

Trinity Area School District

Course: Honors Physical Science Grade: 8	Overview of Course (Briefly describe what students should understand and be able to do as a result of engaging in this course): Pre-AP Science for 8th grade has the same 12 curriculum units as all other 8th grade classes. In addition to those units, the Pre-AP students do several forensic science activities, make conclusions from the data collected, and list sources of error they may have in their research. The objective tests for this class are longer than the traditional test, have higher level of difficulty in questions and usually contain a short answer or essay type question section. This class moves at a faster pace than the others and all homework is to be done on their own time, not class time. This allows us a group of days where we can explore a forensic crime scene and collect data. Students learn about fiber analysis, handwriting analysis, paper chromatography, hair analysis, and chemical testing of white powders to build a reference table for comparing an unknown. The students work in cooperative groups and have opportunities to use their lab techniques and follow safety rules that were taught to them at the beginning of the year.
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Overarching Big Ideas, Enduring Understandings, and Essential Questions

(These “spiral” throughout the entire curriculum.)

Big Idea (A Big Idea is typically a noun and always transferable within and among content areas.)	Standard(s) Addressed (What Common Core Standard(s) and/or PA Standard(s) addresses this Big Idea?)	Enduring Understanding(s) (SAS refers to Enduring Understandings as “Big Ideas.” EUs are the understandings we want students to carry with them after they graduate. EUs will link Big Ideas together. Consider having only one or two EUs per Big Idea.)	Essential Question(s) (Essential Questions are broad and open ended. Sometimes, EQs can be debated. A student’s answer to an EQ will help teachers determine if he/she truly understands. Consider having only one or two EQs per Enduring Understanding.)
(The first overarching Big Idea goes here.)	(The Common Core Standard(s) and/or PA Standard(s) that addresses the first overarching Big Idea goes here.)	(The Enduring Understanding(s) for the first overarching Big Idea goes here.)	(The Essential Question(s) for the Enduring Understanding(s) for the first overarching Big Idea goes here.)
(The second overarching Big Idea...)			

Big Ideas, Enduring Understandings, and Essential Questions Per Unit of Study
 (These do NOT “spiral” throughout the entire curriculum, but are specific to each unit.)

Month of Instruction (In what month(s) will you teach this unit?)	Title of Unit	Big Idea(s) (A Big Idea is typically a noun and always transferable within and among content areas.)	Standard(s) Addressed (What Common Core Standard(s) and/or PA Standard(s) addresses this Big Idea?)	Enduring Understanding(s) (SAS refers to Enduring Understandings as “Big Ideas.” EUs are the understandings we want students to carry with them after they graduate. EUs will link Big Ideas together. Consider having only one or two EUs per Big Idea.)	Essential Question(s) (Essential Questions are broad and open ended. Sometimes, EQs can be debated. A student’s answer to an EQ will help teachers determine if he/she truly understands. Consider having only one or two EQs per Enduring Understanding.)	Common Assessment(s)* (What assessments will all teachers of this unit use to determine if students have answered the Essential Questions?)	Common Resource(s)* Used (What resources will all teachers of this unit use to help students understand the Big Ideas?)
<p>these lab activities are introduced before or after each unit of study and can be done in any order</p>	<p>Crime Scene Investigations</p>	<p>Cooperation Inquiry Communication Measurement</p>	<p>3.2.1A 3.2.1B 3.2.1C 3.7.1A 3.7.1B</p>	<p>the technique of paper chromatography is used to match up a red lipstick found at a crime scene to samples already tested</p>	<p>Why are lipstick samples A-B-C-D tested first before given the evidence collected?</p>	<p>Completion of the lab sheets that go along with the activity</p> <p>Correctly identify the criminal based on trace evidence</p>	<p>Crime Scene Investigations, Pam Walker and Elaine Woods, 1998</p>
<p>Who</p>							

	Wrote This?						
	Fibers Don't Fib	Cooperation Inquiry Models Patterns	3.1.1D 3.2.1A 3.2.1B 3.2.1C 3.4.1A 3.7.1A 3.7.1B	Identify and use the proper metric tools and units of measure for a specific job. Physical properties are properties that do not change the identity of the matter. Chemical properties result in the changing of matter into a different substance with a different set of characteristics.			<u>Crime Scene Investigations</u>, Pam Walker and Elaine Woods, 1998
	White Powders	Cooperation Inquiry Models Patterns	3.1.1D 3.2.1A 3.2.1B 3.2.1C 3.4.1A 3.7.1A 3.7.1B	Identify and use the proper metric tools and units of measure for a specific job. Physical properties are properties that do not change the identity of the matter. Chemical properties result in the changing of matter into a different substance with a different set of characteristics.			<u>Crime Scene Investigations</u>, Pam Walker and Elaine Woods, 1998

	Unknown Substances	Cooperation Inquiry Models Patterns	3.1.1D 3.2.1A 3.2.1B 3.2.1C 3.4.1A 3.7.1A 3.7.1B	Identify and use the proper metric tools and units of measure for a specific job. Physical properties are properties that do not change the identity of the matter. Chemical properties result in the changing of matter into a different substance with a different set of characteristics.			<u>Crime Scene Investigations</u> , Pam Walker and Elaine Woods, 1998
	Hair Identification	Cooperation Inquiry Models Patterns	3.1.1D 3.2.1A 3.2.1B 3.2.1C 3.4.1A 3.7.1A 3.7.1B	Physical properties are properties that do not change the identity of the matter. Chemical properties result in the changing of matter into a different substance with a different set of characteristics.			<u>Crime Scene Investigations</u> , Pam Walker and Elaine Woods, 1998

* Some teachers may need to think about the assessments and resources used in order to determine the Big Ideas, Enduring Understandings, and Essential Questions embedded in their courses. At this point in your curriculum mapping, you might want to ignore the “Common Assessments” and “Common Resources Used” columns. However, you may use them if you wish.