**Broad Meadows Middle School **

Grade 8 Science Syllabus

Mr. Chella

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**Overview:**

Grade 8 students will use abstract thinking skills to explain causes of complex natural wonders of the world and how systems work as a whole. Because many causes are not immediately or physically visible to students, they must utilize observation skills and piece information together in order to make connections to come to an understanding. Noticing and describing patterns aid in understanding cause and effect and assists students in making predictions about future events. In grade 8 these include, for example, causes of seasons and tides; causes of plate tectonics and weather or climate; the role of genetics in reproduction, heredity, and artificial selection; and how atoms and molecules interact to explain the substances that make up the world and how materials change. Being able to analyze phenomena for evidence of causes and processes that often cannot be seen, and being able to theorize, hypothesize and describe those, is a significant outcome for grade 8 students.

**Topics/Standards:**

**Physical Science**

* Matter and Its Interactions
* Motion and Stability: Forces and Interactions

**Earth Science**

* Earth’s Place in the Universe
* Earth Systems
* Earth and Human Activity

**Life Science**

* From Molecules to Organisms: Structure and Processes
* Heredity: Inheritance and Variation of Traits
* Biological Evolution

**Assessment:** Interactive Science (text) Participation Projects Tests/Quizzes

Written/Verbal Reflections Presentations Activities Group Work

STEM Fair Project Labs Interactive Notebook

**General Information/Grading Policy:**

Being present and attentive for class discussion is very valuable. This science class is a community, and learning will be a team effort. Everyone has different strengths, and we will draw on those strengths and learn from and with each other throughout the year. Everyone’s input is important, as is the respect that is given to one another. Class participation shows student comprehension and that the student is thinking about the material being discussed. Questioning and discussion is encouraged in the classroom. There will be many in-class activities that are to serve as formative learning, or to check progress, as we will be building on knowledge throughout the year. Students will keep an interactive notebook, which includes taking notes, utilizing vocabulary, entering handouts into their notebooks, completing journal entries, and collecting data and graphing. There will be written reflections, much like a journal entry about what and how we are learning. This is an ongoing process, so students are encouraged to continuously update their reflections as they make connections to subject material. Scoring is based on an overall point system that includes all of above listed assessments, with emphasis on the ongoing Interactive Notebook and class participation. Grades are EARNED, not given.

**Make up work and late work:**

All assignments must be completed. It is the students’ responsibility to obtain and complete any assessment that was missed, whether it is an activity, lab, vocabulary, etc. Students are responsible for upkeep of their Interactive Notebooks and should check the class table of contents and for any missing work upon returning from any absences.

If there is an issue with sickness, a family emergency, or other various (reasonable) life occurrences, please let me know and I will do the best that I can to accommodate each student on a case by case basis. If a student knows about an absence beforehand on the day an assignment is due or a test is to be taken, it is his/her responsibility to make arrangements with the teacher BEFORE the absence.

Both students and guardians alike have the ability to reach out and communicate with me, please do so if necessary. I have an open door and open arms policy in my classroom and am willing to discuss anything within reason.

**Cheating and plagiarism:**

Neither will be tolerated. If a student is caught cheating on any assessment, he/she will receive a zero for that assessment. This policy also applies to “accomplices” that are willingly assisting the “cheating” student. The teacher reserves the right to inform administration about any issue with plagiarism and cheating.

**Extra credit:**

There will be various opportunities to earn extra credit throughout the year.

Student ideas are welcome for extra credit, but any extra credit assignment sought out by students must first be approved. However, all regular classroom assignments/assessments must be completed first, before an extra credit project is approved (exceptions on a case by case basis). If a student is willing to put in extra effort (key word being EFFORT) then points shall be rewarded.

**Verbal and written mechanics:**

Students must to be able to write in the correct manner, using proper English and mechanics for reflections and other formal writing. Texting abbreviations will not be tolerated (in formal writing). Incorrect use of mechanics may not necessarily reflect in your grade, as the main points are more important, but I will assist in correcting any spelling, grammar, or mechanical mistakes. Lack of effort to improve upon similar or repeat mistakes may begin to reflect upon a students’ grade.

Students’ notes belong to the student. Abbreviations for note taking purposes are absolutely acceptable, and encouraged as a time saver, as long as the student can remember what the abbreviations mean! Spelling mistakes on science vocabulary or terminology will result in a loss of points.

**What to bring to class:**

Pen and/or pencil, colored pencils/crayons (markers bleed through pages) Interactive Notebook, clear tape, glue stick or stapler, an inquisitive and open mind, respectful attitude, willingness to learn, questions, questions, questions! Let’s have some fun!