* SEE PP 1-3 RE: THE LAW AS IT APPLIES TO BOE MEMBERS. JF 42

PRESENTATION TO

RHINEBECK

CENTRAL SCHOOL DISTRICT

Mandatory Reporting Obligations and Molestation and Misconduct In The Schoolhouse

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THE DUTY TO REPORT CASES OF SUSPECTED CHILD ABUSE AND/OR NEGLECT

PROJECT SAVE AND REPORTING REQUIREMENTS

1. Project SAVE, also known as Safe Schools Against Violence in Education Act, contains a number of reporting obligations of which all teachers must be aware. The following is a summary of the relevant provisions:

i. Education Law § 3028-a provides that a school teacher, school administrator, guidance counselor, school psychologist, drug counselor, school nurse, supervisor of attendance, attendance teacher, or attendance officer who has reasonable cause to believe that a student under the age of 21 is an alcohol abuser or substance abuser, may make such a report to the school principal, parents or legal guardian of the student or other appropriate authorities, and that the teacher shall have immunity from civil liability for making such a report.

ii. Education Law § 3028-c provides protection to school employees who report acts of violence and weapons possession. This statute gives school employees immunity from civil liability when they report violent incidents and weapons on school grounds and "whistle blower" protection against employer retaliation. The statute operates on the assumption that teachers will make reports to the authorities or school administration of violence and weapons possession.

iii. New York Social Services Law § 413 and 420, establish the requirement that a school teacher, psychologist, nurse, school officials, guidance counselors etc., are mandated reporters. Such individuals are required to make a report of cases of suspected child abuse and/or neglect. Child abuse and/or neglect can include and not be limited to, any form of sexual contact between a student and a parent or other person legally responsible for his care or other physical abuse of a child by those persons. The regulations state that "a person legally responsible" includes "the child's custodian, guardian, [or] any other person responsible for the child's care at the relevant time." The regulations go on to note that a, "[c]ustodian may include any person continually or at regular intervals found in the same household as the child when the conduct of such person causes or contributes to the abuse or neglect of the child." Any person under the age of 17 cannot consent to sexual activity. The specific procedure for making reports under the Social Services Law is described below.

iv. New York Education Law § 1125 *et seq.*, imposes a duty upon every school teacher, school nurse, school guidance counselor, school psychologist, school social worker, school administrator, school board member, *or other school personnel, required to hold a teaching or administrative license or certificate*, that if a child

has been abused by an employee or a volunteer in an educational setting, that such person shall, upon receipt of any such allegation, whether oral or written, do the following:

1. Promptly complete a written report of such allegation, including the full name of the child alleged to be abused; the name of the child's parents; the identity of the person making the allegation and their relationship to the alleged child victim, and a listing of the specific allegations of abuse in an educational setting.
2. In any case where it is alleged that a child was abused by an employee or volunteer of the school, other than a school within the school district of the child's attendance, the report of such allegations shall be properly forwarded to the superintendent of schools of the school district of the child's attendance and the school district where the abuse allegedly occurred, whereupon both school superintendents shall comply with the reporting and investigation obligation.
3. Any employee or volunteer who reasonably and in good faith makes a report of allegations of child abuse in an educational setting to a person and in a manner described in this Section, shall have immunity from civil liability, which might otherwise occur as a result of such actions.
4. Child abuse in an educational setting means any of the following acts: a) intentionally or recklessly inflicting physical injury, serious physical injury, or death; b) intentionally or recklessly engaging in conduct which creates a substantial risk of such physical injury, serious physical injury, or death; c) any child sex abuse as defined in this section; or d) the commission or attempted commission against a child of a crime of disseminating indecent materials to minors, pursuant to Article 235 of the Penal Law.

Educational setting means the buildings and grounds of a public school district, the vehicles of a school district, to and from school buildings; it also includes field trips, co-curricular and extra-curricular activities, both on and off school grounds, all co-curricular or extra-curricular sites and activities where direct contact between an employee or a volunteer and a child has allegedly occurred.

PENALTIES FOR FAILURE TO COMPLY WITH § E.L. 1125 *ET SEQ.*

- A mandatory reporter who willfully fails to make a report required under E.L. § 1125 *et seq.*, is guilty of a Class A misdemeanor.
- The Commissioner of education is authorized to impose a fine of up to $5,000 upon the individual mandatory reporter who fails to make a report.
- A failure to file a report can constitute professional misconduct, which can lead to the Commissioner revoking the certification and licensure of a teacher or administrator.
- A failure to report can also result in disciplinary action against the employee by the school district.

- Finally, a failure to report can also subject the employee to civil liability should a civil action be commenced by a student or the parents of a student harmed as a result of the failure to report.

HOW TO FILE A REPORT UNDER THE SOCIAL SERVICES LAW

Social Services Law § 413(1) provides in relevant part:

> "Whenever such person is required to report under this Article in his or her capacity as a member of the staff of a medical or other public or private institution, school, facility or agency, he or she shall immediately notify the person in charge of such institution, school, facility or agency or his designated agent, who then also shall become responsible to report or cause reports to be made. However, nothing in this Section or Title is intended to require more than one report from any such institution, school or agency. At the time of making of a report, or at any time thereafter, such person or official may exercise the right to request, pursuant to paragraph (A) of subdivision 4 of Section 422 of this Article, the findings of an investigation made pursuant to this Title or Section 45.07 of the Mental Hygiene Law." (Emphasis supplied.)

The obligation of a teacher to report is not, in the first instance, to report directly to the Hotline. Rather, the obligatory language of the statute requires that a teacher *shall* make the report initially to the building principal.

WHY THE STATUTE REQUIRES THAT THE REPORT BE MADE TO THE BUILDING PRINCIPAL

- There may be multiple sources of information pertaining to the suspected case of child abuse or maltreatment. It will facilitate an investigation and, indeed, may even avoid an unnecessary investigation, if those various sources are consulted.
- It must at all times be kept in mind that Social Services Law § 419 provides immunity from civil liability only for those reports of suspected child abuse or maltreatment which are made "in good faith".
- Where we know that there may be multiple sources of information, which may help to explain a particular circumstance, and a school administrator or teacher does not check those various sources of information prior to making a report that can have a devastating impact upon a parent or family implicated by the report. Further, it may not constitute "good faith action" to make a report to the hotline without checking those sources prior to making such a report. *See* Rossignol v. Silvernail, 185 A.D. 2d 497 (3rd Dep't., 1992). *See also* Vacchio v. St. Paul's United Methodist Nursery School, New York Law Journal, Nassau County Supreme Court, 7/21/95
- The legislature concluded that suspicions be screened and reviewed internally in order to avoid a multiplicity of reports or incomplete information. Multiple reports could result in multiple investigations being opened, thereby duplicating unnecessarily the work of a state agency that is already somewhat overburdened.

- Another reason why information should be funneled through the building principal is because the principal is the first individual from the school district to be contacted by the Department of Social Services investigator when a Hotline report is filed. Thus, if the Social Services agency contacts a school principal, who is unaware that such a report has been made, that principal cannot direct the investigator to the correct personnel who have the pertinent information or supply needed information in a timely manner.

- In Rossignol v. Silvernail, 185 A.D.2d 497 (3rd Dept. 1992), the Appellate Division, Third Department, referred to being labeled as a child abuser as "one of the most loathsome labels in society". The court further pointed out that "the physical and psychological ramifications that may be attendant to addressing, defending and dealing with such charges are difficult to escape." *See also* Delchanty v. Delaware County Department of Social Services, 166 Misc. 2d 182 (Delaware County, 1995, Per Mugglin, J.)

There is a mechanism in the law that allows a teacher who has made a report to a Principal to confirm whether a hotline report was made.

Section 413, subdivision 1, states:

> "At the time of the making of a report, or at any time thereafter, such person or official may exercise the right to request, pursuant to subparagraph (A) of subdivision 4 of § 422 of this Article, the findings of an investigation made pursuant to this Title or § 45.07 of the Mental Hygiene Law."

- As noted above, persons who make such a report are only shielded with immunity from suit if they have acted in good faith in making the report. Hotline Reports made in bad faith, or without some minimal investigation, may very well result in a finding of potential liability for the School District as well as for the person making the report.

MORE ON MAKING REPORTS UNDER THE SOCIAL SERVICES LAW

Good faith in the exercise of making a report of child abuse or maltreatment requires that a teacher or guidance counselor, etc., exercise some minimum level of inquiry before making a report of suspected child abuse and/or maltreatment. That minimum level of inquiry should consist of conferring with that person's colleagues within the context of the school district itself. (*See* Social Services Law § 413(1).) Thus, reporting to the principal and discussing the case with his or her colleagues is not only a statutory requirement which is incorporated into the procedure, but is one which is necessitated if a person is to act in "good faith".

PENALTIES FOR FAILURE TO MAKE A REPORT REQUIRED BY THE SOCIAL SERVICES LAW

- A mandatory reporter who fails to make a report required by the Social Services Law is guilty of a Class A misdemeanor.
- A mandatory reporter who fails to make a report required by the Social Services Law is subject to civil liability for damages proximately caused by the failure to report.

- A mandatory reporter who fails to make a report required by the Social Services Law is subject to disciplinary action by the employer school district.
- A mandatory reporter who fails to make a report required by the Social Services Law risks having his or her certification or teaching license revoked by the Commissioner of Education.

IN THE MATTER OF FARLEY V. JOHNSON CITY CENTRAL SCHOOL DISTRICT, (Broome County Supreme Court, Index No. 2001-1393, per Rumsey, J.)

In this case, the plaintiff alleges that, when he was *16 years of age*, he was involved in a sexual relationship with a male during the summer between his sophomore and junior year in high school. Upon returning to school in the fall, he confided in his music teacher that he had been involved in a homosexual relationship that involved several sex acts with an *adult male*. The music teacher encouraged the student to immediately discontinue the relationship. The student, for his part, pleaded with the teacher not to tell the student's parent. The teacher agreed not to tell the parent and the student assured the teacher that he would have no further contact with his male paramour.

The student's paramour had also been involved in the school as a volunteer musical accompanist. Several times after this report, the perpetrator appeared in the school as a musical accompanist. This ostensibly upset the student greatly. After several more months, the student rekindled the relationship with his male paramour. The student's mother became aware of the relationship through a series of revealing e-mails. The parent then reported the episode to the police, who arrested, charged and convicted the perpetrator for having sex with an underage minor. The parent and the student have now filed an action against the Johnson City Central School District, its superintendent, the teacher, and the perpetrator.

On behalf of the school district, a motion to dismiss the action was recently filed. State Supreme Court Justice Philip Rumsey issued a ruling that *directed that the case brought by the student against the teacher, the school district and its superintendent would be allowed to proceed. The basis of the Court's ruling was that the teacher had an unquestioned legal obligation to report these acts of abuse of which the teacher had knowledge*, the request by the student notwithstanding. The Court also concluded that the student had, in fact, sustained damages at the hand of the school district, even though it was the perpetrator who committed the acts of abuse. The Court ruled that it was enough of a showing of damage for the student to allege that he had been harmed merely by having to deal with the presence of the perpetrator in the school. Furthermore, failure of the teacher to report the episode meant that remedial measures, such as counseling, were not undertaken sooner.

Counseling Point: *It is imperative that you understand your obligation as a teacher to make reports under SAVE, etc. Furthermore, no privilege exists which prevents disclosure by the teacher merely because the student requests that the teacher keep the discussion secret.*

MATTER OF CATHERINE G. V. COUNTY OF ESSEX, 3 N.Y.3d 175 (2004)

In August of 2000, petitioner's then nine-year old daughter reported to her mother that she had been touched sexually by her half-brother Anthony, who was then 14 years old. In September of 2000 the mother reported this information to county and school officials. Neither

county, nor school officials, reported the abuse to the state wide sexual abuse hotline. In January of 2000 the petitioner discovered that Anthony had been repeatedly and frequently sexually abusing Brittany, her eight-year-old sister Melissa and her four-year-old sister Marcie. The failure of the school and county officials to report the abuse to the state wide sexual abuse hotline was the basis for the suit against the school and the county.

The school filed a motion to dismiss the suit arguing that its personnel had no obligation to file a report because Anthony was not a person in a parental relation with the child and was not otherwise a person legally responsible for the child. The Appellate Division, Third Department rejected the school's argument and ruled that the school employees, who are "mandated reporters" had an obligation to make the report when they were advised of information that constituted reasonable cause to suspect that the child had been sexually abused and that the investigating agency should be left to determine whether a person in a parental relation committed the abuse. Accordingly, the Appellate Division ruled that the *petitioner had a valid legal claim against the school psychologist and the building principal* who had each been informed of the mother's suspicions in September of 2000 and that the Petitioner also had a claim against the school district.

In October of 2004, the Court of Appeals of New York weighed in on the matter. New York's highest Court ruled that the reporting requirements contained in Social Services Law § 422 did not require school officials to make a hotline report. The Court noted that the act defines both an "abused child" and a "neglected child" as a child harmed by a "parent or other person legally responsible for his care." The Court concluded that Anthony was obviously not a "parent or guardian" and was not a "person legally responsible" for Brittany's care.

The Court looked to the plain meaning of the statute's language and the definition of guardian and concluded that Anthony did not meet that classification. The regulations state that "a person legally responsible" includes "the child's custodian, guardian, [or] any other person responsible for the child's care at the relevant time." The regulations go on to note that a, "[c]ustodian may include any person continually or at regular intervals found in the same household as the child when the conduct of such person causes or contributes to the abuse or neglect of the child."

The Court noted that the petitioner did not leave the girls in Anthony's charge and noted that young siblings were not the target of the reporting law. The Court concluded that the law was designed to detect and address abuse by parents, parents' paramours and guardians or custodians. The Court explicitly noted that in certain circumstances, a sibling may be a guardian or custodian, but that Anthony, was not. The Court concluded that only siblings age eighteen or older could qualify as guardians or custodians for the purposes of the reporting law. However, the Court also stated that "[w]hen in doubt about whether a case must be reported,... [mandatory reporters] ought to err on the side of caution and make a report."

Counseling Point: *Even though the decision held that abuse or neglect by siblings under the age of eighteen does not require a report to be made, if there is any doubt about the need to make a report, the report should be made. The regulations protect mandatory reporters who make a report in good faith from civil liability that could arise if the report turns out to be unfounded.*

VACCHIO V. ST. PAUL'S UNITED METHODIST NURSERY SCHOOL, NY LAW JOURNAL, JULY 21, 1995, P. 32, COL. 2 (NASSAU COUNTY 1995)

Vacchio involved a circumstance where a nursery school teacher observed that a child had a black eye and, without more, called the New York State Central Registry on Child Abuse and Maltreatment. The report was later determined to be baseless and unfounded. The parents sued both the teacher and the Nursery School, alleging defamation. The defendant's moved to dismiss the action, alleging that § 419 of the Social Services Law immunized them from this suit. The court denied the motion noting that it did not appear from the papers submitted that "any attempt was made to determine how the black eye was caused before reporting the suspected abuse or maltreatment".

The court further stated that the "the good faith of any person making a report was in most instances presumed, provided, however, that such person was acting in discharge of their duties and within the scope of their employment, and that such liability did not result from willful misconduct or gross negligence on the part of such a person, official or institution."

However, the court also held that it was at least arguable that the failure to conduct a preliminary inquiry or investigation prior to the rendering of a report, may support a finding of gross negligence.

WEBER V. COUNTY OF NASSAU, 215 A.D.2d 567, 569 (N.Y. App. Div. 1995) (Stands for proposition that multiple reports are not necessary and some investigation is appropriate prior to making a report)

"Social Services Law § 413 (1) provides that certain persons, including social workers, are required to report suspected child abuse when they have reasonable cause to believe that the child coming before them is abused or the person legally responsible for the child states from personal knowledge, circumstances indicating that the child is abused. Here, the allegation of child abuse was not made by the child or by a person legally responsible for the child. Weber's supervisor advised her that it was premature to make such a report, and upon discussing the matter with hospital staff, learned that the persons who made the allegations were not members of the child's household and that there was no plan as yet to discharge the patient. Three days after the allegations were made, Pilgrim Psychiatric Hospital made a report to Child Protective Services, obviating the need for a report from the Department.")

THE INTERPLAY BETWEEN EDUCATION LAW SECTION 1125 AND THE SOCIAL SERVICES LAW

§ 413-420 of the Social Services Law ("S.S.L.") does not require that school teachers or administrators make reports to the child abuse register where a teacher or administrator learns that a student has alleged that she was sexually or physically abused at school by a teacher. Rather, in such circumstances, teachers and administrators are required to comply with E.L. § 1125 *et seq* because the Education Law section was specifically enacted in order to mandate a specific, detailed and uniform reporting requirement where teachers are alleged to have acted in an inappropriate sexual manner with students.

Education Law § 1125 *et seq* is controlling where educators learn of possible abuse of a student that occurs in the educational setting. Section 1125 *et seq* of the Education Law requires that administrators contact law enforcement, advise the parents of the complaint, investigate the complaint, and prepare a written report regarding the complaint. *See* E.L. § 1125 *et. seq*.

The legislative history for § 1125 *et. seq*. states that,

> "No standard statewide policy exists for the reporting, investigation or identification of this form of child abuse. Standardization and consistency are necessary and appropriate for the protection of the school children of New York state. The legislature further finds that the reporting of allegations of child abuse in an educational setting must be formal, consistent and well documented." *See* E.L. § 1125 and Legislative findings and intent.

The reporting requirements contained in the S.S.L. require reports to be made by teachers and school administrators where the teacher or administrator has a reasonable basis to conclude that a child has been abused or neglected by a parent or a parent's paramour. The S.S.L.'s reporting requirements do not require teachers to make hotline reports where a student is alleging sexual misconduct by a teacher in a school setting, because the reporting requirements contained in E.L. § 1125 covers those circumstances. *See* Matter of Catherine G. et al., v. County of Essex et al., 2004 N.Y. LEXIS 2413 (Court of Appeals of New York 2004) (the social services law's reporting requirements were intended to cover abuse or neglect by parents and their paramours)

THE ISSUE OF SEXUAL MOLESTATION AND MISCONDUCT IN THE SCHOOLHOUSE

LEGAL BACKGROUND

In August of 2005, the New York State Education Department announced that the most often cited reason for teachers to lose their teaching credentials and teaching license was due to acts of sexual molestation and sexual abuse and/or improper relationships between teachers and students. (*See* The Post Standard, 08/14/05, 'Policing Sexual Misconduct") The attached case materials summarize the recent change in focus and perspective on this subject.

The State Education Department and the courts have begun to recognize the profound harm caused by these improper acts by teachers perpetrated upon students. As the case law below establishes, the courts in particular, and State Education Department, are beginning to examine these situations much more severely. These cases provide a warning to all school districts that issues of improper relationships between teachers and students must be immediately recognized for what they are and be promptly and aggressively investigated with appropriate and severe disciplinary action taken when warranted.

MATTER OF BINGHAMTON CITY SCHOOL DISTRICT V. PEACOCK, Index No.: 2004-1131 (Decision Per Judge Joseph P. Hester, Jr., 03/14/05) (Broome County Supreme Court)

This case is the first in a series of cases that have addressed the issue of a decision by a hearing officer which is regarded as too lenient, being set aside by the courts.

Respondent teacher was charged with five (5) counts of misconduct and various and improper behavior, including conduct unbecoming a teacher. The hearing officer found, and the evidence established, that the Respondent teacher left work early without leave, for purposes of picking up the student to take the 17-year old female student to his home, where they engaged in a private luncheon behind closed doors for more than six (6) hours at his residence on June 17, 2003. The evidence in the case also established that he purchased gift certificates in the form of tanning sessions for the student; purchased cell phone cards for her so she could speak to him privately on his cell phone; transported her on two (2) occasions in his personal automobile, despite knowledge that he was not allowed to do so; left work early without permission and got paid for it; developed an improper and personal relationship with the student; and that as a married teacher, committed professionally improper conduct. The hearing officer found the teacher guilty of conduct unbecoming a teacher, insubordination, neglect of duty and conduct demonstrating immoral character. The hearing officer found that the teacher had engaged in an inappropriate relationship with the student and had admitted to making the purchases of various gifts and cell phone cards for her. The evidence established, without refutation, that the teacher had made over 1500 cell phone calls to the student in a six-month period prior to the luncheon.

Under the circumstances, the hearing officer's decision to suspend the employee only for one (1) year, without pay, with no other conditions, was found by the State Supreme Court to be completely irrational. In fact, the State Supreme Court ruled that the hearing officer's decision was, in the words of the Court, "shockingly lenient". The State Supreme Court ordered the case back into a new hearing before that hearing officer to determine a "more appropriate penalty". That matter is currently under active litigation and the hearing process is underway. We are urging the hearing officer to terminate the services of Mr. Peacock.

The decision of the State Supreme Court in this case is instructive.

> The Court is mindful that the hearing officer enjoys wide latitude in dispensing sanctions and judicial review is limited to those instances where the penalty shocks the conscience of the Court or violates public policy...Respondent's misconduct was not an isolated incident. Respondent maintained an inappropriate personal relationship with S. L. for the majority of the school year 2002-2003. While initially he was guilty of only exercising poor judgment, Respondent purposely engaged which he knew or, given the administrator's warnings, should have known would place him in a situation which would foster this inappropriate relationship. His relationship with S. L. caused him to shirk his responsibilities to his employer and other students. Respondent demonstrated his complete lack of remorse by continuing his contact with S. L. after her graduation. There is no evidence or reason to believe that Respondent would behave any differently at this time. The penalty of only one year suspension without pay is so disproportionate to the Respondent's offense that it shocks the conscience of this

Court...However, contrary to Petitioner's contention, this Court finds that it cannot resolve the issue of penalty by increasing the penalty...as such, the matter must be remitted for the imposition of a new penalty.

(Court Opinion at page 7)

THE SCHOOL DISTRICT OF THE CITY OF NEW YORK V. HERSHKOWITZ, 2005, N.Y. SLIP OP 50569U (Sup. Court, New York County, 2005)

In this case, decided a month after the Peacock case above, the Court dealt with a challenge by a board of education to a hearing officer's finding. It concluded with a ruling that the hearing officer's decision to only suspend the employee for one (1) year, without pay, was shockingly lenient, and vacated the penalty. In this case, the State Supreme Court found that the hearing officer's action was totally irrational and that the hearing officer's award of a one-year suspension without pay, violated a strong public policy of the state.

In this case, the respondent teacher carried on an inappropriate relationship with the student. The respondent teacher carried on inappropriate conversations with the student via e-mail. During these conversations, the teacher discussed with the student having sexual intercourse and her touching his genitalia. The hearing officer found the respondent teacher guilty of sexual conduct toward the young high school student. However the hearing officer, shockingly, allowed the teacher to return to the classroom after only a one-year suspension without pay. Part of the hearing officer's analysis involved a finding by the hearing officer to the effect that the penalty did not need to be as severe because the teacher did not actually carry out the sex act.

The hearing officer found that the teacher communicated with the student in a clandestine manner. Further, that he encouraged the student to set up clandestine e-mail accounts so that he and the student could correspond with one another. Additionally, the content of the conversations was explicitly sexual, but no actual sex acts ever took place. This was found by the hearing officer to have been a basis upon which the hearing officer ruled that the employee should not be dismissed from the service of the school district. This the State Supreme Court found to be "irrational". The State Supreme Court found that it was completely irrational and ridiculous for the hearing officer to conclude that because the predatory teacher did not succeed in carrying out his sexual interest in the student, that he should be rewarded for such conduct by only having a suspension imposed. The Court observed:

> Indeed, to suspend respondent for one year actually tells him and everybody else that these perverted and insidious acts are not serious. Importantly, it also tells S. B. (the student) and her mother that S. B.'s resolve and her mother's courage used in withstanding and reporting respondent's persistent and improper advances were for naught. In fact, S. B.'s resolve is being used against her by those responsible for ensuring her safety, as an attempt to minimize the heinous nature of respondent's acts and attempt to get S. B. to deceive her parents. This Court simply cannot countenance such an attempt. Instead, this Court chooses to call the teacher's acts for what they are, an abuse of trust of the most serious kind; one that warrants forfeiture of the privilege to share his knowledge with those who are more vulnerable.

(Court Opinion at page 5)

The Court went on to find that the penalty imposed by the hearing officer was totally irrational and vacated the same. The Court found that the respondent never crossed the line only because he had been apprehended and turned in by the student and her parents before he had an opportunity to do so. The Court concluded that to reward him for such misconduct was simply outrageous. The Court also addressed the contention proffered by the hearing officer that the respondent teacher had 25 years of service without any prior discipline. However, the Hearing Officer failed to appreciate the harm the respondent's behavior could have on a child both presently and in the future. This the Court found, particularly in light of recent reported cases and advances in the scientific and psychological literature wherein there is a greater appreciation for the harm of such inappropriate relationships. The Court concluded that respondent was not fit to be in the classroom.

In its opinion, the State Supreme Court also tracked the development of the recent scientific and psychiatric literature establishing the incredible harm caused to students through these inappropriate and predatory relationships with adult teachers. The Court noted much of the scientific literature and concluded that the potential for harm to the student was enormous and cannot be dismissed with a simple finding that because no sex act occurred, no harm has come about. Such a conclusion, the Court said, is completely irrational and devoid of basis in fact. In reality, the Court found that there is much scientific literature to support the proposition that such a relationship is extremely harmful to children and likely to cause long-term lasting psychological impact.

Because this opinion is so instructive, we have attached a copy of the same to these outline materials.

The ultimate conclusion in this case is that the penalty was vacated. There is a strong suggestion that the Court believes that the appropriate penalty is dismissal of this individual from the employment of the school district.

BOARD OF EDUCATION OF PERU CENTRAL SCHOOL DISTRICT V. STEPHNEY (Sup. Court, Clinton County, Index No.: 05-0112; *per* Justice Ryan)

In this case, a State Supreme Court again reviewed a penalty imposed upon a respondent teacher, for sexually explicit use of a school computer. In this case, a second grade teacher had accessed pornography on the school computer. The hearing officer found that the teacher had accessed obscene and immoral images and blatant pornography, on at least six (6) different occasions. The hearing officer, however, ruled that dismissal was not warranted under the circumstances because the misconduct occurred when children were not in the classroom and the computer's location allowed him to turn it off before any student could see the screen. The teacher was considered "excellent" and even cooperated in the investigation. The hearing officer imposed a six-month suspension.

The State Supreme Court found this penalty to be excessively lenient. It found that the misconduct was "dreadfully serious" and warranted a far more serious penalty being imposed.

4.3.3.1

Curriculum Committee Meeting
November 14, 2016

Attendees: Deirdre d'Albertis, Deirdre Burns, Laura Schulkind, Marvin Kreps, Joe Phelan

ELA Curriculum - Grades 9-12
After developing the new ELA curriculum over the summer of 2015, the RHS English department "test drove" their work during the 2015-16 school year. Adjustments were made over the summer, and the final documents provided to the committee and the full Board for review. The committee wishes to thank Marvin's office and the English faculty for developing a thoughtful, creative and innovative course of study while maintaining some of the strengths of the previous curriculum.

Inherent in the curricula is the allowance for creativity and flexibility to address and meet the needs of each class based on the diverse interests of the student population. Based on these documents, both AIS and Special Education teachers will be able to work toward the standards embedded in the curriculum while providing necessary supports to assist our students in becoming successful learners. So too, more advanced students will dive deeper into given topics and use additional texts to support the lessons.

The question of diversity of text was raised. Marvin explained the process of addressing the skills and standards at each grade level and coupling those with appropriate and diverse texts. Indeed, in some cases, song lyrics, poetry, news articles, opinion pieces and classic pieces of literature are used to enhance the student's experience of the lessons being taught. Encouraging use of gender, ethnic and political diversity provides multiple lenses through which to examine a given topic. As the faculty works through and adjusts these lessons over the coming years, they will continue to provide appropriate access points for students. Discussions around diversity of voice and opinion will be wholly supported.

Technology Curriculum
Marvin provided what he hopes to be the penultimate version of the BMS Computer Lab Curriculum for the committee's review. A complete copy will be provided to the full Board as an addendum to the November 22 meeting packet. It is Marvin's hope that the full Board will "interrogate" this document fully and pose questions for review so as to set clear expectations for the Administrators and staff around technology integration and education. This is a document that embeds the International Society for Technology Education (ISTE) Standards as well as the national K-12 Computer Science Standards in addressing the skills that students should have at each grade level to prepare them for their post educational pursuits. It takes into account the introduction, development and mastery of skills at each level as it is understood that students progress at different rates.

The first part of the document (pg 4-31) was drafted based on the ISTE and Computer Science standards and "Rhinebeck-ized" with input from Laurie Keating (Rhinebeck's CELT consultant), Marvin, Steve Jensen, John Kemnitzer and the teachers. The balance of the document is the 6-8th grade computer curriculum developed by the teachers in conjunction with Laurie Keating and approved by Marvin, Steve and John. Though the document was developed specifically for the 6th-8th curriculum, it is understood that the skills identified will need to be built out at CLS to prepare students for entry into Middle School and at RHS to continue enhancing the student experience. An important take-away is that technology education is being taught as a series of skills used to support students and teachers across curricula in the District. This document also provides the framework for analyzing the Board's technology integration goal.

Discussion turned to appropriate ways of communicating these standards across all grade levels. Perhaps the February Superintendent Conference Day, earmarked for technology development ,would be the appropriate time to engage the staff and set expectations for how to meet technology standards while

integrating the use of the hardware and software in their classrooms and libraries. The committee is aware of the disparity of access to technology at students' homes and wonders about ways to provide necessary support at both campuses. Joe acknowledged that, by creating this document, we have reached a turning point for the District and will have much work to do to build supports around instruction and deployment. Marvin pointed out that this document is an "itinerary, not a diary," and allows us to propel the District forward in a thoughtful and consistent way. Creating the 6th-8th curriculum within a K-12 skills context allows for lesson planning across all grade levels to be meaningful.

It is the expectation of the committee to query the document with our colleagues at the November 22 Board meeting after which we will continue discussions at our upcoming November 28 committee meeting. The hope is to approve the curriculum quickly so as not to lose any momentum toward implementation.

Next Meeting Agenda: 11/28/16
• Review BMS Technology Lab Curriculum

Future Agenda Items:
- Steve Jensen will be invited to begin discussions re: K-12 Tech Integration goal
- BMS Tech Lab curriculum & PD (as necessary)
- continued discussions re: CLS Health Curriculum & secondary wellness issues
- Update on summer curriculum work (Social Studies, CLS Math review)
- Kindergarten entry dates
- Gifted & Talented programs
- CDEP as it relates to Curriculum

4.3.3.2

Bulkeley Middle School

Innovation in Technology Explorations

Curriculum

Addressing the ISTE Student Technology Standards through the Middle School Computer Lab

Contents

Introduction

Students at the Bulkeley Middle School (BMS) take the Computer Course in Grades 6, 7, and 8. The Grade 6 curriculum provides an overview to the topics and skills that students need to succeed in their core curriculum classes, then the Grade 7 curriculum develops these more fully. In Grade 8, students master these and shift to more extensive work in programming skills.

The BMS program is a half-year program offered over the course of a full year. Students attend every other day, totaling a maximum of 90 days (20 weeks' equivalent) per year. Of these, approximately four weeks is allocated to MAPS testing, state testing, field trips, and special projects such as the circus. The following table shows how the remaining sixteen weeks are estimated to be distributed.

Units	Grade 6	Grade 7	Grade 8
	Introduction to Computers	Computer Literacy	Computer and Information Technology
Digital Citizenship	4.0	3.0	2.0
Graphic/Photography			2.0
Keyboarding	2.0	2.0	1.0
Career Exploration/Empowerment		Time permitting	
Productivity/Tech Integration	5.0	6.0	3.0
Coding/Programming	3.0	5.0	8.0
History of Computer Science	2.0		
MAPS	2.0	2.0	2.0
State testing	1.0	1.0	1.0
Field trips/Circus	1.0	1.0	1.0
Total Number of Weeks (20 Week Courses Taught Over 40 weeks)	20.0	20.0	20.0

Computer Curriculum Map

During the 2015-16 school year, the computer lab at BMS was updated with new computers and an advanced presentation system for the teachers. To maximize the potential of this space, the BMS Computer Teachers have been working to update the curriculum for these classes to steer the focus from skills-based teaching to student-centered, project-based learning.

This document serves as a guide to developing content-rich curriculum for the computer classes and technology-rich curriculum for the content classes. The goal is to ensure that students master the technology skills that they will need to succeed in higher education or the work force by learning to use technology effectively and responsibly as it applies to their coursework (based on Common Core Learning Standards) rather than in a skills-based or siloed approach.

While most states do not publish technology standards for students as part of the state learning standards, most (including New York) endorse the ISTE Technology Standards for Students. In addition, the Common Core Learning Standards include technology competencies in context with the Reading, Writing, Presentation, and Mathematics

standards at all levels. The 2007 standards are currently under revision and can be found at: (https://docs.google.com/document/d/1r9KATQ_X6JPTuS0NxQS3LlAsC96UZr3wsUftg_RuYBM/edit?usp=sharing). The standards are clustered into seven major categories, which are listed below.

The Computer Teachers worked with a technology consultant to review these standards and identify a set of skills that are required for "mastery" in each category. Having developed a list, the team reviewed these skills and assigned target grades for each when the skill would be **Introduced, Developed,** or **Mastered**. In some cases, where the skill is worked on in the early grades, it is labeled (With **Help**), indicating that students might participate in this, but would not be introduced to it formally or independently. These are listed on the tables on the following pages, and summarized in a set of Student Profiles following the tables.

Note that this Scope and Sequence should be treated as a 'Work-in-Progress." Many of the skills that will initially be introduced at the middle school level, would better be addressed at the elementary school. However, without a formal program at the elementary school, the BMS wants to ensure that all students achieve the same level. Having this profile will provide a set of expectations for students entering the middle school, which will evolve into curriculum goals at the elementary school.

Having developed the Scope and Sequence and the Student Profiles, the computer teachers are developing curriculum for each grade. The curriculum map is provided later in this document. In addition, three "containers" or "templates" are provided for technology-rich projects to be implemented in the content classes at BMS. These include one for a Research project, one for a Multimedia project, and one for a Data Collection project. The computer teachers will assist with professional development as needed so that teachers have the skills to address these.

Student Technology Standards (from Draft ISTE Technology Standards for Students)

1. Empowered Learner – Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.
2. Digital Citizen – Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world, and they act in ways that are safe, legal, and ethical.
3. Knowledge Constructor – Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.
4. Innovative Designer – Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.
5. Computational Thinker – Students identify authentic problems, work with data and employ algorithmic thinking to propose and automate solutions.
6. Creator and Communicator – Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.
7. Global Collaborator – Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

Student Technology Competencies

This section presents skills according to the following categories:

- Empowered Learner
- Digital Citizen
- Knowledge Constructor
- Innovative Designer
- Computational Thinker
- Creator and Communicator
- Global Collaborator

Within these groups, assign the grades in which students will do this with help, will be introduced to the skill, will develop it, and will master it. The following Key will be used to indicate the level within

	Level
H	With Help
I	Introduce
D	Develop
M	Master

Empowered Learner

1. **Empowered Learner – Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.**
   a. Students articulate personal learning goals, select and manage appropriate technologies to achieve them, and reflect on their successes and areas of improvement in working toward their goals.
   b. Students identify and develop online networks within school policy, and customize their learning environments in ways that support their learning, in collaboration with an educator.
   c. Students actively seek performance feedback from people, including teachers, and from functionalities embedded in digital tools to improve their learning process, and they select technology to demonstrate their learning in a variety of ways.
   d. Students are able to navigate a variety of technologies and transfer their knowledge and skills to learn how to use new technologies.

Empowered Learner	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Basic Operations	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Operates technology tools		H	I											
Opens an application and navigates menus		H	H	I	D	M								
Uses developmentally appropriate and accurate terminology		H	H	I	D	M								
Works independently or in pairs on computer		H	I-D	M										
Discusses common uses of technology in daily life and the advantages and disadvantages those uses provide			H	I	D	D	D	M						
Uses keyboards and other common input and output devices efficiently and effectively (includes tab, shift, and caps lock)		H	I	D	M									
Saves and organizes files on flash drives, SD cards, and external hard drives						H	I-D	M						
Applies strategies for identifying and solving routine hardware and software problems					H	I-D	M							
Makes informed decisions in choosing the most appropriate technology tools and resources							H	I	D	D	M			
Creates and follows rules for computer use in classroom, library, lab and on Internet		I	I	D	D	M								
Logs in to network		H	H	I	D	M								
Saves and finds files in personal folder				H	I	D	M							
Saves and finds files on the school network					H	I	D	M						
Saves and finds files in cloud storage					H	I	D	M						
Creates folders to store work and saves work in correct folder					H	I	D	M						

Empowered Learner	**PK**	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Shares files over network and email								I-D	M					
Organizes, manages, and secures technology in classroom				H	I	D	M							
Can be technology mentor (not all students)		I	D	M										
Collaborates online and shares work in electronic portfolio								I-D	M					
Describes hardware and software problems					I	I	D	M						
Productivity skills	**PK**	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	12
Keyboarding														
Learns keyboard placement			H	I	D	M								
Types 20 words per minute					I	D	D	M						
Types 20 – 45 words per minute								I	D	M				
Types 45-60 words per minute											I	D	D	M
Formats a document				H	I	D	D	M						
Inserts and edits text				H	I	D	D	M						
Changes face, style, size, and color of font						H	I	D	M					
Creates bullet and number lists					I	D	M							
Uses ruler, margins, and tabs					I	D	D	M						
Inserts headers and footers					H	I	D	M						
Inserts section, column, and page breaks								I	D	M				
Creates and formats table								I	D	M				
Uses keyboard shortcuts								I	D	M				
Uses advanced editing features									I	D	M			
Uses spell checker and thesaurus					H	I	M							
Inserts a graphic and wraps text					H	I	D	M						
Transfers and merges files into document								I	D	M				
Composes, edits, and sends messages								I	DM					
Explains the parts of an email address								I	DM					
Creates username and password								I	DM					
Receives and replies to messages								I	DM					
Uses cc and bcc appropriately								I	DM					
Forwards mail with leading message								I	DM					
Creates signature file								I	DM					

Empowered Learner	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Uses cc and bcc appropriately								I	DM					
Creates address book and mail groups									I	D	M			
Attaches, receives, and opens attachments								I	DM					
Organizes messages into folders								I	DM					
Sorts messages by date, sender, or subject								I	D	M				
Sorts messages by date, sender, or subject								I	D	M				
Spreadsheets														
Collects data and creates new spreadsheet					I	D	D	M						
Collects, inputs, analyzes, organizes and displays data graphically					I	D	D	M						
Creates simple formulas and charts									I	DM				
Explains what the data represents					I	D	D	M						
Uses the appropriate chart for activity and data								I	D	M				
Adds and formats appropriate labels and legends								I	D	M				
Collects data to use in complex formulas in charts or graphs									I	DM				
Includes charts or graphs in presentations or publications									I	D	M			
Formats and changes axis scale, chart area, data series or appearance of charts									I	DM				
Formats and prints spreadsheets to use as templates and forms										I	DM			
Uses complex functions and formulas									I	D	M			
Creates a template or form to use for data collection						I	D	M						
Create a 4-5 column template with specific data types									I	D	M			
Calendaring								I	D	M				
Create an event for a specific time								I	D	M				
Create an event for a day or span of days								I	D	M				
Check on someone's availability								I	D	M				
Send an invitation to another person								I	D	M				
Add a file to a calendar event								I	D	M				
Track responses to an invitation								I	D	M				
Virtual Learner	**PK**	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Reviews and evaluates online discussion boards										I	D	D	D	M
Reviews and evaluates both asynchronous and synchronous online tools										I	D	D	D	M
Evaluates and uses online collaborative tools including distance learning and distributed education for lifelong learning opportunities										I	D	D	D	M

Empowered Learner	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Submits assignments to learning management system										I	D	D	D	M
Participates in synchronous activities, such as chat, video chat, or webinar.										I	D	D	D	M
Participates in asynchronous activities, such as discussion board.										I	D	D	D	M

Digital Citizen

2. **Digital Citizen -- Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal and ethical.**
    a. Students manage their digital identities and reputations within school policy, including demonstrating an understanding of how digital actions are never fully erasable.
    b. Students demonstrate and advocate for positive, safe, legal and ethical habits when using technology and when interacting with others online.
    c. Students demonstrate and advocate for an understanding of intellectual property with both print and digital media—including copyright, permission and fair use—by creating a variety of media products that include appropriate citation and attribution elements.
    d. Students demonstrate an understanding of what personal data is and how to keep it private and secure, including the awareness of terms such as encryption, HTTPS, password, cookies and computer viruses; they also understand the limitations of data management and how data-collection technologies work.

Digital Citizen	**PK**	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Understands and follows rules and procedures for technology use		H	I	D	M									
Demonstrates positive social and ethical behaviors when using technology			H	I	D	M								
Discusses responsible use of technology and information and describes consequences of inappropriate use		H	I	D	M									
Exhibits legal and ethical behaviors when using information and technology, and discusses consequences of misuse								I	D	M				
Understands and follows proper use of copyrighted material and uses netiquette when using email								I	D	M				
Cites resources properly				H	I	D	D	M						
Access and use primary and secondary sources of information for an activity						I	D	M						
Makes informed choices among technology systems, resources, and services								I	D	M				
Analyzes advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole									I	D	M			
Demonstrates and advocates for legal and ethical behaviors among peers, family, and community regarding the use of technology and information								I	D	M				
Takes responsible steps to avoid virus, malware, etc.								I	D	M				
Ethical and Appropriate Use														
Reads and understands the Acceptable Use Policy		H	H	I	I	D	D	M	M					
Understands how to act responsibly and accepts responsibility for behavior and		H	H	I	I	D	D	M	M					

Digital Citizen	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
actions online.		H	H	I	I	D	D	M	M					
Knows how to access appropriate content.		H	H	I	I	D	D	M	M					
Uses the Internet at school for school work only.				H	I	D	M							
Understands the importance of accessing only his/her files & using only his/her login.			H	I	D	M								
Asks permission from a staff member before using media devices (e.g. cds, flash drives) brought in from outside of school.					H	I	D	M						
Asks for and is granted permission from a staff member before downloading files from the Internet.					H	I	D	M						
Uses the standard rules of spelling, grammar, and punctuation when appropriate.					H	I	D	M						
Demonstrates respects for the rights and privacy of others.					H	I	D	M						
Understands his/her responsibility to post accurate and appropriate information when contributing to websites, including blogs, wikis, and social media sites (including accurate facts, attributing ideas, and not misrepresenting him/herself).					H	I	D	M						
Understands the consequences of posting misinformation, inflammatory information, and/or misrepresenting him/herself.							I	D	M					
Reads and understands the requirements in setting up and using accounts on social networking and other user-generated applications.							I	D	M					
Ethically uses user-generated content sites and applications.							I	D	M					
Ethically uses social networking site.								I	D	M				
Understands the permanent nature of the Internet, and that all postings can be redistributed without the creator's knowledge or consent, without attribution, and can be modified before redistribution.														
Protecting Personal Information:								I	D	D	M			
Defines and understands the danger of identity theft.								I	D	D	M			
Knows how and why to keep personal information (e.g. address, phone number, passwords) private.				H	I	D	D	M						
Seeks parent/guardian/teacher approval before sharing personal information online.						I	D	D	M					
Understands guidelines for posting or sending pictures.						I	D	D	M					
Understands why a website is requesting personal information and determines whether it would be advisable to provide such information.						I	D	D	M					
Understands the need to create strong passwords.						I	D	D	M					
Understands the importance of not revealing information about your location (e.g.						I	D	D	M					

Digital Citizen	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
where you live, where you are going, and other information about location and movement).														
Responds appropriately if personal information has been compromised			H	H	I	I	D	M						
Understands how to use account and privacy settings to protect personal information (e.g. Facebook).								I	D	D	M			
Knows what information should not be revealed in emails.								I	D	D	M			
Understands the danger of opening emails and email attachments in relation to protecting personal information.								I	D	D	M			
Understands common email fraud strategies.								I	D	D	M			
Understands how to safely use video chats.									I	D	D	M		
Knows how to protect personal information when posting multimedia productions online.									I	D	D	M		
Knows how to protect his/her personal or financial data by using secure sites for sensitive transactions.										I	D	D	M	
Social Media														
Understands the benefits of using social media.								I	D	D	M			
Understands the drawbacks of using social media.								I	D	D	M			
Reads and understands the terms of service or contract for social media sites, and the consequences of using such sites (e.g. age to create account, ownership of postings).								I	D	D	M			
Recognizes that there is no such thing as "private" on the Internet.						I	D	D	M					
Reflects on information prior to posting, considering personal, academic, and career impact.						I	D	D	M					
Does appropriate research before sharing online - does not spread misinformation.						I	D	D	M					
Respects others' privacy and rights and does not spread rumors or damaging information.						I	D	D	M					
Understands the pros and cons of "friending" others.						I	D	D	M					
Uses caution when posting pictures or personal information (e.g. thoughts, feelings, plans, location, schedule, ideas) to stay safe online.						I	D	D	M					
Understands Internet postings are permanent.						I	D	D	M					
Understands posted information and pictures can be distributed or modified without the creator's consent or knowledge.						I	D	D	M					
Is aware of the potential danger of strangers and people met online, and takes						I	D	D	M					

Digital Citizen	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
precautions to stay safe.						I	D	D	M					
Responds appropriately to upsetting or inappropriate Internet content.						I	D	D	M					
Knows how to manage privacy and account settings.						I	D	D	M					
Understands and follows Intellectual property rules when posting to social media sites.						I	D	D	M					
Gets permission before posting or sending pictures of others.						I	D	D	M					
Understands consequences of cyberbullying when using social media.						I	D	D	M					
Uses critical thinking when reading content.						I	D	D	M					
Understands the ownership rights of posted information and photos.						I	D	D	M					
Understands the importance of not revealing information about your location (e.g. where you live, where you are going, and other information about location and movement) on social networking sites and when tagging locations.														
Evaluating Resources						I	D	D	M					
Understands the differences between the free web and reviewed sources such as books and database articles.						I	D	D	M					
Understands the reasons why information on the free web is not always accurate or appropriate for use.						I	D	D	M					
Determines the source (author, sponsor, or organization) of information on a given website and evaluates for credibility and bias.									I	D	M			
Determines the parent site of a given web page by using links and the URL.									I	D	M			
Evaluates the domain name of a given website to help determine source and bias.								I	D	M				
Understands website domain extensions.								I	D	M				
Seeks out and determines hidden sponsors of information on the web.								I	D	M				
Identifies and understands the pros and cons of using information from personal webpages.								I	D	M				
Identifies and evaluates user-generated content when found on the web (e.g. wikis, blogs)								I	D	M				
Understands how various forms of user-generated content are created.								I	D	M				
Understand how to use authentic multimedia located on the web.								I	D	M				
Identifies false, misleading, or biased information.								I	D	M				
Identifies hateful, violent, or otherwise harmful information online.														
Copyright, Plagiarism and Intellectual Property								I	D	M				
Understands intellectual property, and laws governing intellectual property.														

Digital Citizen	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Understands copyright.								I	D	M				
Understands plagiarism.								I	D	M				
Understands techniques to avoid intellectual property theft.								I	D	M				
Understands techniques to avoid plagiarism, including accidental plagiarism.								I	D	M				
Recognizes that copyright law applies to many aspects of life, including downloading music and software, copying DVDs, and posting copyrighted information on websites (e.g. social media sites).								I	D	M				
Understands the consequences of copyright violations and plagiarism.								I	D	M				
Recognizes when facts and ideas need to be cited.								I	D	M				
Properly cites information from websites in a bibliography (age appropriate expectations).								I	D	M				
Properly attributes images and other graphics with a credit line.								I	D	M				
Properly cites images and other graphics in bibliography.								I	D	M				
Uses citation generator (e.g. NoodleTools) to create bibliography.								I	D	M				
Locates necessary citation information when using online databases and web sources.								I	D	M				
Understands work handed in will be reviewed for originality.								I	D	M				
Understands and interprets licensing rules.								I	D	M				
Understands and interprets usage guidelines and permissions.								I	D	M				
Understands Creative Commons licensing, and uses appropriately.								I	D	M				
Understands the concept of fair use and applies fair use guidelines.								I	D	M				
Defines digital rights management (DRM) and understands the implications of DRM.								I	D	M				
Inappropriate Messaging – Sexting														
Defines sexting and its scope.								I	D	M				
Understands the laws and legal consequences of sexting.								I	D	M				
Understands the school consequences of sexting.								I	D	M				
Understands the emotional consequences of sexting.								I	D	M				
Understands the permanency of images sent online or via phone, or posted online; and understands these images can be distributed without the creator's consent or knowledge.								I	D	M				
Understands the consequences of forwarding images or other information.								I	D	M				
Identifies adults to whom he/she can turn if he/she becomes aware of a sexting								I	D	M				

Digital Citizen	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
incident.														
Cyberbullying (Potential for outside resources)														
Understands what defines a cyberbully.						I	D	M						
Knows how to tell if he/she is being cyberbullied.						I	D	M						
Understands why some people cyberbully.						I	D	M						
Knows what to do if he/she or someone else is being cyberbullied.						I	D	M						
Understands his/her rights.						I	D	M						
Understands the Internet does not keep a cyberbully anonymous.						I	D	M						
Understands the consequences of online impersonation.						I	D	M						
Knows how to be a good cyber-citizen.						I	D	M						
Understands specific websites' regulations regarding cyberbullying.						I	D	M						
Know how to use "Report Abuse" hotlines.						I	D	M						

Knowledge Constructor

3. **Knowledge Constructor -- Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.**
   a. Students demonstrate and practice the ability to effectively utilize research strategies to locate appropriate digital resources in support of their learning.
   b. Students practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility and relevance.
   c. Students locate and collect resources from a variety of sources and organize assets into collections for a wide range of projects and purposes.
   d. Students explore real-world issues and problems and actively pursue an understanding of them and solutions for them.

Knowledge Constructor	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Search Strategies and Competencies														
Uses sites the teacher points to					I	D	M							
Launches a browser and uses the tool bar					I	D	M							
Navigates by clicking on links on web pages					I	D	M							
Explains the parts of a URL								I	D	M				
Types URLs correctly					I	D	M							
Add bookmarks/favorites					I	D	M							
Returns to site using history, back button, or bookmark/favorite					I	D	D	D	M					
Uses keyword and natural language searches								I	D	M				
Evaluates site and information for validity and accuracy								I	D	M				
Sets home page and configures page setup to print title, URL, and date								I	D	M				
Edits bookmarks/favorites and organizes them into folders								I	D	M				
Downloads files and plug-ins								I	D	M				
Copies and pastes text or images and cites source correctly					H	I	D	M						
Explains difference between search engines, subject directories, and metasearch engines								I	D	M				
Set up an alert for a search string										I	D	M		
Validating Websites														
Evaluates sites for accuracy, relevance, appropriateness, comprehensiveness, and bias of information sources								I	D	M				
Uses information literacy skills to find, use, evaluate, and cite appropriate sources					H	I	D	M						

Innovative Designer

4. **Innovative Designer -- Students use a variety of technologies within a design process to solve problems by creating new, useful or imaginative solutions.**
   a. Students engage in a design process and employ it to generate ideas, create innovative products or solve authentic problems.
   b. Students select and use digital tools to support a design process and expand their understanding to identify constraints and trade-offs and to weigh risks.
   c. Students engage in a design process to develop, test and revise prototypes, embracing the cyclical process of trial and error and understanding problems or setbacks as potential opportunities for improvement.
   d. Students demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.

Innovative Designer	**PK**	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Determines target audience, goal, and purpose of presentation					I	D	D	D	M					
Uses advanced drawing and painting programs to create original art									I	D	D	M		
Records and edits sound and QuickTime movies, animations, and VR								H	I	D	M			
Creates original art to include in project									I	D	D	M		
Creates and modifies text objects							I	D	M					
Imports and modifies graphics, backgrounds, clipart, and sound						I	D	D	M					
Applies designs, backgrounds, font styles, and colors for all slides					I	D	D	D	M					
Creates custom animations applies good design principles										I	D	M	M	M
Develop comic strips using animation software									I	D	D	M		

Computational Thinker

5. **Computational Thinker -- Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.**
   a. Students practice defining problems to solve by computing for data analysis, modeling or algorithmic thinking.
   b. Students find or organize data and use technology to analyze and represent it to solve problems and make decisions.
   c. Students break problems into component parts, identify key pieces and use that information to problem solve.
   d. Students demonstrate an understanding of how automation works and use algorithmic thinking to design and automate solutions.

Computational Thinker	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Develops algorithms or flowcharts to map the flow of data in a program.								I	D	M				
Define constants and variables to use in a program								I	D	M				
Develop routines or procedures with a programming language											I	D	M	
Contributes images and content to web page someone else is creating											I	D	M	
Creates page with text and/or links and saves as html document											I	D	M	
Creates a web page using a WYSIWG authoring program											I	D	M	
Changes background and colors, imports images, inserts and modifies text											I	D	M	
Storyboards, plans, and creates organized folders for images and website											I	D	M	
Saves page, gives it a title, and makes sure images are in correct folder											I	D	M	
Creates anchors or targets to links on page and links to other pages, email, and sources											I	D	M	
Uses elements of good web design and navigation											I	D	M	
Uses HTML, Java, Javascript, Flash, and/or Shockwave to create special effects on a website											I	D	M	
Uses different plugins, inserts metatags, creates and inserts animated gifs, movies, and sound											I	D	M	
Creates a web portfolio and participates in collaborative Web Project that compiles, synthesizes, produces, and disseminates information, models, and other creative work											I	D	M	
Investigates and applies expert systems, intelligent agents, and simulations in real-world situations											I	D	M	
Databases	**PK**	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Defines terms such as records and fields										I	D	M		
Enters text and data into appropriate fields										I	D	M		

Computational Thinker	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Creates a simple database										I	D	M		
Formats text and numbers in fields										I	D	M		
Sorts, matches, finds and replaces data										I	D	M		
Adds header and footer										I	D	M		
Uses print preview and adjusts margins for printing										I	D	M		
Merges data into another document (i.e., Mail Merge)												I	D	M
Imports and exports data from other applications											I	D	M	
Participates in student project that creates a database that other students can use										I	D	M		
Describes educational uses of databases														

Creator and Communicator

6. **Creative Communicator -- Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.**
    a. Students select appropriate platforms and tools to create, share and communicate their work effectively.
    b. Students create original works or responsibly repurpose other digital resources into new creative works.
    c. Students communicate complex ideas clearly using various digital tools to convey the concepts textually, visually, graphically, etc.
    d. Students publish or present content designed for specific audiences and select platforms that will effectively convey their ideas to those audiences.

Creator and Communicator	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Plans and storyboards ideas for presentation (AppleWorks and PowerPoint)								I	D	M				
Develops outline for slide show								I	D	M				
Applies designs, backgrounds, font styles, and colors for all slides								I	D	M				
Imports animations, video, and sound								I	D	M				
Creates custom animations applies good design principles								I	D	M				
Creates linear slide show								I	D	M				
Uses mind-mapping software to brainstorm and plan presentation								I	D	M				
Determines target audience, goal, and purpose of presentation								I	D	M				
Redesigns presentation for proper colors and contrast for room								I	D	M				
Practices timing and provides feedback for peers								I	D	M				
Includes graphs, charts, sound, animation, in non-linear presentation								I	D	M				

Global Collaborator

7. **Global Collaborator -- Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.**
   a. Students use digital tools to interact with others to develop a richer understanding of different perspectives and cultures.
   b. Students use collaborative technologies to connect with others, including peers, experts and community members, to learn about issues and problems or to gain broader perspective.
   c. Students determine their role on a team to meet goals, based on their knowledge of technology and content, as well as personal preference.
   d. Students select collaborative technologies and use them to work with others to investigate and develop solutions related to local and global issues.

Global Collaborator	**PK**	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Levels: H=With Help | I=Introduce | D=Develop | M=Master														
Works cooperatively and collaboratively with others when using technology in classroom					I	D	D	M						
Gathers information and communicate with others using telecommunications with support from teachers, family members, or student partners							I	D	D	M				
Use telecommunications and online resources including email and discussion boards to participate in collaborative problem-solving activities								I	D	M				
Uses email and follows netiquette protocol								I	D	M				
Communicates with others online in support of direct and independent learning								I	D	M				
Collaborates with peers, experts, and others using collaborative online tools to investigate curriculum-related problems, issues, and information									I	D	M			
Develops solutions in collaborative online environment for audiences inside and outside the classroom									I	D	M			
Develops essential and subsidiary questions as part of collaborative online projects									I	D	M			
Plans collaborative project with group									I	D	M			
Participates responsibly in several types of online activities including a MOO, videoconference, a chat, and a threaded discussion									I	D	M			
Selects appropriate online tools for research, information analysis, problem-solving, and decision-making in content learning									I	D	M			
Participates in email projects								I	D	M				

Student Profiles

This section provides a high level summary of how the student at this grade level is expected to perform in the area of technology. This is the target for 2016-17, with some skills moving to lower grades as they are mastered.

Entering Kindergarten

NYSED defines technology competencies as readiness targets for students entering Kindergarten. The following are extracted from the New York Prekindergarten Foundation for the Common Core (http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/nyslsprek.pdf)

1. Describes types of materials and how they're used. Creates simple structures with various materials to determine which do/don't work to achieve the desired purpose.
2. Explores and uses various types of tools appropriately. Demonstrates and describes how they are used.
3. Expresses an understanding of how technology affects them in daily life, and how it can be used to solve problems.
4. Understands the operation of technology systems.
5. Uses the knowledge of technology to increase learning.

Entering Grade 3

1. Knows the rules of technology use.
2. Logs into network with assistance.
3. Understands keyboard placement and is developing typing skills.
4. Types sentences, choosing appropriate font, color, and styles.
5. Begins to access websites under supervision.

Entering Grade 6

1. Uses technology independently and responsibly.
2. Creates and formats documents,
3. Saves, organizes, and manages files.
4. Designs slides with text, backgrounds, and images.
5. Navigates the internet to websites as instructed.
6. Understands acceptable use and responsibility using the internet.

Entering Grade 9

1. Keyboards up to 45 words per minute.
2. Uses advanced formatting tools such as headers/footers, section/page breaks, and columns.
3. Demonstrates legal and ethical behavior using internet resources.
4. Validates websites for accuracy, relevance, and bias.
5. Uses social media responsibly, appropriately, and respectfully.
6. Uses presentations effectively, including backgrounds, links, audio, and animations or video.
7. Developing computational thinking skills, including algorithmic thinking as well as understanding of constructs and objects.
7. Creates multimedia using storyboarding process, selecting media, and creating video, animation, or simulation.
8. Participates in global collaboration projects with students from other regions or other countries.

Project Containers

As an example of seamlessly integrating technology competencies into CCLS content, the following "containers" are offered as templates for teachers who are interested in creating technology-rich units. The project containers focus on research, data collection and representation, and multimedia. The project containers were developed using the previous version of ISTE standards and have not yet been adapted to the recently released version.

- The Research project involves gathering information from research and primary sources, taking notes, citing sources, creating a concept map, and writing about the topic, using technology as a tool to accomplish these tasks. This template be adapted to any content area and skills, while developing both technology competencies and ELA reading and writing skills.
- The Multimedia project takes the Research project to a higher level, gathering information and creating a concept map, then sharing this information in the form of a comic strip, animation, or video. This template be adapted to any content area and skills, while developing both technology competencies and ELA presentation skills.
- The Data Collection project can be used to collect quantitative data through experiments, research, or survey, represent this data in spreadsheet format, and create graphs to represent trends in this data. Advanced students may use formulas and filters to analyze this data. This template be adapted to many content areas, while developing both technology competencies and develops Mathematics skills.

The BMS computer teachers are encouraged to use these as a model for other teachers.

Research Template

Unit Description

Students follow a step by step process for gathering and organizing information, citing references, and developing an essay. In the process, they develop productivity skills as well as information literacy and digital citizenship.

Use note taking to identify essential elements of a source, sort and categorize this information in a graphic organizer, develop an outline to organize information, synthesize it in clear sentences, then develop these into an essay.

Context

Grade:

Teacher:

Subject:

Alignment to Standards

NYSED Common Core Learning Standards

Content Standards

- This will be completed by the teacher.
-
-
-

Reading and Writing

RL 6.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

RL. 6.4 - Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

W 6.1 Write arguments to support claims with clear reasons and relevant evidence.

W 6.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W 6.7 Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

W.6.8 Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.

ISTE Technology Standards for Students and Teachers

Targeted ISTE NETS S:

3. Research and Informational Fluency – Students apply digital tools to gather, evaluate, and use information.

c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media

6. ***Technology Operations and Concepts*** - Students demonstrate a sound understanding of technology concepts, systems, and operations.

a. Understand and use technology systems

b. Select and use applications effectively and productively

d. Transfer current knowledge to learning of new technologies

ISTE NETS T:

1. Facilitate and Inspire Student Learning and Creativity

2. Design and Develop Digital Age Learning Experiences and Assessments

b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress

4. Promote and Model Digital Citizenship and Responsibility

a. Advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources

b. Address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources.

Sample Lesson Sequence

1. Identifying Sources
2. Note-taking
    a. Paraphrasing
    b. Citing Sources
3. Using a Graphical Organizer
4. Outlining
5. Composing an Essay

Multimedia Template

Unit Description

Building on the research approach described in the ***Technology-Rich Unit: Research Template,*** students conduct research on an assigned topic, organize it in a graphic organizer, and plan a multimedia presentation in the form of a movie or animation. Students develop a storyboard, search for royalty-free copyrighted images in an image library like Creative Commons, and create the presentation using an assigned tool.

Context

Grade:

Teacher:

Subject:

Alignment to Standards

NYSED Common Core Learning Standards

Content Standards

- This will be completed by the teacher.
-
-
-

Reading and Writing

RI.6.7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

W.6.8 Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.

SL.6.2 Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

SL.6.5 Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

ISTE Technology Standards for Students and Teachers

Targeted ISTE NETS S:

1. Creativity and innovation -- Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

a. Apply existing knowledge to generate new ideas, products, or processes

b. Create original works as a means of personal or group expression

4. Critical thinking, problem solving, and decision making-- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

b. Plan and manage activities to develop a solution or complete a project

d. Use multiple processes and diverse perspectives to explore alternative solutions

3. Research and Informational Fluency – Students apply digital tools to gather, evaluate, and use information

b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media

c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

6. Technology Operations and Concepts - Students demonstrate a sound understanding of technology concepts, systems, and operations.

b. Select and use applications effectively and productively

d. Transfer current knowledge to learning of new technologies

ISTE NETS T:

1. Facilitate and Inspire Student Learning and Creativity - Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

a. Promote, support, and model creative and innovative thinking and inventiveness

2. Design and Develop Digital Age Learning Experiences and Assessments – Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the Standards.

a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity.

b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress

4. Promote and Model Digital Citizenship and Responsibility

b. Address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources.

Sample Lesson Sequence

Begin with lessons from Research Template for

1. Identifying Sources
2. Note-taking
    a. Paraphrasing
    b. Citing Sources
3. Using a Graphical Organizer
4. Outlining

Continue with:

5. Selecting images (Creative Commons or other Copyright-friendly source)
6. Storyboarding
7. Movie Presentation – Design and setup
8. Movie Creation

Data Collection Project Template

Unit Description

Students follow a step-by-step process to plan a data-collection instrument, conduct the research to populate it, analyze and chart the findings, and graphically present the results in a PowerPoint format. The project could involve a survey, lab assignment, or categorizing data about like entities, such as countries, states, authors, or another topic which would lend itself to multiple fields.

Context

Grade:

Teacher:

Subject:

Alignment to Standards

NYSED Common Core Learning Standards

Content Standards

- This will be completed by the teacher.
-
-
-

Mathematics Standards

Statistics and Probability (6 SP)

Develop understanding of statistical variability.

1. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.
2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.

Summarize and describe distributions.

5. Summarize numerical data sets in relation to their context, such as by:
   b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
   c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.

Equations and Expressions (6 EE)

9. Represent and analyze quantitative relationships between dependent and independent variables.

Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable.

ISTE Technology Standards for Students and Teachers

Targeted ISTE NETS S:

3. Research and Informational Fluency -- Students apply digital tools to gather, evaluate, and use information

- **a.** Plan strategies to guide inquiry
- **b.** Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
- **c.** Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- **d.** Process data and report results

4. Critical thinking, problem solving, and decision making -- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

- **a.** Identify and define authentic problems and significant questions for investigation
- **b.** Plan and manage activities to develop a solution or complete a project
- **c.** Collect and analyze data to identify solutions and/or make informed decisions

6. Technology Operations and Concepts- Students demonstrate a sound understanding of technology concepts, systems, and operations.

- **a.** Understand and use technology systems
- **b.** Select and use applications effectively and productively
- **c.** Transfer current knowledge to learning of new technologies

ISTE NETS T:

1. Facilitate and Inspire Student Learning and Creativity

- **b.** Engage students in exploring real-world issues and solving authentic problems using digital tools and resources

2. Design and Develop Digital Age Learning Experiences and Assessments

- **c.** Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress

4. Promote and Model Digital Citizenship and Responsibility

- **a.** Advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources.
- **b.** Address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources.

Sample Lesson Sequence

1. Select and design a research topic. (This could be a research of traditional information sources, a survey, or a lab report.
2. Create the data collection instrument.
3. Collect data and populate the tool.
4. Review and analyze the data using various sort and filtering strategies.
5. Create a PPT to present results.

Grade 6 Curriculum

Curriculum Plan for Computer Science I
Grade: 6th
Subject: Computer Science I
School: Bulkeley Middle School, Rhinebeck Central School District

In 6th grade students study the following units:

I. **Intellectual Property**
II. **Programming**
III. **Computer Systems**
IV. **Graphing**
V. **Keyboarding**

The course meets every other day for the entire year creating a 20-week course. As much as possible, units that can be, are integrated within other subject areas. Some units, such as keyboarding, are interwoven within other units as opposed to occurring in isolation. Similarly, a single ISTE Standard may be reflected in multiple units and unit activities.

Unit 1: Internet Safety

Description

Students will learn about their responsibilities as a user of the school's technologies and the importance of following the school's regulations and guidelines. There will be discussion and exploration about the nature of students' online presence and how easily personal information can be retrieved by others. Students will learn strategies to keep themselves safe. Students will gain an understanding of the permanence of their online activities and develop an appreciation for the dangers of various online activities including how those activities can cause damage to their personal computer system.

Students will work on activities including a group research project and presentation about internet safety. They will work with the new email accounts and online calendar. They will also do a group video project highlighting some aspect of what they have learned about internet safety.

Learning Objectives

1) Demonstrate an understanding of the role an online identity plays in the digital world and learn the permanence of their decisions when interacting online.
2) Practice and encourage others in safe, legal and ethical behavior when using technology and interacting online, with guidance from an educator.
3) Demonstrate an understanding of what personal data is, how to keep it private and how it might be shared online.

Key Terms:

- Acceptable Use Policy (AUP)
- Netiquette
- Network
- Friending
- Email Fraud(s)

Unit Outline

1) Review the district AUP.

2) Explain students' responsibilities as users of the school's technologies and the importance of following the school's regulations and guidelines.
3) Describe the nature of students' online presence and how easily personal information can be retrieved by others.
4) Brainstorm strategies students might use to keep themselves safe.
5) Explain the concept of Digital Footprint, including the permanence of online activities so that students will develop an appreciation for the dangers of various online activities including how those activities can cause damage to their personal computer system.
6) Work on group videos.

Students will do a number of activities in this unit including a group research project and presentation about internet safety. They will work with their new email accounts and online calendar. Students will create a group video project highlighting some aspect of what they have learned about internet safety.

Note: (In this unit, the Grade 6 computer teacher will consult/work in conjunction with librarian on some aspects of ISTE's Digital Citizen Standard).

Assessment Plan

Students will be graded based on project grading sheets and/or rubrics provided to them. Multiple modalities will be used to make sure all students have an understanding of the task/activity/assignment which they are given. Some opportunities will be provided for students to choose to be assessed individually or as a group. Using Google Drive and Canvas will facilitate the communication of how timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

Curriculum Standards

Reading Standards for Informational Text

RI.6.7 – Integrate information presented in different media or formats as well as in words to develop a coherent understanding of a topic or issue.

Writing Standards

W.6.1 – Write arguments to support claims with clear reasons and relevant evidence.

W.6.4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.6.7 – Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

Speaking and Listening Standards

SL.6.4 – Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

SL.6.5 – Include multimedia components and visual displays in presentations to clarify information.

Language Standards

L.6.1 – Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.6.2 – Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

L.6.3 – Use knowledge of language and its conventions when writing, speaking, reading, or listening.

Technology Standards

Digital Citizen: Students recognize the rights, responsibilities and opportunities of living, learning and working in

an interconnected digital world, and they act in ways that are safe, legal and ethical. *(Consult/work in conjunction with librarian on some aspects of ISTE's Digital Citizen Standard)*

Students:

1) Demonstrate an understanding of the role an online identity plays in the digital world and learn the permanence of their decisions when interacting online.
2) Practice and encourage others in safe, legal and ethical behavior when using technology and interacting online, with guidance from an educator.
3) Demonstrate an understanding of what personal data is, how to keep it private and how it might be shared online.

Creative Communicator: Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

Students:

1) Recognize and utilize the features and functions of a variety of creation or communication tools.
2) Create digital artifacts to communicate ideas visually and graphically.
3) Learn about audience and consider their expected audience when creating digital artifacts and presentations.

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Office applications – Word or Google Docs (students make the choice)
4. Projector
5. Speakers
6. Access to digital cameras
7. Headphones
8. Paper & pencils
9. BMS Acceptable Use Policy (AUP)
10. Student accounts for:
    - Google Drive
    - Online bibliography tool (such as Noodle Tools)
    - Email
    - Canvas

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students are able to take more time or move ahead as their skills dictate. Additionally, students have the opportunities in some units to choose the type of project they would like to create or to choose the material they will use for an assignment.

The teacher will provide additional guidance/assistance as needed based on observing the students in class. For longer projects, checkpoints will be used to aid students in their time management of multi-step assignments.

Unit 2: Intellectual Property

Description

Students learn what intellectual property is and the four types of intellectual property. They have the opportunity to explore them in more detail. Students are exposed to images, video and physical examples of intellectual property to help them gain a full understanding of what IP represents. Students learn about the history of IP as is relates to computers and technology. (The inception of awareness of IP theft/abuse which occurred with the "supposed anonymity" of using the internet.) Students are encouraged to be good cyber citizens and to respect intellectual property laws. Students will gain an understanding of the Fair Use another for discussion and understanding.

Learning Objectives

1) Learn about, demonstrate and encourage respect for intellectual property with both print and digital media when using and sharing the work of others.

Key Terms:

- Copyright
- Trademark
- Design
- Patent
- Public Domain
- Fair Use
- Plagiarism
- Creative Commons
- Domain Extension(s)
- Digital Rights Management (DRM)
- URL
- Metasearch engines

Unit Outline

1. Review definition of intellectual property and the four types. Students take notes on the computer.
2. Through images, music and video fully explore examples intellectual property.
3. Review the history of IP as is relates to computers and technology and the concept of IP theft/abuse/piracy.
4. Review/discuss major terminology such as Fair Use and Plagiarism.
5. Create a poster about IP or other project proposed by a student. (For example, a student may choose to create a PSA video or a slide show presentation.)

Assessment Plan

Students will be graded based on project grading sheets and/or rubrics provided to them. Multiple modalities will be used to make sure all students understand the task/activity/assignment which they are given. Some opportunities will be provided for students to choose to be assessed individually or as a group. Using Google Drive and Canvas will facilitate the communication of how timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

As a Unit Assessment, students will develop a poster or PSA about intellectual property and the need to respect intellectual property rights.

Curriculum Standards

Reading Standards for Informational Text

RI.6.7 – Integrate information presented in different media or formats as well as in words to develop a coherent understanding of a topic or issue.

Writing Standards

W.6.4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.6.8 – Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.

Speaking and Listening Standards

SL.6.1 – Engage effectively in a range or collaborative discussions with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.

SL.6.5 – Include multimedia components and visual displays in presentations to clarify information.

Technology Standards

Digital Citizen: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal and ethical.

Students:

1) Practice and encourage others in safe, legal and ethical behavior when using technology and interacting online, with guidance from an educator.
2) Learn about, demonstrate and encourage respect for intellectual property with both print and digital media when using and sharing the work of others.

Creative Communicator: Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

Students:

1) Recognize and utilize the features and functions of a variety of creation or communication tools.
2) Create digital artifacts to communicate ideas visually and graphically.
3) Learn about audience and consider their expected audience when creating digital artifacts and presentations.

Global Collaborator: Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

Students:

4) Use collaborative technologies to connect with others, including peers, experts and community members, to explore different points of view on various topics.

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Office applications – Word, PowerPoint
4. Graphic Organizer application such as Inspiration
5. Projector
6. Speakers
7. Access to digital cameras
8. Headphones

9. Paper & pencils
10. Student accounts for:
    - Google Drive
    - Online bibliography tool (such as Noodle Tools)
    - Canvas

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students may take more time or move ahead as their skills dictate. Additionally, students have the opportunities in some units to choose the type of project they would like to create or to choose the material they will use for an assignment.

The teacher will provide additional guidance/assistance as needed based on observing the students in class. For longer projects, checkpoints will be used to aid students in their time management of multi-step assignments.

Unit 3: Programming

Description:

Students will learn the basis of computer programming – logical and specific directions given to accomplish a goal/task. Students will use explore programming tasks through their online Tynker units. Additionally, students will participate in the "Hour of Code" activities. It is hoped that we will be able to connect in some fashion with real programmers either through email or some other communication tool. As students meet with a programming challenge they would be able to reach out to another resource person in addition to peers and the teacher.

Learning Objectives

1) Break down problems into smaller parts, identify key information and propose solutions.
2) Understand and explore basic concepts related to automation, patterns and algorithmic thinking.

Key Terms:

- Logic
- Coordinates
- Loops
- Conditionals
- If ... then

Unit Outline

1. Introduce the concept of writing a series of commands/instructions to complete a task.
2. Connect this concept to process of programming.
3. Introduce Tynker and students begin programming activities.
4. Tie in with Hour of Code activities during the month of December.

Assessment Plan

Students will be graded based on completion of programming tasks/units within Tynker. There are also periodic quizzes imbedded within some units. Using Google Drive and Canvas will facilitate the communication of how

timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

Curriculum Standards

Speaking and Listening Standards

SL.6.1 – Engage effectively in a range or collaborative discussions with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.

Technology Standards

Computational Thinker: Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Students:

1. Break down problems into smaller parts, identify key information and propose solutions.
2. Understand and explore basic concepts related to automation, patterns and algorithmic thinking.

Global Collaborator: Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

Students:

1. Use digital tools to work with friends and people from different backgrounds or cultures.

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Projector
4. Speakers
5. Paper & pencils
6. Student accounts for:
    - Tynker
    - Canvas
    - Email

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students are able to take more time or move ahead as their skills dictate. Students' progress on Tynker at their own pace. On occasion, students will be required to complete some work outside of class.

The teacher will provide additional guidance/assistance as needed based on observing the students in class.

Unit 4: Computer Systems

Description:

Students learn about and investigate the parts of a computer system and the basic concepts behind a computer network. They will learn about the history of technology as well as new technologies that may impact their future. Students learn about some basic trouble-shooting of a personal system. We will also discuss how computers use electricity and binary code to carry out operations/tasks.

In addition to class assignments, students will do a brief research project about ENIAC. They will also create a presentation about their ideas for the future of technology.

Learning Objectives

1) Collaborate with a teacher to employ appropriate research techniques to locate digital resources that will help them in their learning process.
2) Learn how to evaluate sources for accuracy, perspective, credibility and relevance.
3) Organize information and make meaningful connections between resources.
4) Explore real-world issues and problems and with others to find answers or solutions.

Key Terms:

- Input Devices
- Output Devices
- Storage Devices
- Microprocessor (Processor)
- ASCII
- Binary Code
- Circuits
- Switches
- Transistor
- Network
- Silicon
- Bit
- Byte
- ENIAC

Unit Outline

1) Study the four major parts of a computer system.
2) Learn how a computer network functions.
3) Investigate the development of technological advances.
4) Discuss/review definition of credible sources and how to evaluate sources.
5) Students do a brief research paper on the ENIAC.
6) Learn the basics of trouble-shooting.
7) Learn about binary code and how computers use this language to carry out tasks.
8) Students create a presentation of their ideas for future technologies.

Assessment Plan

Students will be graded based on project grading sheets and/or rubrics provided to them. Multiple modalities will be used to make sure all students understand the task/activity/assignment which they are given. Some opportunities will be provided for students to choose to be assessed individually or as a group. Using Google Drive and Canvas will facilitate the communication of how timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion. As a final assessment, students will do a brief research project about ENIAC and create a presentation about their ideas for the future of technology. There will be a unit test at the end.

Curriculum Standards

Writing Standards

W.6.2 – Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

W.6.7 – Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

W.6.8 – Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.

Speaking and Listening Standards

SL.6.4 – Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

Technology Standards

Empowered Learner: Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals.

Students:

1) Develop learning goals in collaboration with an educator, select the technology tools to achieve them, and reflect on and revise the learning process as needed to achieve goals.
2) Explore age-appropriate technologies and begin to transfer their learning to different tools or learning environments.

Knowledge Creator: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

Students:

1) Collaborate with a teacher to employ appropriate research techniques to locate digital resources that will help them in their learning process.
2) Learn how to evaluate sources for accuracy, perspective, credibility and relevance.
3) Organize information and make meaningful connections between resources.

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Office applications – Word, PowerPoint, Publisher
4. Graphic Organizer application such as Inspiration
5. Projector
6. Speakers
7. Paper & pencils
8. Student accounts for:
    - Google Drive
    - Online bibliography tool (such as Noodle Tools)
    - Canvas

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as

resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students are able to take more time or move ahead as their skills dictate. Additionally, students have the opportunities in some units to choose the type of project they would like to create or to choose the material they will use for an assignment.

The teacher will provide additional guidance/assistance as needed based on observing the students in class. For longer projects, checkpoints will be used to aid students in their time management of multi-step assignments.

Unit 5: Graphing

Description

Students use collected data to create and share a graph *(ideally the data will come from work they are doing in one of their core classes such as math, science or social studies).* They will learn how to create a data template to collect their data. They will learn how to create multiple graph models (bar, pie, etc.) from the data including how to format titling, graph wall, axes labels to create a professional document.

Learning Objectives

1) Students create a data template to collect their data.
2) Students learn to choose the best graph to represent their data
3) Seek from feedback from both people and features embedded in digital tools, and use age-appropriate technology to share learning.

Key Terms:

- Cell
- Row
- Column
- Axis
- Wall

Unit Outline

1. Introduce key spreadsheet terms and give time for students to practice.
2. Students will create a graph based on data provided by the teacher as a model for the process.
3. Students will collect their own data, either through data obtained from another core subject or from data collected through their own survey. (If creating a survey, students will have the option to use a variety of different applications to design their survey such as Google Forms, Survey Monkey or Zoho.
4. Students will create a final version of their individual graph project.

Assessment Plan

Students will be graded based on project grading sheets and/or rubrics provided to them. Multiple modalities will be used to make sure all students understand the task/activity/assignment which they are given. Some opportunities will be provided for students to choose to be assessed individually or as a group. Using Google Drive and Canvas will facilitate the communication of how timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

Curriculum Standards

Language Standards

L.6.2 – Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Technology Standards

Empowered Learner: Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals.

Students:

1) Seek from feedback from both people and features embedded in digital tools, and use age-appropriate technology to share learning.

Innovative Designer: Students use a variety of technologies within a design process to solve problems by creating new, useful or imaginative solutions.

Students:

1) Explore and practice how a design process works to generate ideas, consider solutions, plan to solve a problem, or create innovative products that are shared with others.

Creative Communicator: Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

Students:

1) Create digital artifacts to communicate ideas visually and graphically.
2) Learn about audience and consider their expected audience when creating digital artifacts and presentations.

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Office applications – Excel
4. Survey applications – Survey Monkey, Zoho
5. Projector
6. Speakers
7. Paper & pencils
8. Student accounts for:
    - Google Drive
    - Email
    - Canvas

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students may take more time or move ahead as their skills dictate. Additionally,

students have the opportunities in some units to choose the type of project they would like to create or to choose the material they will use for an assignment.

The teacher will provide additional guidance/assistance as needed based on observing the students in class. For longer projects, checkpoints will be used to aid students in their time management of multi-step assignments.

Unit 6: Keyboarding

Description

Students' keyboarding skills will be assessed before starting lessons. I will have students set personal goals with the aspiration to type at least 25-30 words per minute by the end of the year. At the beginning of using the program some work will be done in school (especially to assess proper technique) then, at times, keyboarding assignments are given as homework. When keyboarding in class, students will work for 15-20 minutes. Student progress is shared in an encouraging manner to celebrate their improvement. At times, students will incorporate journaling and poem activities to make keyboarding more meaningful.

Learning Objectives

1) By the end of grade 6, students will type 25-30 words per minute.

Key Terms:

- Home Row
- Speed
- Accuracy
- Body Position

Unit Outline

1. Introduce keyboarding program.
2. Use time occasionally during class to practice during school to ensure correct hand placement.
3. Assign keyboarding as homework.
4. Journaling.

Assessment Plan

Students will be graded based on project grading sheets and/or rubrics provided to them. Multiple modalities will be used to make sure all students have an understanding of the task/activity/assignment which they are given. Some opportunities will be provided for students to choose to be assessed individually or as a group. Using Google Drive and Canvas will facilitate the communication of how timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

Curriculum Standards

Writing Standards

W.6.6 – Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

Language Standards

Technology Standards

Empowered Learner: Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals.

Students:

1) Develop learning goals in collaboration with an educator, select the technology tools to achieve them, and reflect on and revise the learning process as needed to achieve goals.

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Office applications – Word
4. Projector
5. Speakers
6. Student accounts for:
    - Canvas
    - All the Right Type

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students are able to take more time or move ahead as their skills dictate.

The teacher will provide additional guidance/assistance as needed based on observing the students in class.

Sources:

1) *ISTE Standards for Students 2016*

2) *ISTE Age Band Articulation (2016)*

3) *NYS Common Core Curriculum, Engage NY*

Grade 7 Curriculum

Grade: 7th
Subject: Computer Science II
School: Bulkeley Middle School, Rhinebeck Central School District

In 7th grade students study the following units:

I. **Internet Safety**
II. **Programming & Coding**
III. **Technology Integration/Productivity**
IV. **Keyboarding**

We meet every other day for the entire year creating a 20-week course. As much as possible, units that can be, are integrated within other subject areas. Some units, such as keyboarding are interwoven around other units as opposed to being done in isolation. Similarly, a single ISTE Standard may be reflected in multiple units and unit activities.

Unit 1: Internet Safety

Unit Description

Students are reminded of their responsibilities as a user of the school's technologies by reviewing and discussing the Acceptable Use Policy. Students get additional practice in keyboarding as they synthesize the most important aspects of the AUP. We build on the learning and discussions from 6th grade but with the addition of learning about cyberbullying. Students are taught how to treat others respectfully while online and how to advocate for themselves and others when there is an issue of safety. Student learn their options for getting help should they have any concerns. We also discuss scams that can be used by others online to harm a person's personal safety including predators.

Learning Objectives

Demonstrate and advocate for positive, safe, legal and ethical habits when using technology and when interacting with others online.

Demonstrate and advocate for an understanding of intellectual property with both print and digital media - including copyright, permission and fair use - by creating a variety of media products that include appropriate citation and attribution elements.

Demonstrate an understanding of what personal data is and how to keep it private and secure, including the awareness of terms such as encryption, HTTPS, password, cookies and computer viruses; they also understand the limitations of data management and how data-collection technologies work.

Key Terms:

- Acceptable Use Policy (AUP)
- Netiquette
- Cyberbullying
- Video Chat

Unit Outline

1. Review & discussion of Acceptable Use Policy.
2. Through video presentations and discussions learn about cyberbullying, how to be respectable while online, and how to advocate for themselves and others when there is an issue of safety.
3. Do research about online scams.
4. Create a presentation using Google Slides in a class presentation about internet safety.

Assessment Plan

Students will be graded based on project grading sheets and/or rubrics provided to them. Multiple modalities will be used to make sure all students understand the task/activity/assignment which they are given. Some opportunities will be provided for students to choose to be assessed individually or as a group. Using Google Drive and Canvas will facilitate the communication of how timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

As a final assessment, students create Google slides to accompany their classroom presentation about strategies to keep themselves safe online.

Curriculum Standards

Reading Standards for Informational Text

RI.7.1 – Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

Writing Standards

W.7.7 – Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

W.7.11 – Create a presentation, art work, or text in response to a literary work with a commentary that identifies connection.

Speaking and Listening Standards

SL.7.1 – Engage effectively in a range or collaborative discussions with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.

SL.7.5 – Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

Technology Standards

Empowered Learner: Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals.

Students:

1) Actively seek performance feedback from people, including teachers, and from functionalities embedded in digital tools to improve their learning process, and they select technology to demonstrate their learning in a variety of ways.
2) Are able to navigate a variety of technologies and transfer their knowledge and skills to learn how to use new technologies.

Digital Citizen: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal and ethical. *(Consult/work in conjunction with librarian on some aspects of ISTE's Digital Citizen Standard)*

Students:

1) Manage their digital identities and reputations within school policy, including demonstrating an understanding of how digital actions are never fully erasable.
2) Demonstrate and advocate for positive, safe, legal and ethical habits when using technology and when interacting with others online.
3) Demonstrate and advocate for an understanding of intellectual property with both print and digital media - including copyright, permission and fair use - by creating a variety of media products that include appropriate citation and attribution elements.
4) Demonstrate an understanding of what personal data is and how to keep it private and secure, including the awareness of terms such as encryption, HTTPS, password, cookies and computer viruses; they also understand the limitations of data management and how data-collection technologies work.

Creative Communicator: Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

Students:

1) Select appropriate platforms and tools to create, share and communicate their work effectively.
2) Publish or present content designed for specific audiences and select platforms that will effectively convey their ideas to those audiences.

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Office applications - Word
4. Projector
5. Speakers
6. Graphic Organizer application such as Inspiration
7. Headphones
8. BMS Acceptable Use Policy (AUP)
9. Student accounts for:
    - Google Drive
    - Online bibliography tool (such as Noodle Tools)
    - Email
    - Canvas

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students may take more time or move ahead as their skills dictate. Additionally, students have the opportunities in some units to choose the type of project they would like to create or to choose the material they will use for an assignment.

The teacher will provide additional guidance/assistance as needed based on observing the students in class. For longer projects, checkpoints will be used to aid students in their time management of multi-step assignments.

Unit 2: Programming and Coding

Unit Description

We build on the experiences students gained in 6th grade, first by continuing working with Tynker lessons on more advanced tasks that require knowledge of prior skills they gained last year. We then progress to students working with actual coding languages. When students work with Logo there is a great deal of focus on writing programs that will draw various geometrical shapes using mathematical formulae. Later in the year, students also learn how to code in JavaScript and Python. During early December students will also formally participate in Code.org's "Hour of Code". As with other units, students are encouraged to use each other as resources to share ideas and assist each other in completing tasks. Ideally students will also have access to email real programmers to ask questions and/or get assistance on a programming task.

Learning Objectives

1) Practice defining problems to solve by computing for data analysis, modeling or algorithmic thinking.
2) Find or organize data and use technology to analyze and represent it to solve problems and make decisions.
3) Break problems into component parts, identify key pieces and use that information to problem solve.
4) Demonstrate an understanding of how automation works and use algorithmic thinking to design and automate solutions.

Key Terms:

- Coordinates
- Conditionals
- Angle
- Degrees
- Other coding language specific to the particular language, e.g. Logo – Forward=FD, Clear Screen=CS

Unit Outline

1. Using their Tynker accounts, students begin working with where they left off in 6th grade.
2. As needed, introduce new programming terms and mathematical formulae while working with Logo.
3. After completing first ten units on Logo, introduce the "Star Challenge". Students may opt to work in groups or work on their own.
4. Introduce JavaScript and Python. Students work on programming tasks on Code Academy.
5. There will be a test/quiz at the end of each experience with the programming languages. Tynker has imbedded quizzes.
6. Students will participate in "Hour of Code" activities in December.

Assessment Plan

Students will be graded based on the "Star Challenge" project grading rubric provided to them. Tests/quizzes will be used at the end of each programming language unit. Multiple modalities will be used to make sure all students understand the task/activity/assignment which they are given. Some opportunities will be provided for students to choose to be assessed individually or as a group such as when doing work on Logo. Using Google Drive and Canvas will facilitate the communication of how timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

Curriculum Standards

Speaking and Listening Standards

SL.7.1 – Engage effectively in a range or collaborative discussions with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.

Mathematics Standards

7.G – Draw construct, and describe geometrical figures and describe the relationship between them.

Technology Standards

Innovative Designer: Students use a variety of technologies within a design process to solve problems by creating new, useful or imaginative solutions.

Students:

1) Engage in a design process and employ it to generate ideas, create innovative products or solve authentic problems.
2) Engage in a design process to develop, test and revise prototypes, embracing the cyclical process of trial and error and understanding problems or setbacks as potential opportunities for improvement.
3) Demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.

Computational Thinker: Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Students:

4) Practice defining problems to solve by computing for data analysis, modeling or algorithmic thinking.
5) Find or organize data and use technology to analyze and represent it to solve problems and make decisions.
6) Break problems into component parts, identify key pieces and use that information to problem solve.

Global Collaborator: Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

Students:

7) Use collaborative technologies to connect with others, including peers, experts and community members, to learn about issues and problems or to gain broader perspective.

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Projector
4. Protractors
5. Paper & pencils
6. Student accounts for:
    - Tynker
    - Google Drive
    - Email
    - Canvas
    - Code Academy

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as

resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students are able to take more time or move ahead as their skills dictate. Additionally, students have the opportunities in some units to choose the type of project they would like to create or to choose the material they will use for an assignment.

The teacher will provide additional guidance/assistance as needed based on observing the students in class. For longer projects, checkpoints will be used to aid students in their time management of multi-step assignments.

Unit 3: Technology Integration/Productivity

Sample Projects:

Veterans Day Assembly:

Students create slides to honor veterans at our MS Veterans Day assembly. In particular, the need for accuracy in representing the veterans' information is stressed to the students. Students learn how to format their work to create a professional presentation which is a key aspect of the assembly. Additionally, some veterans will request a copy of their slide.

Technology Integration with ELA:

Students research a topic such as the social awareness of the global garment industry. In creating their six-paneled brochure to present their information, students will use a graphic organizer to plan each brochure panel, search for images, create their bibliography, and design each panel of their brochure.

Technology Integration with Social Studies:

Students will research a subtopic of a unit they study in social studies class such as The Civil War. For example, a group may research a Civil War battle or do research about a particular Civil War historical figure. In preparing their video presentation of this project, students also search for images, video and sound files, learning how to download and insert these into their project.

Technology Integration with Foreign Language:

Students create a children's book in the language they are studying (French or Spanish). Some aspects of the project are graded by their Foreign Language teacher (e.g. language usage) while other aspects are assessed by the computer teacher (e.g. book layout, formatting, picture bibliography). Students create the designs for their book including images & backgrounds. Each student may decide the focus for his/her book based on the vocabulary lists provided by the Foreign Language teachers (e.g. an animal book, a book about families, a book about colors).

Students take a walking field trip to Chancellor Livingston Elementary School to read their book to a younger student(s) translating each page into English after reading it in Spanish or French. This past year students read to first graders.

A few other related activities that I would like to include are:

1) Food festival during 7th grade lunch to include French and Spanish foods. (Need to coordinate this with the MS Cafeteria)
2) Skyping with another Spanish and/or French class
3) Guest speakers to come in to talk with students about their French and/or Spanish heritage, including speaking to the students in that language and presenting photos and/or other cultural items

Learning Objectives (as applicable to project as listed above)

1) Demonstrate and practice the ability to effectively utilize research strategies to locate appropriate digital resources in support of their learning.

2) Practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility and relevance.
3) Locate and collect resources from a variety of sources and organize assets into collections for a wide range of projects and purposes.
4) Explore real-world issues and problems and actively pursue an understanding of them and solutions for them.
5) Are able to navigate a variety of technologies and transfer their knowledge and skills to learn how to use new technologies.
6) Create original works or responsibly repurpose other digital resources into new creative works.
7) Communicate complex ideas clearly using various digital tools to convey the concepts textually, visually, graphically, etc.

Key Terms:

Key terms will be specific to the unit and will be developed in collaboration with the content teacher.

Unit Outline

1. Two units are introduced in the core classroom (ELA and Social Studies) the other two units (Foreign Language and Veterans Day) are introduced in computer class.
2. Veterans Day:
    a. Review design elements in Power Point
    b. Discuss requirements of military features
    c. Discuss formatting of images, background, text, shapes
    d. Students create slides for 2-3 veterans being honored
3. ELA:
    a. Discuss the design elements required in each brochure panel (six-sided brochure) and the optional elements students can choose to do
    b. Using a graphic organizer, formulate a plan for each panel
    c. Gather images and create bibliography entries
    d. Design each panel using the saved images and the text students researched & created in their ELA class
4. Social Studies:
    a. Discuss the resources available for sound and video images and how to download these to Google Drive
    b. Students work to gather their resources and have time to work with their group on shooting their video
5. Foreign Language:
    a. The project is introduced and students have a grading rubric for both their work using the language (graded by their French or Spanish teacher) and for the design of their book (graded by their Computer Science II teacher.
    b. Students use Power Point to create their book.
    c. Printed books are shared with first grade students at CLS. Each 7th grader has 1-2 younger students who he/she reads and translates the book to the first grader(s).

Assessment Plan

Students will be graded based on project grading sheets and/or rubrics provided to them. Multiple modalities will

be used to make sure all students understand the task/activity/assignment which they are given. Some opportunities will be provided for students to choose to be assessed individually or as a group. Using Google Drive and Canvas will facilitate the communication of how timely students receive feedback from completed tasks/activities. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

The assessments for these specific projects are in the description.

Curriculum Standards

Reading Standards for Informational Text

RI.7.3 – Analyze the interactions between individuals, events, and ideas in a text.

Writing Standards

W.7.1 – Write arguments to support claims with clear reasons and relevant evidence.

W.7.4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.7.6 – Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

W.7.8 – Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

Speaking and Listening Standards

SL.7.5 – Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

Language Standards

L.7.1 – Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.7.2 – Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

L.7.3 – Use knowledge of language and its conventions when writing, speaking, reading, or listening.

Technology Standards

Empowered Learner: Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals.

Students:

1) Articulate personal learning goals, select and manage appropriate technologies to achieve them, and reflect on their successes and areas of improvement in working towards their goals.

2) Actively seek performance feedback from people, including teachers, and from functionalities embedded in digital tools to improve their learning process, and they select technology to demonstrate their learning in a variety of ways.

Knowledge Constructor: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others. *(Consult/work in conjunction with librarian on some aspects of ISTE's Knowledge Constructor Standard)*

Students:

1) Demonstrate and practice the ability to effectively utilize research strategies to locate appropriate digital resources in support of their learning.

2) Practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility and relevance.
3) Locate and collect resources from a variety of sources and organize assets into collections for a wide range of projects and purposes.
4) Explore real-world issues and problems and actively pursue an understanding of them and solutions for them.

Creative Communicator: Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

Students:

1) Select appropriate platforms and tools to create, share and communicate their work effectively.
2) Communicate complex ideas clearly using various digital tools to convey the concepts textually, visually, graphically, etc.

Global Collaborator: Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

Students:

1) Use digital tools to interact with others to develop a richer understanding of different perspectives and cultures.
2) Use collaborative technologies to connect with others, including peers, experts and community members, to learn about issues and problems or to gain broader perspective.

Technology Skills:

1) Gathers information and communicate with others using telecommunications with support from teachers, family members, or student partners
2) Use telecommunications and online resources including email and discussion boards to participate in collaborative problem-solving activities
3) Uses email and follows netiquette protocol
4) Communicates with others online in support of direct and independent learning
5) Collaborates with peers, experts, and others using collaborative online tools to investigate curriculum-related problems, issues, and information
6) Develops solutions in collaborative online environment for audiences inside and outside the classroom
7) Develops essential and subsidiary questions as part of collaborative online projects
8) Plans collaborative project with group
9) Participates responsibly in several types of online activities including a MOO, videoconference, a chat, and a threaded discussion

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Office applications – Word, Xcel, PowerPoint
4. Projector
5. Speakers
6. Access to digital cameras
7. Graphic Organizer application such as Inspiration
8. Headphones
9. Student accounts for:

- Google Drive
- Online bibliography tool (such as Noodle Tools)
- Email
- Canvas

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning. From the start of the year, students are encouraged to ask peers for assistance as needed. I encourage the "ask three then me" approach (students should as three classmates before asking the teacher) to facilitate their using each other as resources to accomplish a few goals – (1) they are not waiting to ask the teacher if I am busy with another student, (2) it encourages each of them to be an expert to help others, (3) it facilitates a community within the classroom.

Within many of our units, students are able to take more time or move ahead as their skills dictate. Additionally, students have the opportunities in some units to choose the type of project they would like to create or to choose the material they will use for an assignment.

The teacher will provide additional guidance/assistance as needed based on observing the students in class. For longer projects, checkpoints will be used to aid students in their time management of multi-step assignments.

Unit 4: Keyboarding

Learning Objectives

By the end of grade 7, students will type 30-35 words per minute.

Description

Students' keyboarding skills are assessed before starting lessons at the beginning of the year. Students set personal goals with the aspiration to type at least 30-35 words per minute by the end of 7th grade. We primarily use "All the Right Type" for lessons. Students will complete some work in school (especially at the beginning to assess proper technique) then, at times, keyboarding assignments are given as homework. Students are encouraged to continually improve their skills via review with the teacher and the program allows students to monitor their progress as well. To provide additional keyboarding experiences in other formats, students will incorporate journaling and poem activities.

Key Terms:

- Home Row
- Speed
- Accuracy
- Body Position

Unit Outline

1. Assessment of WPM & accuracy at the start of the unit. (Reassessed at the end of the unit.)
2. Students work at their own pace to complete lessons.

Assessment Plan

Students will be graded based on their grades on embedded tests within "All the Right Type" (ATRT), their work to improve their WPM & accuracy, the journaling/poetry assignments, as well as completion of assigned ATRT lessons. Additionally, students will be monitored during class time for their attention to that day's task and resulting task completion.

Curriculum Standards

Writing Standards

W.7.2 – Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

W.7.4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Language Standards

L.7.1 – Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.7.2 – Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

L.7.3 – Use knowledge of language and its conventions when writing, speaking, reading, or listening.

Technology Standards

Empowered Learner: Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals.

Students:

1) Articulate personal learning goals, select and manage appropriate technologies to achieve them, and reflect on their successes and areas of improvement in working towards their goals.

Skills:

1) Productivity Skills – Keyboarding:
    a. Types 30-35 words per minute

Materials / Resources

1. Computers
2. Internet connectivity/browser
3. Office applications – Word
4. Projector
5. Speakers
6. Student accounts for:
    - Google Drive
    - Email
    - Canvas
    - All the Right Type

Strategies for Differentiation

Based on teacher observation any number of strategies will be used to assist student learning.

Within many of our units, students are able to take more time or move ahead as their skills dictate. Additionally, students have the opportunities in some units to choose the type of project they would like to create or to choose the material they will use for an assignment.

The teacher will provide additional guidance/assistance as needed based on observing the students in class.

Grade 8 Curriculum

Grade: 8th
Subject: Computer Science III
School: Bulkeley Middle School, Rhinebeck Central School District

In 8th grade students study the following units:

I. **Digital Citizenship** (ISTE Standards addressed: Digital Citizen)
II. **Innovative Designer** (ISTE Standards addressed: Innovative Designer)
III. **Empowered Learner** (ISTE Standards addressed: Empowered Learner)
IV. **Computational Thinker** (ISTE Standards addressed: Computational Thinker)
V. **Collaborative JavaScript Project** (ISTE Standards addressed: Global Collaborator)
VI. **SurveyMonkey** (ISTE Standard addressed: Knowledge Constructor, Creative Communicator)

The course meets every other day for the entire year creating a 20-week course. As much as possible, units that can be, are integrated within other subject areas. Some units, such as keyboarding are interwoven around other units as opposed to being done in isolation. Similarly, a single ISTE Standard may be reflected in multiple units and unit activities.

Unit 1: Digital Citizenship

Description

Using a variety of activities – such as group- and class-discussion of dramatic fictional videos and current news broadcasts, role-playing, online games, individual written reflections, and persuasive letters -- students will explore the pervasive and powerful role of technology in their lives and will be asked to grapple with and recommend healthy options for navigating the hazards inherent to an interconnected digital world.

As students who are newly old enough to legally utilize popular social media services, many activities will place special emphasis on responsible use of social media platforms to ensure students' (and 3rd parties') physical and psychological health, maintenance of students' good reputations, and preservation of a positive reputation for future employment marketability. Students will also engage in activities that highlight the growing problem of identity theft and learn best practices to reduce the risk of personally identifying data being revealed. Student activities will also provide clear definitions of crimes associated with child pornography, reveal ways in which technology facilitates youth becoming ensnared in digital child pornography crimes, highlight the devastating consequences of conviction for these crimes, and counsel courses of action students should take to avoid these hazards.

Activities will engage students in the practice of discerning the authorship and nature of web-based resources and evaluating their credibility. While exploring and evaluating online resources, students will practice attribution of sources to reinforce respect for federal copyright laws.

Learning Objectives

Students will be able to:

1) identify the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world,
2) understand why it is important for them to conduct themselves in ways that are safe, legal, and ethical,
3) communicate that importance to peers and the wider community, and
4) model the protocols and values consistent with good digital citizenry.

Key Terms

The following terms are representative of the content that will be taught in this unit.

- digital identity
- ethics,
- sexting,
- encryption
- HTTPS
- cookies

Unit Outline:

This Unit lasts for 10 days, begins the school year, and includes development of the following skills as detailed in the Scope and Sequence tables earlier in this document:

1. Review logistics of computer lab (computer access; setup)
2. Introduction to Office 365 tools (Outlook and Word)
3. Overview of internet safety
4. Review RCSD AUP
5. Introduce Keyboarding
6. Internet Safety Topic Discussions – Sexting, Bullying

Assessment Plan

Students may be assessed daily based on their class participation, completion of assigned tasks, indications of sincere effort and engagement with the assigned material, and, for certain assignments, in accordance with a rubric distributed to students.

Sample Calendar:

Day 1 Digital Citizenship	Day 2 Digital Citizenship	Day 3 Digital Citizenship	Day 4 Digital Citizenship	Day 5 Digital Citizenship
Day 6 Digital Citizenship	Day 7 Digital Citizenship	Day 8 Digital Citizenship	Day 9 Digital Citizenship	Day 10 Digital Citizenship

Curriculum Standards Addressed

NYS ELA Common Core Learning Standards

W.8.1.A-E Write arguments to support claims with clear reasons and relevant evidence.

W.8.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

SL.8.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.

Technology Standards Addressed

2. Digital Citizenship – Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal and ethical.

2.a -- Students manage their digital identities and reputations within school policy, including demonstrating an understanding of how digital actions are never fully erasable.

2.b – Students demonstrate and advocate for positive, safe, legal and ethical habits when using technology and when interacting with others online.

2.d – Students demonstrate an understanding of what personal data is and how to keep it private and secure, including awareness of terms such as encryption, HTTPS, password, cookies and computer viruses; they also understand the limitations of data management and how data-collection technologies work.

Materials / Resources

- BMS Acceptable Use Policy (AUP)
- Computers
- Internet connectivity/browser
- NetSmartz
- Email accounts
- MS Word
- Envelopes
- Projector & Speakers

Strategies for Differentiation

Given the nature of this Unit and based on past experience, there has not been a need for significant differentiation. Some students may need more prompting and guidance from the teacher when responding to questions or additional teacher facilitation during student group discussion and role playing. Groups can be configured to support students who may have social anxiety or be particularly introverted. Additional time beyond the class period may need to be extended to students who process more slowly, have physical limitations that retard keyboarding, or whose IEP calls for extra time.

Unit 2: Innovative Designer

Description

Students will create a video project, such as a newscast or PSA, that illustrates what they learned in the first Unit (Digital Citizenship) about responsible use of digital resources, ensuring personal safety, protecting sensitive personal data, and recognizing digital forms of child pornography and how they are disseminated. Students will work in groups to design and storyboard their project. They will use digital tools to research actual news as examples of events to depict in their video. Students will assign roles to one another (newscaster, field reporters, subject of news story, etc.) and produce video and graphics for later assembly into their final product. Students will have the freedom to select different digital tools to create the components of their video (e.g. some students may create original artwork, while others may use premade art in the public domain). Students will then assemble the components they've created into a final video product and share it with their class and wider BMS community.

Students will be expected to shoot some video footage outside of class (using their own equipment or items on loan from the school) and it is anticipated that the entire class will have access to the "green screen" located in the High School building.

The project will begin with a refresher in basic graphics applications (e.g. Paint Shop Pro) and then introduce more advanced graphics editing software (e.g. Adobe Photoshop). Following a refresher in iMovie, students will begin their research and storyboarding.

Learning Objectives

Students will be able to:

- use a variety of technologies with a design process to solve problems,
- use digital and physical tools in planning strategies for managing and designing their projects or products,
- use a variety of technologies to create new, useful, and/or imaginative solutions, and
- develop, test, and refine prototypes of innovative design concepts, products or solutions.

Key Terms

The following terms are representative of the content that will be taught in this unit.

- design process
- storyboarding
- green screen
- editing
- video file formats

Unit Outline

This Unit lasts for 14 days and includes development of the following skills as detailed in the Scope and Sequence tables earlier in this document:

1) Overview of Videography (basic terminology, design process, storyboarding, green screen, editing, video file formats)
2) Create and edit graphic images and export files in various formats using basic graphics software (e.g. Paint Shop Pro)
3) Develop Storyboard reflecting target audience, goal, and purpose of presentation
4) Import video and images, edit, and produce video using iMovie

Assessment Plan

At the beginning of the project, a rubric will be provided to each student identifying expectations for the final video project. Students may also be assessed daily for their completion of discrete tasks, sincerity of effort and engagement in the project, and cooperative teamwork.

As a Unit Assessment, students will create a video reflecting on what they have learned about digital citizenship.

Sample calendar:

Day 1 Paint Shop Pro	Day 2 Adobe Photoshop	Day 3 Adobe Photoshop	Day 4 Adobe Photoshop	Day 5 iMovie
Day 6 Internet research/ Broad Storyboarding	Day 7 Broad Storyboarding	Day 8 Storyboarding: Scripting	Day 9 Storyboarding: Scripting	Day 10 Storyboarding: Scripting/graphics/ design
Day 11 Green Screen & Graphics/Design	Day 12 Green Screen & Graphics/Design	Day 13 Green Screen & Post-production	Day 14 Green Screen & Post-production	

Curriculum Standards Addressed

NYS Common Core Learning Standards

RI.8.7 Evaluate the advantages and disadvantages of using different media (e.g. print or digital text, video, multimedia) to present a particular topic or idea.

W.8.2A-F Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant context.

W.8.3.A-E Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

W.8.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.

W.8.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

SL.8.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.

Technology Standards Addressed

4. Innovative Designer – Students use a variety of technologies within a design process to solve problems by creating new, useful or imaginative solutions.

4.a – Students engage in a design process and employ it to generate ideas, create innovative products or solve authentic problems.

4.b – Students select and use digital tools to support a design process and expand their understanding to identify constraints and trade-offs and to weigh risks.

4.c – Students engage in a design process to develop, test and revise prototypes, embracing the cyclical process of trial and error and understanding problems or setbacks as potential opportunities for improvement.

4.d. – Students demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.

Materials

- Computers (PCs)
- iPads/iMacs
- Internet connectivity/browser
- Storyboard worksheets
- Paint Shop Pro
- iMovie
- Adobe Photoshop CS6
- Student smartphones
- Transfer cables
- Green Screen

Strategies for Differentiation

Students will be working in groups, so no significant differentiation is anticipated. Some students may need more prompting and guidance from the teacher or additional teacher facilitation during student group discussion and utilization of software. Groups can be configured in order to support students who may have social anxiety or be particularly introverted, as well as to ensure that there is a good mix of student competence with software applications. Additional time may need to be extended to students who process more slowly or whose IEPs call for extra time.

Unit 3: Empowerment through Excel

Learning Objectives

Students will be able to:

1) leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals,
2) set learning goals, apply strategies to meet them, and use technology tools to reflect on their learning,
3) use their technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways,
4) use advanced functions of MS Excel, utilize Excel in problem solving, and graphically communicate solutions to an audience.

Description

Students will begin this unit with an introduction to MS Excel and its basic components and functions before learning how to use formulas, advanced graphing techniques, and conditional formatting. After several discrete lessons to teach students Excel (including group and individual exercises), students will begin a project that dissects data on a topical subject (e.g. the results of the 2016 U.S. Presidential Election using publicly available polling and election data). Students will design this project themselves, define their own learning goals, and create a class rubric for grading their projects. While one required component of the project will be the use of Excel, students will be strongly encouraged to explore and incorporate other technologies to achieve their goals (e.g. PowerPoint, Word, iMovie) to create a multimedia presentation that can be shared out and narrated.

Key Terms

The following terms are representative of the content that will be taught in this unit.

- column
- row
- cell references
- formula bar
- sheet
- conditional formatting

Unit Outline

This Unit lasts for 14 days and includes development of the following skills as detailed in the Scope and Sequence tables earlier in this document:

1) Researching data using public resources
2) Discerning credibility of online resources
3) Downloading data sets
4) Importing data into Excel
5) Evaluating election results and patterns
6) Recognizing diversity of political views in the United States, geographical distinctions, and demographic correlation
7) Microsoft Excel 2013

Assessment Plan

Students may be assessed using the following: their completion of daily tasks, multiple choice quizzes and/or Excel performance quizzes, and, for their unit project, using a rubric constructed by the class.

As a Unit Assessment, students will create a multimedia presentation featuring graphs related to a topic of current events, such as the US presidential election.

Sample calendar

Day 1 Excel Introduction	Day 2 Excel basics & formatting	Day 3 Excel formulas	Day 4 Excel conditional formatting	Day 5 Excel graphing
Day 6 Excel graphing	Day 7 Project Intro, Goal Setting & Rubric Design	Day 8 Political Data Research/Gathering	Day 9 Political Data Research/Gathering	Day 10 Project Assembly
Day 11 Project Assembly	Day 12 Project Assembly	Day 13 Project Completion	Day 14 Project Sharing	

Curriculum Standards Addressed

ELA

RI.8.7 Evaluate the advantages and disadvantages of using different media (e.g. print or digital text, video, multimedia) to present a particular topic or idea.

W.8.1.A-E Write arguments to support claims with clear reasons and relevant evidence.

W.8.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

SL.8.3 Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.

MATH

7.SP.1 -- Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.

8.SP.41 -- Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?

S.ID.21 -- Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

1. Empowered Learner – Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

1.c1 -- Students seek feedback from both people and features embedded in digital tools, and use age-appropriate technology to share learning.

Materials

- Computers (PCs)
- Internet connectivity/browser
- Microsoft Excel
- Printers

Strategies for Differentiation

Based on past experience, no significant differentiation is anticipated to be required, however the teacher will have resources (e.g. polling and election data) available for students. Some students may need more prompting and guidance from the teacher or additional teacher facilitation during their research, manipulation of the data within Excel, and in deciding what kind of output will reveal the meaning discovered from the data. Although intended to be an individual project, students may be grouped in order to support students. Additional time may need to be extended to students who process more slowly or whose IEPs call for extra time.

Unit 4: Computational Thinker

Learning Objectives

Students will be able to:

1) formulate problem definitions suited for technology-assisted methods in exploring and finding solutions,
2) break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving,
3) organize data and use technology to analyze and represent it to solve problems and make decisions,
4) understand how automation works and use algorithmic thinking to design and automate solutions.

Description

Students will begin this unit with a review of the basic concepts underlying programming, a review of basic terminology, flowchart some simple games and activities, complete a "robot exercise," and an assessment of what students know and remember from their prior year's computer science instruction. Students will then segue into a programming course (e.g. Tynker, a scratch-based programming courses based on JavaScript); the skills and knowledge that students bring to the classroom will determine the particular courses assigned (e.g. Tynker modules 301 or 302, or some portions therein). At the conclusion of the programming module(s), students will create a project that connects with the content of one of their academic courses. Students will have the freedom to choose an academic topic of interest and create a presentation and/or game that meets the project rubric standards. After the project, students will learn a programming language (e.g. JavaScript), using the actual coding language, through Codecademy or equivalent.

Key Terms

The following terms are representative of the content that will be taught in this unit.

- Numbers
- Strings
- Booleans
- Syntax
- Variables
- Conditions
- Loops
- Functions
- Algorithms
- Debug

Unit Outline

This Unit lasts for 33 days and includes development of the following skills as detailed in the Scope and Sequence tables earlier in this document:

1) Review basic concepts of programming
2) Guided practice exercise
3) Introduce concepts to design, write and debug programs that accomplish specific goals
4) Design and develop modular programs that use procedures or functions
5) Write code, debug, and edit using JavaScript

Assessment Plan

Students may be assessed using the following: their completion of daily tasks, quizzes, a rubric for their unit project, completion of assigned lessons.

As a Unit Assessment, students will students will develop a program that connects with the content of one of their academic courses

Sample Calendar

Day 1 Coding Introduction	Day 2 Coding Flowcharts	Day 3 Coding Robot Exercise	Day 4 Coding ASSESSMENT	Day 5 Programming Tynker
Day 6 Programming Tynker	Day 7 Programming Tynker	Day 8 Programming TYNKER	Day 9 Programming TYNKER	Day 10 Programming TYNKER
Day 11 Programming Tynker	Day 12 Programming Tynker	Day 13 Programming Tynker	Day 14 Programming Tynker	Day 15 Programming Tynker
Day 16 Programming Tynker	Day 17 Programming Tynker	Day 18 Programming Tynker	Day 19 Programming Tynker	Day 20 Tynker Project
Day 21 Tynker Project	Day 22 Tynker Project	Day 23 Tynker Project	Day 24 Tynker Project	Day 25 Codecademy: Javascript
Day 26 Codecademy: JavaScript	Day 27 Codecademy: JavaScript	Day 28 Codecademy: JavaScript	Day 29 Codecademy: JavaScript	Day 30 Codecademy: JavaScript
Day 31 Codecademy: JavaScript	Day 32 Codecademy: JavaScript	Day 33 Codecademy: JavaScript		

Curriculum Standards

NYS Common Core Learning Standards

MATH

MP.1 – Make sense of problems and persevere in solving them.

4.OA.5– Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.

5.G.1– Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates.

6.NS.5– Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

8.RST.3– Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

Technology Standards Addressed

5. Computational Thinker – Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

5.a – Students explore or solve problems by selecting technology for data analysis, modeling and algorithmic thinking, with guidance from an educator.

5.b – Students select effective technology to represent data.

5.c– Students break down problems into smaller parts, identify key information and propose solutions.

5.d– Students understand and explore basic concepts related to automation, patterns and algorithmic thinking.

Materials

- Computers (PCs)
- Internet connectivity/browser
- Projector
- Tynker subscription/accounts
- Codecademy accounts

Strategies for Differentiation

Based on past experience, no significant differentiation is anticipated to be required, however some students may need more prompting and guidance from the teacher or additional teacher facilitation. The teacher will seat students-in-need alongside students who are more proficient in programming and/or coding and "deputize" them to offer aid. The teacher's experience deputizing students in prior years was been very positive in that it creates an environment of student inter-dependence, cooperative problem-solving, and increased student self-reliance and engagement. Although these projects are intended to be performed individually, the teacher may pair students for projects, abbreviate the lessons, and/or extend additional time to those students who require it.

Unit 5: Collaborative JavaScript Project

Learning Objectives

Students will be able to:

1) use digital tools to interact with others to develop a richer understanding of different perspectives,
2) use collaborative technologies to connect with others, including peers, experts and community members to solve problems,
3) determine their role on a team to meet goals, based on their knowledge of technology and content, as well as personal preference.

Description

Students will work in teams of 3 (or 4) and design a program using JavaScript that draws upon what they learned in the prior, Computational Thinker Unit. Students will use JSFiddle (or an equivalent JavaScript editor) to code the program and create an interactive game (e.g. "Choose Your Own Adventure"-experience). Students will be responsible for designating roles on the project amongst team members (e.g. 1 game designer and 2 programmers). Students will use "pair programming" during coding in class (reviewing one another's code in real-time and sharing responsibility for writing the code).

Key Terms

The following terms are representative of the content that will be taught in this unit.

- collaboration
- game designer
- lead programmer,
- driver

Unit Outline:

This Unit lasts for 5 days and includes development of the following skills as detailed in the Scope and Sequence tables earlier in this document:

1) Review basic concepts of programming
2) Work collaboratively to design and develop modular programs
3) Write code, debug, and edit using JavaScript

Assessment Plan

Students may be assessed using the following: daily observation of individual effort, group collaboration, and a project rubric.

As a Unit Assessment, students will create an interactive game of their own design.

Sample Calendar:

Day 1	Day 2	Day 3	Day 4	Day 5
JSFiddle: CYOA	JSFiddle: CYOA	JSFiddle: CYOA	JSFiddle: CYOA	JSFiddle: CYOA

Technology Standards Addressed

7. Global Collaborator – Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

7.c Students perform a variety of roles within a team using age-appropriate technology to complete a project or solve a problem.

Materials

- Computers (PCs)
- Internet connectivity/browser
- JSFiddle accounts (or equivalent JavaScript editor)

Strategies for Differentiation

Based on past experience, no significant differentiation is anticipated to be required, however some students may need more prompting and guidance from the teacher or additional teacher facilitation. The teacher may pair students for projects, may adjust the rubric, and/or may extend additional time to those students who require it.

Unit 6: Survey Monkey

Learning Objectives

Students will be able to:

1) use digital tools to gather data about a subject that is meaningful to them,
2) evaluate the accuracy, perspective, credibility and relevance of information and data,
3) curate information from a digital survey tool (i.e. Survey Monkey) and create artifacts that demonstrate meaningful connections or conclusions
4) build knowledge by actively exploring real-world issues and problems, develop theories, and pursue answers and solutions,
5) communicate complex ideas clearly and effectively by creating or using a digital object,
6) publish or present content that customizes the message and medium for an intended audience.

Description

Using Survey Monkey (or an equivalent digital survey tool), students will craft a digital survey about a subject that is meaningful to them and use that data to create a digital presentation (e.g. Excel, PowerPoint, Prezi, etc.) that collates the data into an audience-friendly presentation, and includes student findings and conclusions that construct meaning from the data.

Key Terms

The following terms are representative of the content that will be taught in this unit.

- open-ended questions
- closed-ended questions
- quantitative data
- qualitative data
- response rate

Unit Outline:

This Unit lasts for 3 days and includes development of the following skills as detailed in the Scope and Sequence tables earlier in this document:

1) Basic terminology – open-ended questions, closed-ended questions, quantitative data, qualitative data, response rate
2) Use of an online survey (e.g. Survey Monkey), its construction, and dissemination.
3) Crafting succinct questions that elicit useful, closed-ended responses that can be quantified.
4) Critical analysis of gathered data, attention to patterns, drawing reasonable conclusions.
5) Transforming raw data into an audience-friendly presentation

Assessment Plan

Students will be assessed using the following: observation of individual effort and a project rubric.
As a Unit Assessment, students will collect survey data to create a digital presentation featuring their findings.

Sample calendar:

Day 1 Survey Monkey Creation	Day 2 Survey Monkey Digest Data	Day 3 Survey Monkey Present Data

Curriculum Standards Addressed
NYS Common Core Learning Standards

ELA

W.8.4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Technology Standards Addressed

3. Knowledge Constructor Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

3.b– Students practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility and relevance.

3.d– Students explore real-world issues and problems and actively pursue an understanding of them and solutions for them.

6. Creative Communicator – Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

6.a– Students select appropriate platforms and tools to create, share and communicate their work effectively.

6.b– Students create original works or responsibly repurpose other digital resources into new creative works.

6.c– Students communicate complex ideas clearly using various digital tools to convey the concepts textually, visually, graphically, etc.

6.d– Students publish or present content designed for specific audiences and select platforms that will effectively convey their ideas to those audiences.

Materials

- Computers (PCs)
- Internet connectivity/browser
- Survey Monkey accounts (or equivalent)
- PowerPoint
- MS Excel
- Projectors
- Printers

Strategies for Differentiation

Based on past experience, no significant differentiation is anticipated to be required, however some students may need more prompting and guidance from the teacher or additional teacher facilitation.