



Science, Grade 2 (SCI) 2B Syllabus

Course Name

SCI 2B

Science, Grade 2 – Semester B

Course Information

SCI 2B is the first semester of this two-semester course.

Welcome to SCI 2B! In this second semester, students will be exploring scientific and engineering practices through scientific investigation and reasoning. The topics included in this semester are:

- scientists, scientific methods, and science tools;
- Earth's surface;
- weather;
- Earth's materials and conservation;
- living things and their environments and dependencies;
- plants and their dependencies and structures; and
- animal needs and survival.

Course Delivery Method

Online

Contacting Your Instructor

You may contact your instructor through the Blackboard messaging system. Technical support is available 24/7 at [TTU K-12](#).

Course Objectives

After completing this course, you should be able to:

- investigate and describe how the Earth’s surface changes from natural forces such as weather, wind, and water (Unit 5, Lesson 1);
- investigate how weather can be measured and recorded (Unit 5, Lesson 2);
- investigate and explain how severe weather such as hurricanes, tornados, and thunderstorms can cause major changes to the Earth’s surface (Unit 5, Lesson 3);
- describe the differences between natural and manmade resources (Unit 6, Lesson 4);
- describe how to conserve natural and manmade resources through reducing what is used, reusing resources, and recycling resources (Unit 6, Lesson 5);
- describe how physical characteristics of environments affect living things such as plants and animals (Unit 7, Lesson 6);
- describe and identify features of food chains such as producers and consumers and how they depend on each other (Unit 7, Lesson 7);
- explain how plants depend on other living things (Unit 7, Lesson 8);
- identify the different structures of plants and how they help plants survive (Unit 8, Lesson 9);
- compare how different structures and behaviors of different animals helps them to survive. Describe the various stages of animal life cycles (Unit 8, Lesson 10); and
- investigate and describe some of the unique life cycles of animals including how some young animals do not resemble their parents (Unit 8, Lesson 11).

SCI 2 addresses the required Texas Essential Knowledge and Skills (TEKS). These can be found at the [Texas Education Agency](http://www.tea.state.tx.us) website.

Textbook and Materials

Textbook(s)

You are required to purchase the **digital** textbook to access some lesson readings and activities. Purchase of the print textbook is strongly suggested, as well.

- Digital: *HMH Into Science Texas: Grade 2*. Houghton Mifflin Harcourt Publishers. ISBN: 9780358900924
- Print: *HMH Into Science Texas: Grade 2*. Orlando, FL: Houghton Mifflin Harcourt Publishers. ISBN: 9780358577201

This digital textbook can only be purchased through the TTU K-12 partner bookstore. You can find the link to the bookstore on the [TTU K-12 website](http://www.ttu.edu/k12). Once you have purchased the digital textbook, you will receive a username and password via email. You will log in at the [HMH Ed website](http://www.hmh.com) to access your textbook.

In addition to your username and password, you will need the following information to login:

- Country: United States
- State: Texas
- District/Independent School: Texas Tech University

Please note that you will not be able to access any of the digital resources if you purchase only the printed textbook.

Materials

Required materials:

- Spiral or bound composition notebook for creating a Science Notebook
- A scanner and software to create PDFs (see **Requirements for Creating PDFs** in the Syllabus section of your course for information on PDF-creation options)
- Other course materials needed for 1st Grade Science are listed in each experiment and in the master list of supplies (see **Appendix A** at the end of this document). They are mostly typical items that can be found in most households, but you may need to purchase additional supplies.

PDF Assignments

You will submit all lessons for this course electronically. Your work for each lesson will need to be saved as a PDF in order to submit the lesson for grading. See **Requirements for Creating PDFs** in the Syllabus section of your course for information on PDF-creation options. The options include the choice of scanning your notebook pages or taking pictures of each page, so you can decide what works best for you.

Be sure your pencil marks, handwriting, and answers are clear for your instructor.

Technical Requirements

- Internet access – preferably high speed (for accessing Blackboard)
- Email
- Word processing software such as Microsoft Word
- Adobe Reader (download from Adobe.com)
- Audio and video capabilities (for watching/listening to course content)
- PDF app (to scan hand-written documentation for graded assignments)
- digital camera or phone (to take pictures of student's lab work, or to take pictures of written work/worksheets)

Technical Skill Requirements

Be comfortable with the following:

- using a word processor
- Internet search engines and browsers

- creating PDFs (see **Requirements for Creating PDFs** in the Syllabus section of your course)

Course Organization

This course consists of 4 Units, each with 2-3 Lessons, and multiple instructional and hands-on activities. Each lesson contains the following:

- Introduction and Instructions
- Learning Objectives and Curriculum Standards
- Learning Activities
- Assessments

Each lesson includes several activities that present content knowledge. Each lesson also includes multiple graded assignments to ensure that you learn the content that has been presented in the activities. Some of the assignments are automatically graded quizzes, and some are written assignments or activities that your instructor will grade. Be sure you read all instructions carefully and ask your instructor for help if something is not clear.

Course Outline

Please note that some assignments will be hidden from you when you start the course. As you move through the units and complete assignments, more will unlock for you.

| Unit | Lesson | Topic | Approximate Time for Completion |
|----------------------------------|--------|---|---------------------------------|
| 5 (Weeks 1-5) | 1 | Changes on Earth's Surface | Week 1 |
| | 2 | Measure Weather | Week 2 |
| | 3 | Severe Weather | Weeks 3-5 |
| 6 (Weeks 6-8) | 4 | Earth's Materials | Week 6 |
| | 5 | Reduce, Reuse, Recycle | Weeks 7-8 |
| 7 (Weeks 9-12) | 6 | Living Things and Their Environments | Week 9 |
| | 7 | Living Things Depend on Each Other | Week 10 |
| 8 (Weeks 13-17) | 8 | Plants Depend on Animals, Wind, and Water | Weeks 11-12 |

| Unit | Lesson | Topic | Approximate Time for Completion |
|----------------------------------|--------|-------------------------|---------------------------------|
| 8 (Weeks 13-17) | 9 | Plant Structures | Week 13 |
| | 10 | Animal Needs & Survival | Weeks 14-15 |
| | 11 | Investigate Life Cycles | Weeks 16-17 |

Assignment Schedule

Each of the following must be completed to complete the course. Items with an asterisk (*) indicate that these are summative assessments for the course. Please note that the Unit tests will be hidden from you when you start the course. Once all assignments for a Unit have been submitted and graded, you will be able to take the Unit test.

| Unit | Lesson | Assignments |
|----------|--------|--|
| 5 | - | Checkpoint 1 (non-graded) |
| | 1 | Lab 5.1: Candy Erosion Experiment |
| | | Unit 5 Lesson 1.4 Assignment: Model a Stream (Part 1) |
| | | Unit 5 Lesson 1.5 Assignment: Model a Stream (Part 2) |
| | | Unit 5 Lesson 1.5 Exit Ticket Quiz |
| | | Unit 5 Lesson 1.6 Exit Ticket Quiz |
| | 3 | Lab 5.2: Build a Paper Hurricane |
| | | Lab 5.3: Make a Hurricane |
| | | Lab 5.4: Make a Tornado |
| | | Unit 5 Lesson 3.8 Assignment: Investigate Severe Weather |
| | - | *Science Notebook – Unit 5 |
| | - | *Unit 5 Test |
| 6 | 4 | Unit 6 Lesson 4.2 Assignment: Sort Resources |
| | 5 | Unit 6 Lesson 5.2 Assignment: Resources, Recycling, and Art! |
| | | Unit 6 Lesson 5.5 Assignment: Design a Recycle and Reuse Area (Part 2) |
| | - | Checkpoint 2 (non-graded) |
| | - | *Science Notebook – Unit 6 |
| | - | *Unit 6 Test |
| 7 | 6 | Unit 7 Lesson 6.3 Assignment: Read, Write, Share |
| | 7 | Unit 7 Lesson 7.5 Assignment: Can you explain it? |
| | | Unit 7 Lesson 7.6 Assignment: Make a Food Chain Model |
| | 8 | Unit 7 Lesson 8.2 Assignment: Model Moving Pollen |

| Unit | Lesson | Assignments |
|------|--------|--|
| | - | *Science Notebook – Unit 7 |
| | - | *Unit 7 Test |
| 8 | 9 | Unit 8 Lesson 9.4 Assignment: Compare Plant Parts |
| | | Unit 8 lesson 9.4 Exit Ticket Quiz |
| | | Unit 8 Lesson 9.5 Exit Ticket Quiz |
| | 10 | Unit 8 Lesson 10.3 Assignment: Read, Write, Share |
| | | Unit 8 Lesson 10.7 Assignment: Group Help |
| | 11 | Unit 8 Lesson 11.3 Assignment: Model a Frog Life Cycle |
| | | Unit 8 Lesson 11.4 Assignment: Life Cycle Video |
| | - | *Science Notebook – Unit 8 |
| | - | Checkpoint 3 (non-graded) |
| | - | *Unit 8 Test |

Course Credit

The course grade will be calculated as follows:

- 50% coursework;
- 50% summative assessment;
- A passing course grade is 70 or higher.

Students must attempt all assignments in the course.

Coursework

The graded assignments within each lesson are formative in nature. This means that they are designed to assist you in applying and demonstrating the lesson concepts, as well as identifying areas in which you need additional review. You may use all the lesson's learning activities to assist you as you complete the graded assignments.

Summative Assessments

Summative assessments are those that allow you to demonstrate mastery of the course objectives. For summative assessments, you will NOT be allowed to use the learning materials. These are opportunities for you to show what you have learned by that point in the course. The summative assessments for this course are as follows:

- **Summative Assessments (50% of Course Grade)**
 - Unit 4 Science Notebook
 - Unit 4 Test

- Unit 5 Science Notebook
- Unit 5 Test
- Unit 6 Science Notebook
- Unit 6 Test
- Unit 7 Science Notebook
- Unit 7 Test

Course Completion

- 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.

Student Expectations

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

Students are expected to maintain an online environment conducive to learning, which includes “netiquette” (Internet etiquette). Please review the basic rules for [Online Discussion Netiquette](#). Ensure that your email messages, discussion board postings, and other electronic communications are thoughtful and respectful. Diverse opinions are welcome in this course, and you are expected to demonstrate an open mind and courtesy when responding to the thoughts and ideas of others.

The following are prohibited:

- making offensive remarks in email or the discussion board;
- using inappropriate language or discussing inappropriate topics online;
- spamming;
- hacking;
- using TTU or Blackboard email or discussion boards for commercial purposes;
- using all caps (considered shouting in online communications); and
- cyber-bullying or online harassment of any type.

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 Code of Student Conduct](#).

Communication

- You can expect a reply from your instructor within 2 business days.
- Use the Blackboard Course Messages tool for sending messages to your instructor.

Submitting Assignments

You will submit all assignments through the Blackboard Assignment Tool, rather than by mail or email.

Technical Difficulties

Getting Help

For student assistance with Blackboard, 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 Blackboard server needs to be taken down for maintenance, the Blackboard 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., Blackboard 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 Blackboard, so communication with your instructor is critical in these circumstances.

Appendix A

These supplies are listed in alphabetical order. You can view a full list of supplies listed in order by Unit, Lesson, and Activity in the Resources section on Blackboard.

- aluminum pans (large)
- ant farm
- assorted craft materials
- beaker
- books (to make stacks)
- bowls, cups, and plates (assorted sizes)
- boxes and containers of different sizes
- camera, smartphone, or tablet (for recording)
- candy (2 hard such as peppermint or butterscotch; 2 soft)
- chalk powder (2 colors)
- chenille sticks
- colored pencils
- cotton swabs
- crayons
- dish soap (blue)
- dish/cleaning sponge
- food coloring (1 any color, 1 blue)
- glue
- gravel or small rocks
- hand lens
- index cards
- jars (glass, with lids)
- lamp (without a shade)
- M&Ms (small bag)
- magazines (including with animals, optional)
- markers
- metric ruler
- modeling clay
- paper (drawing, blank white, and lined)
- paper towels
- pictures (printed, various animals and insects)
- posterboard (2, any color)
- rain gauge
- ribbon
- safety goggles
- sand
- scissors
- skewer (long, thin)
- soil
- spoon (large)
- sticks, grass, other natural materials (optional)
- straws (including 1 extra wide)
- string or yarn
- Styrofoam cups
- tape (including masking tape)
- thermometer
- vinegar
- water
- white carnation