**Language Arts**

Concept: satire

Teacher selects three (or more) examples of satire. Students are asked to read/watch one item, write a short summary of the piece, and write one sentence that states the author’s point in writing/creating the piece. This is repeated for each piece. After all rounds are completed, students are put in groups and work first to come to agreement on the point of each item, next to decide what the three pieces have in common.

The teacher asks groups to share their ideas—first on the point of each piece and then on the commonality between them. The teacher then introduces the term “satire” as a word that applies to all three and asks the class to help her craft a definition of “satire” based on what they observed and read. Students read several more examples of satire and a few funny non-satire pieces, discussing evidence for why each is classified as satire or not satire.

The teacher has students read and watch two other pieces. Students are asked to decide if each example is or is not satire and give an explanation for the decision. As a unit project, students work as individuals to create a short satirical piece of their own. The satire may take the form of a performance, song, poem, video, or prose work.

**Mathematics**

Concept: Pythagorean theorem

Students are in groups of 2 or 3 and are given a set of right triangles. They are to measure the sides of each triangle and record the measurements. The teacher then challenges them determine what the relationship is between the lengths of the three sides. Students are provided with calculators. The teacher goes from group to group, asking questions (including leading ones) to help students figure out the relationship. Some groups figure out the relationship with no prompting. Others receive prompts such as “If you told me the length of these two sides, I could calculate this one pretty easily. What would I have to do with these two numbers, mathematically, to get to this number?” and “Think about possible operations in math. We can add, subtract . . . what else?” Groups that finish early can be pushed to test their idea by predicting the length of the hypotenuse of some new triangles and then measuring them.

The teacher calls on students to share out their group’s thinking processes, findings, and questions and manages a class discussion of the different groups’ ideas. The teacher guides the discussion toward a recognition of a pattern for calculation of the long side ( shortside2 + middleside2 = long side2). The teacher introduces the term “Pythagorean theorem” to the class as well as introduces the convention for writing the relationship: a2 + b2 = c2. She models use of the formula as well as provides pictorial examples of how the theorem is used in real life.

Students work to solve Pythagorean theorem problems—first basic concept ones, then word problems involving real-life concepts like mapping, construction, and art. In pairs, students are provided with string, markers, levels, stakes, and meter tapes and challenged to use the Pythagorean Theorem to mark out sites for footings for proposed additions to the school. Finally, students work individually on picture and word problems—some that can be solved with the Pythagorean Theorem, some that cannot—providing solutions to the ones that can be solved using the Pythagorean Theorem and providing justification for why they are not able to solve the others.

**World language**

Concept: future tense

Students read three passages. Each passage is exactly the same except that one is in present tense, one is in past tense, and one is in future tense. Students are to read the passages and first identify, as individuals, which passage is in present tense and which is in past tense (the two tenses they know already). Next, students are asked to try to determine what the rules are for using future tense based on the writing of the third passage (in comparison to the other two). Once students have written down ideas, they share their ideas with their table-partner(s).

The teacher asks representatives from each group to share their ideas for how future tense is created. The teacher guides the conversation so that correct ideas are highlighted and incorrect ideas are re-routed or challenged. The teacher asks students to help her create a set of rules to follow in using the future tense. The teacher leads students through conjugating the future tense of verbs students are familiar with. The teacher then provides examples of any future tense verbs that do not follow the usual rules. Students read passages, listen to dialogue, and watch video clips that are in future tense.

Students work first with partners, then individually, to identify the tense of provided sentences and translate the ones in present or past tense into future tense. For homework, students are to write ten sentences about what they will do this coming weekend, this coming summer, or after high school. For a unit project, students write a one-page essay about what they think school will be like 30 years in the future.

**Health**

Concept: Effects of methamphetamine use

Individual students read (or watch) one of four case studies about users of methamphetamines. Students record the physical, psychological, social, and neurological changes that they observed their case individual experiencing. After recording their observations from their case study, students gather in groups with others (two to four) who read the same case. Once students discuss and agree on the effects, each student amends his or her own list. Students then get in groups of four such that each student read a *different* case. As a group of four, they consolidate their findings to create a list of common and potential effects of meth use.

The teacher asks each group to share one effect as s/he writes the growing list on the board. The teacher shares additional stories, pictures, and clips in order to help students visualize all of the common and possible effects. The teacher asks students to compare these effects to those from other drugs the class has learned.

Students choose one of four options to show their understanding of the concept: create a blog that describes the (fictional) changes in a best friend who has started using meth; create a video or radio advertisement that warns against the use of meth by addressing the deleterious effects of it; record a (fictional) face-to-face, phone, or text conversation between you and a friend who is trying to convince you to start using.