

The 7 Steps.—John Seidlitz

1. **Teach students what to say when they don't know what to say**
2. **Have students speak in complete sentences**
3. **Randomize & Rotate when calling on students**
4. **Use total response signals**
5. **Use visuals and vocabulary strategies that support your objective**
6. **Have students participate in structured conversations**
7. **Have students participate in structured reading/writing activities**



Together...
We Build Tomorrow!

Clint ISD

8th Grade

Science Calendar 2019-2020

The following calendar does not contain the process standards but are included at the end of this booklet on page 14. The Seidlitz 7 can be found on page 16 and a table version of this calendar is on page 15 for your reference.

This calendar can be used along with the TEKS Resource System (IFD) to plan instruction. Quality instruction aligned with the curriculum at an appropriate level of rigor will ensure that students are successful.

The 3rd and 6th week are short checkpoints (10 items or less) covering only that 3 week window of instructional time. The 9 weeks checkpoint is longer (20-40 items); it covers content taught during the full preceding 9 weeks of instructional time. The 3-6-9 Week Checkpoints will include open ended and griddable questions. The 3rd and 6th weeks assessment can be taken for a daily grade at your discretion. The 9 weeks exam can be counted as a test grade at teacher discretion and data will be pulled at the campus and district level to support instruction. Please see CISD 3-6-9 Week Checkpoint FAQ.

July 2019 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22 Teacher PD	23 Teacher PD	24 Teacher PD	25 Teacher PD	26 Teacher PD	27
28	29 First Day Safety Rituals Routines	30	31 Process for Scientific Investigation			

August 2019 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Process for Scientific Investigation	2	3
4	5 8.11A Unit 1	6	7	8	9	10
11	12 8.11A	13	14	15	16 3-Weeks	17
18	19 8.11B/8.11C	20	21	22	23	24
25	26 8.11B/8.11C	27	28	29	30	31

Time Frame	Unit(s)	TEKS	Test Date
July 29 - Aug 16 (1st-3 Weeks)	Unit 1	8.11A	Aug 16
Aug 19 - Sept 6 (1st-6 Weeks)	Unit 1, Unit 2	8.11A, 8.11B, 8.11C	Sept 6
Sept 9 - Sept 24 (1st-9 Weeks)	Unit 1, Unit 3	8.11A, 8.11B, 8.11C, 8.10A, 8.10B, 8.10C	Sept 24/25
Oct 14 - Oct 30 (2nd-3 Weeks)	Unit 4	8.7A, 8.7B, 8.7C	Oct 30
Nov 4 - Nov 22	Unit 5	8.8A, 8.8B, 8.8C, 8.8D	Nov 19, 20 Interim
Dec 2 - Dec 16 (2nd- 9 weeks)	Unit 4, Unit 5, Unit 6	8.5A, 8.7A, 8.7B, 8.7C, 8.8A, 8.8B, 8.8C, 8.8D	Dec 16/17
Jan 6 - Jan 24 (3rd- 3 weeks)	Unit 6	8.5B, 8.5C	Jan 24
Jan 27 - Feb 13 (3rd- 6 weeks)	Unit 7	8.5C, 8.5D, 8.5E	Feb 13
Feb 18 - March 3 (3rd- 9 weeks)	Unit 6, Unit 7, Unit 8	8.5B, 8.5C, 8.5D, 8.5E, 8.6A, 8.6B	March 3/4
March 23 - April 9 (4th- 3 weeks)	Unit 8	8.6C	April 9
April 14 - May 1 (4th- 6 weeks)	Unit 9	8.6C, 8.9A, 8.9B, 8.9C	May 1
May 4 - May 28 (4th- 9 weeks)	Unit 8, Unit 9	8.6C, 8.9A, 8.9B, 8.9C	May 28/29

Science Process Standards

(Blue—Tools to Know, Green—Ways to Show)

(1) Scientific investigation and reasoning. The student, for at least 40% of the instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. The student is expected to:

(A) demonstrate safe practices during laboratory and field investigations as outlined in Texas Education Agency-approved safety standards; and

(B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials.

(2) Scientific investigation and reasoning. The student uses scientific practices during laboratory and field investigations. The student is expected to:

(A) plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology;

(B) design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology;

(C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers;

(D) construct tables and graphs, using repeated trials and means, to organize data and identify patterns; and

(E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.

(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:

(A) analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, so as to encourage critical thinking by the student;

(B) use models to represent aspects of the natural world such as human body systems and plant and animal cells;

(C) identify advantages and limitations of models such as size, scale, properties, and materials; and

(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:

(A) use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other necessary equipment to collect, record, and analyze information; and

(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.

July 2019

August 2019

Unit 01: Investigating Interdependence Among Living Systems

8.11A Investigate how organisms and populations in an ecosystem depend on and may compete for biotic factors such as food and abiotic factors such as quantity of light, water, range of temperatures, or soil composition.

8.11B Explore how short- and long-term environmental changes affect organisms and traits in subsequent populations.

8.11C Recognize human dependence on ocean systems and explain how human activities such as runoff, artificial reefs, or use of resources have modified these systems.

September 2019 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 Labor Day	3 Student Designed Investigations Unit 2	4	5	6 6-Weeks	7
8	9 8.10A Unit 3	10	11	12	13	14
15	16 8.10B/8.10C	17	18	19	20	21
22	23 8.10B/8.10C	24 9-Weeks	25 9-Weeks	26 Reteach to Mastery	27	28
29	30 intersession					

October 2019 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 intersession	2 intersession	3 intersession	4 intersession	5
6	7 intersession	8 intersession	9 intersession	10 intersession	11 intersession	12
13	14 8.7A, 8.7B, 8.7C Unit 4	15	16	17	18	19
20	21 8.7A, 8.7B, 8.7C	22	23	24	25	26
27	28 8.7A, 8.7B, 8.7C	29	30 3-Weeks	31 Teacher PD		

May 2020

Student Designed Investigations

June 2020

MAY 2020 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	6-Weeks 1 8.9C →	2
3	4 Blackout	5	6	7	8	9
10 Mother's Day	11 State Testing	12 State Testing	13 State Testing	14 State Testing	15 State Testing	16
17	18 Student designed Investigations	19	20	21	22	23
24	25 Memorial Day	26 Student designed Investigations	27	28 9-Weeks	29 9-Weeks	30
31	1	2	3	4	5	6

JUNE 2020 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31	1 Student designed Investigations	2	3	4 Last Day	5 Teacher PD	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21 Father's Day	22 State Testing	23 State Testing	24 State Testing	25 State Testing	26	27
28	29	30	1	2	3	4

September 2019

Unit 2: Student Designed Investigations

Unit 03: Investigating Global Weather Patterns

8.10A Recognize that the Sun provides the energy that drives convection within the atmosphere and oceans, producing winds.

8.10B Identify how global patterns of atmospheric movement influence local weather using weather maps that show high and low pressures and fronts.

8.10C Identify the role of the oceans in the formation of weather systems such as hurricanes.

October 2019

Unit 04: Investigating the Sun, Earth, and Moon

8.7A Model and illustrate how the tilted Earth rotates on its axis, causing day and night, and revolves around the Sun, causing changes in seasons.

8.7B Demonstrate and predict the sequence of events in the lunar cycle.

8.7C Relate the positions of the Moon and Sun to their effect on ocean tides.

November 2019 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Teacher PD	2
3	4 8.8A, 8.8B, 8.8C, 8.8D Unit 5	5	6	7	8	9
10	11 Veterans Day	12 8.8A, 8.8B, 8.8C, 8.8D	13	14	15	16
17	18 8.8A, 8.8B, 8.8C, 8.8D	19 Interim Assessment	20	21 8.8A, 8.8B, 8.8C, 8.8D	22	23
24	25 T-Giving	26 T-Giving	27 T-Giving	28 T-Giving	29 T-Giving	30

December 2019 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 8.5A Unit 6	3	4	5	6	7
8	9 8.5A	10	11	12	13	14
15	16 9-Weeks 8.5A	17 9-Weeks	18 Last Day ReTeach for Mastery	19 Break	20 Break	21
22	23 Break	24 Break	25 Break	26 Break	27 Break	28
29	30 Break	31 Break				

March 2020

Unit 08: Investigating Force and Motion

8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion.

8.6B Differentiate between speed, velocity, and acceleration.

8.6C Investigate and describe applications of Newton's three laws of motion such as in vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches.

April 2020

Unit 08: Investigating Force and Motion

8.6C Investigate and describe applications of Newton's three laws of motion such as in vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches.

Unit 09: Investigating Forces that Change the Earth

8.6C Investigate and describe applications of Newton's three laws of motion such as in ~~vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches.~~

8.9A Describe the historical development of evidence that supports plate tectonic theory.

8.9B Relate plate tectonics to the formation of crustal features.

8.9C Interpret topographic maps and satellite views to identify land and erosional features and predict how these features may be re-shaped by weathering.

MARCH 2020 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 8.6A, 8.6B	3 Interim	4 Interim	5	6	7
8	9 Intercession	10 Intercession	11 Intercession	12 Intercession	13 Intercession	14
15	16 Spring Break	17 Spring Break	18 Spring Break	19 Spring Break	20 Spring Break	21
22	23 8.6C	24	25	26	27	28
29	30 8.6C	31	1	2	3	4

APRIL 2020 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30	31	1 8.6C	2	3	4
5	6 State Testing	7 State Testing	8 State Testing	9 State Testing	10 Holiday Good Friday	11
12 Easter Sunday	13 Holiday	14 8.6C	15	16	17	18
19	20 8.6C Unit 9	21	22	23 8.9A, 8.9B	24	25
26	27 8.9C	28	29	30	1	2

November 2019

Unit 05: Investigating Components of the Universe

8.8A Describe components of the universe, including stars, nebulae, and galaxies, and use models such as the Hertzsprung-Russell diagram for classification.

8.8B Recognize that the Sun is a medium-sized star located in a spiral arm of the Milky Way galaxy and that the Sun is many thousands of times closer to Earth than any other star.

8.8C Identify how different wavelengths of the electromagnetic spectrum such as visible light and radio waves are used to gain information about components in the universe.

8.8D Research how scientific data are used as evidence to develop scientific theories to describe the origin of the universe.

December 2019

Unit 06: Investigating Atoms and the Periodic Table

8.5A Describe the structure of atoms, including the masses, electrical charges, and locations, of protons and neutrons in the nucleus and electrons in the electron cloud.

JANUARY 2020 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30	31	1 New Year's Day	Break 2	Teacher PD 3	4
5	6 8.5B	7	8	9	10	11
12	13 8.5B	14	15	16	17	18
19	20 M L King Day	21 8.5C	22	23	3 Weeks 24	25
26	27 8.5D Unit 7	28	29	30	31	1

FEBRUARY 2020 - 8 th Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	31	1
2	3 8.5D	4	5	6 8.5E	7	8
9	10 8.5E	11	12	6-Weeks 13	14	15
16	17 Presidents' Day	18 8.6A, 8.6B Unit 8	19	20	PD Day 21	22
23	24 8.6A, 8.6B	25	26	27	28	29

January 2020

Unit 06: Investigating Atoms and the Periodic Table

8.5A Describe the structure of atoms, including the masses, electrical charges, and locations, of protons and neutrons in the nucleus and electrons in the electron cloud.

8.5B Identify that protons determine an element's identity and valence electrons determine its chemical properties, including reactivity.

8.5C Interpret the arrangement of the Periodic Table, including groups and periods, to explain how properties are used to classify elements.

Unit 07: Investigating Chemical Formulas and Reactions

8.5D Recognize that chemical formulas are used to identify substances and determine the number of atoms of each element in chemical formulas containing subscripts.

February 2020

Unit 07: Investigating Chemical Formulas and Reactions

8.5D Recognize that chemical formulas are used to identify substances and determine the number of atoms of each element in chemical formulas containing subscripts.

8.5E Investigate how evidence of chemical reactions indicates that new substances with different properties are formed and how that relates to the law of conservation of mass.

Unit 08: Investigating Force and Motion

8.6A Demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion.

8.6B Differentiate between speed, velocity, and acceleration.