A Real World Curriculum

Proposal

I propose having one Real World course *each year* to help develop and reinforce the concepts of 20 specific areas of study that are necessary to have mastered in order to be fully integrated members of our increasingly complex world (overview on page 4). These four credits would replace required credits for Health & Phys Ed, Civics & Careers, a social science, and either a Science or English credit. I expect this to have minimal impact on the Phys Ed, Family Studies, History, Science, or English Departments, however, except to remove students who have absolutely no interest in those subjects. If anything, a week or two of instruction in a specific area might make *more* students want to take a full course in the area. Additionally, there are a range of equity courses offered at some schools, and this would essentially make parts of those courses *mandatory*. The information covered in the courses being removed would continue to be covered, but a bit each year, catered to the grade and level, instead of all at one time.

Rationale

When considering what students need in the real world, it's imperative to consider what will benefit each individual student and what kind of society we hope to create. Through conversations over the years with many grade 12 students, including my own children, three things have become increasingly clear: (1) they don't feel prepared for life; (2) they aren't learning basic concepts sufficiently, and (3) they really are missing important skill development that should be addressed by the school system.

Students don't feel remotely prepared to leave the comfort of high-school. They don't think they have the skills to be on their own. In many cases, parents are not making them do dishes, laundry, groceries, or prepare meals because they no longer have time to teach these skills or because they don't want anything to contribute further to their children's stress load. For many parents today, in their efforts to make life easier for their children by doing most household chores for them, they've inadvertently made them less able to cope. Adding to this, the removal of family studies and industrial arts in grades 7 & 8, and allowing the one required Health and Physical Education credit to be a choice throughout high school, means students are no longer learning explicitly how to cook, sew, use tools necessary for home repairs, or learn advanced health information. This is particularly true in the academic stream where real world skills are overlooked in favour of what's perceived as more academic or higher status employable studies, particularly in the maths and sciences. Without the foundational skills and knowledge in these areas, the next generation can't enter the world with confidence, and, while parents are an integral part of every child's development, we can't rely on every parent to impart all of this information in homes that are becoming exceedingly busy.

Students need to have concepts reinforced year after year. They feel more confident in subjects they've had to take yearly than in one-off subjects. Some of the very best students can't remember grade 8 history in order to add to the concepts in grade 10 civics, and then they don't recall grade 10 civics lessons enough to draw on information for a politics discussion two years later. It is not a matter that the concepts were inadequately taught, but that it is the nature of learning that concepts have to be repeated and reviewed. Students need a course each grade to reinforce the learning from the previous year. This set of learnings can be reinforced in other classes as well, but, at the bare minimum, this course ensures concepts are mastered yearly.

Students are right; they are significantly lacking in certain skills that are necessary for further education whether or not that happens within or outside of an institutional setting. They need further preparation just to be able to surf the internet without being misled or scammed. They need the

knowledge and skills to reduce their fear of becoming independent adults. In a world of too much information, we have to do a better job teaching students how to research facts. Fifty years ago, some people thought the world was flat, but they didn't have the platform for dissemination of false information the way they do now. Today, slick websites, easily accessible, enable anyone to make the tallest tales seem authentic, and provide a forum to dupe even the brightest students. We have a responsibility to protect students from scams and inaccurate claims by teaching them how to spot them. Students either believe everything they read or nothing. Some criticize any generalization even when the sample to population generalization is valid. They need to know specifics of when it is reasonable to generalize and when it's not. They need to learn to refrain from assessing a situation without gathering more information, and to know when they have enough. How to decipher fact from fiction and reasonable from questionable argumentation, particularly online, must be explicitly taught in schools in order to override questionable material learned elsewhere.

This is also a world of individual efforts. There are no longer secretaries that make the boss's work more readable. We all have to have excellent written communication skills. And, during our free time, online discussion in forums begs for more rational argumentation skills that create more light than heat. And finally, many skills are being lost to technology. Children are growing up believing they will never need to learn how to read a map or spell words or multiply because a program will do it for them, yet allowing generations to develop without a basic understanding of these skills could have longterm repercussions. We can't plan for the future as if it will always be the same as the present, with easy access to computers and wifi. We have to teach students so that they are well prepared for *any* future. Furthermore, we must consider what kind of people we want to live with in our society. We need people who are aware of the needs of one another, who can discuss complex issues effectively, who can measure future consequences against current desires, and who are interdependent citizens. Instead of telling students to put away their phones, we need to give them outlets and ideas that are incompatible with addictive behaviours, an interaction with the community that helps them find ways to use their skills and develop their creative pursuits.

Selection of Instructors

Course instructors must be proficient in multiple areas. It would be nice to expect that all teachers are fluent in all these areas; however, it might be necessary, particularly for higher grades, for there to be a rotation of teachers team-teaching the courses. Different groups would study different portions at a time, in a different order with teachers changing rooms as needed. Most important is teacher proficiency in research methods, statistical analysis, and logic and critical thinking skills, as these abilities are foundational for all other strands.

Real World Skills and Content

The “front pages” of the newest curricula for Humanities and Social Science Courses (2013 40-47) has sections that the Ministry wants covered within *each* course. They include environmental education, healthy relationships, equity and inclusive education, financial literacy, literacy and mathematical literacy, and critical thinking. As an addendum to the course content, these pivotal areas might get a cursory examination. Only as the focus of separate courses will they get their due consideration.

Furthermore, for many students about to move on to university or college, their misunderstandings about grammar, citing sources, and basic research skills may cause them to hit a wall in their education. Some of the problems are caused by acceptance of weaker skills over the years for a variety of reasons:

- the focus of collaboration at the expense of individual practice allows many to fall through the cracks and be given 50s for just showing up without clearly demonstrating essential learnings
- some teachers' acceptance of a list of urls at the end of a document or the promotion of citation machines that enable students to use sources they haven't sufficiently explored
- the shift from teaching explicit grammar rules to teaching only from specific corrections leave students unable to apply standard rules when writing
- the increase in stress might be one factor contributing to a decrease in chores in the home, which is creating a generation unable to cook for themselves or manage basic living skills.

Through ongoing discussion with my students and children about their fears for the future, a gap analysis between what students know and what they need to know would come up with the list generated below.

A typical course runs 90 instructional days, or roughly 18 weeks, which allows for just under a week of content development and skill application with explicit instruction of content followed by practice, then comprehension testing in some areas and reflection in others if time is divided evenly between strands (which should *not* be mandatory). This would also allow for time to enhance skills that are weak in a few of the areas, but if all expectations have been met, then it would allow for extended development in any area of interest. Alternatively, the class as a whole could elect to further focus on one topic for another week.

The courses must be streamed for a better focus of discussion around career objectives in particular, but streaming also allows for more accessible conversations in other areas as well. For instance, expectations around plagiarism or grammar would be different for different levels. In a course with students likely headed for the workplace, understanding semicolon usage is less important than for students headed to university, and citing sources becomes a matter of linking rather than learning the differences between MLA and APA. Each grade and level would assign a different timeline of information for each course, with strands running from between one and ten days, flexibly determined with each group. The modules can also be integrated and overlapping, e.g, with 10 minutes of exercise on alternating days rather than just over the course of one week, and with analysis of research methods during a study on nutritional science. The timeline should NOT, however, be determined by teacher proficiency in each area (i.e. ignoring areas of weaker understanding at the expense of student learning).

A mastery learning approach is preferred in which students must demonstrate a thorough understanding of each area, so any area not fully met can get a concentrated focus at the end of the course. Students must show proficiency in each of the 20 areas. We want an educated populace, so each strand is important. This is, essentially, what *everyone* should know when they finish high school in order to be a good citizen who can read and understand information presented to them, regardless of their area of employability.

Course Overview

General information can be taught over four years in three streams. Students can spend approximately one week per unit each year, but some years could have more focus on one area than another. Students must show they have mastered each area or have to re-do sections at the end. For instance, they'd actually have to pass the section on grammar in order to pass the course. Nothing will be difficult, but it does require effort and support to learn and remember the information.

Civics was 9 weeks, but now, over the four years, there’s 4 weeks of politics and law. Careers was 9 weeks, but now there’s 4 weeks of careers and 4 weeks of personal finances. Students will have 16 weeks of grammar, sourcing, media evaluation, and creative arts in place of one English credit.

General topics below are listed from basic to more advanced. Workplace levels might not be expected to learn the final few topics in some of the sections. To deal with absences, because each week is vital to finishing the course, online modules can be made available as well, but interaction with local agencies and the in-class teacher are imperative. Some modules will be ideal for flipped learning with discussion and questions and exercises completed during classes in order to allow for students to work at their own pace through the information, take the tests, and spend more time in modules that give them difficulty. This allows for modules to be created province wide PROVIDED they're developed by the most competent and engaging teachers in each field, people who are actually in front of students and can develop student-centred video content. But that could never replace in-class discussion with peers facilitated by a well-educated instructor.

The courses should *AUGMENT* the content and skills learned in their other seven courses each year by allowing other subject teachers to have a common expectation of learning in each year. It should also work to help connect students with people in the community, not just for work purposes or support, but for connection, creative outlets, play, and to offer services. The current mandatory volunteer hours could be modified to fit various components.

There are three general areas of instruction as follows:

1. HOW THINGS WORK:
- developing a basic understanding of ourselves and our world

Environmental Sciences (including climate change facts and how to reduce impact);
Nutrition Sciences (what we put in our bodies; how to grow, preserve, and cook food; drug facts);
Home Economics (from hygiene to home repairs - washing dishes and laundry
- low environmental impact mixed with optimal cleanliness - and the healthiest products);
Kinetic Sciences (first aid to fitness needs - Leisure and Recreation);
Finances (reading a paycheque, getting a loan without being scammed, doing taxes);
Transportation (rules of the road - how to walk, bike, and drive safely - how to read a map);

2. COMMUNICATION SKILLS:
- expressing, understanding, evaluating, and responding to information accurately

Evaluating News Media and Identifying Scholarly Sources (including the scientific method);
Statistical Analysis (interpreting data accurately);
Logic and Critical Thinking (fallacies in argumentation, good and bad reasoning);
Grammar and Mechanics of Communication;
Citing Sources and Plagiarism (copyright infringement online and off);
Virtual Technology (staying safe on social media; the dark web as anti-mental health).

3. SELF AND OTHERS:
- identity formation and developing healthy relationships and communities

Applied Ethics (personal responsibility and interdependence);
Mental Health (basic self-help, healthy living, healthy relationships, and how to get help; addictions);
Sexual Education (reproduction, attraction, and relationships);
Politics and Law (government and economics - courts, charter);
Careers (best fit of skills and interests, and managing social dynamics in the workplace);
Stages of Life (caring for self and others at each stage; intergenerational relationships);
North American Culture: Indigenous History & World Religions (basics of all religious systems);
Creative Arts (developing the capacity for creativity through any medium)

A more detailed explanation of each course strand is below:

HOW THINGS WORK:

Environmental Sciences
- climate science - GHG creation through fossil fuels and factory farms
- ways to reduce energy use personally
- renewable energy development
- plastics and pollution
- exercising restraint in a world of abundance (also see Ethics)
- habitat destruction
- water pollution and personal water collection and filtration techniques to ensure clean water in the future
- understanding environmental science research (e.g. IPCC reports)

Nutrition Sciences
- basic nutrition - protein, carbohydrates (simple vs complex), fats;
- fact-based education on street drug effects on the body, as well as caffeine and alcohol
- vaping
- growing and preserving vegetables, legumes, fruits, and berries
- developing meal plans with a focus on unprocessed and meatless meals
- making food - collecting and following recipes; tricks for better results
- scholarly research on supplements and diets carefully scrutinized
- the influence of lobby groups on food guides
- understanding nutritional science research

Home Economics
- basic hygiene - sanitation saves more lives than medicine;
- limits to sanitation - why overcleaning is unhealthy, and what that looks like
- how to wash dishes and clothes
- how to mend clothes
- how to do basic home repairs using power tools
- basic home electrical and plumbing understanding - how to replace a faucet…
- finding and following steps in a YouTube video

Kinetic Sciences
- first aid and CPR
- illnesses provoked by a sedentary lifestyle
- recognizing the first signs of major physical health concerns
- basic physical fitness needs for each individual
- development of an ongoing movement plan incorporating walking and cycling
- play through sports (individual as well as group) - focus on community engagement

Finances
- reading a paycheque - understanding deductions
- new bank account fine print
- avoiding scams - how to identify them and shut them down
- creating a budget and tracking your spending
- understanding hidden costs of living independently
- what are taxes - who pays and where it all goes at each level (also see Politics)
- doing taxes - take a walk through the tax booklet

- negotiating a loan or mortgage
- financial scandals (mortgage crisis, etc.)

Transportation
- rules of the road - necessary for pedestrians and cyclists as well as motorists
- how to get anywhere using public transportation - how to use local buses and trains to avoid car dependency, and to encourage visits to areas near and far
- basic bicycle maintenance: changing tires, etc.
- basic car maintenance
- dangers with walking with earbuds and head down
- dangers of any distractions or impairment (exhaustion….) when driving

COMMUNICATION SKILLS:

Evaluating News Media, Identifying Scholarly Sources, and Internet Safety
- scientific method - what does proof look like
- numerous exercises in debunking or solidifying questionable claims
- this strand should be taught first and incorporated throughout many other strands
- staying safe on social media
- formats and the best fit with what you want to share - how to get the most out of the internet
- the art of selective sharing - basic safety: physical and virtual

Statistical Analysis
- basic understanding of what statistics represent
- generalizing from a sample
- the normal curve distribution
- caution around the idea of 'double' and 'half' in news reporting
- anecdotal vs statistical evidence - limits to statistical reliability and validity

Logic and Critical Thinking
- examples must come from content learned in other courses to provide contextual knowledge
- what it means to read things *charitably*
- facts vs strong opinions vs biased or weak opinions
- evaluating arguments for strong supports
- developing opinions with strong supports
- understanding what you think and why
- organizing thoughts into coherent positions
- logical fallacies in argumentation
- formal logic

Grammar and Mechanics of Communication
To avoid further eroding the language and ensure more precise communication online and off.
- how to use basic tools on the internet (gmail, docs, spreadsheets, etc.)
- homonyms - keeping them straight (it's/its, they're/there/their…)
- what a sentence looks like
- capitalization
- parts of speech
- punctuation - when to use a comma, colon, semi-colon...
- subject-verb agreement
- pronoun-antecedent agreement
- run-on sentences (comma splice) and sentence fragments
- conditional tense and other special cases

- audience - when it's okay to break the rules

Citing Sources and Plagiarism
- MLA notation for most courses, APA and Chicago variations
- how to track sources when doing research
- citing sources in powerpoints
- citing sources on websites
- how use research without plagiarism
- copyright law and what will get you expelled from university and college

SELF AND OTHERS:

Applied Ethics
- it's not enough to have critical thinking without a moral education
- compare duty-based, consequentialist, and virtue ethics
- how to debate well - more light than heat (see also Mental Health and Logic)
- how to develop humility in an age of selfies
- community and family dynamics - sharing the workload
- personal responsibility and interdependence (also see Sexual Education)
- exercising restraint in a world of abundance (also see Environment)

Mental Health
- specific conditions and theories around why they're increasing
- anxiety vs normal feelings of stress and 'useful' stress - using accurate terminology
- how to avoid procrastination in order to avoid stress around task accumulation
- how to develop community in a school - working together towards school goals
- resilience and coping strategies - particularly dealing with loneliness
- anger management strategies
- when to use strategies to cope vs when to get accommodations
- conflict resolution and mediation strategies (see also Ethics)
- CBT how to - for self-help with milder symptoms
- basic self-control around social media (and their variable ratio reinforcement schedule)
- importance of outlets like the arts and sports as well as theories around meditation
- addiction - know the signs and solutions

Sexual Education
- reproduction and birth control
- sexual health
- gender identity and orientation
- theories of attraction
- sexual harassment vs acceptable dating rituals (see also Ethics)
- consent training

Politics and Law
- types of governments worldwide
- history of Canadian democracy including colonization and Indigenous relations
- what are taxes - who pays and where it all goes (also see Finances)
- how we elect our PM, Premiere, Mayor…
- levels and branches of government
- FOCUS: how to be heard in a democracy - rights and responsibilities of citizens
- neo-liberal politics, lobbying, and political enmeshment with corporations
- what you need to know if you're arrested; how to address police officers

- how to address police officers if you're stopped or pulled over
- the court system
- Charter of Rights and Freedoms

Careers
- exploration of skills, interests, and attainable lifestyle goals
- focus on what we can do for society over having a personally fulfilling career (which is rare)
- development of applications, resumés, cover letters
- career cruising and determining the right educational path
- employee rights and responsibilities; employment standards act; safety at work
- what a union is
- human rights and freedoms
- sexual harassment vs appropriate workplace behaviour
- approaching a difficult boss (or other authority) and how to work with others
- WHMIS training for all beyond the videos
- how to fill in forms - application forms as well as social services applications and processes

Stages of Life
- parenting - how to care for children at different stages and levels
- how to help elderly and what to expect as people age
- illness - how to cope and how to help others cope
- asking for what can be done rather than rescuing - fostering empowerment
- changes in social dynamics over the lifecycle

North American Culture: Indigenous History & World Religions
- variety of religious traditions being practiced currently
- pre-confederation history with respect to indigenous peoples
- history of discrimination: residential schools, MMIW, Africville, etc.
- how to acknowledge our collective past without personal guilt-bred defensiveness
- developing a more inclusive world view
- exploring forms of spirituality

Creative Arts
- choices of a variety of art forms to explore both through creating and appreciation
- developing a creative outlet for our own entertainment
- basic coding, construction, or D&D character development, as well as the more typical painting, music, writing, and dance
- students should find what's in their repertoire of enjoyable creative outlets free from comparison to a formal standard → optional classes should be about developing artistic talents, but this course module should be about developing creative enjoyment

Above and Beyond - Some ideas unlikely to be adopted any time soon:

- Get rid of standardized testing entirely in order to better focus on the curriculum at hand rather than teaching to a test. Stop comparing schools, but instead make each school the best it can be. End any magnet programs so students all go to their neighbourhood schools.
- Partially immerse ALL students with greater care (and not during math) rather than dividing schools with specialized programs at a young age. If we want a bilingual nation, then immersion should be part of every PRE-school experience rather than starting at age six.
- Have colleges and universities provide entrance exams to specific programs, and allow most courses to be evaluated on a pass/fail basis in the public school system so that students will focus more on learning than on competing for grades. High schools, in particular, should be

focused on discovering talents and abilities as well as limitations. It should NOT be a contest for marks.

- Have shorter semesters with courses broken up into four modules that are five weeks each. This would help avoid repeated instruction in similar courses. For example, in senior social science courses, theories are repeated in each social science class they take because one isn't a prerequisite for the others, so once a student has taken one, they end up with a full unit of repeated information. Instead we can offer one course in theories, then students can branch off in a variety of directions. It would also help avoid having students repeat an entire course when they just don't understand one portion of the course. For example, in math, a student might excel in everything but geometry. Instead of repeating the course, they could just repeat the module.
- Use year-round schooling, BUT make sure all breaks are at the end of terms, so students are not made to study during their vacation, and build in a Professional Activity day on the first day of each break for teachers to input marks in a less onerous way, so they also have time to recharge.
- Classes Geared to Ability Level - Classes in secondary schools should be divided by levels so teachers aren't teaching to a middle in which some are lost and others are bored. BUT it must be simple to switch levels in order to try the next one, particularly in grades 9 and 10. For example for a student getting a 45 in ENG 2DI, instead of failing them and having them take ENG 2PI the following year, make that automatically a 65 in ENG 2PI, and give them the credit - or for a student getting a 90 in ENG 1PI, make that a 70 in ENG 1DI and move them directly on to 2DI with some extra supports.
- Bring back failure, zeros, and late deductions: It's clear that work habits have a marked effect on learning, so let kids know they're doing something wrong and feel the consequences instead of getting an "I" for incomplete that says 'there's always more time, so just relax.' The attitude that tells them to relax is causing them stress and anxiety later on as their assignments pile up!
- Online OSR (Compass) could have more than just marks, but also a portfolio of work, as well as teacher concerns and best practices with each student from year to year. It should be accessible by the student, parents/guardians, guidance, and current course teachers. It could also be a place to track the guidance IPP.

~ Snyder, May 4, 2019