



Curriculum Committee Report
Spring 2012

Committee Members

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The committee would like to extend a heartfelt “Thank You” to Greg for all of his assistance, patience, and candor as we work together for the good of our students!

Curriculum Report for CAC - Spring 2012

The CAC Curriculum Committee was directed by the CAC Executive Committee to look at Alternative Education as a topic for the 2011-2012 school year. There are many alternatives for students at the high school level. The alternatives range from online classes to academies, gifted and AP classes to Gifford Street High School. We decided to focus on a single area just coming into wider usage in the high school, APEX Learning, which is a purchased program used for credit recovery and as an aid to decreasing the number of dropouts.

The Curriculum Committee was also interested in the science curriculum, especially in the elementary schools. This interest grew from a presentation at CAC general about the new literacy initiatives which sparked questions about how science fits into that larger undertaking. As the committee has more active members than ever before, we decided to also learn more about the Science in the elementary schools and how curriculum is created.

We also heard more about 2 previous committee topics, Advanced Placement (AP) classes and equitable and effective grading practices at the secondary level. AP classes continue to increase in number and as the number of students involved increase, there has been an increase in the number of students taking the AP tests and receiving scores of 3, 4, or 5, making them eligible for college credit at some colleges. See the following presentation made to the school board: <http://www.u-46.org/cnt/docs/PathwaysforPrepared-walker09.pdf>.

The grading committee at the secondary school level focused on reviewing current grading practices in the district and has reported recommendations for implementation of new practices over the next few years. Currently the plan in place includes school based discussions and professional development on seven guiding principles for grading. The principles are:

1. Grades should reflect proficiency on well-defined standards-based learning targets that are clear to all stakeholders.
2. Grades should be based solely on academic performance using formative and summative assessments.
3. Grading scales should be devised to give equal incremental value to each grade division.
4. Students should be expected to complete work for credit (late-work accepted).
5. Students should be given multiple ways to demonstrate their knowledge.
6. Feedback should be timely, specific, and related to learning targets.
7. Students should be given multiple opportunities to reach proficiency on specific, standards-based concepts and skills.

A copy of the report provided to the Board of Education on November 1, 2011 regarding the work of the secondary grading committee can be found at

[http://www.boarddocs.com/il/u46/Board.nsf/files/8N9NCQ/\\$file/Secondary+Grading+Committee.pdf](http://www.boarddocs.com/il/u46/Board.nsf/files/8N9NCQ/$file/Secondary+Grading+Committee.pdf).

Apex (<http://apexlearning.com>)

Apex was first implemented in U-46 during the 2009 – 2010 school year at Larkin to support an already existing credit recovery class in which the current materials were no longer available. It seemed like a possible way to help students who (for a variety of reasons from non-attendance

to lack of understanding) were short academic credits and needed a way to get back on track for graduation. Apex is principally used for students who have failed a class or part of a class, say a semester, and it allows them to work on the needed curriculum via computer to get caught up. Students can also take an APEX course when health issues make regular class attendance impossible. Students sign a contract to participate in Apex classes.

Most students take Apex courses during a study hall to complete daily sessions on a computer under supervision of U-46 certified staff. There is also the ability for students to complete Apex coursework at home if they have computer access. All Apex tests must be completed at school in a supervised setting by U-46 certified staff. Apex is quite rigorous as an alternative program for students. The grades received count towards graduation and GPA.

As a program in U46, Apex has been used at Larkin for 3 years and the other four high schools are in their second year of implementation. Apex is implemented differently at each school and the district is still finding its way in regard to full usage. Apex generates monthly usage reports for each high school. The district can set what constitutes passing a class and has chosen 60% as the passing level. There are 300 licenses at each school, not all of which are in use at any given time.

Apex does offer a way for students to recover credits and get back on track to graduate. A student needs to be self-motivated in order to be successful in Apex. Apex as a credit recovery model is extremely difficult for students who do not possess the grade appropriate skills in

Reading and Language Arts. Apex does provide students with an ability to repeat lessons in a self-paced format to review and repeat lessons as needed. Apex is no substitute for 21st century learning where a teacher seeks to engage his or her students with exploration, problem solving, analysis, and making connections to other ideas and classes.

Recommendations for Apex

Data Collection & Usage

Specific data needs to be collected that includes how many students graduate that have Apex credits on their transcript. This data should also include when a student failed the course and the time frame for recovery of credits. It would be beneficial for the district to track best practices on effective usage at each school and spread that success to each high school. It is clear that in the aggregate some students are gaining, but we need to know if they gain enough to graduate. The new data system may allow better follow up to see whether students individually graduate rather than looking at the aggregate. U-46 needs to differentiate who exactly, what kind of student, does Apex work best for.

Professional Development

There needs to be professional development for teachers and guidance counselors to understand the many ways that Apex could aid in credit recovery. The Apex instructors should share their observations about students who are both successful and unsuccessful in Apex to look for trends and patterns of students for whom Apex is the right choice.

Beyond Credit Recovery

Expand the use Apex beyond credit recovery to support students in the summer or during the school year for interested students to gain access to classes that do not have enough students to run effectively. As an example, European History at Larkin has some interest but not enough for a class. It could be offered as a summer Apex class or during the school year as supervision is already present for the credit recovery students. There are students who do not have enough room in their schedules for all the classes that they want to take. An opportunity to take a class in the summer, that then opens the way for another year of art or music or foreign language would be welcomed by a relatively small but interested group of students. We therefore recommend at least a trial of expanding Apex use to non-failing or ill students. At present all students can take some online credits at their own expense per board policy (see <http://www.u-46.org/cnt/docs/section6final2.pdf>, section 6.320). Many students lack these additional out-of-pocket funds for online learning. Using existing Apex licenses could open the path to online study without additional student out-of-pocket expense.

Science Curriculum

The science curriculum exploration began with a lesson from Greg Walker on how curriculum is developed and changed. Until Dr. Torres initiated a curriculum cycle there was no formal plan for reviewing the various subject curriculums. The curriculum cycle has six stages, each of which should take a year. The grades 6 – 12 science curriculum has entered stage 1 this school year (2011 – 2012) and grades K – 5 will enter stage 1 next year (2012 – 2013). The stages are:

1. Assess current curriculum, review current research and standards, and develop curriculum.
2. Implement curriculum, determine and assess materials.
3. Revise if needed, full implementation with assessment and materials.
4. Full implementation and evaluation.
5. Continue to monitor the curriculum to determine if it is still meeting the needs of students.
6. Review, research, prepare to begin the cycle again.

The following details of the curriculum cycle may be found on the U-46 website:

- Overview (<http://www.u-46.org/curriculum/dyncat.cfm?catid=1022>)
- Procedure (<http://www.u-46.org/dbs/curriculum/files/File/cycle/cycle-revision-6-14-11.pdf>),
- Schedule (<http://www.u-46.org/dbs/curriculum/files/File/cycle/final-cyclechart6-14-11.pdf>).

At the same time that U-46 has begun reviewing the science curriculum, big changes are afoot nationally. The Next Generation Science Standards (NGSS) are currently being written by Achieve (<http://www.achieve.org/about-achieve>), a consortium of state political and business leaders. Partners with Achieve in the process of writing these standards are the National Academy of Sciences National Research Council (NRC), National Science Teachers Association

(NSTA), and the American Academy for the Advancement of Science (AAAS). The NGSS will be written according to a framework created by the NRC that was released in July 2011 (http://www7.nationalacademies.org/bose/Standards_Framework_Homepage.html).

The NRC's framework for K – 12 science education has three dimensions: practices or behaviors that scientists engage in the course of study, crosscutting concepts that are used throughout all fields of scientific enquiry, and core concepts that are specific to each area of study. More information is available on this framework from the NGSS website (<http://www.nextgenscience.org/three-dimensions>).

The timeline for Achieve's implementation of the NGSS has not been convenient for U-46. To avoid a lot of rework, it appears that the implementation of new science curriculum will need to be delayed until the NGSS has been prepared, which was anticipated by the winter of 2012 but had not yet appeared by the time this report was written (April 2012).

The CAC Curriculum Committee decided to perform a non-scientific survey of elementary teachers about their opinions of the existing elementary science curriculum. A specimen survey is included in appendix 1 of this report. Ten teachers responded, with at least one from each grade level from 1st to 5th grade. The surveys were anonymous and teachers' responses were candid.

The teachers who responded nearly all agreed that science is an important subject on which to focus, even at a young age. There was not an agreement on the exact grade in which a strong

focus should be given but third grade was mentioned several times. There was near universal agreement that the current science curriculum and district-provided materials available are insufficient for use in the classrooms. Most teachers who replied mentioned that they had provided their own materials either as a replacement or to supplement the materials provided by the district. Several teachers mentioned that their students loved learning science.

While most teachers who responded to the survey said they spend one to two hours per week on science or social studies (typically alternating between the two), one teacher responded that he or she spends no time on science. Several committee members have also heard anecdotally that some schools and/or teachers have eliminated the teaching of science and social studies in order to focus exclusively on literacy and math. Other factors that may be at play here include a lack of comfort on the part of some teachers with the subject matter, a large diversity in reading levels of students in the classroom, and the awkwardness of some of the hands-on materials (for example, the FOSS kits of hands-on experiments) in such large classes.

Recommendations for Science Curriculum

Professional Development

Perform a more comprehensive survey of the kindergarten through 8th grade teachers regarding current science teaching methods.

Provide professional development for teachers to enable them to better integrate the science with the literacy and math curriculum.

Culture in the Classroom

The Board and the Administration should realign the instructional day to include designated time for science in the elementary classroom.

Appendix 1

Name: _____

School: _____

Grade: _____

May we contact you? _____ E-mail address: _____

Please answer the following questions about our elementary science curriculum:

1. What percentage of class time is devoted to science?
2. How relevant do you feel science education is to your students given their age? At what age do you feel science should be given a strong focus?
3. Where do you obtain source material for your science unit? Is it standardized within the school or district?
4. How do you see the current science curriculum aligning with U-46 goals of college readiness?
5. What suggestions would you have for improving the elementary science curriculum? Are you aware of implementations outside the school or U-46 from which we can learn some lessons?
6. In what ways does the school or U-46 excel in implementing its elementary science curriculum?
7. Please identify one or two field trips that you feel are really valuable for students in your grade level to learn about science.
8. Please identify some science concepts (hands-on or theoretical) that you feel are essential for your students to learn. What materials (books, events, activities, etc.) do you use to teach them? What materials would you use to teach them?

