



**6th Grade Science
Syllabus
Mr. David Ames**

Welcome to 6th grade science! We are going to have an awesome year learning all about life and physical sciences. I am very excited to be your teacher this year.

Purpose Statement

Our class will be composed of respectful, responsible students. We will help others and make good choices. We will be organized and participate together to be great students. We will share ideas and information with others to help everyone learn everything they can about science.

Course Description/ Standards

<i>Standards</i>
6.PS3: Energy
1) Analyze the sources of energy in a system to gather evidence supporting that energy is conserved during transfers of kinetic, potential (elastic, gravitational, and chemical), and/or thermal energy. 2) Use a model to gather evidence to support changes to a system can be caused by transfers of sound or thermal energy (i.e., conduction, convection, or radiation)
6.LS2: Ecosystems: Interactions, Energy, and Dynamics
1) Use data to evaluate and communicate the impact of environmental variables, both living and nonliving (e.g., food, water, oxygen, and other resources), on population size within a system.

Standards

2) Construct an explanation that predicts patterns of competitive, symbiotic, and predatory interactions among organisms across ecosystems.

3) Use a model to construct an explanation about the transfer of energy through a food web and energy pyramid in an ecosystem.

4) Construct an explanation that uses abiotic (e.g., precipitation, temperature, soil) and biotic (e.g., biodiversity, number of organisms) patterns in earth's terrestrial and aquatic ecosystems (e.g., tundra, taiga, deciduous forest, desert, grasslands, rainforest, marine, and freshwater) as measures of ecosystem health. 5) Analyze existing evidence about the effect of a specific invasive species on native populations in Tennessee and design a solution to mitigate its impact.

6.LS4: Biological Change: Unity and Diversity

1) Explain how changes to biodiversity in a system would impact human resources (e.g., food, medicine, and clean water) and "ecosystem services" (e.g., climate stabilization, decomposition of waste, and pollination)

6.ESS2: Earth's Systems

1) Diagram oceanic and atmospheric convection patterns in a system that flow due to uneven heating of the earth.

2) Gather evidence to justify that oceanic convection currents in a system are caused by the sun's transfer of thermal energy and differences in salinity leading to global water movement.

3) Construct an explanation for how atmospheric flow, geographic features, and ocean currents affect the climate of a region through heat transfer.

4) Develop and use a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.

5) Analyze and interpret data to determine the impact of humans and other organisms on the water cycle, landforms (e.g., rain shadow effect) and atmospheric systems.

6) Develop a model to explain the role of greenhouse gasses in regulating the Earth's average surface temperature and keeping it habitable.

7) Collect data to provide evidence for how the interactions of air masses result in changes in local weather conditions and how that data can be used to predict probable local weather patterns.

6.ESS3: Earth and Human Activity

<i>Standards</i>
1) Use data to explain the consumption and sustainability of natural resources (non-renewable and renewable) and the resulting impact on Earth's system. 2) Investigate and compare existing and developing technologies that utilize renewable and alternative energy resources. 3) Obtain, evaluate, and communicate information about the impacts of human activities on the biosphere including conservation, habitat management, species endangerment, and extinction.
6.ETS1: Engineering Design
1) Design, evaluate, and improve a possible solution for maintaining biodiversity of ecosystems. 2) Design, construct, and test a device that either minimizes or maximizes thermal energy transfer by combining solutions or parts of solutions to solve a problem that can be communicated and explained to others

Resources and Materials

Students will use the following materials in class: Science textbook, Chromebook, composition notebook, 2" inch binder, colored pencils, notebook paper, scissors, and glue.

Classroom Procedures

- Enter the classroom quietly and travel the most direct route to your seat.
- Once seated, get out all materials needed for class and begin that day's bell ringer.
- Needs should be communicated through a raised hand and silently waiting to be called on.
- Restroom should be used between class changes. If a need arises during class, per school rules, one of your five hall passes should be used to leave the classroom.
- Cellphones should not be present inside the classroom. School policy will be followed.
- Air pods/ Ear buds should only be used when advised by the teacher. All other times they need to be stored in lockers. Students will get 1 warning to put away before they will be taken up.
- Chromebooks should be closed and not in use during lecture, following completion of the bell ringer.
- Pencils should be obtained and sharpened during bell ringer time, before lecture begins.

- Emergency procedures are posted in the room (and taught throughout the year). Students should remain silent during an emergency drill of any kind.
- On lab days, students should remain seated until all instructions are given. Only when given instruction to move should they break out into their lab groups.
- When a guest enters the room, or calls over the intercom, students should remain quiet so that the guest can be properly addressed.
- At the closure of class, students should remain in their seats and pack up their supplies, not gather at the door and wait for the bell.

Classroom Expectations

- Be responsible (follow directions, stay on task, be on time).
- Come to class prepared (bring required classroom materials, homework, and be ready to learn).
- Always show respect to your peers, your teacher, the classroom and supplies. (WE ARE BULLY FREE.)
- Raise your hand to speak; listen when others are speaking.
- Keep hands, feet, and objects to yourself.

Consequences

1. Warning given to student/Redirection given to student
2. Power School event will be added to student along with applicable consequences relating to the infraction (Consequences may include but are not limited to hall isolation, cleaning the room, phone call home, parent signature on note, conference with student, etc.)

How Will I Get Graded This Year?

Students will be graded on daily class work, labs, participation, quizzes, and tests.

Rubrics will be given as projects are assigned and will explain how points are awarded.

All graded work will be out of 100 points.

Tests- count in gradebook **TWICE**

Quizzes

Labs

Participation

Daily Assignments

Grading Scale:

A 100-90

B 89-80

C 79-70

D 69-60

F Below 60

Extra Credit

There will be opportunities throughout each nine weeks provided to students if they need it. This comes in many different forms.

What To Do If You Are Absent?

Parents can access assignment information from the class website. Worksheets or any other handouts from the class will be kept in a specific area that the student should check when he/she returns to school. Google classroom assignments can be accessed from home if absent. Ultimately, it is the student's responsibility to gather all missing assignments. Whenever returning to school, student will need to get missed work made up within 5 days.

How Do You Contact Me?

I will be happy to address concerns or questions throughout the year as they arise.

Feel free to contact me by phone (931)967-5323.

Email david.ames@fcstn.net (Best way to contact me).

Write me a note and send it in with the student.

Planning period is 1st period 8:15 a.m- 9:05 a.m.

I am excited about a new school year!

Mr. Ames

Consent

I have read, understood and I am willing to comply with the expectations and procedures established by Jared Watts and North Middle School.

I will accept the consequences stated if I should refuse to abide by them.

I sign under no undue compulsion, but by my own free will.

Student Signature

Date

Parents/Guardians and Students

Please sign that you have read the information from this class syllabus and the consent including the following topics:

- Teacher Information
- Course Description
- Grading Procedures
- Make-Up Policy/Late Work
- Classroom Expectations
- Classroom Procedures
- Consequences

STUDENT AND PARENT/GUARDIAN COURSE CONSENT

We have read and understand the expectations for our NMS student and will support Mr. Watts in his effort to provide an effective learning environment. We also understand that this course is a course of exploration that will require effort on the part of the student.

Student's Signature/Date

Parent's Signature/Date