

## 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

### 7<sup>th</sup> 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 - 7 <sup>th</sup> 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 - 7 <sup>th</sup> Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Student Designed Investigations	2	3
4	5 Student Designed Investigations	6	7	8 7.12F Unit 1	9	10
11	12 7.12C	13	14 7.12D	15	16 3-Weeks	17
18	19 7.12D	20	21	22	23	24
25	26 7.12D	27	28	29	30	31

Time Frame	Unit(s)	TEKS	Checkpoint Date
July 29 - Aug 16 (1st-3 Weeks)	Unit 1	7.12F	Aug 16
Aug 19 - Sept 6 (1st-6 Weeks)	Unit 1	7.12C, 7.12D	Sept 6
Sept 9 - Sept 24 (1st-9 Weeks)	Unit 1, Unit 2	7.6A, 7.12F, 7.12C, 7.12D, 7.12B, 7.13A, 7.13B	Sept 24/25
Oct 14 - Oct 30 (2nd-3 Weeks)	Unit 2, Unit 3	7.7B, 7.12C, 7.12E	Oct 30
Nov 4 - Nov 22 (2nd- 6 weeks)	Unit 3	7.7B, 7.13A, 7.13B	Nov 22
Dec 2 - Dec 16 (2nd- 9 weeks)	Unit 2, Unit 3, Unit 4	7.7B, 7.12B, 7.12C, 7.12E, 7.13A, 7.13B, 7.14A, 7.14B, 7.14C	Dec 16/17
Jan 6 - Jan 24 (3rd- 3 weeks)	Unit 5	7.11A, 7.11B, 7.11C, 7.12A	Jan 24
Jan 27 - Feb 13 (3rd- 6 weeks)	Unit 6	7.11A, 7.11B, 7.11C, 7.12A, 7.12C, 7.5A, 7.5B	Feb 13
Feb 18 - March 3 (3rd- 9 weeks)	Unit 5, Unit 6	7.11A, 7.11B, 7.11C, 7.12A, 7.12C, 7.5A, 7.5B, 7.7A	March 3/4
March 23 - April 9 (4th- 3 weeks)	Unit 7	7.10A, 7.10B, 7.10C	April 9
April 14 - May 1 (4th- 6 weeks)	Unit 7, Unit 8	7.10A, 7.10B, 7.10C, 7.6A, 7.8A, 7.8B, 7.8C	May 1
May 4 - May 28 (4th- 9 weeks)	Unit 7, Unit 8, Unit 9	7.10A, 7.10B, 7.10C, 7.6A, 7.8A, 7.8B, 7.8C, 7.9A, 7.9B,	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 Cell Structures and Functions**

**7.12C** Recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms.

**7.12D** Differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.

**7.12F** Recognize the components of cell theory.

September 2019 - 7 <sup>th</sup> Science - Clint ISD						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 Labor Day	3 7.12D →	4	5	6 6-Weeks	7
8	9 7.6A Unit 2 →	10	11	12	13	14
15	16 7.12B, 7.13A, 7.13B →	17	18	19	20	21
22	23 7.12B, 7.13B →	24 9-Weeks	25 9-Weeks	26	27	28
29	30 intersession					

October 2019 - 7 <sup>th</sup> 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 7.7B, 7.12C →	15	16	17	18	19
20	21 7.12C, 7.12E →	22	23	24	25	26
27	28 7.12C, 7.12E →	29	30 3-Weeks 7.7B → Unit 3	31 Teacher PD		

## May 2020

### Unit 08: Investigating Factors Affecting Earth Systems

7.8C Model the effects of human activity on groundwater and surface water in a watershed. (S)

### Unit 09: Investigating Characteristics of the Solar System

7.9A Analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the Sun, presence of water, and composition of the atmosphere. (R)

7.9B Identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration. (S)

7.6A 7.8A, 7.8B — 6wks Tested

7.10A, 7.10B, 7.10C, 7.6A 7.8A, 7.8B, 7.8C, 7.9A — 9wks Tested

## June 2020

### MAY 2020 - 7<sup>th</sup> Science - Clint ISD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	6-Weeks 1 7.8C →	2
3	X 4 Spiral Day	5 7.8C →	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 7.9A Unit 9	19	20	21	22	23
24	25 Memorial Day	26 7.9B →	27	28 9-Weeks	29 9-Weeks	30
31	1 X	2 X	3 X	4 X	5 X	6

### JUNE 2020 - 7<sup>th</sup> Science - Clint ISD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31	1 7.9B →	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 01: Investigating Cell Structures and Functions

**7.12D** Differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.

### Unit 02: Investigating Body Systems and Homeostasis

**7.6A** Distinguish between physical and chemical changes in matter.

**7.12B** Identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems.

**7.13A** Investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight.

**7.13B** Describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance.

## October 2019

### Unit 02: Investigating Body Systems and Homeostasis

**7.7B** Demonstrate and illustrate forces that affect motion in organisms such as emergence of seedlings, turgor pressure, geotropism, and circulation of blood.

**7.12C** Recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms.

**7.12E** Compare the functions of cell organelles to the functions of an organ system.

### Unit 03: Investigating Plant Systems and Homeostasis

**7.7B** Demonstrate and illustrate forces that affect motion in organisms such as emergence of seedlings, turgor pressure, geotropism, and circulation of blood.

### November 2019 - 7<sup>th</sup> Science - Clint ISD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Teacher PD	2
3	4 7.7B, 7.13A, 7.13B	5	6	7	8	9
10	11 Veterans Day	12 7.7B, 7.13A, 7.13B	13	14	15	16
17	18 7.12C	19	20	21	22 6-Weeks	23
24	25 T-Giving	26 T-Giving	27 T-Giving	28 T-Giving	29 T-Giving	30

### December 2019 - 7<sup>th</sup> Science - Clint ISD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 7.12C, 7.14A, 7.14B, 7.14C Unit 4	3	4	5	6	7
8	9 7.12C, 7.14A, 7.14B, 7.14C	10	11	12	13	14
15	16 9-Weeks 7.12C, 7.14A, 7.14B, 7.14C	17 9-Weeks	18 Last Day	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 07: Investigating Organisms and Their Environments

**7.10A** Observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms. (R)

**7.10B** Describe how biodiversity contributes to the sustainability of an ecosystem. (S)

**7.10C** Observe, record, and describe the role of ecological succession such as in a microhabitat of a garden with weeds. (S)

**7.11A**, 7.11B, **7.11C**, 7.12A, 7.5A, **7.5B**, 7.7A – 9wks Tested

### April 2020

#### Unit 07: Investigating Organisms and Their Environments

**7.10C** Observe, record, and describe the role of ecological succession such as in a microhabitat of a garden with weeds. (S)

#### Unit 08: Investigating Factors Affecting Earth Systems

**7.6A** Distinguish between physical and chemical changes in matter. (R)

**7.8A** Predict and describe how catastrophic events such as floods, hurricanes, or tornadoes impact ecosystems. (R)

**7.8B** Analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas. (S)

**7.8C** Model the effects of human activity on groundwater and surface water in a watershed. (S)

**7.10A**, **7.10B**, **7.10C** — 3wks Tested

### MARCH 2020 - 7<sup>th</sup> Science - Clint ISD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 7.10A	3 9-Weeks	4 9-Weeks	5	6	7
8	9 Interession	10 Interession	11 Interession	12 Interession	13 Interession	14
15	16 Spring Break	17 Spring Break	18 Spring Break	19 Spring Break	20 Spring Break	21
22	23 7.10B	24	25	26	27	28
29	30 7.10C	31	1 X	2 X	3 X	4

### APRIL 2020 - 7<sup>th</sup> Science - Clint ISD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30 X	31 X	1 7.10C	2	3	4
5	6 State Testing	7 State Testing	8 State Testing	9 State Testing	10 Good Friday	11
12 Easter Sunday	13 Holiday	14 3-Weeks	15 Spiral Day	16 7.6A Unit 8	17	18
19	20 7.6A	21 7.8A	22	23	24	25
26	27 7.8B	28	29	30	1	2

## November 2019

### Unit 03: Investigating Plant Systems and Homeostasis

7.7B Demonstrate and illustrate forces that affect motion in organisms such as emergence of seedlings, turgor pressure, geotropism, and circulation of blood.

7.12C Recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms.

7.13A Investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight.

7.13B Describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance.

## December 2019

### Unit 04: Investigating Genetics

7.12C Recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms.

7.14A Define heredity as the passage of genetic instructions from one generation to the next generation.

7.14B Compare the results of uniform or diverse offspring from asexual or sexual reproduction.

7.14C Recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus.

### JANUARY 2020 - 7<sup>th</sup> Science - Clint ISD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30	31	1 New Year's Day	2 Break	3 Teacher PD	4
5	6 7.11A Unit 5	7	8	9	10	11
12	13 7.11B	14	15	16 7.11C	17	18
19	20 M L King Day	21	22	23	24 3-Weeks	25
26	27 Spiral Day	28	29	30	31 7.5A	1

### FEBRUARY 2020 - 7<sup>th</sup> Science - Clint ISD

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27 X	28 X	29 X	30 X	31 X	1
2	3 7.5A Unit 6	4	5	6 7.5B	7	8
9	10 7.5B Part 1	11	12	13 6-Weeks	14	15
16	17 Presidents' Day	18 7.5B Part 2	19	20	21 PD Day	22
23	24 7.7A	25	26	27 7.10A Unit 7	28	29

## January 2020

### Unit 05: Investigating Adaptations in Plants and Animals

**7.11A** Examine organisms or their structures such as insects or leaves and use dichotomous keys for identification. (S)

**7.11B** Explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as migration, hibernation, or storage of food in a bulb. (R)

**7.11C** Identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (*Geospiza fortis*) or domestic animals and hybrid plants. (S)

**7.12A** Investigate and explain how internal structures of organisms have adaptations that allow specific functions such as gills in fish, hollow bones in birds, or xylem in plants. (R)

**7.12C** Recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms. (S) Reteach

**7.11A**, 7.11B, **7.11C** — 3wks Tested

## February 2020

### Unit 06: Investigating Flow of Energy

**7.5A** Recognize that radiant energy from the Sun is transformed into chemical energy through the process of photosynthesis. (R)

**7.5B** Diagram the flow of energy through living systems, including food chains, food webs, and energy pyramids. (R) Part 1

**7.5B** Diagram the flow of energy through living systems, including food chains, food webs, and energy pyramids. (R) Part 2

**7.7A** Illustrate the transformation of energy within an organism such as the transfer from chemical energy to thermal energy. (R)

**7.12C** Recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms. (S) Reteach

### Unit 07: Investigating Organisms and Their Environments

**7.10A** Observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms.

7.12A, 7.5A, **7.5B** -- 6wks Tested