O. T. Bonner Middle School
Integrated Life and Physical Science Syllabus
2025 - 2026 School Year

Mr. Zachary Crumpler
Email: zcrumpler@mail.dps.k12.va.us
Room Location: F101
Classroom Phone: (336) 459-0336

Course Description:

The main focus of this course is to teach students a more complex understanding of change, cycles, patterns, and relationships in the living world. The focuses mentioned in the above sentence are parts of the life science portion of this course. This will expand upon the basic principles of exploring cellular organization and the classification of organisms, the dynamic relationships between organisms, and the changes as a result of the transmission of genetic information from generation to generation. Halfway through the semester, the class will transition to physical science. The focuses for this portion of the course will involve an understanding of the nature and structure of matter and the characteristics of energy. This will expand upon the basic principles of the particle nature of matter; the organization and use of the periodic table; physical and chemical changes; energy transfer and transformations; properties of longitudinal and transverse waves; electricity and magnetism; and work, force, and motion. The course will also include the usage of skills of systematic investigation and usage of validating evidence. In order to succeed in this course, mathematical skills, computational thinking, and scientific thinking will be used to help you understand the material.

Course Requirements:

In order to succeed in this course, students will be expected to complete all of their class work, projects, labs, tests, quizzes, and homework. While the amount of work may seem daunting at first, most of the opportunities to complete this work will occur during class. Students must be able to work without impeding others in the classroom through distractions or disruptive behavior. You will also be expected to connect the material in this classroom with material outside of the class. Being able to connect the in class material to current events and the community around the classroom will be a key component to fully understanding life and physical science.

My Classroom Philosophy:

In my classroom, I expect you to meet me in the same manner that I will meet you. I will treat you with kindness and respect to allow you all the same opportunities to grow and flourish within the classroom. I want my classroom to be a welcoming space for you to have what you need and to learn in an environment that works for you. I do not expect everyone to fully understand everything all of the time, and that is perfectly okay! I will do what I can to help you out, as long as you make sure to give an attempt to the problem first. The classroom will be a calm, positive, and safe space for every student to have an equal opportunity to learn and engage with the material.

Classroom Routine

The class will start at the time listed on your schedule, not earlier or later. Once everyone has taken their seat, the period will start. Beneath this sentence will be an organized schedule of what the daily lesson will stick closely to.

- **Daily Check**: 5 minutes at the beginning of class will be spent with the students working on an entrance task to get them to review material from the previous day.
- **New Material/Lesson**: After those 5 minutes are up, a majority portion of the class will be spent learning the new material or focusing on the lesson for the day. This will be to allow for the students to get used to the material.
- **Practice**: Once the material has been taught for the students to know from the lesson, they will practice this material through some assignment within class. This will have the students be able to learn and understand the material through the usage of it. This can be done through worksheets, documents, projects, labs, and other methods of learning.
- **Closing Ticket**: At the end of the lesson, the class will end off with a short review of 3 questions to make sure they had a grasp of the material by the end of the day. This will be the last part of the day before they are all dismissed from my lesson.

Class Supplies

- Pencils and Pens
- Chromebooks
- Binder with Dividers for Life Science and Physical Science

Extra Help

If needed, don't be afraid to ask a question during class. I will do my best to answer it for you. If I do not know the answer to the question, I will get back to you by the next day in order for you to know. There will also be opportunities for tutoring after school on most days. Do not be afraid to ask.

Classroom Policies

At the beginning of our first day, I will go over these policies in order for you all to have a fair and productive time in the classroom. I will also bring them up here in order for you all to have the time to know what I will expect in the classroom ahead of time.

- All students will place their bookbags by the table against the wall with the Word Wall board. Everything you need for the class will be provided during it and projected on the front board.
- Students are not allowed to eat or drink in the classroom. This is a science classroom, meaning we will be working with various materials that can be harmful if ingested. The only time you will be allowed to eat or drink will be if I have given you permission, if I have given you the food/drink myself for you to eat, or if we are eating our lunch in the classroom.
- In order to use the Chromebooks, only I will be able to hand them out to you for you to use. You are expected to only work on classroom work on the Chromebooks and I would love to not have to enforce any regulations on them because you are misusing them.
- Your cellphone and headphones are expected to be put away for the entirety of your time in the classroom. If I see a glimpse of a cellphone not in their Yondr pouches or if I see headphones not put away, I will confiscate them and give you an appropriate punishment for that. The only headphones you may use are ones provided for you by the school.
- In order to leave the classroom, you may only leave when given permission to leave for only going to the restroom, the library, the main office, the nurse, or if you have been requested to go to another classroom.

Grade Breakdown

- Classwork and Homework - 25%
- Quizzes and Minor Assignments - 35%
- Tests, Projects, and Assessments - 40%

A = 90-100% | B = 80-89% | C = 70-79% | D = 60-69% | F = 0-59%

Curriculum Map

Unit Name	Standards of Learning (SOL)	Big Ideas	Suggested Time Frame
Unit 0: Think Like A Scientist	**Priority SOL: LS. 1 / PS.1** Complementary Standards: LS.1 / PS.1	Scientific and Engineering Practices	**5 days**
Life Science			
Unit 1: Organization and Classification of Living Things	**Priority SOL: LS.2ab, LS.3b** Complementary SOL: LS.2cde, LS.3ac	**Cell Structure; Cell Reproduction, & Cellular Processes; Organization in Plants & Animals; Classification of Organisms**	**17 days**
Buffer Days: Assessment, Enrichment, and Remediation			**3 days**
Unit 2: Energy Movement Through Living Systems	**Priority SOL: LS.4b, LS.5a, LS.6ab** Complementary SOL: LS.4a, LS.5bc, LS.6cd	**Photosynthesis & Cellular Respiration; Cycles & Energy Flow through Living Systems; Relationships in Food Webs; Organization & Interactions in an Environment; Virginia Watersheds**	**20 days**
Buffer Days: Assessment, Enrichment, and Remediation			**3 days**
Unit 3: Genetic Factors of Survival	**Priority SOL: LS.7b LS.8b, LS.9a, LS.10a, LS.11a** Complementary SOL: LS.7a, LS.8ac, LS.9bc, LS.10bc, LS.11bc	**Environmental Changes; Interdependence; Adaptations of Species; Predator/Prey Relationships; Population Changes; Catastrophic Disturbances of Ecosystems (Communities & Populations)** **~~Genes & Proteins;~~ Inheritance of Traits & Genetic Variation; Changing Populations / Genetic Drift; Evidence of Common Ancestry**	**26 days**
Buffer Days: Assessment, Enrichment, and Remediation			**5 days**
Physical Science			

Unit 4: Atoms Matter	**Priority SOL: PS.4a, PS.2c, PS.3ad** Complementary SOL: PS.2ab, PS.4b, PS.3bc	**Understanding atoms; The Periodic Table; Metals, Nonmetals, & Metalloids Properties & Interactions of Matter; Physical & Chemical Changes; Chemical Bonding & Molecular Structure; Modeling Conservation of Mass**	**26 days**
		Buffer Days: Assessment, Enrichment, and Remediation	**3 days**
Unit 5: Energy Movement Through Time & Space	**Priority SOL: PS.5b, PS.6a, PS.7a** Complementary SOL: PS.5ac, PS.6bcd, PS.7b	**Energy Transfer & Transformation, Longitudinal and Transverse Waves; Wave Behavior; Applications of Waves; Electromagnetic Spectrum**	**22 days**
		Buffer Days: Assessment, Enrichment, and Remediation	**3 days**
Unit 6: Electric Slide **(Force & Motion, Electricity & Magnetism)**	**Priority SOL: PS.8b, PS.9ace** Complementary SOL: PS.8a, PS.9bdf	**Changes in Force & Motion; Laws of Force & Motion; Static Charges; Classifying Matter; Circuits & Electricity; Magnets; Electromagnetic Forces & Fields**	**17 days**
Unit 7: Show What You Know	**Review SOLs based on data. Students should have differentiated learning opportunities to continue to show mastery of expectations.**		**30 days**

Danville PUBLIC SCHOOLS
Students • Staff • Families • Community