**Science 8**

**Instructor: Ed Burke**

**Course Description:**

Science 8 is the study of life science. Science students will begin the year by learning about both the needs and characteristics of life along with domains and kingdoms of living things. Detailed, in depth learning about cell biology will follow. Material covered will be detailed in scope and include processes of photosynthesis, respiration, RNA and protein synthesis, DNA and its replication, mitosis, meiosis, and genetics.

Later a unit on microbiology including material on both viruses and bacteria will be presented.

Throughout the year, classroom discussion, lecture and reading will be supplemented with a variety of labs, and videos. Students will become familiar with a variety of lab equipment from compound light microscopes and dissection microscopes, to beakers, test tubes, and graduated cylinders, 3-beam balances, etc.

Dissections will also be performed on earthworms, grasshoppers, and owl pellets.

**Classroom Expectations:**

Students will be expected to come prepared to class with book, notebook and pen or pencil. The general rule as to behavior is for students to be appropriate. Expected behavior includes appropriate comments and remarks, appropriate dress, appropriate reaction to classmates’ comments, etc.

**Grading:**

Grades will be determined by points earned compared to points possible. Questions on a short worksheet for example will count the same as questions on a longer chapter review assignment. Late work will be accepted according to the schools later work policy.

**Portfolio:**

Performance task/portfolio assignments are as follows:

Second quarter – Scientific method – a controlled experiment on growing grass where students select 1 variable to determine its effect on growing of grass. Students will follow the steps of the scientific method throughout.

Second Quarter – Students will write a paper related to genetics, heredity, and a class room project titled “*Faces Only a Mother and Father Could Love.”*

Third quarter – PIT cars. Balsa CO2 dragsters.

In addition to the above portfolio/performance task projects, students will also complete an Indian Education for All project on a book titled *Bull Trout’s Gift.*