair	A. Uberti
D. Ramsey, Secretary	T. Vadas
D. Cruson	4 Staff
J. Kuzma	1 Public
J. Larkin	
A. Plante	
K. Kunzweiler (absent)	
D. Godino	

Ms. Zukowski called the meeting to order at 7:01 p.m.

Ms. Zukowski asked Mr. Vouros to run the meeting because she was unable to attend the meeting in person.

Item 1 – Pledge of Allegiance

Item 2 – Consent Agenda

MOTION: Mrs. Kuzma moved that the Board of Education approve the consent agenda which includes the donations to Reed Intermediate School, the NHS Band, Chorus and Orchestra Field Trip to Boston, and the correspondence report. Mr. Ramsey seconded.

Motion passes unanimously.

Item 3 – Public Participation

Item 4 – Reports

Chair Report: Ms. Zukowski will share her chair report at the next Board of Education meeting.

Superintendent's Report:

Mr. Melillo reported that all of the schools celebrated Veteran's Day on Friday, November 11<sup>th</sup>. He attended a Veteran's breakfast at Newtown Middle School followed by a parade at Sandy Hook School and celebration ceremony at Newtown High School. Mr. Melillo believes having the students in school teaches them about appreciation for our Veterans. He provided an update on mandated reading programs that are required by State Legislation. There are currently six programs that are approved by the State of Connecticut. We plan to bring recommendations to the Board by early December. On November 7<sup>th</sup> the Strategic Planning group met and discussed the SWOT analysis which stands for "strengths, weaknesses, opportunities and threats". The group also shared their hopes and dreams for Newtown Public Schools. The next meeting will be on November 21<sup>st</sup>. He also sent a letter to Newtown Middle School parents regarding student walkers. The intent for the letter was to open communication between the parents and students. He also wanted the parents to be aware of the reports he was receiving from the public.

Committee Reports:

Mrs. Larkin reported on the CFF/CIP subcommittee meeting. The subcommittee discussed the Hawley HVAC project status and Mr. Gerbert provided the committee with a detailed outline of the expenses to date. The project remains to be on time and on budget with no major deviations from the schedule. Additionally, the committee made a motion to add to the agenda for a follow up conversation regarding the playground at Middle Gate Elementary School. The subcommittee will continue the conversation after the first of the year. Mrs. Larkin reported that

Mrs. Vadas provided the subcommittee with an update on the financial report. There are no significant emergency repairs to report on the building and maintenance side.

Mr. Ramsey reported on the Curriculum & Instruction subcommittee meeting. The subcommittee met on November 9<sup>th</sup>. Staci Stamm and Shawn Mullen presented the Greenery 1 & 2 curriculum. They will be presenting to the Board tonight for the first read. Mrs. Uberti provided an update on the status of the State Department of Education's K-3 reading mandate. Presentations for the five approved programs have been scheduled and will be concluded this week. A sixth program has been added and will be scheduled as soon as possible. Mrs. Uberti, along with Mrs. DiBartolo and the ELA Specialists will be reviewing the programs to determine which might be a fit for our district.

Mr. Ramsey reported on the Communications subcommittee where they discussed the recent newsletter. Unfortunately, they were unable to go over the analytics because it was sent out as a PDF. They also reviewed editing procedures to ensure future editions will go out on time.

Mr. Cruson reported on the Policy subcommittee which met November 9<sup>th</sup>. In addition to reviewing the policies for first read tonight, the subcommittee had further discussion on the consultant's policy. They decided it was not appropriate for the 4000 series and will be considering a potential policy in the 6000 series which is the "Instruction" series. The next group of policies that the subcommittee is currently working on is the technology/personnel policies. Mrs. D'Eramo and Mr. Colclough are working with the policy subcommittee on editing those policies.

#### Student Report:

Mr. Godino reported that Ms. Kunzweiler was unable to attend the meeting because dress rehearsal for the fall drama "Almost Maine", running Thursday, November 17 through Sunday, November 20. He reported that the fall sports season comes to a close as we reach the midpoint of November. Newtown High School students are very excited that The Newtown Nighthawks Express re-opened for the first time since 2020. On Veteran's Day, the staff of NHS and members of the Hawks Honors Association hosted a lunch for Veterans followed by an assembly at which the band and choir performed. Last week was GSA Solidarity Week which offers an opportunity for students with a variety of identities to share their support for one another. NHS students also attended the 2022 Homecoming Dance.

#### Financial Report:

Mrs. Vadas presented the financial report.

MOTION: Mrs. Kuzma moved that the Board of Education approve the financial report and transfers for the month of October 31, 2022. Mrs. Larkin seconded. Motion passes unanimously.

#### Item 5 – Presentations

Staci Stamm and Department Chair, Eric Holst-Grubbe, presented the curriculum for Greenery 1 & 2. Ms. Stamm wrote this curriculum with Shawn Mullens, who was unable to attend the meeting. This class is offered in the fall and spring and can act as an elective credit or a science credit.

Mrs. Larkin asked which grades this class was available to.

Ms. Stamm answered that it is an elective open to grades 9 through 12. It provides an opportunity to have every type of student in the same room at the same time.

Mrs. Larkin asked if all five units were used in the same course.



Ms. Stamm said that depending on which time of the year they are taking the course, all but five units are discussed in the semester. It is a half-year class so students get two chances to take this course.

Mrs. Larkin can understand why students would want to take it every year.

Ms. Stamm believes that there are some students that do take it every year.

Mrs. Plante commented that she thinks this class is very cool.

Mrs. Kuzma asked what the average class size was.

Ms. Stamm answered that they currently have five sections and due to space in the greenhouse, they are capped at 14 students per section which turns out to be around 140 students per year.

Mr. Ramsey visited this class with Shawn Mullen and, after talking with students, said it was gratifying to go into the classroom and see that the curriculum was being implemented the same way it looked on paper.

Ms. Zukowski commented that she believes it is an excellent course and hope to learn something from the students.

Mr. Vouros encouraged everyone to go to visit.

Mr. Melillo said that he loved going to visit this course. Connecting this course to the food pantry and culinary program gave students a purpose. It is rare to find a course where students are so engaged that they are coming in on their own time to work in the garden or work on their sales.

#### Fine Arts Update:

Director of Fine Arts, Michele Hiscavich, presented some updates and accomplishments in the Fine Arts Department. She started her presentation by stating that her program is focused on "Creative Futures" and setting up a future for their students within the fine arts.

Ms. Zukowski asked how often the students go to a visual arts class during the week or six day cycle.

Ms. Hiscavich answered that at the elementary schools, the students meet once every six days. At Reed, the students meet twice every six days. At Newtown Middle School, the students meet twice every seven days for art and they meet twice a week for band, music and orchestra but there are no lessons. Lastly, at Newtown High School, the students have their music and art classes every day but are dropped twice out of the eight day rotation.

Mrs. Kuzma asked if there was a decline in interest in arts during COVID and if so, what was being done to regain interest.

Ms. Hiscavich said that they are doing things to regain interest in the students. They have gone to Reed to showcase the NMS/NHS band and choir. She also plans to create programs to help recruit elementary students in the future. Older students talking to younger students can be a powerful tool as well.

Mrs. Kuzma asked which department took the biggest decline.

Ms. Hiscavich said that music did.

Mr. Vouros thanked Ms. Hiscavich for her passion and love for the Fine Arts.

Mr. Melillo said he had the pleasure to attend many of the events and see the students in action. They have done a wonderful job and it is another instance that shows how dedicated students are coming back on their own time to practice and work on their craft. This can be a career path and colleges value music/fine arts. Mr. Melillo thanked Ms. Hiscavich for her leadership.

Item 6 - Old Business

Second Read of Policies:

MOTION: Mrs. Kuzma moved that the Board of Education approve Policies 4118.231 and 4218.231 Alcohol, Tobacco, and Drug-Free Workplace. Mrs. Plante seconded. Motion passes unanimously.

MOTION: Mrs. Kuzma moved that the Board of Education approve to rescind Policy 4-111 Student Teachers. Mrs. Plante seconded. Motion passes unanimously.

MOTION: Mrs. Kuzma moved that the Board of Education approve to rescind Policy 4-702 Drug Free Workplace. Mr. Ramsey seconded. Motion passes unanimously.

Item 7 – New Business

First Read of Policies:

Mr. Cruson explained that Policy 4111/4211 – Recruitment and Selection is an existing policy but the subcommittee is recommending some adjustments to better designate that the Superintendent is the one to do the recruiting and hiring for non-administrative certified and non-certified staff.

Mr. Cruson explained that Policy 2151 – Hiring School Administrators is also an existing policy. The edits are to clarify the practice of hiring administrators and the Board's role in doing so.

Mr. Cruson reported that Policy 4121 – Substitute Teachers was edited with the help of Newtown's Director of HR, Suzanne D'Eramo. The subcommittee removed language that would restrict substitutes from possibly receiving health insurance in the future.

Mr. Cruson reported that the subcommittee is recommending rescinding Policy 4-501 – Substitute Teachers and Policy 4-501.1 – Leave Provisions for Per Diem Substitutes.

MOTION: Mrs. Kuzma moved that the Board of Education approve the minutes of November 1, 2022. Mrs. Larkin seconded. Motion passes unanimously.

Item 8 – Public Participation

MOTION: Mr. Plante moved to adjourn. Mrs. Larkin seconded. Motion passes unanimously.

Item 9 – Adjournment

The meeting adjourned at 8:21 p.m.

Respectfully submitted:

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Donald Ramsey  
Secretary