

Boston Collegiate Charter School
6th Grade Science
Course Description and Syllabus

Teacher:

Mr. Baecher

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Best times to call: 8:15-9:00AM or 2:00-4:00PM



Course Overview

Welcome to Sixth Grade Science. This year we will explore many areas of science. Our goal for this year is to foster and enhance students' scientific curiosity, skills, and preparedness for the rigor of middle and high school science.

Themes

Throughout the year, students will engage in hands-on, inquiry-based experiments in which they will gather information and knowledge on specific scientific topics. Integrated into these experiments will be the following themes:

- Inquiry
- Structure
- Classification
- Systems
- Engineering Design Process

Units of Study

- Introduction to Inquiry
- Cells
- Organisms
- Matter
- Weather
- Solar System
- Engineering Design Projects
- Science Projects

By the end of the 6th grade students will master the following skills:

Research Skills:

- Can conduct directed, but limited, research linked to a curriculum content area given specific criteria, citing references using a bibliography. Can type in an organized style with an outline provided.
- Can read references with guidance to identify main points and important vocabulary, use reading to answer questions, and take notes with guidance in an organized fashion.
- Can take a position, present it, and identify facts that support that position.

Laboratory Skills:

- Can safely and appropriately use meter sticks/rulers, glassware, graduated cylinders, electronic balances, thermometers, timers, droppers, wiring equipment, magnets, non-hazardous chemicals, microscopes, and appropriate safety equipment.
- Can identify appropriate safety equipment along with its function, and can follow appropriate lab safety protocol.
- Can associate appropriate units with specific quantities, and make estimates using appropriate metric units.

Investigation Skills:

- Design and execute with significant guidance an experiment with a guided question, testable hypothesis, clear manipulated and responding variables, a control group, constants, and a written procedure.
- Collect, organize, analyze and display data with guidance, and draw conclusions with evidence collected.
- Communicate clearly the results of an experiment visually, orally, or in written form.

Analytical Skills:

- Create an appropriate data table with guidance.
- Identify patterns and relationships among variables in a data set, including trends.
- Create graphs, including bar graphs, and line graphs with guidance.
- Perform basic statistical measurements on data, such as mean.
- Draw simple conclusions and make simple connections from data.
- Recognize that sample size impacts results.

Assessment and Grading

In 6th grade student grades will be based on the following averages:

- 20% Homework
- 30% Major Assessments (Unit Tests and large projects)
- 30% Minor Assessments (Quizzes, WDYL* quizzes and small projects)
- 20% Class Work (lab activities, Do Now assignments, organization, participation, vocabulary check-ups)

Homework

Students should expect science homework each night. When Mr. Baecher grades each assignment, he will often choose 1-3 questions as the Question(s) of the Day. They will usually be the more difficult problems. Mr. Baecher will grade your work as follows:

Assignment Complete?	Questions of the Day	Points	Percent	Homework Club?
Yes	Perfect	10	100	No
Yes	1 Minor Mistake	9	90	No
Yes	2 Minor Mistakes	8	80	No
Yes	3+ Minor Mistakes	7	70	No
Yes/Mostly	Major Misunderstanding OR Minimum Effort Shown	5	50	Yes
No	N/A	0	0	Yes

NOTE ON LATE WORK: Assignments that are 1 day late will receive half credit. Assignments that are 2 or more days late will receive no credit.

*WDYL Quizzes & Vocabulary

“What Did You Learn” or WDYL (pronounced *widdle*) quizzes will be given at the end of most classes. WDYL quizzes will be 2-5 questions long and serve as exit tickets. Students will be responsible for learning the vocabulary and new content in class. Students are responsible for making and tracking their own flashcards. Flashcards will be checked periodically for accuracy and thoroughness.

Organization

Each student is expected to keep required papers (notes, homework, handouts, corrected quizzes and tests, labs, etc.) organized in their Science Folders chronologically, meaning that all new papers go at the back of their folder. Each required paper has an assigned number. They are expected to write that number on the upper right hand corner and also write the number and assignment title on the index, which is kept at the front of their folder. **There is a sample folder in the classroom that students can check as often as needed to help them organize their required papers.** In order to assess organization, Mr. Baecher will give periodic pop quizzes that focus solely on their organization.

Materials

Students should bring the following to class **each day**:

- Two-pocket folder (containing vocabulary packet)
- One blue or black pen
- One red pen
- One pencil with an eraser and a pencil sharpener with a catch basin (NOT battery-powered) – *if students have a mechanical pencil they do not need a pencil sharpener*
- 3x5 index cards (Students should have at least 10 in class at all times. The rest can be left at home)
- Silent reading book

Tutoring

The Lower School has a targeted tutoring program, designed to provide additional skill support to struggling students. **As a result, tutoring is by invitation only.** However, students can complete homework in the *Homework Support* room from 3-5 PM. There, students can find help from peer and teacher tutors.

Please tear off this last page and hand in for your Science HW.

We have reviewed the 6th grade Science Course Description and Syllabus together.

Student Name: _____

Student Signature: _____ Date: _____

Parent Signature: _____ Date: _____

Questions/Comments: