



## Thursday, February 2, 2023 AGENDA

Regular Business Meeting – 7:00 PM  
SAU 106 Boardroom

Christopher K. Kellan, Superintendent  
Brian Boyle, Chair  
Kristin Savage, Vice Chair

1. 7:00 PM Call to Order – Chair
2. Roll Call – Clerk
3. Pledge of Allegiance
4. Approval of Minutes
5. Delegates and Individuals
6. Student Representative
7. Current Business
  - a. 7:05 PM Superintendent’s Evaluation – INFORMATIONAL
  - b. 7:10 PM Preschool & Pre-K Enrollment – INFORMATIONAL
  - c. 7:15 PM First Read: Forensic Science Evening Division Course & Curriculum - ACTION
  - d. 7:20 PM Voter’s Guide – INFORMATIONAL
  - e. 7:25 PM Block Scheduling - INFORMATIONAL
8. 7:30 PM Administrator’s Report
9. 7:35 PM Personnel Report
10. 7:40 PM Committee Reports/Reports of the School Board
11. Correspondence Folder
12. Vendor and Payroll Registers
13. 7:45 PM Other Business
14. Nonpublic Session
15. Future Dates

| DATE        | TIME    | LOCATION              | TYPE OF MEETING        |
|-------------|---------|-----------------------|------------------------|
| February 9  | 7:00 PM | PAC                   | Deliberative Session I |
| February 16 | 7:00 PM | SAU Boardroom         | Regular Business       |
| March 9     | 7:00 PM | SAU Boardroom         | Regular Business       |
| March 14    |         | Town Voting Locations | Voting Session II      |



**1-3. Open Meeting**

**4. Approval of Minutes** (2 sets: January 26<sup>th</sup> regular business meeting minutes and January 26<sup>th</sup> nonpublic meeting minutes)

**5. Delegates and Individuals**

**6. Student Representative** (Matthew LaBelle to present)

**7. Current Business**

**a. Superintendent's Evaluation**

Superintendent Kellan to present on his accomplishments as Superintendent. School Board should finalize the timeline of the Superintendent's Evaluation process.

**b. Preschool & Pre-K Enrollment**

Review the SY 2022-23 enrollment numbers for preschool and pre-k.

**c. First Read: Forensic Science Evening Division Course & Curriculum**

Motion to act on the first read of the curriculum documents for the evening division course: Forensic Science.

**d. Voter's Guide**

Review the voter's guide which will be distributed to all residences of the District's four towns.

**e. Block Scheduling**

Review and discuss the provided information regarding Block Scheduling.

**8. Administrators' Reports**

Mr. Krieger and Mr. Kellan to present.

**9. Personnel Report** - none

**10. Committee Reports/Reports of the School Board**

**11. Correspondence** – All correspondence is now forwarded to board members as it comes in.

**12. Vendor and Payroll Registers** – please be sure to review and sign electronically vendor and payroll registers.

**13. Other Business** – Board members to provide agenda items for future meeting consideration.

**14. Nonpublic Session** – If needed.

**15. Future Dates** – As indicated.

# **DRAFT – NOT APPROVED**

Note: When feasible, TRSB meetings are videotaped. These meeting minutes reflect only a basic summary of the meeting topics, discussion, and action. The Vimeo recording of this meeting can be viewed at: <https://vimeo.com/trsd>  
Materials presented at the board meeting may be viewed at: [School Board Meeting Agenda Materials](#)

## **Timberlane Regional School Board Meeting Minutes**

**Regular Board Meeting  
January 26, 2023  
7:00 PM**

**Superintendent's Office  
30 Greenough Road  
Plaistow, NH**

### **Call to Order**

#### **Board Members Present**

Brian Boyle, Sheila Lowes, Kim McCormick, Shauna Manthorn, Katie Knutsen, Michael Boucher, Mark Sherwood    Excused absence: Kristin Savage, Kim Farah

#### **Seated at the Board Table**

Christopher Kellan, Superintendent of Schools  
Justin Krieger, Assistant Superintendent

#### **Administrators Present**

Mark Pedersen, Director of Secondary Curriculum  
Dr. Neal Campbell, TRHS Asst. Principal Alternative Programs  
Sandra Allaire, Executive Director of Curriculum Assessment, and Learning  
Lucy Canotas, Director of Elementary Education

### **APPROVAL OF MINUTES**

**MOTION: Mrs. Lowes motioned to approve the January 5, 2023 public minutes as written. Seconded by Mrs. Manthorn    Motioned passed: 6-0-1 (Mrs. McCormick abstained)**

**MOTION: Mr. Boucher motioned to approve the January 9, 2023 special meeting minutes as written. Seconded by Mrs. Knutsen    Motion passed: 5-0-2 (Mrs. Lowes, Mrs. McCormick abstained)**

**MOTION: Mrs. Lowes motioned to approve the sealed non public minutes of January 5, 2023 as written. Seconded by Mrs. Manthorn    Motion passed: 6-0-1 (Mrs. McCormick abstained)**

# DRAFT – NOT APPROVED

**DELEGATES AND INDIVIDUALS** – none present

**STUDENT REPRESENTATIVE** – not present

## CURRENT BUSINESS

a. ELO Goals Update

Dr. Campbell presented the ELO goals to the School Board. He provided a brief explanation of what the Extended Learning Opportunities program is and the idea behind it. This is a credit bearing class. There are 14 students actively participating in ELO and he invited a few of those students to come before the Board to talk about what they are working on. Each student described the career they are interested in pursuing and the opportunities this program offers them. Two of the students are seniors who are pursuing Equine Studies and Occupational Therapy and a Freshman who is pursuing Technical Theatre. Dr. Campbell explained this program allows students to see if this is something they want to pursue after high school. This provides them with an opportunity to explore different avenues and try different things to help guide their future decisions.

Dr. Campbell answered questions from the Board and he explained ELO is not just limited to Juniors and Seniors. He doesn't want to close the door on anyone but wants to make sure it is the right fit. One of the prerequisites to participating in ELO is the student must have transportation to go where they need to get to. This work can also be done over the summer.

Dr. Campbell described his goals and elaborated on each one. The first goal is Recruitment and he wants to have up to 100 students involved in ELO. Other goals include community networking, building an informal website, having a real life application process, and to create a CTE pathway for Work Based Learning (WBL). Dr. Campbell would also like to use an Evening Division to create more opportunities by taking classes in the evening.

b. Policies

**Mrs. Lowes motioned to accept Policy ACAB for a First and Second Read. Seconded by Mr. Sherwood Motioned passed: 7-0-0**

**Mrs. Lowes motioned to accept Policy EFAA School Lunch Program as the First Read. Seconded by Mrs. Manthorn. Motion passed: 7-0-0**

Mr. Boucher questioned whether Policy EFAA should be so specific to mention the District utilizes the services of Myschoolbucks.com. If they change that in the future, they would have to

## **DRAFT – NOT APPROVED**

change the policy. He suggested changing the wording to “online service”. Mr. Kriegar will make sure they can leave the wording as is in time for the Second Read.

### c. Preschool Tuition Rate

Mrs. Canotas referred to her Executive Summary provided to the Board. In the fall 2021, they began a feasibility study of their Early Childhood Education programs. Out of that study, they are proposing to increase the preschool program for 3 year olds. Currently, they offer two half days per week and they are looking to increase it to four half days per week which would increase the tuition from \$1,100 per year to \$2,200 per year. The rate will remain the same. They propose running it on Mondays and Tuesdays and Thursdays and Fridays with a morning and afternoon session offered. There is no public bussing for non-identified 3 year olds. Mrs. Canotas added that increasing the amount of days per week to four days, would also benefit parents who cannot commit to the two day a week program.

There was a brief discussion and questions from the Board with Mrs. Canotas.

**Mrs. Lowes motioned to approve the proposal to increase preschool tuition. Seconded by Mrs. Manthorn Motioned passed: 7-0-0**

Mrs. Canotas announced registration will be available online beginning February 1, 2023.

### d. Youth and Government Overnight Field Trip

Mr. Pedersen presented this proposal to the Board and referred to the Executive Summary summarizing the purpose of the YMCA Youth & Government Program. This is a proposed overnight field trip which requires approval from the Board. This trip has been run successfully for years. Mrs. Lowes asked if this is replacing the Harvard trip. Mr. Pedersen said it is not replacing it.

**Mr. Sherwood motioned to accept and approve the Youth and Government Model Legislature Program at the Concord State House in Concord NH on April 14-15, 2023. Seconded by Mrs. McCormick Motion passed: 7-0-0**

### e. Discipline Update

Mr. Kriegar provided Secondary Discipline Data which was requested by the Board regarding the data specific to suspensions issued in grades 6-12. The table is broken down by month, category and the number of suspension days determined by school administration. He explained the difference between the middle school and high school is the middle school is attempting to conduct some form of in-school suspension. He added this is not ideal, however, roughly half of

## **DRAFT – NOT APPROVED**

the suspensions issued are in school suspensions with continued support for the student throughout the day. The high school suspensions are all out of school.

Mrs. Lowes requested to discuss this further in non-public session.

f. Superintendent Evaluation

Mrs. Lowes requested to have the evaluation form set up to be completed electronically and then sent to the Board members. She would recommend having the evaluations back before the last meeting in February and believes it should be completed by the current Board members with a decision made by the first meeting in March while the current board members are still on the Board.

**Mrs. Lowes motioned to have the form set up so it can be electronically filled out and sent to the Board members. The Board members will send it back with all their thoughts and ideas. The Board will need to return their evaluations no later than February 15, 2023 and we should have an item on the agenda for February 16, 2023 to start deliberations in regards to the evaluation. Seconded by Mrs. Knutsen Motion passed: 7-0-0**

g. ESSER Funds Update

Mrs. Allaire provided an update on the ESSER funds based on a request she received from the Board. She referred to the Executive Summary provided. The purpose of the ESSER III funds is to help sustain the safe and effective operations of our schools and to address the impact of the COVID 19 pandemic on student learning. This grant goes to the end of September 2024 and we are at the mid-point of this grant. She spoke on the requirements of the grant. In August 2021, a survey went out to help provide the District with input on how they should prioritize the expenditure of the ESSER III funds. The two top rated categories from the stakeholders surveyed were to hire additional staff trained to help accelerate learning and reduce learning gaps for identified students. Also, to provide repair and/or improve facilities including improved indoor air quality and help with crowding and capacity concerns. The District received a total ESSER III allocation of \$1,223,191.28 and the District has allocated 80% of the grant to capital improvements and the remaining 20% was allocated to address learning loss. They have encountered difficulty in hiring and staffing. They have several open positions right now. They have allocated just under \$142,000 for those positions and have filled one. She described the variety of options they can do with the remaining allocation of \$115,000. Another survey is being planned which is limited to areas within the learning loss category as defined by the federal government.

Mrs. Allaire also provided an Executive Summary of the district-wide measures to address learning loss. She explained they have actively worked to address learning loss through a variety of measures outside of this funding stream and provided details to some of those measures.

## **DRAFT – NOT APPROVED**

After further discussion and questions from the Board, they thanked Mrs. Allaire for the information she provided.

### h. Public Hearing Update

Mr. Sherwood spoke about the meeting with the Budget Committee that was held at 6:00 pm this evening. He mentioned there were some changes made but nothing substantially was changed.

Mr. Boyle informed the public the difference between the proposed operating budget and default budget is \$1.8 million and if the operating budget fails, they would be taking away \$1.8 million from the buildings. That is the major difference and it is very important the budget passes.

### i. Warrants

Mr. Boyle read aloud each Warrant Article and the Board voted individually on each warrant article on whether or not to recommend. Warrant Articles 2 through 14 and Warrant Article 16 are Recommended by the School Board 7-0-0. Warrant Article 15 Fund Balance Retention is Recommended by the School Board by a vote of 6-1-0. Mrs. Lowes opposed Article 15.

### j. Voting Postcard and Voter's Guide

The Board reviewed the draft of the postcard and voter's guide. Mr. Kellan explained both will be mailed to all the voters in all the towns. The Board members offered feedback and recommended edits to the voter's guide before it is mailed. The cost for the mailings is \$5,000.

## **ADMINISTRATORS' REPORT**

Mr. Kriegar said the SLT has gone through the process of refining their hiring flow chart. They are looking at job descriptions across the District and there are more than 100 of those. With regards to partnerships, the William James College has reached out and will be potentially sending interns at the outset of next school year. He welcomed an intern to Sandown Central who will be working 60 hours in a PK setting and will take us to the end of March. A Student Youth Leadership conference is scheduled in March.

Mr. Kellan attended an induction ceremony and luncheon for Max Orio from Atkinson who graduated last year. He was inducted as an Eagle Scout with Troup 9 in Atkinson. Mr. Kellan attended the All State Chamber Ensemble on January 7<sup>th</sup>. He attended PTA meetings and provided information about the proposed budget. The Deliberative Session is scheduled on January 9<sup>th</sup> and encouraged all community members to participate.

## **PERSONNEL REPORT – no report**

# **DRAFT – NOT APPROVED**

## **COMMITTEE REPORTS**

Mr. Boucher - Curriculum Assessment meeting was held earlier this week and will be coming forth with an agenda item.

Mrs. Knutsen – There is an upcoming Personnel Committee meeting scheduled for February 7<sup>th</sup>.

Mrs. Manthorn – The Wellness Committee met and had great discussion and activities across the District. The Policy Committee will meet next week.

Mr. Boyle – The Plaistow YMCA will be hosting the 5<sup>th</sup> Annual Education Celebration on Wednesday, March 22<sup>nd</sup> at 5:00 PM at the Plaistow YMCA.

Mrs. Lowes – no report

Mr. Sherwood – The Policy Committee will meet next week.

Mrs. McCormick – no report

## **CORRESPONDENCE**

No correspondence

## **VENDOR AND PAYROLL REGISTERS**

No Vendor and Payroll registers

## **OTHER BUSINESS**

Mr. Sherwood asked the Board for feedback to making a friendly request to the TTA Union to meet in person instead of Zoom at future negotiations. He believes this would help improve communication and allow a smoother process in negotiations. The Board agrees, but believes this question should be made to the next Board to reaffirm.

**MOTION: Mrs. Lowes motioned to enter non-public under 91-A:3, Paragraph II (c) Matters which, if discussed in public, would likely affect adversely the reputation of any person, other than a member of the public body itself, unless such person requests an open meeting. This exemption shall extend to any application for assistance or tax abatement or waiver of a fee, fine, or other levy, if based on inability to pay or poverty of the applicant. Seconded by Mrs. Knutsen. Motion passed 7-0-0**

## **DRAFT – NOT APPROVED**

The Board was polled:

Boucher – yes Knutsen – yes Manthorn – yes McCormick – yes Lowes – yes Boyle – yes  
Sherwood - yes

The motion carried 7-0-0 to enter non-public at 9:17 PM. The Board will not be coming back into public session.

Respectfully submitted,

Linda Mahoney  
Recording Secretary

**Approved by the School Board on**



February 2nd, 2023

## EXECUTIVE SUMMARY

### TRSD Early Childhood Program Enrollment as of January 26th, 2023

Current enrollment numbers for Preschool and Pre-Kindergarten programs in the 2022-2023 school year are as follows:

| School                                 | Grade            | AM   | PM   |
|--|------------------|------|------|
| The Learning Center at Sandown Central | Preschool T/Th   | 9/10 | 4    |
| The Learning Center at Sandown Central | Preschool W/F    | 14/9 | 14/9 |
| The Learning Center at Sandown Central | Pre-Kindergarten | 10/9 | 8    |
| Atkinson Academy                       | Pre-Kindergarten | 13   | 8    |
| Danville School                        | Pre-Kindergarten | 17   |      |
| Pollard School                         | Pre-Kindergarten | 15   | 12   |

Respectfully submitted,  
Lucy Canotas, Director of Elementary Education



## EXECUTIVE SUMMARY

February 2, 2023

In alignment with Policy IGA Curriculum Development and Adoption, TRHS administration and the Curriculum and Assessment committee is asking the school board to review and adopt the curriculum for a new class to be offered at TRHS. This course, Forensic Science, will first be offered in the evening division in the spring of 2023, and eventually may be added to the program of studies to be offered during the day. As seen in the attached documents, the course description, competencies and stage 1 curriculum documents align with the district's Understanding By Design (UBD) curriculum model. In the past, the fast track process has only required the course description, competencies, and the first unit. In this packet you will find all of that, plus the other two units completed. At this time, the science department does not anticipate a budgetary impact as there is not a required textbook and the supplies and equipment for the lab experiences are already in stock, or can be covered by the current TRHS budget.

The course and associated documents were recently approved at the Curriculum and Assessment Committee and moved forward for a first and second read at the school board. Ideally, the administration would like this course to be approved through the board process by mid-March to ensure that it can run in evening division for those students that need one more science course for graduation in June.

Respectfully submitted,

Mark Pedersen  
Director of Secondary Education  
Timberlane Regional School District

## **Forensics** 0.5 credit Grades 11-12

Forensic Science is an elective science course designed for students interested in the science used to solve crimes. The many different types of evidence found at crime scenes will be studied and students will learn methods to collect them safely. Modern technology will be examined to discover how it has made forensic work easier and more reliable over the years. Through hands-on experiments and crime-scene analysis, students will look to use what has been learned to solve “real” crimes. This course will cover many different aspects of science including chemistry, physics, and biotechnology.

Prerequisite(s): Physical Science, Biology

### **Competencies**

**Patterns:** Students will demonstrate the ability to observe and describe patterns in natural and human designed phenomena and use those patterns to support claims about the observed or predicted relationships among phenomena.

**Cause and Effect:** Students will demonstrate the ability to investigate, explain, and evaluate potential causal relationships by using evidence to support claims and predictions about the mechanisms that drive those relationships.

**Systems and System Models:** Students will demonstrate the ability to investigate and analyze a natural or human designed system in terms of its boundaries, inputs, outputs, interactions, and behaviors and use this information to develop a system model that can be used to understand and empirically evaluate the accuracy of models in terms of representing the underlying system.

**Stability and Change of Systems:** Students will demonstrate the ability to investigate and analyze static and dynamic conditions of natural and human designed systems in order to explain and predict changes over time.

Student will demonstrate the ability to work collaboratively and individually to generate testable questions or define problems, plan and conduct investigations using a variety of research methods in a various settings, analyze and interpret data, reason with evidence to construct explanations in light of existing theory and previous research, and effectively communicate the research processes and conclusions.

Students will demonstrate the ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials.

Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences.

Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and discourse style.

### **UNITS**

Unit 1: History and Crime Scenes

Unit 2: Biotic based evidence: Fingerprinting, Blood, DNA, Hair, Toxicology, Anthropology, Autopsies and Entomology

Unit 3: Abiotic Evidence: Ballistics, Impression, Documents, Fibers

**Budgetary impact:** None

# Forensics : Unit 1 History and Crime Scenes

| Stage 1 Desired Results   |   |   |
|---|---|---|
| <p>ESTABLISHED GOALS:</p> <p><u>Competencies:</u></p> <ul style="list-style-type: none"> <li>Students will demonstrate the ability to observe and describe patterns in natural and human designed phenomena and use those patterns to support claims about the observed or predicted relationships among phenomena.</li> <li>Students will demonstrate the ability to investigate, explain, and evaluate potential causal relationships by using evidence to support claims and predictions about the mechanisms that drive those relationships.</li> <li>Students will demonstrate the ability to investigate and analyze a natural or human designed system in terms of its boundaries, inputs, outputs, interactions, and behaviors and use this information to develop a system model that can be used to understand and empirically evaluate the accuracy of models in terms of representing the underlying system.</li> <li>Students will demonstrate the ability to investigate and analyze static and dynamic conditions of natural and human designed systems in order to explain and predict changes over time.</li> <li>Student will demonstrate the ability to work collaboratively and individually to generate testable questions or define problems, plan and conduct investigations using a variety of research methods in a various settings, analyze and interpret data, reason with evidence to construct explanations in light of existing theory and previous research, and effectively communicate the research processes and conclusions.</li> <li>Students will demonstrate ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials.</li> <li>Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences.</li> <li>Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and discourse style.</li> </ul> <p><u>Content Standards:</u></p> <ul style="list-style-type: none"> <li>HS-LS1-1 Construct an explanation based on valid and reliable evidence obtained from a variety of sources (including student's</li> </ul> | <b>Transfer</b>   |   |
|   | <p><i>Students will be able to independently use their learning to recognize the importance of properly following a process and documentation of actions.</i></p>   |   |
|   | <b>Meaning</b>  |   |
|   | <p><b>ENDURING UNDERSTANDINGS</b><br/><i>Students will understand that...</i></p> <ul style="list-style-type: none"> <li>the principles of scientific method are required in ALL forensic science analysis.</li> <li>Locard's exchange principle is critical in forensic science.</li> <li>Physical evidence is crucial in linking victims and suspects to a crime scene.</li> <li>Physical evidence must be collected in a specific and strategic manner, as well as systematically documented, in order to ensure that no tampering or contamination occurs.</li> <li>the importance of following procedures and documentation in evidence collection.</li> </ul> | <p><b>ESSENTIAL QUESTIONS</b></p> <ul style="list-style-type: none"> <li>Does evidence lead to a suspect or does a suspect lead to evidence?</li> <li>Is it really possible to "leave no trace"?</li> </ul> |
| <b>Acquisition</b>  |   |   |
| <p><i>Students will know...</i></p> <ul style="list-style-type: none"> <li>that there are basic as well as specialized services offered by forensic laboratories.</li> <li>that there are major disciplines within forensic science.</li> <li>that forensic science has changed over time.</li> <li>that there are fundamental aspects of crime scene investigations.</li> <li>that forensic science follows the principles of scientific method and the need for collecting control samples at every crime scene.</li> </ul>   | <p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> <li>-Constructing and revising explanations</li> <li>-Developing models</li> <li>-Applying scientific principles and evidence to provide an explanation</li> <li>-refining the design of a system</li> <li>-using mathematical representation</li> <li>-planning and conducting investigations</li> <li>-communicating scientific and technical information</li> <li>-Quantifying results</li> <li>-performing basic statistical analysis</li> </ul>  |   |

|   |   |   |
|---|---|---|
| <p>own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.</p> <ul style="list-style-type: none"> <li>● HS-LS1-2 Develop and use a model based on evidence to illustrate the relationship between systems or between components of a system</li> <li>● HS-LS2-1 Use mathematical and/or computational representation of phenomena or design solutions to support explanations</li> <li>● HS-LS2-2 Use mathematical representations of phenomena or design solutions to support and revise explanations.</li> <li>● HS-LS1-3 Plan and conduct an investigation individually and collaboratively to produce data to service as a basis for evidence, an in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on precision of the data (e.g., number of trials, cost, risk, times), and refine the design accordingly.</li> <li>● HS-LS2-5 develop a model based on evidence to illustrate the relationship between systems or components of a system</li> <li>● HS-LS2-6 Evaluate the claims, evidence and reasoning behind currently accepted explanations of solutions to determine the merits of arguments.</li> <li>● HS-LS2-8 Evaluate the evidence behind currently accepted explanations or solutions to determine the merits of arguments</li> <li>● HS-LS3-1 Ask questions that arise form examining models or a theory to clarify relationships.</li> <li>● HS-LS3-2 make and defend a claim based on evidence about the natural world that reflected scientific knowledge, and student generated evidence.</li> <li>● HS-LS3-3 Apply concepts of statistics and probability to scientific and engineering questions and problems, using digital tools when feasible</li> <li>● HS-LS4-6 Create or revise a simulation of a phenomenon, designed device , process, or system.</li> <li>● HS-PS1-7 Scientific knowledge assumes an order and consistency in natural systems science assumes the universe is a vast single system in which basic laws are consistent.</li> <li>● HS-ESS1-3 Communicate scientific ideas (e.g. about phenomena and/or the process of development and the design and performance of a proposed process or system) in multiple formats (including orally, graphically, textually, and mathematically).</li> </ul> | <p><i><u>vocabulary:</u> forensic science, Locard's principle, suspect, victim, quadrant, anthropology, pathology, chain of custody, Frye Standard,</i></p> |   |
| <p><b>Content Area Literacy Standards</b></p>   |   | <p><b>21<sup>st</sup> Century Skills</b></p>  |
| <ul style="list-style-type: none"> <li>● RST.11-12.1 CITE SPECIFIC TEXTUAL EVIDENCE TO SUPPORT ANALYSIS OF SCIENCE AND TECHNICAL TEXTS, ATTENDING TO IMPORTANT DISTINCTIONS THE AUTHOR MAKES AND TO ANY GAPS OR INCONSISTENCIES IN THE ACCOUNT.</li> <li>● RST.11-12.2 DETERMINE THE CENTRAL IDEAS OR CONCLUSIONS OF A TEXT; SUMMARIZE COMPLEX CONCEPTS, PROCESSES, OR INFORMATION PRESENTED IN A TEXT BY PARAPHRASING THEM IN SIMPLER BUT STILL ACCURATE TERMS.</li> </ul>   |   | <ul style="list-style-type: none"> <li>● Use systems thinking</li> <li>● solve problems</li> <li>●</li> </ul> |

- **RST 11-12.3** FOLLOW PRECISELY A COMPLEX MULTISTEP PROCEDURE WHEN CARRYING OUT EXPERIMENTS, TAKING MEASUREMENTS, OR PERFORMING TECHNICAL TASKS; ANALYZE THE SPECIFIC RESULTS BASED ON EXPLANATIONS IN THE TEXT.
- **RST.11-12.4** DETERMINE THE MEANING OF SYMBOLS, KEY TERMS, AND OTHER DOMAIN-SPECIFIC WORDS AND PHRASES AS THEY ARE USED IN A SPECIFIC SCIENTIFIC OR TECHNICAL CONTEXT RELEVANT TO GRADES **11-12** TEXT AND TOPICS
- **RST.11-12.7** INTEGRATE AND EVALUATE MULTIPLE SOURCES OF INFORMATION PRESENTED IN DIVERSE FORMATS AND MEDIA (E.G. QUANTITATIVE DATA, VIDEO, MULTIMEDIA) IN ORDER TO ADDRESS A QUESTION OR SOLVE A PROBLEM.
- **RST11-12.8** EVALUATE THE HYPOTHESIS, DATA, ANALYSIS AND CONCLUSIONS IN A SCIENCE OR TECHNICAL TEXT, VERIFYING THE DATA WHEN POSSIBLE AND CORROBORATING OR CHALLENGING CONCLUSIONS WITH OTHER SOURCES OF INFORMATION
- **RST.11-12.9** SYNTHESIZE INFORMATION FROM A RANGE OF SOURCES (E.G. TEXTS, EXPERIMENT, SIMULATIONS) INTO A COHERENT UNDERSTANDING OF A PROCESS, PHENOMENON, OR CONCEPT, RESOLVING CONFLICTING INFORMATION WHEN POSSIBLE.
- **WHST 11-12.2** WRITE INFORMATIVE/ EXPLANATORY TEXTS INCLUDING THE NARRATION OF HISTORICAL EVENTS, SCIENTIFIC PROCEDURES/ EXPERIMENT, OR TECHNICAL PROCESSES.
- **WHST.11-12.7** CONDUCT SHORT AS WELL AS MORE SUSTAINED RESEARCH PROJECTS TO ANSWER A QUESTION (INCLUDING A SELF-GENERATED QUESTION) OR SOLVE A PROBLEM; NARROW OR BROADEN THE INQUIRY WHEN APPROPRIATE; SYNTHESIZE MULTIPLE SOURCES ON THE SUBJECT; DEMONSTRATING UNDERSTANDING OF THE SUBJECT UNDER INVESTIGATION
- **WHST.11-12.9** DRAW EVIDENCE FROM INFORMATIONAL TEXTS TO SUPPORT ANALYSIS, REFLECTION AND RESEARCH.
- **WHST.11-12.6** USE TECHNOLOGY, INCLUDING THE INTERNET, TO PRODUCE, PUBLISH, AND UPDATE INDIVIDUAL OR SHARED WRITING PRODUCTS IN RESPONSE TO ONGOING FEEDBACK, INCLUDING NEW ARGUMENTS OR INFORMATION.

## Stage 2 - Evidence

| <i>Evaluative Criteria</i> | <i>Assessment Evidence</i> |
|----------------------------|----------------------------|
|                            | PERFORMANCE TASK(S):       |
|                            | OTHER EVIDENCE:            |

## Stage 3 – Learning Plan

*Summary of Key Learning Events and Instruction*

| <i>Language Arts Integration</i>                               | <i>Mathematics Integration</i>  |
|--|---|
| <ul style="list-style-type: none"> <li>• 1.OA.1 Use</li> </ul> | <ul style="list-style-type: none"> <li>• HSN-Q.A.1 USE UNITS AS A WAY TO UNDERSTAND PROBLEMS AND TO GUIDE THE SOLUTION OF MULTI-STEP PROBLEMS; CHOOSE AND INTERPRET UNITS CONSISTENTLY IN FORMULAS; CHOOSE AND INTERPRET THE SCALE AND THE ORIGIN IN GRAPHS AND DATA DISPLAYS.</li> <li>• HSN-Q.A.2- DEFINE APPROPRIATE QUANTITIES FOR THE PURPOSE OF DESCRIPTIVE MODELING</li> <li>• HSN-Q.A.3 CHOOSE A LEVEL OF ACCURACY APPROPRIATE TO LIMITATIONS ON MEASUREMENT WHEN REPORTING QUANTITIES</li> <li>• MP.2 REASON ABSTRACTLY AND QUANTITATIVELY</li> <li>• MP.4 MODEL WITH MATHEMATICS</li> </ul> |
| <i>Technology Integration</i>                                  | <i>District Materials</i>   |
| <ul style="list-style-type: none"> <li>• 1.OA.1 Use</li> </ul> |   |

|  |  |
|--|--|
|  |  |
| <b><i>Science and Engineering Practices</i></b>  |  |
| S&EP 1. Asking questions and defining problems<br>S&EP 2. Developing and using models<br>S&EP 3. Planning and carrying out investigations<br>S&EP 4. Analyzing and interpreting data<br>S&EP 5. Using mathematics and computational thinking<br>S&EP 6. Constructing explanations (for science) and designing solutions (for engineering)<br>S&EP 7. Engaging in argument from evidence<br>S&EP 8. Obtaining, evaluating and communicating information |  |

# Forensics : Unit 2 Biotic based evidence (Fingerprints, blood, DNA, Hair, Toxicology, Anthropology, Autopsies)

| Stage 1 Desired Results  |   |  |
|--|---|--|
| <p>ESTABLISHED GOALS:</p> <p><u>Competencies:</u></p> <ul style="list-style-type: none"> <li>• <i>Students will demonstrate the ability to observe and describe patterns in natural and human designed phenomena and use those patterns to support claims about the observed or predicted relationships among phenomena.</i></li> <li>• <i>Students will demonstrate the ability to investigate, explain, and evaluate potential causal relationships by using evidence to support claims and predictions about the mechanisms that drive those relationships.</i></li> <li>• <i>Students will demonstrate the ability to investigate and analyze a natural or human designed system in terms of its boundaries, inputs, outputs, interactions, and behaviors and use this information to develop a system model that can be used to understand and empirically evaluate the accuracy of models in terms of representing the underlying system.</i></li> <li>• <i>Students will demonstrate the ability to investigate and analyze static and dynamic conditions of natural and human designed systems in order to explain and predict changes over time.</i></li> <li>• <i>Student will demonstrate the ability to work collaboratively and individually to generate testable questions or define problems, plan and conduct investigations using a variety of research methods in a various settings, analyze and interpret data, reason with evidence to construct explanations in light of existing theory and previous research, and effectively communicate the research processes and conclusions.</i></li> <li>• <i>Students will demonstrate ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials.</i></li> <li>• <i>Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences.</i></li> <li>• <i>Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and discourse style.</i></li> </ul> <p><u>Content Standards:</u></p> | <b>Transfer</b>   |  |
|  | <p><i>Students will be able to independently use their learning to use information to draw a conclusion.</i></p>  |  |
|  | <b>Meaning</b>  |  |
|  | <p>ENDURING UNDERSTANDINGS<br/><i>Students will understand that...</i></p> <ul style="list-style-type: none"> <li>• biotic based evidence will link suspects to a crime scene</li> <li>• many biotic factors are specific to the individual</li> <li>• information can be used to draw a reasonable conclusion even without direct knowledge.</li> <li>• attention to detail and adhering to logic is critical to be successful in many situations</li> </ul>   | <p>ESSENTIAL QUESTIONS</p> <ul style="list-style-type: none"> <li>• Is a person really who they say they are?</li> <li>• How can things be hidden in plain sight?</li> </ul>   |
|  | <b>Acquisition</b>  |  |
|  | <p><i>Students will know...</i></p> <ul style="list-style-type: none"> <li>• <i>that fingerprints are unique to individuals and can be used as evidence in arguing which individuals were present at a crime scene.</i></li> <li>• <i>that serology involves a broad scope of laboratory tests that use specific antigen and serum antibody reactions.</i></li> <li>• <i>that blood type is an inherited trait that is a permanent feature of a person's biological makeup.</i></li> <li>• <i>that DNA has specific structure and function and is unique to each individual.</i></li> <li>• <i>that there are DNA data bases to help solve crimes.</i></li> <li>• <i>that drug analysis and toxicology is important in forensic science.</i></li> </ul> | <p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> <li>-Constructing and revising explanations</li> <li>-Developing models</li> <li>-Applying scientific principles and evidence to provide an explanation</li> <li>-refining the design of a system</li> <li>-using mathematical representation</li> <li>-planning and conducting investigations</li> <li>-communicating scientific and technical information</li> <li>-Quantifying results</li> <li>-performing basic statistical analysis</li> </ul> |

|   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>● HS-LS1-1 Construct an explanation based on valid and reliable evidence obtained from a variety of sources (including student’s own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.</li> <li>● HS-LS1-3 Plan and conduct an investigation individually and collaboratively to produce data to service as a basis for evidence, an in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on precision of the data (e.g., number of trials, cost, risk, times), and refine the design accordingly.</li> <li>● HS-LS2-4 Use mathematical representations of phenomena or design solutions to support claims.</li> <li>● HS-LS2-6 Evaluate the claims, evidence and reasoning behind currently accepted explanations of solutions to determine the merits of arguments.</li> <li>● HS-LS2-8 Evaluate the evidence behind currently accepted explanations or solutions to determine the merits of arguments</li> <li>● HS-LS3-3 Apply concepts of statistics and probability to scientific and engineering questions and problems, using digital tools when feasible</li> <li>● HS-LS4-1 Communicate scientific information (e.g. about phenomena and/or the process of development and the design and performance of a proposed process of system) in multiple formats (including orally, graphically, textually, and mathematically).</li> </ul> | <ul style="list-style-type: none"> <li>● <i>blood alcohol content is based on human metabolism of alcohol</i></li> <li>● <i>that composition, development and structure of bones can be used to recognize the wealth of the individual.</i></li> <li>● <i>that an autopsy is performed if a death is suspicious or unexplained.</i></li> <li>● <i>that a forensic entomologist studies the development of insect larvae in a body to estimate the time of death.</i></li> <li>● <i>that determining time of death is important</i></li> <li>● <i>that environmental factors influence the time of death estimate.</i></li> <li>● <i>that human hairs contain DNA and can be used as evidence.</i></li> </ul> <p><i><u>vocabulary:</u> ridge characteristics, loop, swirl, whorls plastic and latent fingerprints, automated fingerprint identification system (AFIS), porous, blood: trace amount, puddles, spatters, smears, droplets, serology, ABo antigens and antibodies, agglutination, cohesion, adhesion, surface tension, gravity, directional propulsion, viscosity, nucleotide, short tandem repeat (STRs), polymerase chain reaction (PCR), CODIS, nuclear DNA, Mitochondrial DNA, gel electrophoresis, toxicology, metabolism, anthropology, autopsies, entomology, rigor, algor, livor mortis, corpse, medulla , cortex, cuticle,</i></p> |  |
| <p><b>Content Area Literacy Standards</b></p>   | <p><b>21<sup>st</sup> Century Skills</b></p>  |  |
| <ul style="list-style-type: none"> <li>● RST.11-12.1 CITE SPECIFIC TEXTUAL EVIDENCE TO SUPPORT ANALYSIS OF SCIENCE AND TECHNICAL TEXTS, ATTENDING TO IMPORTANT DISTINCTIONS THE AUTHOR MAKES AND TO ANY GAPS OR INCONSISTENCIES IN THE ACCOUNT.</li> <li>● RST.11-12.2 DETERMINE THE CENTRAL IDEAS OR CONCLUSIONS OF A TEXT; SUMMARIZE COMPLEX CONCEPTS, PROCESSES, OR INFORMATION PRESENTED IN A TEXT BY PARAPHRASING THEM IN SIMPLER BUT STILL ACCURATE TERMS.</li> <li>● RST 11-12.3 FOLLOW PRECISELY A COMPLEX MULTISTEP PROCEDURE WHEN CARRYING OUT EXPERIMENTS, TAKING MEASUREMENTS, OR PERFORMING TECHNICAL TASKS; ANALYZE THE SPECIFIC RESULTS BASED ON EXPLANATIONS IN THE TEXT.</li> <li>● RST.11-12.4 DETERMINE THE MEANING OF SYMBOLS, KEY TERMS, AND OTHER DOMAIN-SPECIFIC WORDS AND PHRASES AS THEY ARE USED IN A SPECIFIC SCIENTIFIC OR TECHNICAL CONTEXT RELEVANT TO GRADES 11-12 TEXT AND TOPICS</li> <li>● RST.11-12.7 INTEGRATE AND EVALUATE MULTIPLE SOURCES OF INFORMATION PRESENTED IN DIVERSE FORMATS AND MEDIA (E.G. QUANTITATIVE DATA, VIDEO, MULTIMEDIA) IN ORDER TO ADDRESS A QUESTION OR SOLVE A PROBLEM.</li> <li>● RST11-12.8 EVALUATE THE HYPOTHESIS, DATA, ANALYSIS AND CONCLUSIONS IN A SCIENCE OR TECHNICAL TEXT, VERIFYING THE DATA WHEN POSSIBLE AND CORROBORATING OR CHALLENGING CONCLUSIONS WITH OTHER SOURCES OF INFORMATION</li> </ul>  | <ul style="list-style-type: none"> <li>● <i>Use systems thinking</i></li> <li>● <i>solve problems</i></li> </ul>  |  |

● **RST.11-12.9** SYNTHESIZE INFORMATION FROM A RANGE OF SOURCES (E.G. TEXTS, EXPERIMENT, SIMULATIONS) INTO A COHERENT UNDERSTANDING OF A PROCESS, PHENOMENON, OR CONCEPT, RESOLVING CONFLICTING INFORMATION WHEN POSSIBLE.

- **WHST 11-12.2** WRITE INFORMATIVE/ EXPLANATORY TEXTS INCLUDING THE NARRATION OF HISTORICAL EVENTS, SCIENTIFIC PROCEDURES/ EXPERIMENT, OR TECHNICAL PROCESSES.
- **WHST.11-12.7** CONDUCT SHORT AS WELL AS MORE SUSTAINED RESEARCH PROJECTS TO ANSWER A QUESTION (INCLUDING A SELF-GENERATED QUESTION) OR SOLVE A PROBLEM; NARROW OR BROADEN THE INQUIRY WHEN APPROPRIATE; SYNTHESIZE MULTIPLE SOURCES ON THE SUBJECT; DEMONSTRATING UNDERSTANDING OF THE SUBJECT UNDER INVESTIGATION
- **WHST.11-12.9** DRAW EVIDENCE FROM INFORMATIONAL TEXTS TO SUPPORT ANALYSIS, REFLECTION AND RESEARCH.

## Stage 2 - Evidence

| <i>Evaluative Criteria</i> | <i>Assessment Evidence</i> |
|----------------------------|----------------------------|
|                            | PERFORMANCE TASK(S):       |
|                            | OTHER EVIDENCE:            |

## Stage 3 – Learning Plan

*Summary of Key Learning Events and Instruction*

| <i>Language Arts Integration</i>  | <i>Mathematics Integration</i>                                 |
|---|--|
| <ul style="list-style-type: none"> <li>• 1.OA.1 Use</li> </ul>                        | <ul style="list-style-type: none"> <li>• 1.OA.1 Use</li> </ul> |
| <i>Technology Integration</i>   | <i>District Materials</i>                                      |
| <ul style="list-style-type: none"> <li>• 1.OA.1 Use</li> </ul>                        |  |
| <i>Science and Engineering Practices</i>  |  |
| S&EP 1. Asking questions and defining problems<br>S&EP 2. Developing and using models |  |

|   |  |
|---|--|
| S&EP 3. Planning and carrying out investigations<br>S&EP 4. Analyzing and interpreting data<br>S&EP 5. Using mathematics and computational thinking<br>S&EP 6. Constructing explanations (for science) and designing solutions (for engineering)<br>S&EP 7. Engaging in argument from evidence<br>S&EP 8. Obtaining, evaluating and communicating information |  |
|---|--|

# Forensics : Unit 3 Abiotic evidence (Ballistics, Impression, Documents, Fibers)

| Stage 1 Desired Results  |  |   |
|--|--|---|
| <p>ESTABLISHED GOALS:</p> <p><u>Competencies:</u></p> <ul style="list-style-type: none"> <li>Students will demonstrate the ability to observe and describe patterns in natural and human designed phenomena and use those patterns to support claims about the observed or predicted relationships among phenomena.</li> <li>Students will demonstrate the ability to investigate, explain, and evaluate potential causal relationships by using evidence to support claims and predictions about the mechanisms that drive those relationships.</li> <li>Students will demonstrate the ability to investigate and analyze a natural or human designed system in terms of its boundaries, inputs, outputs, interactions, and behaviors and use this information to develop a system model that can be used to understand and empirically evaluate the accuracy of models in terms of representing the underlying system.</li> <li>Students will demonstrate the ability to investigate and analyze static and dynamic conditions of natural and human designed systems in order to explain and predict changes over time.</li> <li>Student will demonstrate the ability to work collaboratively and individually to generate testable questions or define problems, plan and conduct investigations using a variety of research methods in a various settings, analyze and interpret data, reason with evidence to construct explanations in light of existing theory and previous research, and effectively communicate the research processes and conclusions.</li> <li>Students will demonstrate ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials.</li> <li>Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences.</li> <li>Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and discourse style.</li> <li></li> </ul> <p><u>Content Standards:</u></p> <p>- HS-LS1-1 Construct an explanation based on valid and reliable evidence obtained from a variety of sources (including student's own</p> | <b>Transfer</b>  |   |
|  | <p><i>Students will be able to independently use their learning to <b>compare and contrast information to draw conclusions.</b></i></p>  |   |
|  | <b>Meaning</b>   |   |
|  | <p>ENDURING UNDERSTANDINGS</p> <p><i>Students will understand that...</i></p> <ul style="list-style-type: none"> <li>all objects have distinguishing physical characteristics that can be identified in an impression. These objects (tool marks, tire tracks, bite marks, shoe impressions and ballistics) can be identified by their impression through comparing key physical characteristics.</li> <li>attention to detail and adhering to logic is critical to be successful in many situations</li> </ul>                      | <p>ESSENTIAL QUESTIONS</p> <ul style="list-style-type: none"> <li>What is reality?</li> <li>How can things be hidden in plain sight?</li> </ul> |
|  | <b>Acquisition</b>   |   |
| <p><i>Students will know...</i></p> <ul style="list-style-type: none"> <li>that handwriting becomes personalized almost as soon as students begin learning it</li> <li>that questioned documents and other collected documents can be analyzed for handwriting comparisons to determine if the author of each is the same.</li> <li>that inks (printer, pen and photocopier) can be compared to determine if they share a common source.</li> <li>questioned documents may be analyzed for alterations, obliterations, erasures, or variations in pen inks.</li> <li>that there are anti-counterfeiting features on U.S. currency.</li> <li>that LD 50 is a method to classify how toxic a substance is.</li> <li>that fibers are either natural or synthetic</li> </ul>   | <p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> <li>-Constructing and revising explanations</li> <li>-Developing models</li> <li>-Applying scientific principles and evidence to provide an explanation</li> <li>-refining the design of a system</li> <li>-using mathematical representation</li> <li>-planning and conducting investigations</li> <li>-communicating scientific and technical information</li> <li>-Quantifying results</li> <li>-performing basic statistical analysis</li> </ul> |   |

|   |   |  |
|---|---|--|
| <p>investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future</p> <ul style="list-style-type: none"> <li>HS-LS1-2 Develop and use a model based on evidence to illustrate the relationship between systems or between components of a system <ul style="list-style-type: none"> <li>HS-LS1-3 Plan and conduct an investigation individually and collaboratively to produce data to service as a basis for evidence, an in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on precision of the data (e.g., number of trials, cost, risk, times), and refine the design accordingly.</li> <li>HS-LS2-7 Design, evaluate and refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and trade off consideration.</li> <li>HS-LS3-1 Ask questions that arise form examining models or a theory to clarify relationships.</li> <li>HS-LS3-2 make and defend a claim based on evidence about the natural world that reflected scientific knowledge, and student generated evidence.</li> <li>HS-LS4-1 Communicate scientific information (e.g. about phenomena and/or the process of development and the design and performance of a proposed process of system) in multiple formats (including orally, graphically, textually, and mathematically)..</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li><i>that structural variations and irregularities caused by scratches, nicks breaks and wear, allow a criminalist to relate a bullet to a gun.</i></li> <li><i>that structural variations and irregularities caused by scratches, nicks breaks and wear, allow a criminalist to relate a scratch or abrasion to a tool.</i></li> <li><i>that structural variations and irregularities caused by scratches, nicks breaks and wear, allow a criminalist to relate a tire track to a vehicle. .</i></li> </ul> <p><u>vocabulary:</u> <i>authentic, forged, counterfeit, LD 50, toxicology, textiles, circumstantial. latent, plastic and patent impressions, rifling, caliber, barrel, trajectory.</i></p> |  |
| <p><b>Content Area Literacy Standards</b></p>   |   | <p><b>21<sup>st</sup> Century Skills</b></p>   |
| <ul style="list-style-type: none"> <li>RST.11-12.1 CITE SPECIFIC TEXTUAL EVIDENCE TO SUPPORT ANALYSIS OF SCIENCE AND TECHNICAL TEXTS, ATTENDING TO IMPORTANT DISTINCTIONS THE AUTHOR MAKES AND TO ANY GAPS OR INCONSISTENCIES IN THE ACCOUNT.</li> <li>RST.11-12.2 DETERMINE THE CENTRAL IDEAS OR CONCLUSIONS OF A TEXT; SUMMARIZE COMPLEX CONCEPTS, PROCESSES, OR INFORMATION PRESENTED IN A TEXT BY PARAPHRASING THEM IN SIMPLER BUT STILL ACCURATE TERMS.</li> <li>RST 11-12.3 FOLLOW PRECISELY A COMPLEX MULTISTEP PROCEDURE WHEN CARRYING OUT EXPERIMENTS, TAKING MEASUREMENTS, OR PERFORMING TECHNICAL TASKS; ANALYZE THE SPECIFIC RESULTS BASED ON EXPLANATIONS IN THE TEXT.</li> <li>RST.11-12.4 DETERMINE THE MEANING OF SYMBOLS, KEY TERMS, AND OTHER DOMAIN-SPECIFIC WORDS AND PHRASES AS THEY ARE USED IN A SPECIFIC SCIENTIFIC OR TECHNICAL CONTEXT RELEVANT TO GRADES 11-12 TEXT AND TOPICS</li> <li>RST.11-12.7 INTEGRATE AND EVALUATE MULTIPLE SOURCES OF INFORMATION PRESENTED IN DIVERSE FORMATS AND MEDIA (E.G. QUANTITATIVE DATA, VIDEO, MULTIMEDIA) IN ORDER TO ADDRESS A QUESTION OR SOLVE A PROBLEM.</li> <li>RST11-12.8 EVALUATE THE HYPOTHESIS, DATA, ANALYSIS AND CONCLUSIONS IN A SCIENCE OR TECHNICAL TEXT, VERIFYING THE DATA WHEN POSSIBLE AND CORROBORATING OR CHALLENGING CONCLUSIONS WITH OTHER SOURCES OF INFORMATION</li> <li>RST.11-12.9 SYNTHESIZE INFORMATION FROM A RANGE OF SOURCES (E.G. TEXTS, EXPERIMENT, SIMULATIONS) INTO A COHERENT UNDERSTANDING OF A PROCESS, PHENOMENON, OR CONCEPT, RESOLVING CONFLICTING INFORMATION WHEN POSSIBLE.</li> </ul>     |   | <ul style="list-style-type: none"> <li><i>Use systems thinking</i></li> <li><i>solve problems</i></li> </ul> |

- **WHST 11-12.2** WRITE INFORMATIVE/ EXPLANATORY TEXTS INCLUDING THE NARRATION OF HISTORICAL EVENTS, SCIENTIFIC PROCEDURES/ EXPERIMENT, OR TECHNICAL PROCESSES.
- **WHST.11-12.7** CONDUCT SHORT AS WELL AS MORE SUSTAINED RESEARCH PROJECTS TO ANSWER A QUESTION (INCLUDING A SELF-GENERATED QUESTION) OR SOLVE A PROBLEM; NARROW OR BROADEN THE INQUIRY WHEN APPROPRIATE; SYNTHESIZE MULTIPLE SOURCES ON THE SUBJECT; DEMONSTRATING UNDERSTANDING OF THE SUBJECT UNDER INVESTIGATION
- **WHST.11-12.9** DRAW EVIDENCE FROM INFORMATIONAL TEXTS TO SUPPORT ANALYSIS, REFLECTION AND RESEARCH.

## Stage 2 - Evidence

| <i>Evaluative Criteria</i> | <i>Assessment Evidence</i> |
|----------------------------|----------------------------|
|                            | PERFORMANCE TASK(S):       |
|                            | OTHER EVIDENCE:            |

## Stage 3 – Learning Plan

*Summary of Key Learning Events and Instruction*

| <i>Language Arts Integration</i>  | <i>Mathematics Integration</i>                                 |
|---|--|
| <ul style="list-style-type: none"> <li>• 1.OA.1 Use</li> </ul>                        | <ul style="list-style-type: none"> <li>• 1.OA.1 Use</li> </ul> |
| <i>Technology Integration</i>   | <i>District Materials</i>                                      |
| <ul style="list-style-type: none"> <li>• 1.OA.1 Use</li> </ul>                        |  |
| <i>Science and Engineering Practices</i>  |  |
| S&EP 1. Asking questions and defining problems<br>S&EP 2. Developing and using models |  |

|   |  |
|---|--|
| S&EP 3. Planning and carrying out investigations<br>S&EP 4. Analyzing and interpreting data<br>S&EP 5. Using mathematics and computational thinking<br>S&EP 6. Constructing explanations (for science) and designing solutions (for engineering)<br>S&EP 7. Engaging in argument from evidence<br>S&EP 8. Obtaining, evaluating and communicating information |  |
|---|--|

## ARTICLE 3 SUMMARY

In October 2021, the TRSD was provided with a report outlining the need for overdue repairs and maintenance to our facilities totaling in excess of \$126,000,000. Entering into a lease purchase agreement of \$25,000,000 provides us with upfront capital to begin to address our deteriorating buildings in a more timely manner in an effort to extend the lives of our facilities. The lease functions similarly to an equity line of credit and the total repayment will be reduced by savings incurred through energy savings and rebates from the improvements.

## ARTICLES 4 THROUGH 11 SUMMARY

These articles focus on the Collective Bargaining Agreements between the Timberlane Regional School District and four out of the six staff unions. A vote in support of any of the Collective Bargaining Agreements will provide an increase in cost of living and salaries in an effort to better align with other school districts.

These contracts furnish a wage increase with the following changes:

### Timberlane Administrators' Union

3-year agreement: FY 2023-24 2024-25 2025-26  
\$459,400 \$137,501 \$135,523

### Timberlane Administrative Assistants/Secretaries and Skilled Maintenance Union

3-year agreement: FY 2023-24 2024-25 2025-26  
\$141,943 \$108,273 \$99,195

Continued from previous page...

### Timberlane Support Staff

3-year agreement: FY 2023-24 2024-25 2025-26  
\$459,669 \$307,786 \$293,841

### Timberlane Teachers' Association

1-year agreement: FY 2023-24  
\$404,485

## ARTICLES 12 THROUGH 16 SUMMARY

No amount to be raised by additional taxation.

**ARTICLE 12 - Capital Reserve Fund by Surplus**

**ARTICLE 13 - General Acceptance of Reports**

**ARTICLE 14 - Emergency Contingency Fund**

**ARTICLE 15 - Fund Balance Retention**

**ARTICLE 16 - Use of Capital Reserve Fund**



**Please note that the language of the warrant articles will be finalized at the Deliberative Session on February 9th.**



## 2023 VOTER GUIDE SCHOOL WARRANT ARTICLES

To the voters of Atkinson, Danville, Sandown and Plaistow,

This voter guide has been created to assist you in making informed decisions at the first session of the Annual School District Meeting (Deliberative) February 9, 2023 and the second session (Voting) on March 14, 2023. The information presented in this guide is to provide you with an understanding of the warrant articles.

All warrant articles and detailed summaries can be located on our website: [www.Timberlane.net](http://www.Timberlane.net)

Thank you for your participation!

**Timberlane Regional School District**

*All warrant articles and detailed summaries can be located on our website by scanning this code:*



SCAN ME

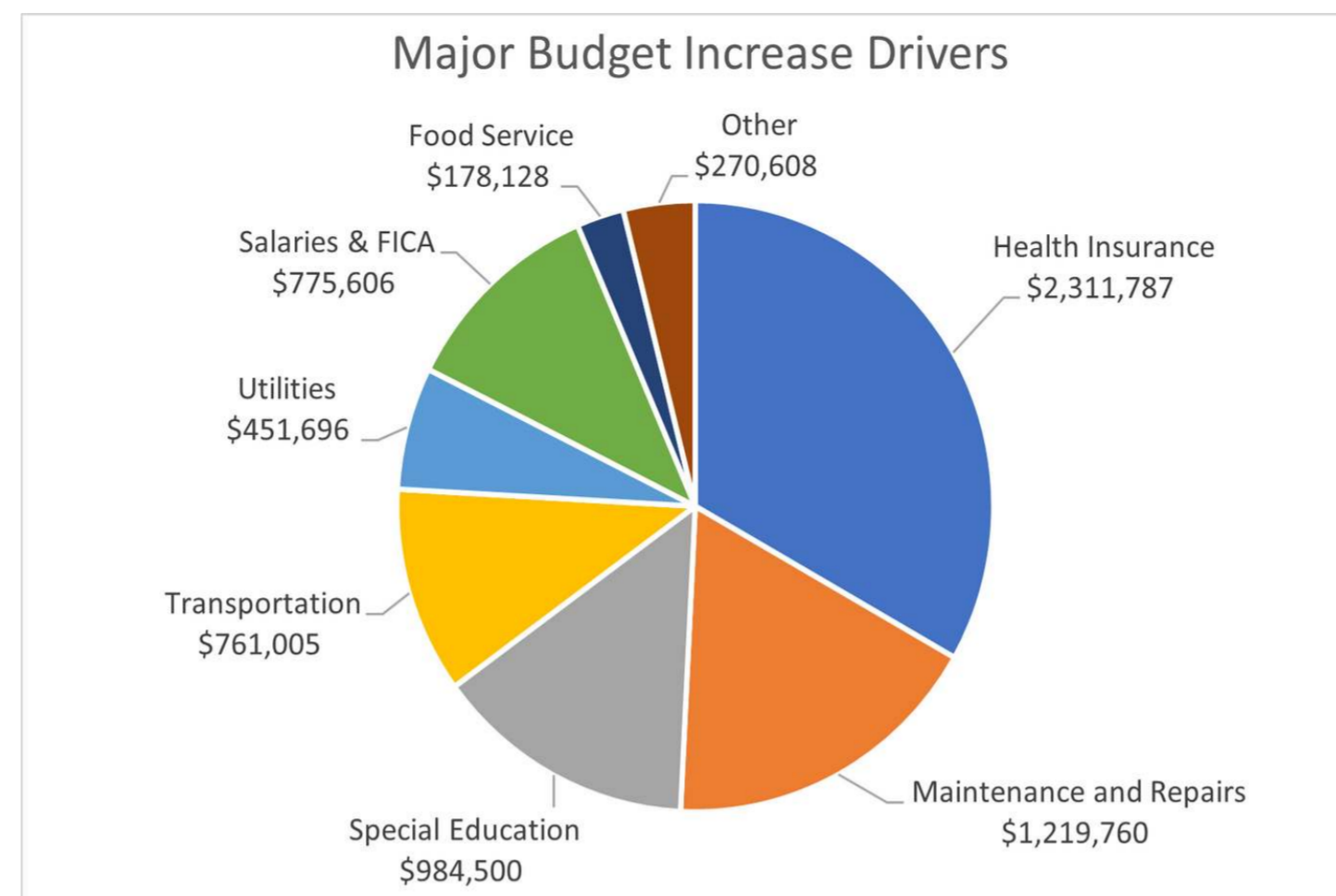
## ARTICLE 1 - ELECTION OF OFFICERS

## ARTICLE 2 - OPERATING BUDGET

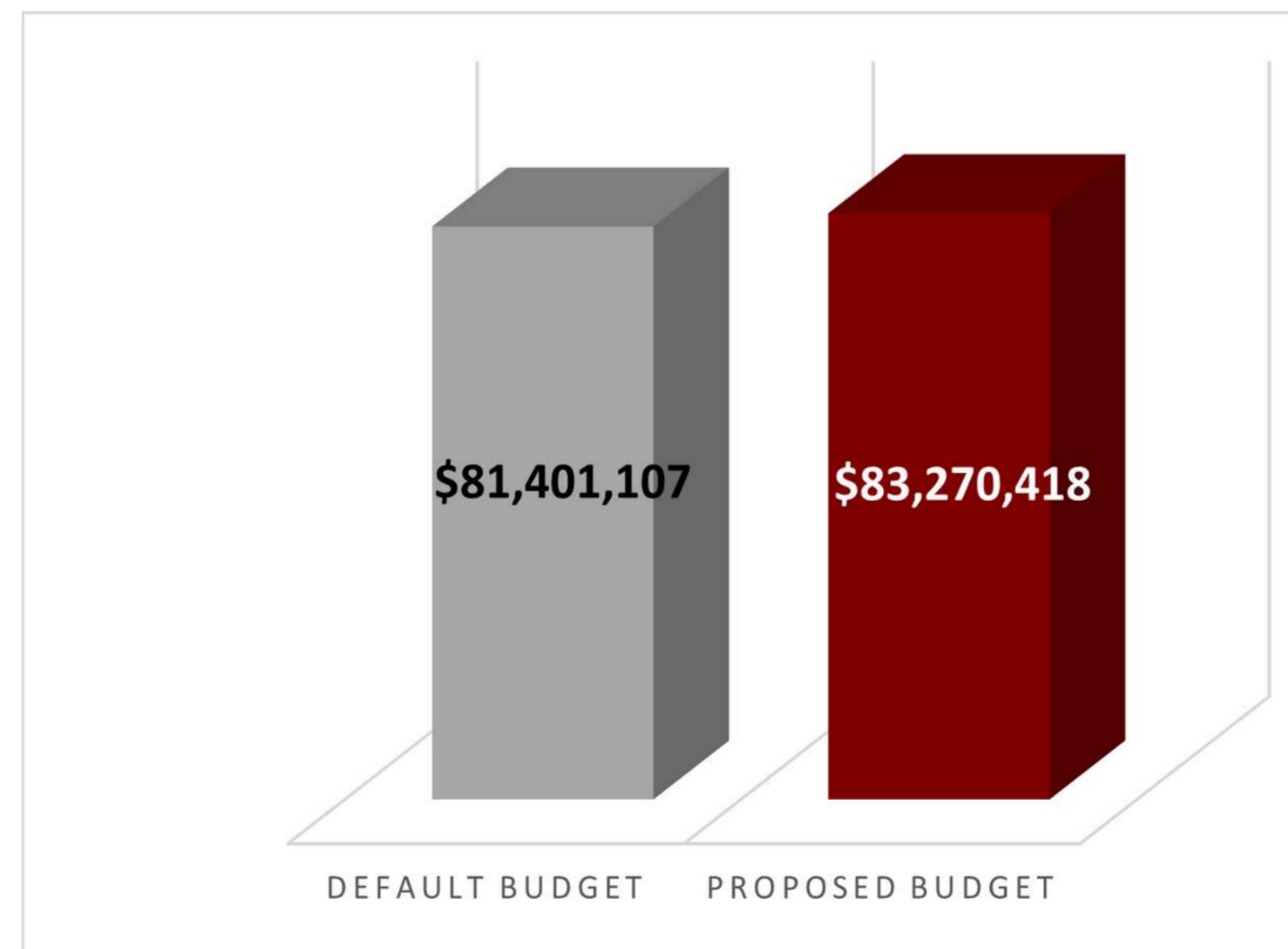
Shall the voters of the School District raise and appropriate as an operating budget, not including appropriations by special warrant articles and other appropriations voted separately, the amounts set forth on the budget posted with the warrant or as amended by vote of the first session, for the purposes set forth therein, totaling \$83,270,418.18? Should this article be defeated, the operating budget shall be \$81,401,106.67, which is the same as last year with certain adjustments required by previous action of the Timberlane Regional School District or by law; or the governing body may hold one special meeting, in accordance with RSA 40:13, X and XVI, to take up the issue of a revised operating budget only. Note: Warrant Article 2 (the operating budget) does not include appropriations proposed under any other warrant articles. (MAJORITY VOTE REQUIRED)

### ARTICLE 2 SUMMARY

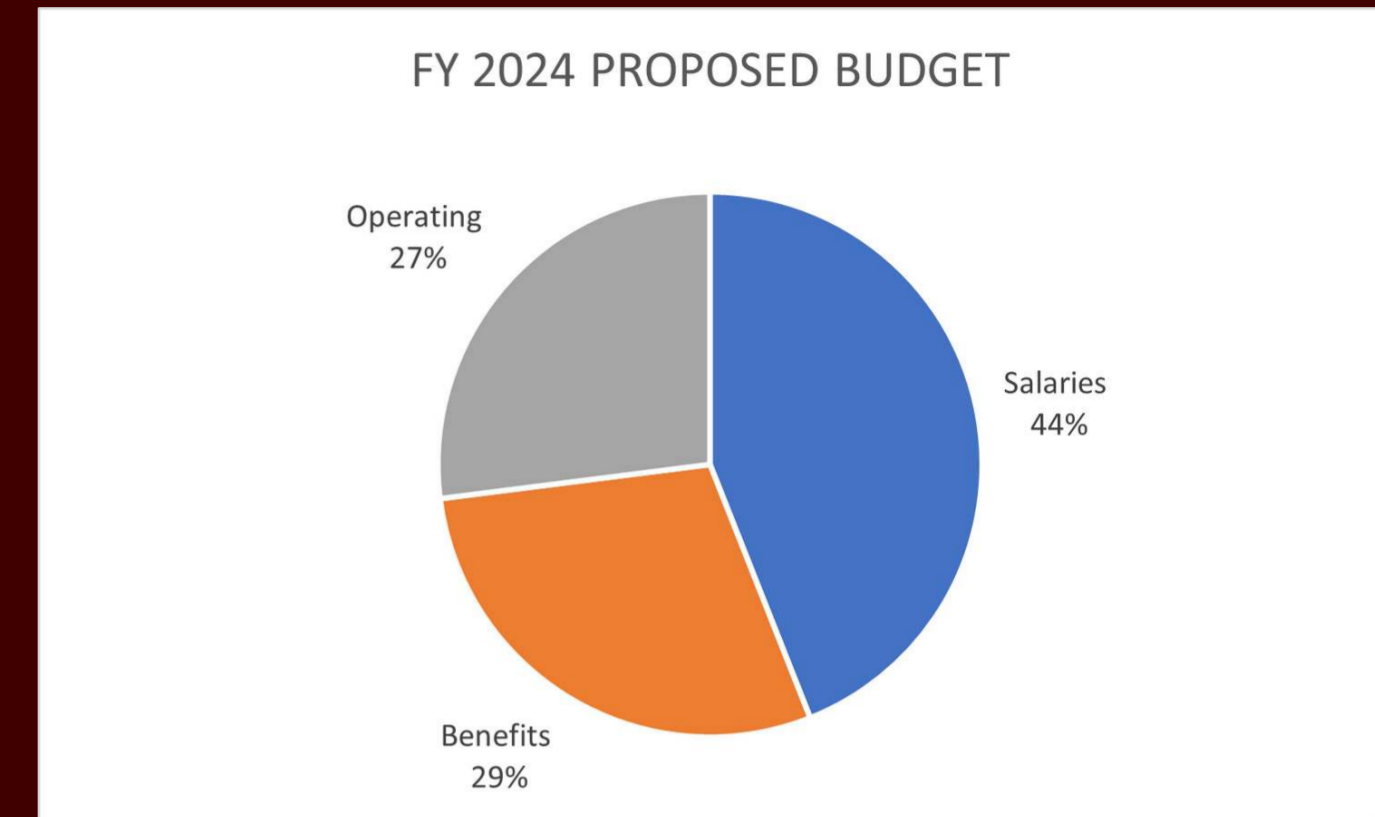
This article summarizes the forecasting of the required funding for the School District in FY 2024. The funding from the operating budget provides significant educational programming as well as perpetual maintenance of our facilities. There has been a nationwide crisis of increasing prices in commodities and those are depicted in the graph on the next page as the major drivers of the increase in the District's FY 2024 Proposed Budget.



The variance between the FY 2024 Proposed Budget and the FY 2024 Default Budget is \$1,869,312. The Proposed Budget is a 9.1% increase from the FY 2023 Voted Budget.



The Proposed Budget contains financial obligations and recommendations regarding the operating budget, capital improvements, and staff salaries and benefits.



## ARTICLE 3 - LEASE PURCHASE AGREEMENT

Shall the voters of the School District authorize the School Board to enter into a 20-year lease purchase agreement for the installation of up to \$25,243,000 of energy saving equipment and associated building and facility improvements at school district buildings in Atkinson, Danville, Plaistow and Sandown, and further to raise and appropriate \$2,061,000 for the first year's payment under the lease to be partially offset by energy savings and a resulting reduction in costs? This lease agreement will contain a non-appropriation clause. (MAJORITY VOTE REQUIRED)



## EXECUTIVE SUMMARY

### TRHS Extended Learning Block Schedule

#### Background

During the 2015-2016 school year, the Timberlane Regional Middle and High Schools formed a 6-12 committee to explore the potential shift to an extended learning block schedule in both schools. The committee included both teacher and administrative representation across multiple content areas and grade levels. Members of the committee reviewed research, visited schools that operated with an extended block schedule, and explored the potential benefits of this schedule. At the conclusion of this process, the committee made a recommendation to transition to an extended learning block schedule, on an A/B rotation, for the 2017-2018 school year.

On September 19, 2016, the district hosted a session of the Timberlane Parent Advisory Forum (TPAF) to both inform parents and community members of the committee's work and to seek input from members of the community relative to this proposal. The link to the Vimeo recording of this presentation may be found through this link: <https://livestream.com/trsd/tpaf/videos/136292435>.

#### Adoption and Preparation for Implementation

In October 2017, the Timberlane Regional School Board formally endorsed the block schedule instructional models for the Middle School, High School, and Performing Arts Center, beginning in the 2017-2018 school year. Discussion of the primary potential advantages of this new model included:

- increased instructional time and decreased passing time;
- increased instructional opportunities for project-based learning, performance assessment, and in-depth exploration of concepts and skills embedded in the district curriculum;
- improved opportunities for personalized learning and professional collaboration;
- opportunities for relationship and community-building in support of positive school climates

That fall, a Superintendent's Block Schedule Implementation Advisory Committee was formed. Through the course of that year, the committee worked to make recommendations to the Superintendent to ensure a seamless transition for the 2017-2018 school year. These recommendations included plans for professional development and a communications plan for parents, students, and staff.

Professional development opportunities in 2017 focused on instructional strategies for teaching in an extended block. The middle and high schools and the PAC also implemented multiple practice block scheduling days, to allow staff and students to prepare for the transition to this new schedule.

#### Implementation and Oversight

The extended block schedule was formally implemented in the fall of 2017. Beginning that September, the Curriculum and Assessment Committee voted to include "Block Scheduling Updates" as a standing



agenda item at the committee's monthly meetings. From 2017-2019, the committee received regular updates from both the middle and high schools that included both qualitative data, in the form of staff and student surveys, and quantitative data including, but not limited to attendance data, grades, walkthrough data, discipline referrals, and assessment data.

In May, 2019, given the ongoing and predominantly positive feedback and data connected to the implementation of the Extended Learning Block, the Curriculum and Assessment Committee voted unanimously to remove this agenda item from future meetings. The committee also agreed to address any potential updates to the Extended Learning Block as stand alone agenda items on a needs basis.

### **Changes to the Middle School Schedule in 2022-2023**

During the Winter of 2021-2022, TRMS explored various scheduling changes, including an elimination of 90-minute block periods every other day for core classes in Language Arts, Math, Science, and Social Studies. The middle school explored several versions of a new schedule and sought multiple rounds of feedback from staff, students, and the community. There were various reasons for this proposed schedule change that included:

- Numerous inequities in the block schedule connected to instructional time across core and Unified Arts (UA) classes. The shift to 45 minute core classes everyday helped to resolve those issues.
- Core teachers wanted more flexibility to arrange the team time to adapt to the lessons and activities. The MS core classes are all scheduled back to back, or in groups to allow teams to have more flexibility with blocks of time (90 minutes up to 3 hours).
- The new schedule allows for What I Need (WIN) periods that provide students with interventions and/or enrichment, in conjunction with their learning needs.
- Teachers were looking for more consistency in the team approach of the middle school design.

Please note that none of the drivers behind the TRMS schedule change to move away from the Extended Learning Block are issues or concerns at the high school level. At this time, there is not an equivalent need or request from students, staff, or the community to move HS classes back to 45 minute periods.

Respectfully submitted,

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