

**MINUTES  
REGULAR MEETING OF THE BOARD OF EDUCATION  
RIALTO UNIFIED SCHOOL DISTRICT  
DR. JOHN R. KAZALUNAS EDUCATION CENTER  
182 EAST WALNUT AVENUE, RIALTO, CA 92376**

**February 22, 2017**

**A. OPENING**

**CALL TO ORDER AND ROLL CALL**

The regular meeting of the Board of Education of the Rialto Unified School District was called to order at 5:02 p.m. by President Walker at the Dr. John R. Kazalunas Education Center, 182 East Walnut Avenue, Rialto, CA 92376.

Members present: Dina Walker, President; Joseph W. Martinez, Vice President; Edgar Montes, Clerk; Joseph Ayala, Member; and Nancy G. O'Kelley.

Administrators present: Cuauhtémoc Avila, Ed.D., Superintendent; Mohammad Z. Islam, Associate Superintendent, Business Services; Jinane Annous, Ed.D., Lead Innovation Agent; Education Services; Rhea McIver Gibbs, Lead Personnel Agent, Personnel Services; and Rhonda Kramer, Senior Director, Personnel Services. Also present was Rosie Williams, Executive Secretary.

**OPEN SESSION**

1. Comments on Closed Session Agenda Items. Any person wishing to speak on any item on the Closed Session Agenda will be granted three minutes.

There were no comments.

**CLOSED SESSION**

Upon a motion by Clerk Montes, seconded by Member O'Kelley, and approved by a 5-0 vote, the Board of Education entered into Closed Session at 5:04 p.m. to consider and discuss the following items:

1. Public Employee Employment/Discipline/Dismissal/Release/Reassignment of Employees (Government Code section 54957)

**Administrative Appointment:**

- Middle School Assistant Principal

2. Student Expulsions/Reinstatements/Expulsion Enrollments

3. **CONFERENCE WITH LABOR NEGOTIATORS**

Agency designated representatives: Cuauhtémoc Avila, Ed.D., Superintendent, Rhea McIver Gibbs, Lead Personnel Agent, Personnel Services, and Rhonda Kramer, Senior Director, Personnel Services.

Employee organizations: California School Employees Association, Chapter 203 (CSEA), Rialto Education Association (REA), Communications Workers of America (CWA)

4. **CONFERENCE WITH LEGAL COUNSEL – Existing Litigation (Gov. Code § 54956.9(a)):**

Rialto Unified School District v. Project Management and Integration Service, LLC (Case No. CIVDS1518115)

Rialto Unified School District v. Educational Consulting Services, Inc., et al. (Case No. CIVDS1518116)

**ADJOURNMENT OF CLOSED SESSION**

Upon a motion by Clerk Montes, seconded by Member Ayala, and passed by a unanimous 5-0 vote, Closed Session adjourned at 7:03 p.m.

**OPEN SESSION RECONVENED – 7:03 P.M.**

Members present: Dina Walker, President; Joseph W. Martinez, Vice President; Edgar Montes, Clerk; Joseph Ayala, Member; and Nancy G. O’Kelley, Member.

Administrators present: Cuauhtémoc Avila, Ed.D., Superintendent; Mohammad Z. Islam, Associate Superintendent, Business Services; Jinane Annous, Ed.D., Lead Innovation Agent, Education Services; and Rhea McIver Gibbs, Lead Personnel Agent, Personnel Services. Also present was Rosie Williams, Executive Secretary, and Jose M. Reyes, Interpreter.

**PLEDGE OF ALLEGIANCE**

Sandra Morales, 7<sup>th</sup> grade Rialto Middle School student, led the Pledge of Allegiance.

**PRESENTATION BY RIALTO MIDDLE SCHOOL**

The Rialto Royalz Dance Team, which consists of Rialto Middle School 7<sup>th</sup> grade students: Da’liyah Ashley, Valerie Delis, Angelica Gonzales, and Gisele Jackson performed a hip-hop dance.

## **REPORT OUT OF CLOSED SESSION**

Superintendent Avila reported that in Closed Session the Board of Education, by a unanimous 5-0 vote, took the following action:

- Imposed a ten (10) day unpaid suspension on Classified Employee #1395927.

## **ADOPTION OF AGENDA**

President Walker stated before the Agenda is adopted, the Board would like to pull the following item from page (Ref. J 2.2) of the Agenda:

### **PLACE ON THE 39-MONTH REEMPLOYMENT LIST**

Keehmer, Jane      Instructional Technology Asst.      02/23/2017  
Kolb Middle School

Upon a motion by Clerk Montes, seconded by Member O'Kelley, the Agenda was adopted, by a unanimous 5-0 vote by the Board of Education.

A second vote was taken to approve the Agenda as amended. Upon a motion by Member Ayala, seconded by Vice President Martinez, the Agenda was adopted, as amended, by Student Board Member Collier's preferential vote, and a unanimous 5-0 vote by the Board of Education.

## **B. PRESENTATIONS**

1. Middle School – District Student Advisory Committee (DSAC) Presentation

The following DSAC students shared information on activities held at their schools:

Gino Rhoten – Kolb Middle School  
Destiny Lopez – Rialto Middle School  
Christian Flores – Jehue Middle School

2. REA/CSEA/RSMA "Employees of the Quarter"

Member Ayala presented LaShon Tilmon, Carter High School Digital Media, Web Page Design, and On Campus Intervention teacher, with a Certificate of Recognition for earning the REA "Employee of the Quarter" award.

Vice President Martinez presented Christopher "Scott" Ritchie, Mechanic II, with a Certificate of Recognition for earning the CSEA "Employee of the Quarter" award.

Clerk Montes presented Joseph Tomaselli, Assistant Principal at Fitzgerald and Henry Elementary Schools, with a Certificate of Recognition for earning the RSMA "Employee of the Quarter" award.

3. Presentation of the Next Generation Science Standards (NGSS) by Jinane Annous, Ed.D., and Edward D'Souza, Ph.D.

Dr. Edward D'Souza conducted a PowerPoint presentation on an introduction to the NGSS. The PowerPoint presentation is attached, see pages (Ref. E 1.11) – (Ref. E 1.24).

4. Measure Y 2010 General Obligation Bonds Financial and Performance Audit Report for the year ended June 30, 2016, presented by Ms. Paula Bailey, Chairperson of the Measure Y Citizens' Oversight Committee.

Ms. Paula Bailey, Chairperson of the Measure Y Citizens' Oversight Committee, provided information regarding the Audit Report conducted by Vicente, Lloyd & Stutzman, LLP, stating Auditors verified that funds from Measure Y were spent on authorized bond projects.

### **C. COMMENTS**

1. Public Comments from the Floor: At this time, any person wishing to speak on any item not on the Agenda will be granted three minutes.

Mr. Louis Figueroa, Rialto World Soccer Academy, thanked the Board for helping them provide services to people in the community. He stated that the children in the community who practice the game of soccer in the District have something special to thank all the people who have helped. At the next Board meeting, with the Board's permission, he would like to bring members of the community to recognize the following people: Arnie Ayala, Joe Baca, Frank Garza, Monique Conway, Mohammad Islam, Karen Smith, Carolyn Eide, Iris Chu, George Palma, Louise Lujan, Cheryl Decker, Clerk Montes, Vice President Martinez, Member O'Kelley, and Member Ayala.

2. Public Comments on Agenda Items: Any person wishing to speak on any item on the Agenda will be granted three minutes.

There were no comments.

3. Comments from Association Executive Board Members: Rialto Education Association (REA), California School Employees Association (CSEA), Communications Workers of America (CWA). Rialto School Managers Association (RSMA)

Lisa Lindberg, REA President, stated that the Board may hear from teachers concerned about Dr. D'Souza's presentation and what is being planned. She shared that REA gave out \$1,400 worth of mini grants to various schools for Read Across America. She also shared that REA is sending 30 teachers to conferences in March.

Ron Fletcher, CWA President, stated he would love to see the District provide more training for substitutes. He also would love to see substitutes included in the "Employee of the Quarter" award. He shared that the CWA Reopener is on the Agenda and anticipated that negotiations will go quickly.

Connie Richardson, RSMA President, invited the Board to attend an event from 4:00 - 5:30 p.m. on Thursday, February 23, 2017, at the PDC conference room with Sherman Barnett, who heads Child, Welfare, and Attendance for San Bernardino County. He will be speaking on the benefits of being an ACSA member and also on a lot of the new legislative updates that have come out recently and impact administrators, managers and educators. RSMA also started working on their scholarships for high school students. Lastly, she congratulated all the "Employees of the Quarter."

4. Comments from the Superintendent
5. Comments from Members of the Board of Education

#### **D. PUBLIC HEARING**

##### **PUBLIC INFORMATION**

1. Williams Inspections – 2016-2017 Second Quarterly Report.

Upon a motion by Clerk Montes, seconded by Vice President Martinez, Public Hearing was opened at 9:03 p.m. by a unanimous 5-0 vote by the Board of Education.

1. Public Hearing: Pursuant to the requirements of Government Code and Board Policy, the initial contract reopener for the 2017-2018 school year submitted by the Communications Workers of America (CWA), for an agreement between the Communication Workers of America (CWA) and

the Rialto Unified School District, Board of Education, is hereby posted in compliance with the legislative requirements for public notice.

Upon a motion by Member Ayala, seconded by Clerk Montes, Public Hearing was closed at 9:04 p.m. by a unanimous 5-0 vote by the Board of Education.

### **CONSENT CALENDAR ITEMS**

Vice President Martinez motioned to approve Items E – J, it was seconded by Clerk Montes (no vote was taken). Member O’Kelley asked to pull items (Ref. H 10.1) and (Ref. H 12.1) to be discussed and voted on separately.

Upon a motion by Clerk Montes, seconded by Member Ayala, Items E – H9, H11, and H13 - J were approved by a unanimous 5-0 vote by the Board of Education.

Upon a motion by Clerk Montes, seconded by Member Ayala, Items H10 and H12 were approved by a unanimous 5-0 vote by the Board of Education

#### **E. MINUTES**

1. Approve the minutes of the Regular Board of Education meeting held February 8, 2017.

#### **F. GENERAL FUNCTIONS CONSENT ITEMS**

1. Second reading of revised Board Policy 3311(a-d); Business and Noninstructional Operations: Bids.
2. Second reading of new Board Policy 3311.1(a-b); Business and Noninstructional Operations: Uniform Public Construction Cost Accounting Procedures.
3. Second reading of revised Board Policy 5131.2(a-f); Students: Bullying.
4. Second reading of new Board Policy 5144.4(a-b); Students: Required Parental Attendance.
5. Second reading of revised Board Policy 6177(a-f); Instruction: School Learning Programs.

#### **G. INSTRUCTION CONSENT ITEMS**

1. Ratify the approval of the recommendation made by the Senior Director, Student Services, to grant an exemption from all physical activities for Student No. 78118 for the second semester of the 2016-2017 school year.

## **H. BUSINESS AND FINANCIAL CONSENT ITEMS**

1. Approve Warrant Listing Register and Purchase Order Listing for all funds from January 23, 2017 through February 6, 2017, (sent under separate cover to Board Members). A copy for public review will be available at the Board Meeting.
2. Accept the donations from The Way Bible Fellowship, Box Tops for Education, Lifetouch National School Studios, Dollar Tree, and Boston's Restaurant, and request that a letter of appreciation is sent to the donors.
3. Approve the Affiliation Agreements for Career Technical Education Externship programs at: Clinica Medica Familiar (2 clinics), Lizarraga Medical Center, Inv., Rialto Clinica Medica Familiar, and Dr. Yousuf Sadiq, effective February 23, 2017 through June 30, 2020, at no cost to the District.
4. Approve an agreement with FranklinCovey Education to provide coaching support with the implementation of The Leader in Me® ("TLIM") at Dollahan Elementary School effective February 23, 2017 through February 23, 2018, at a total cost not-to-exceed \$5,100.00 (\$3,900.00 coaching agreement; \$1,200.00 travel expenses), to be paid from site Title I Funds.
5. Approve the use of the piggyback bid from Savanna School District, Project No. SSPU #40-09/2016-17 with Elite Modular Leasing & Sales, Inc., per Public Contract Code 20118, for purchase and/or lease of portable buildings, as needed, to be paid from the General Fund and/or Fund 25, Capital Facilities Fund.
6. Approve an agreement with Heider Inspection Group to provide soil tests, structural tests, and special inspection services for Phase 2 of the District-wide Solar Energy Project at Kolb, Frisbie, and Jehue Middle Schools and Rialto High School for a not-to-exceed amount of \$46,808.00, to be paid from the General Fund and to be reimbursed by SunEdison and its joint financial partner Onyx Renewable Partners L.P., per agreement, at the end of the project.
7. Approve an agreement with Ludwig Engineering Associates, Inc., for engineering services required to support the District in the management of the construction for the improvement of pedestrian safety to the Werner Elementary School project, effective February 23, 2017 through June 30, 2017. The total cost is not-to-exceed \$5,900.00, to be paid from Fund 40, Special Reserve Fund.

8. Approve the Grant of Easement requested by Southern California Edison Company (SCE), documented on February 2, 2017, to facilitate access, operation, and maintenance of Southern California Edison's systems to furnish electrical and communication services to the District's Compressed Natural Gas (CNG) Station and Transportation Yard, at 261 S. Lilac Avenue, Rialto, California, at no cost to the District.
9. Approve Amendment No. 1 to the agreement with Miller Architectural Corporation for additional services required for one Portable Classroom with the Portable Restroom Project at Bemis Elementary School. The total cost is not-to-exceed \$33,945.00, to be paid from Fund 25, Capital Facilities Fund.
10. Approve Amendment No. 2 to the agreement with The Cambrian Group to provide training on Mutual Commitments and Exceptions, on February 23 and 24, 2017, not-to-exceed \$12,000.00, increasing the contract from \$165,152.31 to \$177,152.31, to be paid from the Educator Effectiveness Fund.
11. Approve the following school-connected organizations for the 2016-2017 school year: Carter High School Cheer Booster Club, Carter High School Baseball Booster Club, and Carter High School Volleyball Booster Club.
12. Approve Amendment No. 1 with CHJ Consultants, Inc., for additional services required for special inspection and testing to complete the Compressed Natural Gas (CNG) Fueling Station project. The total adjusted cost is not-to-exceed \$63,261.00, to be paid from Fund 40, Special Reserve Fund.
13. Approve the agreement with Ludwig Engineering Associates, Inc., to provide civil engineering services for preparing the master plan (Phase 1) for the improvement of the south parking lot at Eisenhower High School. The proposed engineering service fees are based on time and material expenses for a total cost not-to-exceed \$9,960.00, to be paid from Fund 21, Measure Y, Series "C", General Obligation Bond Funds.

**I. FACILITIES PLANNING CONSENT ITEMS - None**

**J. PERSONNEL SERVICES CONSENT ITEMS**

- 1-3. Approve Personnel Report No. 1168 for classified and certificated employees.
4. Adopt Resolution No. 16-17-22, Non-reelection of Certificated Probationary Employees.



**K. DISCUSSION/ACTION ITEMS**

Upon a motion by Member O’Kelley, seconded by Member Ayala, Item K1 was approved by a unanimous 5-0 vote by the Board of Education.

1. Approve an agreement with Knowland Construction Services to provide Division of the State Architect inspection services for the District-wide Solar Energy Project Phase 2 at Kolb, Frisbie, and Jehue Middle Schools, and Rialto High School, for a total not-to-exceed \$66,640.00. Overtime and Saturday services will be paid at one and one-half times the normal rate, and Sunday services will be billed at two times the normal rate to be paid from the General Fund and reimbursed by SunEdison and its joint financial partner Onyx Renewable Partners L.P., per agreement, at the end of the project.

Upon a motion by Member O’Kelley, seconded by Vice President Martinez, Item K2 was approved by a unanimous 5-0 vote by the Board of Education.

2. Approve changing the Wednesday, March 15, 2017, Board of Education meeting to Wednesday, March 1, 2017.

Upon a motion by Vice President Martinez, seconded by Member Ayala, Item K3 was approved as indicated by a unanimous 5-0 vote by the Board of Education.

3. The Rialto Unified School District Board of Education votes for the following as Delegate(s) to the California School Boards Association Delegate Assembly:

**Candidates:** *(Vote for no more than six candidates)*  
*\*denotes incumbent*

- Christina Cameron-Otero (Needles USD)\*
- Tommy Courtney (Lucerne Valley USD)\*
- Michael C. Flores (Ontario-Montclair SD)
- Margaret Hill (San Bernardino City USD)\*
- Wilson F. So (Apple Valley USD)\*
- Gabriel L. Stine (Victor ESD)
- Eric Swanson (Hesperia USD)\*
- Mondy M. Taylor (Etiwanda SD)
- Kathy A. Thompson (Central SD)\*
- Charles J. Uhalley (Chaffey Jt. Un. HSD)\*

Upon a motion by Member O’Kelley, seconded by Clerk Montes, Item K4 was approved by a unanimous 5-0 vote by the Board of Education.

4. Approve the recommendations of the Administrative Hearing Panel (AHP):

**ADMINISTRATIVE HEARING**

Case Number:  
16-17-32

**STIPULATED:**

Case Numbers:  
16-17-29  
16-17-33

**L. ADJOURNMENT**

Upon a motion by Member O'Kelley, seconded by Clerk Montes, and approved by a unanimous 5-0 vote by the Board of Education, the meeting was adjourned at 9:30 p.m.

  
Clerk, Board of Education

  
Secretary, Board of Education

# Rialto Unified School District's Blueprint for Science for the Next Generation

## An Introduction to the Next Generation Science Standards (NGSS)



### Goals of This Session

- Define how *Rialto USD's Strategic Plan* has been used to guide reform in science
- Describe the *architecture* of the NGSS Standards
- Share NGSS *progress*
  - Elementary Schools
  - Middle Schools
- Outline NGSS work for high school implementation
  - Analyzing data
  - Articulating *the plan moving forward*



## Our Mission

The mission of the Rialto Unified School District, the **bridge** that connects **students to their future aspirations**, is to **ensure each student achieves personal and career fulfillment** within a global society, through a vital system distinguished by:

- ❖ **High expectations for student achievement**
- ❖ **Safe and engaging learning environments**
- ❖ **Effective family and community involvement**
- ❖ **Learning opportunities** beyond the traditional school setting
- ❖ **Appreciation of cultural diversity**

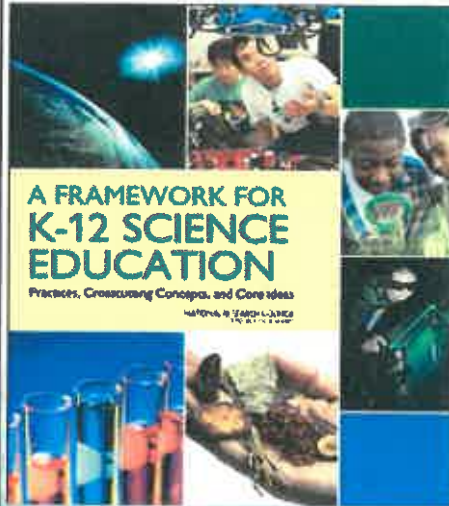


## In Science, we will:

- make all decisions in the **best interest of students**
- honor the **worth and dignity** of each person
- hold the **highest expectations of everyone**
- assert the unlimited potential of **every student**
- practice **participatory decision-making** throughout the district
- **not allow the past to determine our future**



## These Standards are Different



**Based on Years of Research**

**Adopted purely on Merit**

**Outline a New Vision for Teaching and Learning**

- Science for ALL Students
- Coherent Learning



## Conceptual Shifts

### **SCIENCE IS REAL AND RELEVANT FOR EVERYONE**

K-12 science education should **reflect the interconnected nature of science** as it is practiced and experienced in the real world.

The science concepts **build coherently from K-12.**

The NGSS are designed to prepare students for **college, career, and citizenship.**

**\*The NGSS and Common Core State Standards (Mathematics and English Language Arts) are aligned.**



## How the Philosophy is Different



- Prepare **ALL** students for college, career and citizenship
- Science, engineering and technology are:
  - cultural achievements
  - shared good of humankind
  - permeate modern life
- Understanding of science and engineering is **critical to participation in public policy and good decision-making**



## How the Standards are Different

### Past 7<sup>th</sup> Grade Life Science CA Standard

- *Students know* plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems and whole organism.

### Current Middle Grades CA NGSS Adopted Standard

- *Use argument supported by evidence* for how the body is a system of interacting subsystems composed of groups of cells.



## 3-Dimensional Learning

Each Standard is made of 3-dimensions

**Dimension #1**  
Science and  
Engineering  
Practices  
(SEP)  
"How"



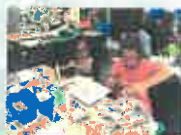
**Dimension #3**  
Disciplinary Core  
Ideas (DCI) "What"

(DCI)

**Dimension #2**  
Crosscutting  
Concepts  
(CCP) "Why"

## Dimension 1: Science and Engineering Practices (SEP)

1. Asking questions (science) and defining problems (engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data



5. Using mathematics and computational thinking
6. Constructing explanations (science) and designing solutions (engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

	K-2	3-5	6-8	9-12
PS1.A Structure of matter (includes PS1.C Nuclear processes)	Matter exists as different substances that have observable different properties. Different properties are suited to different purposes. Objects can be built up from smaller parts.	Because matter exists as particles that are too small to see, matter is always conserved even if it seems to disappear. Measurements of a variety of observable properties can be used to identify particular materials.	The fact that matter is composed of atoms and molecules can be used to explain the properties of substances, diversity of materials, states of matter, phase changes, and conservation of matter.	The sub-atomic structural model and interactions between electric charges at it atomic scale can be used to explain the structure and interactions of matter, including chemical reactions and nuclear processes. Repeating patterns of the periodic table reflect patterns of outer electrons. A stable molecule has less energy than the state of atoms separated; one must provide at least this energy to take the molecule apart.

**Greater sophistication** →

Science and Engineering Practices	Early Elementary Science	Elementary Science	Upper Elementary Science	Middle School Science
<b>Asking Questions and Defining Problems</b> A practice of science is to ask and refine questions that lead to observations and explanations of how the natural and designed world(s) works and which can be experimentally tested. Engaging questions clarify questions to determine which are scientific and identify strategies to solve problems about the designed world. Both activities and engineers often ask questions to clarify ideas.	<b>Asking questions and defining problems in K-2 builds on prior experiences and progresses to simple descriptive questions that are the basis.</b> Ask questions based on observations to find more information about the natural and/or designed world(s).	<b>Asking questions and defining problems in 3-5 builds on K-2 experiences and progresses to specifying qualitative relationships.</b> Ask questions about what would happen if a variable is changed.	<b>Asking questions and defining problems in 6-8 builds on K-2 experiences and progresses to specifying relationships between variables, clearly expressing and stating.</b> Ask questions that arise from careful observation of phenomena, models, or simulated results, to clarify and/or seek additional information. Identify and/or clearly evidence under the premise of an argument, to determine relationships between independent and dependent variables and recognize and/or identify in models, to clarify and/or refine a model, its explanation, or an engineering problem.	<b>Asking questions and defining problems in 9-12 builds on K-8 experiences and progresses to formulating, refining, and evaluating empirically testable questions and design problems using models and simulations.</b> Ask questions that arise from careful observation of phenomena, or simulated results, to clarify and/or seek additional information. Distill from examining models or a theory, to clarify and/or seek additional information and relationships to determine relationships, including qualitative relationships, between independent and dependent variables, to clarify and/or refine a model, an explanation, or an engineering problem.

## Dimension 2: Crosscutting Concepts (CCC)

**CAUSE → Effect**

Cause (WHY) → The REASON... Something happened.

Effect (WHAT) → The RESULT... happened.

The reason was because of \_\_\_\_\_ happened

Key Words: therefore, since, consequently, because, cause, lead to, result, due to

1. Patterns
2. Cause and Effect
3. Scale, Proportion, and Quantity
4. Systems and System Models
5. Energy and Matter
6. Structure and Function
7. Stability and Change



# Dimension 3: Disciplinary Core Idea (DCI)

## Why do we have to learn this?

Each DCI was selected because:

- Can be used to **explain** a host of phenomena
- Is a **key tool** for understanding more complex ideas
- Relates to the **interests and life experiences of students**
- Is **teachable and learnable** from K to 12



**Public Health**  
Prevent. Promote. Protect.



## DISCIPLINES of NGSS

- Earth and Space Science
- Life Science
- Physical Science
- Engineering

**MS-PS4 Waves and Their Applications in Technologies for Information Transfer**

**MS-PS4-1** Use mathematical representations to describe a simple model for waves that includes how the wavelength of a wave is related to the energy in a wave.

**MS-PS4-2** Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.

**MS-PS4-3** Integrate qualitative scientific and technical information to support the claim that digital signals (sent as wave pulses) are a more reliable way to encode and transmit information.

**Performance Expectations**

**Science and Engineering Practices**

**Modeling**

**MS-PS4-1** Use mathematical representations to describe a simple model for waves that includes how the wavelength of a wave is related to the energy in a wave.

**MS-PS4-2** Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.

**MS-PS4-3** Integrate qualitative scientific and technical information to support the claim that digital signals (sent as wave pulses) are a more reliable way to encode and transmit information.

**Disciplinary Core Ideas**

**PS4.A: Wave Properties**

**PS4.B: Electromagnetic Spectrum**

**PS4.C: Information Technologies and Communications**

**Performance Expectations**

**SEP**

**DCI**

**CCC**

**Connections Boxes**

**Alignment to CCSS ELA and Math**

# ELEMENTARY SCHOOL SCIENCE PROGRESS



## ELEMENTARY SCHOOL SCIENCE: COMMON LABS

**Kindergarten**  
**Designing a container**

Make and make observations about your system.

My group put an ice cube

**2nd Grade**  
**Seed Dispersal**

Imagine.

Pretend you are a parent plant. What can we design that would make a seed that would use animal fur to move?

Draw what you plan to build. Label your materials.

**3rd Grade**  
**Roly Poly Bugs**

Butte Unified School District  
Grade 3 WOSB Common Lab  
Enduring Understanding: Biology

**Student Directions:**

**Your assignment:**

You have been hired by the Butte Community Center. They want to produce more mini-tomatoes for the plants in the garden. Study roly poly bugs are one of the organisms that live in the garden and produce mini-tomatoes. Your task is to study what only only keep the eggs and the habitats they prefer.

**Steps you will be following:**

Plan and conduct your experiment, you will do four trials over the next five days.

SEP 5. Obtain and evaluate information

Watch Video 1 "Charles G. Augustus Moore's Journey"

**4th Grade**  
**Devising A Communication Device**

**Communicating Information:**

Your job needs to communicate information about working with support jobs and long distance. This device can help to share information.

In your group, you will work together to develop a model involving how we see (your) and label to explain the parts of your model.

How many students picked up your seed on the socks during the "search walk"?

Color each block to show how many times your seed was picked up.

Number of Groups your seed was picked up	Successful Results
5	
4	
3	
2	
1	

**Grade 5**  
**Hydroponics**

**Setting the Scene:**

The National Aeronautics and Space Administration (NASA) is developing the capabilities needed to send humans to an asteroid by 2025 and Mars in the 2030s. These goals are outlined in the bipartisan NASA Authorization Act of 2010 and in the U.S. National Space Policy, also issued in 2010.

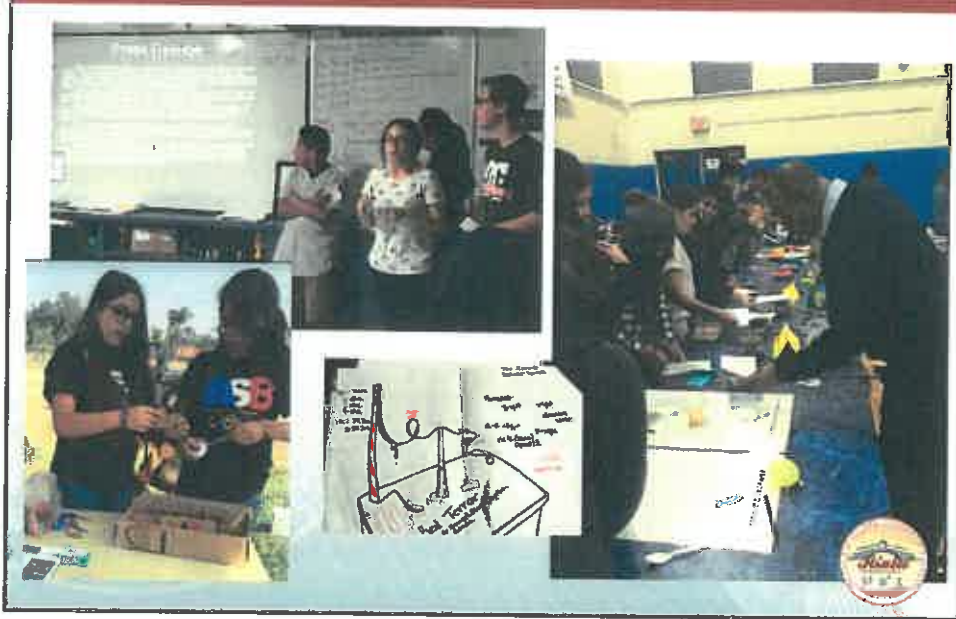
**Your assignment:**

You will work in teams, as NASA plant researchers, to conduct an experiment that supports NASA's planned manned mission to Mars. Your team is responsible for determining how best to grow plants hydroponically as food for the astronauts.

To do this you must design experiments to determine how best to grow radishes without using soil, collect data about growing radishes under different conditions, and then compare the results from different groups.

- Developed 3 Dim Pacing Guides
- Developed Common Assessments Aligned to ELA Pacing Guides

# MIDDLE SCHOOL SCIENCE PROGRESS



# MIDDLE SCHOOL SCIENCE: PROGRESS

Quarter 1 (August 8 <sup>th</sup> - September 26 <sup>th</sup> )	Quarter 2 (October 3 <sup>rd</sup> - December 15 <sup>th</sup> )
<p><b>Unit 1 Essential Questions:</b></p> <ul style="list-style-type: none"> <li>How do Earth's layers generate and transfer heat to the surface?</li> <li>How and why do tectonic plates move?</li> <li>How is energy transferred between objects?</li> <li>How is energy transferred between objects?</li> </ul> <p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>How do Earth's layers generate and transfer heat to the surface?</li> <li>How and why do tectonic plates move?</li> <li>How is energy transferred between objects?</li> <li>How is energy transferred between objects?</li> </ul>	<p><b>Unit 2 Essential Questions:</b></p> <ul style="list-style-type: none"> <li>How and why do Earth's layers generate and transfer heat to the surface?</li> <li>How and why do tectonic plates move?</li> <li>How is energy transferred between objects?</li> <li>How is energy transferred between objects?</li> </ul> <p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>How do Earth's layers generate and transfer heat to the surface?</li> <li>How and why do tectonic plates move?</li> <li>How is energy transferred between objects?</li> <li>How is energy transferred between objects?</li> </ul>
Quarter 3 (January 10 <sup>th</sup> - March 15 <sup>th</sup> )	Quarter 4 (March 27 <sup>th</sup> - May 25 <sup>th</sup> )
<p><b>Unit 3 Essential Questions:</b></p> <ul style="list-style-type: none"> <li>How do Earth's layers generate and transfer heat to the surface?</li> <li>How and why do tectonic plates move?</li> <li>How is energy transferred between objects?</li> <li>How is energy transferred between objects?</li> </ul> <p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>How do Earth's layers generate and transfer heat to the surface?</li> <li>How and why do tectonic plates move?</li> <li>How is energy transferred between objects?</li> <li>How is energy transferred between objects?</li> </ul>	<p><b>Unit 4 Essential Questions:</b></p> <ul style="list-style-type: none"> <li>How do Earth's layers generate and transfer heat to the surface?</li> <li>How and why do tectonic plates move?</li> <li>How is energy transferred between objects?</li> <li>How is energy transferred between objects?</li> </ul> <p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>How do Earth's layers generate and transfer heat to the surface?</li> <li>How and why do tectonic plates move?</li> <li>How is energy transferred between objects?</li> <li>How is energy transferred between objects?</li> </ul>

- Integrated Science 6-8
- Common Scope & Sequence created and used
- Common Labs have replaced Benchmark Assessments 6-8
- Teacher created digital textbooks CK-12 (free online resources)

## HIGH SCHOOL SCIENCE: GOALS



Make High School Science *Fun* and *Engaging*.

Make *All Standards* accessible to *All Students* and increase *college* and *career* readiness.



## HIGH SCHOOL SCIENCE: ANALYZING THE DATA

With 97% grade mastery high school course placement by year and high school

Year	97% Grade Mastery	High School Course Placement
2014	97%	97%
2015	97%	97%
2016	97%	97%
2017	97%	97%
2018	97%	97%
2019	97%	97%
2020	97%	97%
2021	97%	97%
2022	97%	97%
2023	97%	97%
2024	97%	97%
2025	97%	97%
2026	97%	97%
2027	97%	97%
2028	97%	97%
2029	97%	97%
2030	97%	97%

RUSD High School Grades by Science Courses, Quarter and Overall - 2015-2016

Course	2014-15	2015-16	% Change
<b>C or Better</b>			
Biology P	1369	1850	4%
Biology HP	330	489	1%
Chemistry P	975	829	1%
Chemistry HP	327	312	4%
Earth Science P	1238	1178	2%
Physics P	358	388	9%
<b>D or Better</b>			
Biology P	1865	1850	2%
Biology HP	330	489	1%
Chemistry P	975	829	-2%
Chemistry HP	327	312	-1%
Earth Science P	1238	1178	1%
Physics P	358	388	3%

### External Evaluation of our data suggests:

- Currently 70-95% of students are not on a path that leads to College Readiness.
- Most students that are placed in a college path succeed at that path.
- Current courses are keeping many students from attaining college readiness.



## HIGH SCHOOL SCIENCE: MOVING FORWARD

### Facts to consider:

- ✓ All science courses will have new standards and need to be re-written and re-submitted to UCOP for approval
- ✓ California has given options for “bundling” High School Performance Expectations
  - Current 4-Course
  - 3-Course Earth Science Embedded
  - Every Science, Every Year
- ✓ The new CaST assessment will test ALL standards
- ✓ New API/AYP will include college and career readiness metrics

### Questions to consider:

- ◆ **How can we build on progress K-8?**
- ◆ **How can we utilize NGSS as an opportunity for more students to attain college and career readiness?**



## HIGH SCHOOL SCIENCE: MOVING FORWARD



**Current 4-courses model:** Earth, Biology, Chemistry, Physics

- Has left many students non-college ready
- Does not promote student voice and choice
- Will leave students underprepared for CaST

**After much debate and discussion, we will no longer offer this sequence.**



## HIGH SCHOOL SCIENCE: MOVING FORWARD



### 3-courses models provide:

- Multiple entry and exit points for all students
- Allow options and flexibility
- Opportunities to more authentically explore authentic phenomena

**Most Familiar Sequence:** Biology & Earth, Chemistry & Earth, Physics & Earth

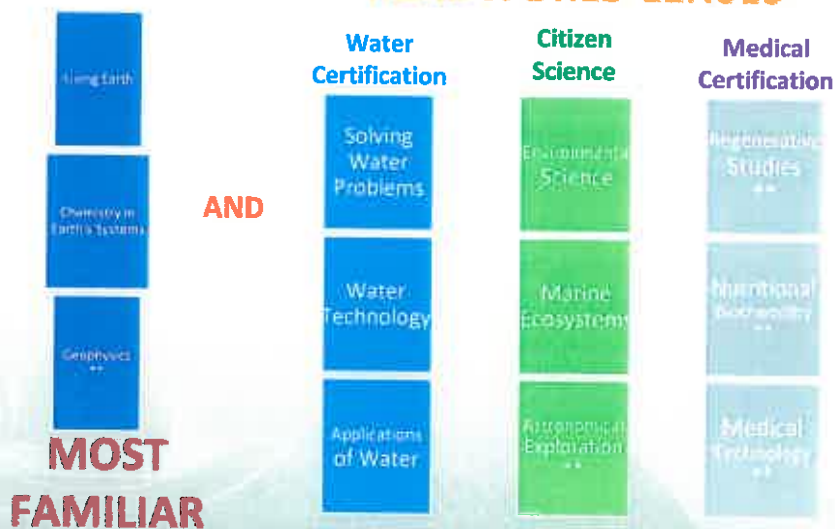
**Real World Sequences:** Biology, Chemistry, Physics, Earth Science EACH YEAR

### Questions to consider:

- ❖ How can we safeguard against “tracking”
- ❖ How can we transition teachers and students more smoothly?

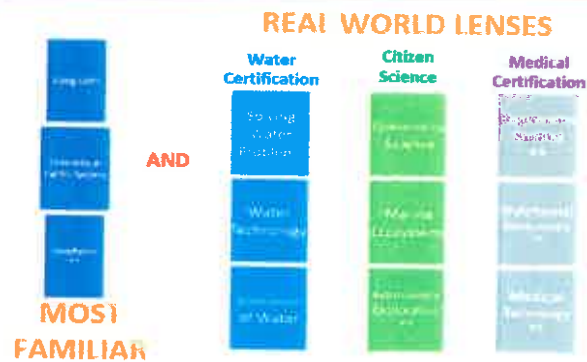
## HIGH SCHOOL SCIENCE: MOVING FORWARD

### REAL WORLD LENSES



\*This is not an exhaustive lens list.  
\*\*Course titles may change

## HIGH SCHOOL SCIENCE: MOVING FORWARD



### Planning and Logistics

- Who can teach these classes?
- Where are we with UCOP Course Submission?
- What is the implementation timeline?
- How can the School Board Support this effort to MOVE FORWARD?
- \*\* Courses under construction



## HIGH SCHOOL SCIENCE: MOVING FORWARD

### Every student:

- excels at the highest level throughout his/her career at Rialto Unified School District
- will be a responsible citizen who contributes to a global society
- will achieve success in his/her chosen life endeavors
- will graduate with a personal pathway for success



## TODAY WE:

- Defined how *Rialto USD's Strategic Plan* has been used to guide reform in science
- Described the *architecture* of the NGSS Standards
- Shared NGSS *progress*
  - Elementary Schools
  - Middle Schools
- Outlined NGSS work for high school implementation
  - Analyzing data
  - Articulating *the plan moving forward*

