



Elementary Science Grade 5 A v7.0

– Syllabus

Course Name

SG5-A

Elementary Science Grade 5 A v7.0 – Semester A

Course Information

SG5-A is the first semester of this two-semester course.

Science Grade Five is an intermediate course with concepts across many types of sciences, including Earth Science, Life Science, and Physical Science. Through experiences including defining problems, conducting investigations, using the scientific method, using evidence, asking questions, making predictions, making and comparing observations, making inferences, using the engineering design process, and developing models, students learn about properties of and changes in matter; atoms; mixtures; energy; forms of energy; force and motion; galaxies and the solar system; the water cycle; weather and climate; the human body organs and functions; organism structure, function, and comparison; adaptations; and ecosystems.

Course Delivery Method

Online

Contacting Your Instructor

You may contact your instructor using your Canvas Inbox. Technical support is available 24/7 at [TTU K-12](#).

Course Topics

After completing this course, the students should have increased knowledge of

- Atomic theory
- Properties of matter

- Soluble and insoluble materials
- Mixtures
- Physical changes in matter
- Chemical changes in matter
- Basic forms of energy
- Energy and motion
- Electrical energy
- Electricity
- Circuits
- Electrical conductors
- Attraction of electrically charged objects
- Forces of motion
- Change in forces and motion
- Opposing forces
- Galaxies
- Solar system components
- Inner and outer planets
- Define a simple design problem to reflect a need or want
- Scientific investigations and experiments
- Predictions, observations, and conclusions
- Personal opinions vs. observations
- Variables, repeated trials, and control groups
- Collecting and communicating data
- Empirical observations and evidence
- Replicating scientific investigations

Textbook and Materials

No textbooks required. All content is within Canvas.

Materials

- cell phone to take photos, videos, or audio recordings of student work, or a scanner to scan and submit student work
- coloring materials (crayons, markers, colored pencils)
- storage space on your computer and an external device to back up your files (flash drive, external hard drive, etc.)
- erasers
- general household objects for activities
- glue
- headset or earbuds
- lined paper

- multi-colored paper
- notebook or binder for course resources
- pencils and pens
- printer
- printer paper
- ruler
- scissors
- stapler
- tape

Technical Requirements

- Internet access – preferably high speed (for accessing Canvas)
- browser (we recommend Chrome)
- supported browser plugins and settings
The following plugins and settings may be required to use our courses.
 - JavaScript enabled
 - Cookies enabled
 - Java installed
- Email
- Printing capabilities
- Adobe Reader (download from Adobe.com)
- Audio and video capabilities (for watching/listening to course content)
- PDF app (free options available)

Technical Skill Requirements

Be comfortable with the following:

- accessing online learning materials via Canvas
- Internet search engines and browsers (we recommend Chrome)
- uploading assignments into Canvas (there will be instructions for uploading assignments)

Course Pacing

This course is designed to be completed in 18 weeks.

- Print this guide and use a calendar to fill in your goal dates for completing each Module.
- To achieve success, students are expected to submit work in each course weekly.

- Students can learn at their own pace; however, "any pace" still means that students must make progress in the course every week.
- Post the pace guide in a place where you and your Parent or Guardian will see it every day (on the refrigerator or next to the computer). Give yourself a check every time you complete a task, and celebrate your efforts!

Weeks	Lessons	Due Date (you write this in)
1	01.00 Matter: Pretest 01.01 Exploring Matter	
2	01.02 States and Properties of Matter 01.03 Mass	
3	01.04 Volume 01.05 Matter: Discussion-Based Assessment	
4	01.06 Matter: Assessment	
5	02.00 Changes in Matter: Pretest 02.01 Mixtures of Solids 02.02 Solubility	
6	02.03 Dissolving Rate of Soluble Materials 02.04 Temperature and Change	
7	02.05 Changes in Matter: Science Skills 02.06 Changes in Matter: Assessment	
8	03.00 Energy: Pretest 03.01 Forms of Energy 03.02 Motion and Change	
9	03.03 Electrical Energy 03.04 Electricity	
10	03.05 Circuits 03.06 Electrical Charges 03.07 Energy: Discussion-Based Assessment	
11	03.08 Energy: Assessment	
12	04.00 Forces and Motion: Pretest 04.01 Forces That Move 04.02 Making Motion 04.03 Forces and Mass	

Weeks	Lessons	Due Date (you write this in)
13	04.04 Balancing the Forces 04.05 Forces and Motion: Science Skills 04.06 Forces and Motion: Assessment	
14	05.00 Space: Pretest 05.01 Galaxies 05.02 The Solar System	
15	05.03 Patterns of the Sun and Stars 05.04 The Planets	
16	05.05 Space: Discussion-Based Assessment 05.06 Space: Assessment	
17	Floating Vacation Week	
18	Floating Vacation Week	

Course Credit

Your grade will be calculated as follows:

- formative assessments (50%)
- summative assessments (50%)

Assignments are labeled as “summative” or “formative” under Grades in Canvas.

Course Completion and Extensions

- Students may not complete the course in less than 30 days.
- All courses expire six months after the enrollment date.

Academic Integrity

It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

“Scholastic dishonesty” includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

Artificial Intelligence (AI) Use Policy

This policy covers any generative AI tool, such as ChatGTP, Elicit, Photo Math, etc. This includes text and artwork/graphics/video/audio, etc.

All work submitted in this course must be your own. You may not use artificial intelligence tools to complete your assignments in this course.

If an instructor suspects that an assignment is not the work of the student, it will receive a score of zero. The instructor will message the student or provide feedback on the assignment indicating the need to schedule a one-on-one video conference, during which the student will be required to demonstrate their skills or knowledge through an alternative or mutually agreed-upon assignment. The grade of the alternate or agreed upon assignment will be determined at the instructor's discretion with the highest possible score being 70%.

If it is determined that a student has violated final exam directions on Final Exam A or CBE Set 1, the exam will be scored as zero. The student may take Final Exam B or CBE Set 2 with the highest possible score being 70%.

The incident will be reported to Texas Tech K-12 Administration and documented in the student's file. Continued violations of Texas Tech University's Academic Integrity Policy will result in the removal of the student from the program.

Student/Parent Expectations

You will be expected to log into the Canvas course regularly to be aware of possible announcements/reminders and to pace your student's progress in the course.

The following are prohibited while using the Canvas interface:

- spamming;
- hacking; and
- using TTU or Canvas email for commercial purposes;

Inappropriate behavior shall result in consequences ranging from a request to correct the problem, to removal from the course or even the university, depending on the severity of the behavior. Disciplinary actions will be taken according to the TTU K-12 Student Handbook.

Communication

- You can expect a reply from your instructor within 2 business days.
- Use the Canvas Inbox for sending messages to your instructor.

Submitting Assignments

You will submit all assignments through Canvas, rather than by mail or email.

Technical Difficulties

Getting Help

For student assistance with Canvas, visit [TTU K-12 Support](#).

Computer Problems

A working computer is necessary for online coursework. Computer problems will not be accepted as a valid reason for failure to complete course activities within the allotted time frame. Identify a second computer, before the course begins, that you can use if you experience computer problems.

Server Problems

When the Canvas server needs to be taken down for maintenance, the Canvas administrator will post an announcement in your course informing you of the time and date. If the server experiences unforeseen problems, your course instructor will notify you.

Lost or Corrupted Files

You must keep/save a copy of every project/assignment on an external disk or personal computer. In the event of any kind of technology failure (e.g., Canvas server crash or virus infection, students' own computer problems, loss of files in cyberspace, etc.) or any disputes, the instructor may request or require you to resubmit the files. In some instances, the instructor may need to open another attempt within Canvas, so communication with your instructor is critical in these circumstances.