

Dear Students and Parents,

Welcome to Accelerated Earth Science. This is an incredibly challenging and exciting year for you and your child. The transition from 7<sup>th</sup> to 8<sup>th</sup> grade science is always a challenging one for all students as Earth Science is an extremely abstract topic. Additionally, this is the first time your child has been tracked in science and the transition to an accelerated program is difficult. Although the topics covered are the same in accelerated and regular level Earth Science allowing for easy transitions between levels during the year, the depth of understanding required and the work load is far greater in the accelerated course.

Our goal is to push students who have rarely been challenged in science to think as deeply as they possibly can. This is something our middle level students do on a regular basis, and we feel that our accelerated thinkers should also be encouraged to challenge themselves and learn to persevere through difficult course work. As a result, it is expected that students will be able to assimilate most information given in class and on homework assignments quickly, and when they are not sure about a topic, that they will seek extra help outside of class. It will be critical for students to understand and not simply skim reading assignments and come armed with carefully thought out questions to class discussions. All accelerated students have the same curriculum regardless of their teacher and so are encouraged to form cross-cluster study groups to facilitate understanding and review of difficult materials.

As it is difficult to understand exactly what is meant by thinking deeper and more abstractly or applying information, here are some examples. During the September Observation unit, we discuss the causes of moon phases. On the Earth Science assessment, we ask students to illustrate and describe the causes of moon phases. On the accelerated level assessment, we could ask students to illustrate all the possible phases of Jupiter that could ever be seen from Earth. As you can see, the accelerated question requires a much deeper understanding of the causes of phases and a much deeper understanding of three-dimensional space. Another example is the way in which we assess student understanding of the New York Geology Unit. In the Earth Science Course, we ask each student to explain the events which occurred, and the evidence which supports their conclusions about each of sites we visit on the Geology Trip. This information is given on the trip. For the accelerated assessment, we ask that students to write a chronological explanation of the events which shaped Massachusetts and Eastern New York State and then how each of the sites we visited provides supporting evidence for these changes. Placing the sites in chronological order requires reading and rereading the supporting materials and developing timelines and logical sequences of events. Accelerated students will also receive weekly thought questions which are mini take-home quizzes. They are to be done without help from or discussion with anyone, but are completely open book/internet and extensions or summaries of what has been done in class that week.

Like accelerated Math, the level of thinking required to be successful in this course is well above what would normally be asked of an 8<sup>th</sup> grade student. If at any time your child is not feeling sufficiently challenged or is feeling overwhelmed by the depth and scope of the material, please contact your child's teacher and arrange a conference to discuss his or her progress. Level switches are possible at any time in either direction. Remember that each child's mind develops at a different pace just as each child's body develops at a different pace. We want your child to feel challenged most of the time, but not overwhelmed. Your child is in grade 8 and can be placed in the honors track at the high school regardless of the level he or she experiences at the Middle School. In the past, students from the Earth Science Class have been recommended for Honors Biology and students in the Accelerated Earth Science Class have been recommended for College Biology based on class performance.

Please feel free to contact your teacher at any time,

Thank you,  
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Tom Longnecker (Department Head)  
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