

## **Curriculum Committee Meeting**

Wednesday, December 12, 2018 8:15 AM

Central Office Conference Room, 24 School Road, Weston, CT 06883-1623

I. **Call to Order**

II. **Update on science curriculum renewal**

III. **WHS new course proposals for music**

IV. **Information on 2018 College Board AP District  
Honor Roll**

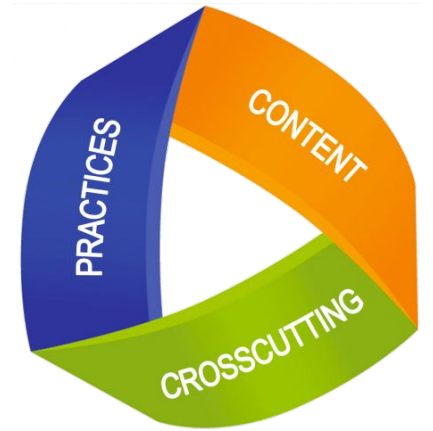
V. **Approval of November 2018 minutes**

VI. **Other curricular issues**

# Next Generation Science Standards

## Weston K-5 Implementation Update

December 12<sup>th</sup>, 2018



- Update on Implementation K-2 and 5
- Planning for Grades 3 and 4
- Cost Implications for Grades 3 and 4
- NGSS Assessment and IAB Update

# Weston NGSS Implementation Timeline K-5

Updated DRAFT



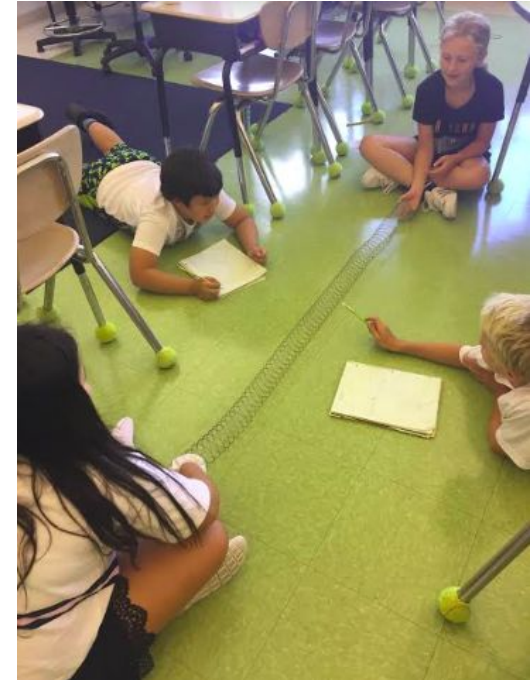
# K – 2

- Curriculum units complete in Atlas
- Progress report standards and rubrics complete for all new units
- Professional development has been ongoing.
- Science time has been increased in schedules.
  - Two 30 minute sessions a week in Kindergarten
  - Three sessions a week in grades 1 and 2, averaging 40 minutes.
- All classes have completed their first NGSS unit.



# Grade 5

- Progress report standards complete for all new units.
- Rubrics are being created with each unit.
- Curriculum will be written in Atlas Summer 2019
- Professional development has been ongoing.
- New teaming model has increased science time to approx. 60 minutes a day.
- All classes have completed their first NGSS unit and are on target to complete the five units planned.
- All classes have completed one IAB (Interim Assessment Block)



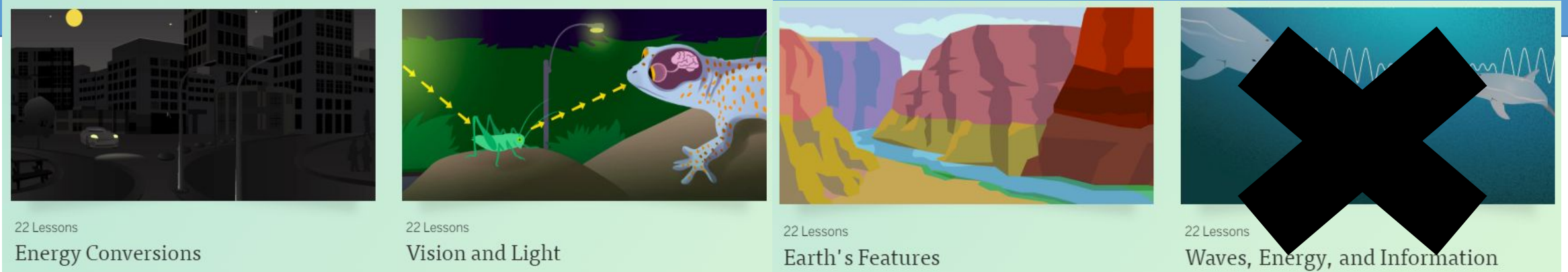
# Planning for Grades 3 and 4 Implementation

## *Questions and Issues to be Grappled with:*



- NGSS has **four** units per year for grades 3 – 5.
- How can we schedule time to adequately provide for new science expectations without negatively impacting the learning in other areas?
- Should we consider returning the teaming model for science to 4<sup>th</sup> grade? What would that look like?
- What adjustments should be made to ensure no significant topics are missed due to the transition?

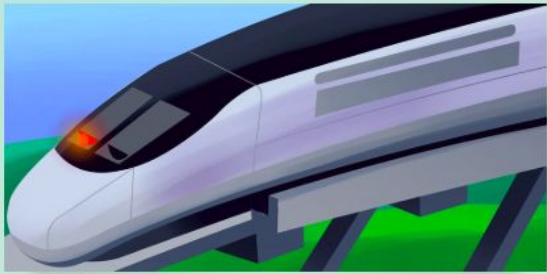
# Grade 4



5<sup>th</sup> Grade

- **Three remaining units. One for each trimester.**
- **These units need increased time compared to what is currently scheduled.**
- **Opportunities to consider include:**
  - **Integration of the geographic topics of social studies into the *Earth's Features* science unit.**
  - **Integration of social studies or science content into non-fiction language arts units.**
  - **Exploring the return to teaming in 4<sup>th</sup> grade.**

# Grade 3



22 Lessons  
Balancing Forces



22 Lessons  
Inheritance and Traits



22 Lessons  
Environments and Survival



22 Lessons  
Weather and Climate

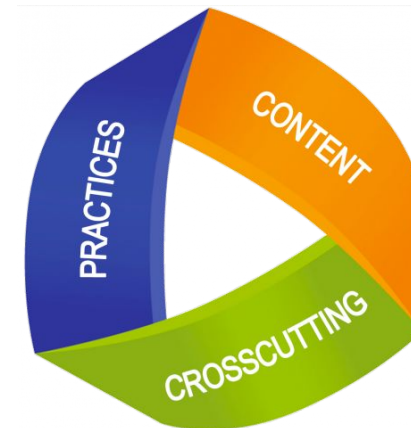
Combine and Compact

- Finding time needed with the increased challenge of four units
- Opportunities to consider include:
  - Integrating middle two units (Inheritance and Environments) into one unit
  - Use *Amplify* for *Balancing Forces* and *Weather and Climate*
  - Use the *Mystery Science* and *Weston* resources to combine and streamline content.

# Projected Materials Costs (Updated Draft)

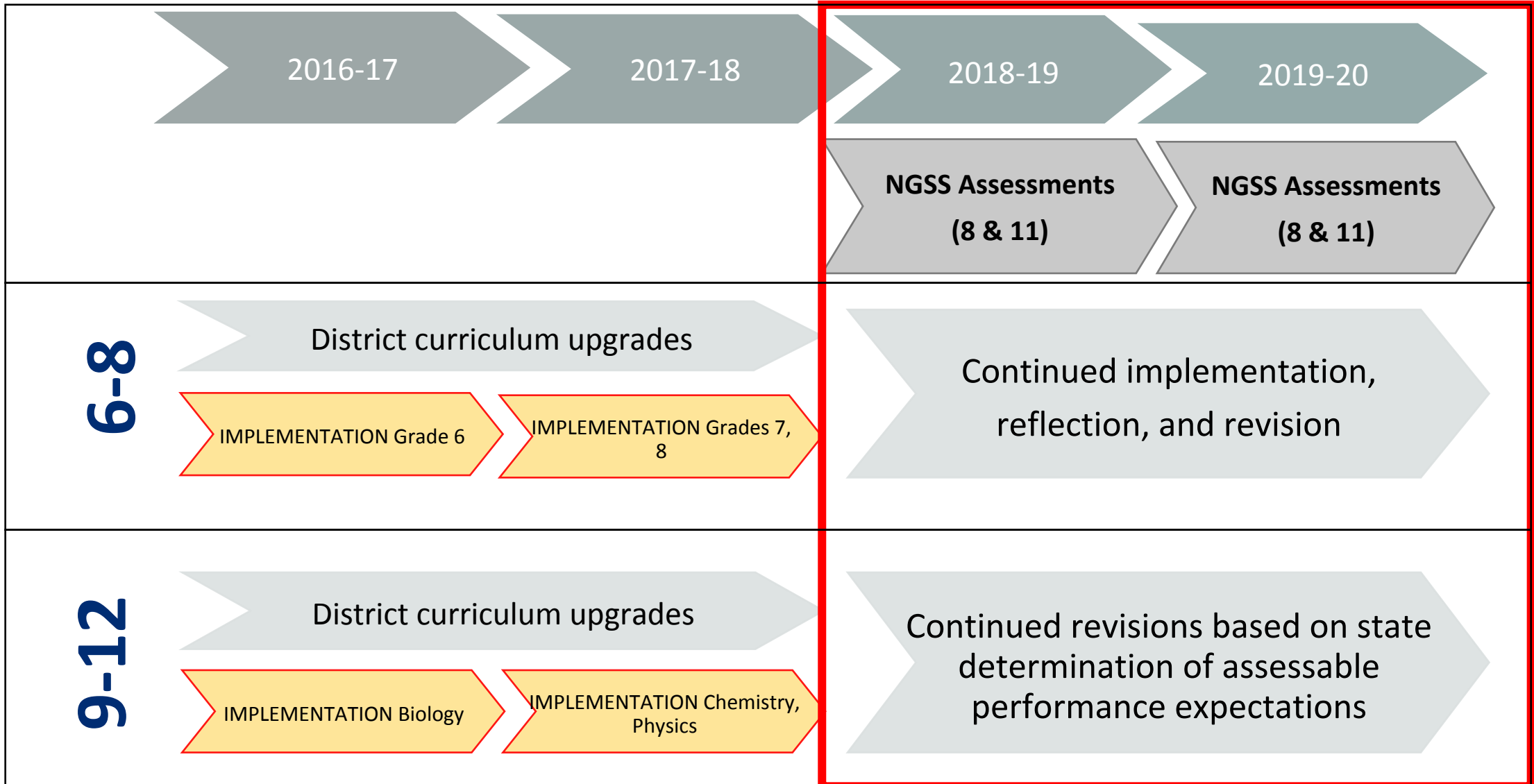
	2018 - 2019	2019 - 2020	Ongoing K-5
<b>K – 2, 5</b>	<b>\$48,164</b>	Consumable Materials Replenishment & Teacher License Renewal	Teacher license per unit \$25 K-2: 3 units 3-5: 4 units Approx. \$3,475
<b>3 - 4</b>	Consumable Materials Replenishment for Current units:	<b>\$54,000</b> Based on 3 Amplify units in Grade 3 and No teaming in Grade 4	Consumable Materials Replenishment: <ul style="list-style-type: none"> <li>• Projected below current costs</li> <li>• Net cost near neutral</li> </ul>

# Next Generation Science Standards Weston 6-12 Implementation Update



- Update on Curriculum Implementation and Revisions, as well as PD opportunities
- Update on Resources to Support 6-8 Science
- NGSS Assessment and IAB Update for 6-12

# Weston NGSS Implementation Timeline 6-12



# Grades 6-8

- Teachers continue to collaborate, implement, and revise curricular units that engage students in the 3 dimensions of the NGSS (*content, practices, crosscutting concepts*)
- Curriculum is supported by NSTA eBooks and Amplify units (*additional resources are continually being explored*)
- Professional Development has focused on effective implementation of NGSS performance expectations and practices, and creating assessments that engage the 3D nature of learning
- Interim assessment blocks have been explored by all teacher teams and dates to administer them have been planned based on when they coincide with curriculum topics.



19 Lessons  
Earth's Changing Climate



11 Lessons  
Geology on Mars

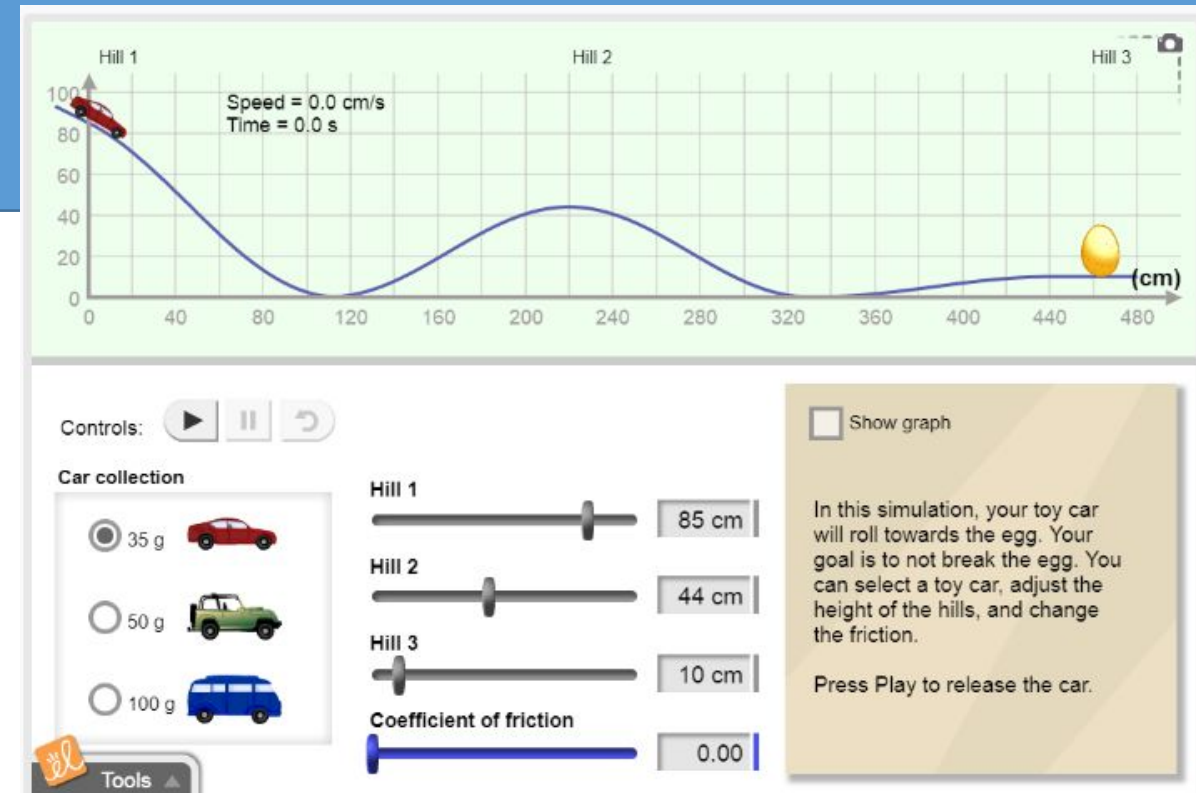


19 Lessons  
Force and Motion

# Grades 6-8

## Potential MS Resources:

- “Gizmos” – Online simulations with accompanying resources  
(*\$2,850./yr, or \$7,300./3 yrs*)  
*\*Price for entire 6-8 grades*
- Current & Additional Amplify Units  
(*Existing units: \$11,475./3 yrs*)  
*Potential additions: 8<sup>th</sup> grade unit on Inheritance*  
*Approximately \$1,000./yr*
- “Inspire Science” by McGraw Hill –  
Print/Digital books aligned to content  
(*price varies based on number/type of resource*)



# Grades 6-8

## Potential MS Resources (No Cost):

- *Disruptions in Ecosystems* - fully aligned NGSS unit for 6<sup>th</sup> grade Ecology Curriculum (funded by NSF)
- *Concord Consortium* - Website with activities, virtual labs, simulations, videos, analysis questions, and more
- *And many more resources available...*

## Disruptions in Ecosystems

*Ecosystem Interactions, Energy, & Dynamics*



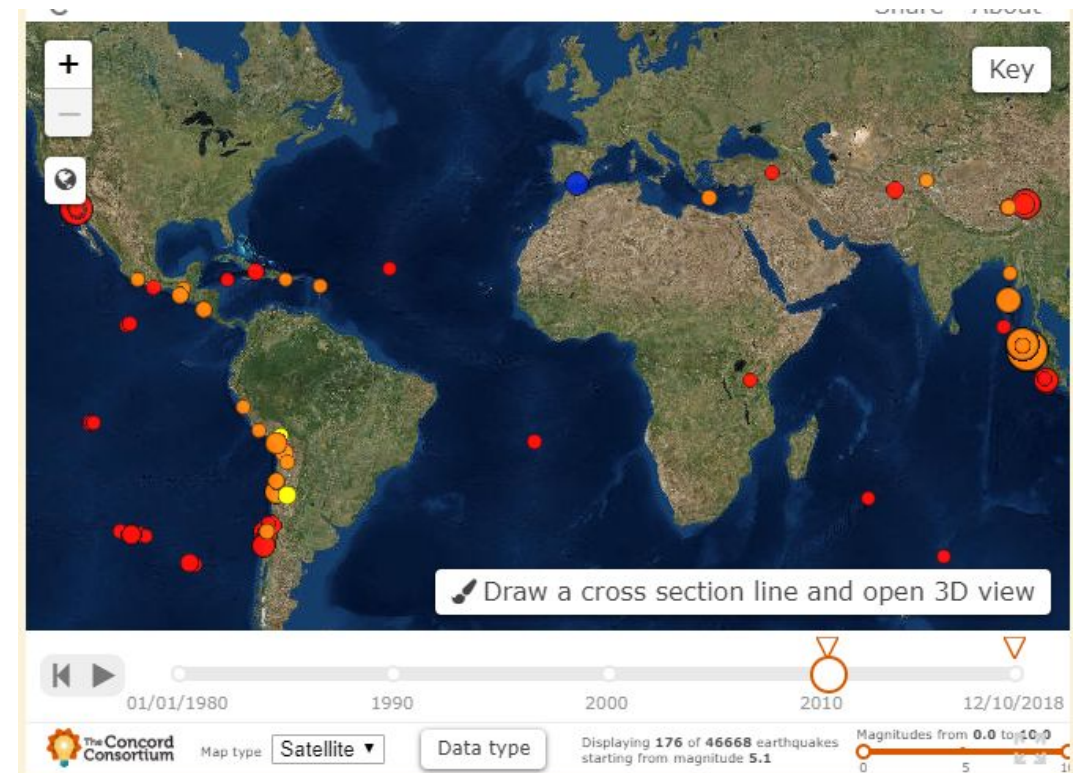
Wolves in  
Yellowstone

Ecosystem  
Models

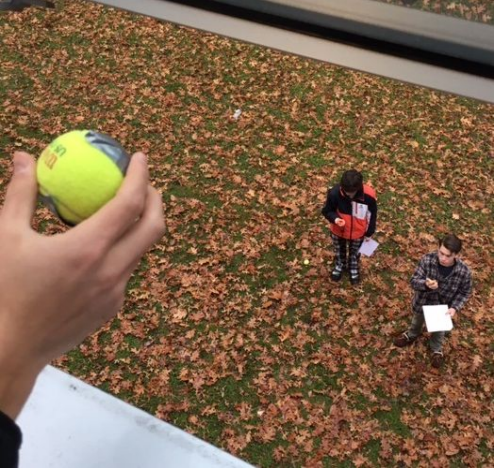
Interactions  
between  
Populations  
& Resources

Zebra  
Mussels

Designing  
Solutions



# Grades 9-12



- Teachers continue to collaborate, implement, and revise curricular units that engage students in the 3 dimensions of the NGSS (*content, practices, crosscutting concepts*)
- Curriculum is supported by textbook resources supplemented by various digital resources and programs (*additional resources are continually being explored*)
- Professional Development has focused on effective implementation of NGSS performance expectations and practices, and creating assessments that engage the 3D nature of learning
- Interim assessment blocks are being explored by teachers of each discipline and dates to administer them will be planned based on when they coincide with curricular units
- Still exploring the potential to cover every standard in the NGSS by Spring of junior year for HS students (*as upperclassman have flexibility in the courses they choose to pursue*)



# Science Department Course Offerings

All students must complete three years of Science to graduate.

## Freshman Year

BIOLOGY

HONORS BIOLOGY



## Sophomore/Junior Year

CHEMISTRY

HONORS CHEMISTRY



## Junior/Senior Year

PHYSICS

AP PHYSICS I

HONORS PHYSICS

AP PHYSICS – C:  
Mechanics

ENVIRONMENTAL  
SCIENCE

\* PHYSICS – C:  
E & M - Honors

AP ENVIRONMENTAL  
SCIENCE

AP BIOLOGY

AP CHEMISTRY



## Science Electives

HUMAN ANATOMY  
AND PHYSIOLOGY

FORENSICS

ANIMAL  
BEHAVIOR

HONORS SCIENCE  
RESEARCH





# NGSS State Assessment and Preparation

**NGSS Practice Tests** (*no formal scoring for students, but feedback is available*) – coming in January

**NGSS Interim Assessments available** (*student scores are available for teachers*)

- Likely adding additional scoring features for teachers to use when viewing the questions.

## **NGSS State Assessments**

- Student scoring and reporting are still being designed and developed. Standards will be set after the test is administered in Spring and data is gathered and analyzed.
- The plan for reporting results from the 2019 NGSS assessments includes an overall score for Science as well as three claim scores:
  - Using the science practices to demonstrate understanding of the core disciplinary ideas and crosscutting concepts in 1) Life Science, 2) Physical Science and 3) Earth/Space Science.
  - The results for overall science and the three claims would be reported at the individual student, school, district and state levels.
  - Possible additional information reported at the school and district level – such as results for the eleven Disciplinary Core Ideas (*e.g., Structure and Properties of Matter, Ecosystems, Earth Systems, etc.*).



# NGSS Interim Assessment Blocks

**Table 1. NGSS Interim Assessment Blocks: Elementary School (Grades 3–5)**

Interim Assessment Block	Performance Expectations Assessed	
Forces, Motion and Energy	3-PS2-2	4-PS3-4
Matter and Its Interactions	5-PS1-2	5-PS1-4
Waves and Their Applications	4-PS4-1	4-PS4-3
Biological Evolution and Ecosystems	3-LS4-1	5-LS2-1
Inheritance, Structure and Function	3-LS3-1	4-PS4-2
Earth's Systems and Gravitational Forces	5-ESS2-2	5-PS2-1
Earth's Systems	3-ESS2-1	4-ESS2-1



# NGSS Interim Assessment Blocks

## Middle School (Grades 6–8)

Interim Assessment	Performance Expectations Assessed	
Forces, Interactions and Energy	MS-PS2-2	MS-PS3-3
Matter and Its Interactions	MS-PS1-4	MS-PS1-5
Waves and Their Applications	MS-PS4-1	MS-PS4-2
Matter and Energy in Ecosystems	MS-LS1-7	MS-LS2-2
Structures and Processes in Living Organisms	MS-LS1-3	MS-LS1-8
Inheritance and Variation of Traits	MS-LS3-1	MS-LS3-2
Biological Evolution through Natural Selection	MS-LS4-4	MS-LS4-6
Earth and the Solar System	MS-ESS1-1	MS-ESS2-2
Earth's History and Systems	MS-ESS1-4	MS-ESS2-1
Weather and Human Impact on the Environment	MS-ESS2-5	MS-ESS3-3



# NGSS Interim Assessment Blocks

## High School (Grades 9–11)

Interim Assessment	Performance Expectations Assessed	
Matter and Its Interactions	HS-PS1-1	HS-PS1-2
Forces and Interactions	HS-PS2-2	HS-PS2-5
Energy and Waves	HS-PS3-1	HS-PS4-1
Structures and Processes in Living Organisms	HS-LS1-2	HS-LS1-3
Matter, Energy, and Interdependent Relationships in Ecosystems	HS-LS1-5	HS-LS2-2
Inheritance of Traits and Evolution	HS-LS3-2	HS-LS4-1
Space Systems	HS-ESS1-3	HS-ESS1-4
Earth's History and Systems	HS-ESS1-6	HS-ESS2-3
Changes in Earth's Climate	HS-ESS2-4	HS-ESS3-5
Human Sustainability	HS-ESS3-3	HS-ESS3-4

**Weston Public Schools**  
**Weston, CT**  
*Office of the Assistant Superintendent*  
*Curriculum, Staff Development and Technology*

**New Course Proposal for 2019-2020**

This proposal should be submitted to the Assistant Superintendent.

School: **WHS**

Proposal Submitted By: **Liz Morris**

Department: **Music**

**1. Name Of Course or Program:**

AP Music Theory (re-introduction)

**2. Population to be served:**

Advanced music students who are interested in a more formal training in music literacy. This course is designed to allow students who intend to pursue careers in music and study music at the post- secondary level.

**3. Identify and discuss the Need**

Weston High School is one of the few high schools in the area that does not currently run an AP music theory course. See attached table for High Schools in the DRG that currently offer music theory, AP Music Theory and Music Technology courses.

Our standard level music theory course serves as a foundation for beginners and students who are interested in music but does not cover enough material for students to take the AP exam. Many times, students who go on to study and/or play music at the college level are at a disadvantage as they have not had the extensive music theory training that students across the country have already had. In addition, the AP course serves as a placement test for many colleges and allows students to forgo the first level of college music theory.

**4. Impact on Other Courses / Schedules**

There is and always will be a limited pool of students to take these courses. Therefore, Music Theory and AP Music Theory should continue to be offered during non-ensemble periods as those musicians should be allowed to take the course. Our honors level ensembles (Wind Ensemble, Symphonic Orchestra and Chamber Singers) that currently enroll a large number of our music population, would benefit from this course as many in the courses would be the population that would be served. Studying music at this level would bolster our honors performance courses as we know that students who understand the functions of music are better musicians.

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**5. Budget Related Items:**

- Staffing (FTE needed) .2
- Supplies: Tonal Harmony text for 15 students (\$1500)
- Equipment: No additional
- Other (software)

**6. Evaluation for Program Success or Continuation:**

- Enrollment will show interest level.
- Impact on honors and other ensemble will be determined by the directors.
- College Board results will show success of the course when reviewing AP exam numbers. Acceptance into regional and all state for students who are auditioning for those high level ensembles.
- Student acceptance into college music programs and music conservatories.

**7. Other Information for Consideration** (optional):

The AP Music Theory course is aligned to the Connecticut Standards for Music 9-12 and the National Core Arts Standards for Music. The AP Music Theory course will have a digital component to allow for a tech credit. The AP Music Theory course is a college level music theory course and will allow students to place out of first year music theory at the college level when taking entrance exams and the AP exam.

**8. Please attach a description of the course including the units of study.**

**AP Music Theory**

In this course students will develop a deep understanding of the elements of music through ear-training, sight singing, musical texts, compositions and digital projects. Students will listen to and analyze recorded works to solidify their understanding of musical concepts. Notational skills and score analysis skills will be developed using electronic and handwritten means, recording software and online applications including Google Classroom.

The following will be covered in this course:

1. Musical vocabulary
2. Pitch
3. Rhythm
4. Key signatures and modes
5. Manuscript
6. Advanced written intervals
7. Triads, chords, seventh chords, inversions
8. Non-chord Tones
9. Chord Progression, Cadences
10. Song Analysis
11. Advanced melodic dictation
12. Counterpoint
13. Figured Bass

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School: **WHS**

Proposal Submitted By: **Liz Morris**

Department: **Music**

**1. Name Of Course or Program:**

Music Technology 2 (Advanced)

**2. Population to be served:**

Any student who is interested in continuing with Music Technology.

**3. Identify and discuss the Need**

This course provides an additional semester of Music Technology. We currently run a semester of Music Technology that focuses on the beginning elements of music technology including navigating a digital workstation, layering rhythmic tracks and looping, and recording and editing sound files. An additional level of Music Technology would provide students with an interest in digital music the ability to continue on the path and learn about sound engineering, advanced recording and editing techniques, and utilize another DAW (Digital Audio Workstation) used in the recording industry.

**4. Impact on Other Courses / Schedules**

None. This course will run simultaneously with the Music Technology 1 course.

**5. Budget Related Items**

- |                         |   |
|-------------------------|---|
| - Staffing (FTE needed) | <b>no additional</b>                    |
| - Supplies:             | <b>Music Lab</b>                        |
| - Equipment:            | <b>No additional</b>                    |
| - Other (software)      | <b>Ableton 10 (used in both levels)</b> |

**6. Evaluation for Program Success or Continuation:**

Student interest and course requests.





**For Immediate Release: December 6, 2018**

**Weston Public Schools Placed on the College Board's 9th Annual AP® District Honor Roll for Significant Gains in Student Access and Success**

***373 School Districts across the U.S. and Canada Are Honored***

Weston, CT — Weston Public is one of 373 school districts in the U.S. and Canada being honored by the College Board with placement on the 9th Annual AP® District Honor Roll. To be included on the 9th Annual Honor Roll, Weston Public Schools had to, since 2016, increase the number of students participating in AP while also increasing or maintaining the percentage of students earning AP Exam scores of 3 or higher. Reaching these goals shows that this district is successfully identifying motivated, academically prepared students who are ready for AP.

Dr. William McKersie, Weston Superintendent, said: “The seeds of this accomplishment by WHS students are planted early—the AP Honor Roll is a wonderful achievement for our entire school system and generous community. From the earliest point in their journey with us, students are provided an exceptional learning environment, resulting this past year in over 70% of our high school juniors and seniors challenging themselves by taking at least one AP course. The strength of our teaching is underscored by the fact that, even while more students are taking AP courses, our overall AP results have increased. The expert and caring work of Weston educators has helped us avoid the common trap of increased participation leading to decreased overall scores.”

National data from 2018 show that among American Indian/Alaska Native, Black/African American, Hispanic/Latino, and Native Hawaiian/Other Pacific Islander students with a high degree of readiness for AP, only about half are participating. The first step to getting more of these students to participate is to give them access. Courses must be made available, gatekeeping must stop, and doors must be equitably opened. Weston Public Schools is committed to expanding the availability of AP courses among prepared and motivated students of all backgrounds.

“Success in Advanced Placement is a combination of students’ own motivation and the opportunities educators provide for them,” said Trevor Packer, senior vice president of AP and Instruction at the College Board. “I’m inspired by the teachers and administrators in this district who have worked to clear a path for more students of all backgrounds to earn college credit during high school.”

Helping more students learn at a higher level *and* earn higher AP scores is an objective of all members of the AP community, from AP teachers to district and school administrators to college professors. Many districts are experimenting with initiatives and strategies to see how they can expand access and improve student performance at the same time.

In 2018, more than 4,000 colleges and universities around the world received AP scores for college credit, advanced placement, or both, and/or consideration in the admissions process. Inclusion in the 9th Annual AP District Honor Roll is based on a review of three years of AP data, from 2016 to 2018, looking across 38 AP Exams, including world language and culture. The following criteria were used.

Districts must:

- Increase participation/access to AP by at least 4% in large districts, at least 6% in medium districts, and at least 11% in small districts;
- Increased or maintained the percentage of American Indian/Alaska Native, Black/African American, Hispanic/Latino, and Native Hawaiian/Other Pacific Islander students taking exams and increased or maintained the percentage of American Indian/Alaska Native, Black/African American, Hispanic/Latino, and Native Hawaiian/Other Pacific Islander students scoring 3+ on at least one AP Exam; and
- Improve or maintain performance levels when comparing the 2018 percentage of students scoring a 3 or higher to the 2016 percentage, *unless* the district has already attained a performance level at which more than 70% of its AP students earn a 3 or higher.

When these outcomes have been achieved among an AP student population in which 30% or more are underrepresented minority students (American Indian/Alaska Native, Black/African American, Hispanic/Latino and Native Hawaiian/Other Pacific Islander) and/or 30% or more are low-income students (students who qualify for free or reduced-price lunch), a symbol has been affixed to the district name to highlight this work.

The complete 9th Annual AP District Honor Roll can be found **here**:  
<https://apcentral.collegeboard.org/score-reports-data/awards/honor-roll>

#### **CONTACT:**

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