**Minnesota Virtual Academy Online Syllabus for**

***SCI102a Physical Science***

**A) Instructional Contact, Communication and Academic Support Information**

**Name: Mrs. Kisner**

**Phone #: 866-215-2292 Option 4**

**Skype name: ekisner**

**Skype Phone #: 952-232-5922**

**Please add me on skype. It is a free way to chat that does not require a webcam.**

**School email address: Search for my name**

**Email address: elizabeth.kisner@hps294.us**

**Class Connect times: Tuesdays and Thursdays-9:00**

**Extra help CC Fridays at 9:00**

**Teacher Contact Time**

Class Connect sessions are designed to provide instructional, academic, and social support to our students. These sessions are provided to tie the lessons within the Online Learning System and the MN standards together to improve student achievement. Class Connects sessions are conducted via Blackboard. The times scheduled for Class Connects are listed above. ***Attendance for Class Connect sessions is mandatory.  Attendance is recorded by attending class live or by watching the recording and submitting the required documentation to your teacher.***

The instructor will respond to students within 24 hours on scheduled school days, Monday through Friday, unless the teacher has previously notified their students that they will be unavailable for a period of time. Non-verbal communication is the primary communication platform for MNVA-High School teachers, students, Learning Coach, and administration. Often, the information is time-sensitive, and many items require a specific response. Most communications to MNVA-High School students will be sent via e-mail. However, teachers might use other methods such as Skype or phone calls to contact students if that method is preferred.

Major projects or research papers submitted by the students will be processed and graded within a week.

**Student-to-Teacher Communications**

Students may contact the teacher using the following methods:

Teacher Skype Username: **ekisner**

Teacher Phone and voicemail: **952-232-5922**

Teacher E-mail: **elizabeth.kisner@hps294.us**

**Student Attendance Expectations**

**Attendance Policy-**

The Minnesota Virtual Academy school year is 174 days in length and students should participate 6 hours a day for 5 days a week. The overall attendance should equate to 6 hours daily; the daily online lessons would be a large portion of this overall time. Daily, teachers will verify the attendance hours and active participation in the course and document additional attendance hours spent in curricular activities outside D2L to capture a student’s overall attendance. It is this overall attendance that should equate to 6 hours daily; the D2L hours would be a large portion of this overall time. For students who do not demonstrate adequate attendance hours and active participation in their course, teachers will notify parents/guardians of the attendance concern, discuss the situation, and record an absence(s), if warranted. For students who do not show improved attendance hours and active participation in their course, teachers, advisors, and administration will notify parents/guardians of the attendance concern, discuss the situation, and record an absence(s), if warranted.

**Absences**

Under Minnesota Compulsory Attendance law, children ages 7 – 18 must go to school every day. Children under age seven who are enrolled in kindergarten or a higher grade are also subject to the law. A student is considered absent if they miss 1 or more hours of a school day. ***Students are expected to participate in all classes assigned each day.*** Missing a class period, which generally fills one hour of school, will be reported as an unexcused absence, unless it meets the requirements for excused absences and the school has been notified in advance. **A school day is comprised of the following, and missing any of these will result in an absence for the day:**

a. The scheduled online lessons in the D2L

b. D2L lessons, equaling approximately 6 hours of school work (for full-time students) must be complete in the D2L (Minn. Stat. §120A.41)

c. Ideally students will complete each subject on a daily basis, or as scheduled weekly

within the default settings. If students wish to modify their assigned schedules, this

may be done if it is agreed upon by their assigned classroom teacher(s) involved in the modified schedule;

d. Online work must be verifiable. Work is verified by completing both online and offline

activities, assignments, and assessments. If online work should ever need verification

for authenticity, students and/or learning coaches must submit all paper copies of said activities, assignments and/or assessments to their assigned homeroom teacher by the due date given;

f. The scheduled direct service instruction provided by a special education teacher, English Learner teacher or other specialist, as outlined in the student’s service agreement.

**Recording Attendance**

Good attendance is essential for school achievement and success**. If your child is ill or has a valid excuse for the absence, you must notify the school by reporting it on our online e-form, posted on our school website and made available through the school advisors and homeroom teachers.** Teachers are solely responsible for reporting unexcused absences. Daily, teachers will verify the attendance hours reported in D2L by reviewing the time spent on completed lessons and will document additional attendance hours spent in curricular activities outside the D2L platform to capture a student’s overall attendance. It is this overall attendance that should equate to 6 hours daily. For students who do not demonstrate adequate attendance hours and active participation in their coursework, unexcused absences will be reported for that day.

**Excused and Unexcused Absences**

**Parents or legal guardians must report all student’s absences to the attendance e-form prior to the student absences. Absences may be excused because of illness, religious observance or instruction, family emergency, funeral and bereavement, or for medical, dental, orthodontic or counseling appointments. All other absences are presumed to be unexcused (Minn. Stat. 120A.22, Subd. 12). Excessive excused absences for medical reasons may require doctor’s verification of the absences.**

If a student is having attendance or academic concerns, a meeting may be scheduled to discuss the situation. The school or the parents/guardians can request this meeting. Possible solutions might include: the child’s participation in an attendance plan, referral to a community agency for counseling, tutoring, mediation, modification of the child’s schedule, educational assessments, accompanying the child to Class Connects and attending virtual classes for one day, or referral of the child to alternative educational programs and services available in the district. If the school mandates that the student is to attend a virtual all-day work session (i.e. complete work in Black Board Collaborate under the supervision of teachers who can monitor and assist the student) and the student does not attend, it will be counted as an unexcused absence.

**Truancy**

A student who has missed three or more class periods for three or more days is considered a “continuing truant” under the law (Minn. Stat. §260A.02, Subd. 3). A student who is absent for one or more class periods for seven school days or more is considered an “habitual truant” under the law (Minn. Stat. §260C.007, Subd. 19. A parent or guardian must compel the attendance of a child at school pursuant to Minn. Stat. §120A.22. Failure to meet this obligation may result in legal action. In cases of habitual truancy, both a parent and child may be subject to juvenile court proceedings, if deemed necessary by the child’s resident county. If the child is referred to juvenile court for truancy (applicable to children age twelve and over), the child may be subject to a variety of court-ordered dispositions, including suspension, restriction or delay of the child’s driving privileges, pursuant to Minn. Stat. §260C.201.

If a student is having attendance concerns, parents may schedule a meeting with appropriate school personnel to discuss solutions to a child’s truancy. Possible solutions might include: the child’s

participation in an attendance plan, referral to a community agency for counseling, tutoring, mediation, modification of the child’s schedule, educational assessments, accompanying the child to school and attending classes for one day, or referral of the child to alternative educational programs and services available in the district.

**Vacations and Extended Breaks**

Families wishing to take vacations or extended breaks during the school year must notify either their student’s grade level advisor or homeroom teacher of the absences prior to the vacation. **Extended breaks must have approval from the Administration if the vacation is planned for more than three days.** Failure to notify the school personal in advance of the absence will result in the day(s) being marked as unexcused absences and subject to all Minnesota school attendance laws.

**School Closings**

Because MNVA is a virtual school, we are not subject to school closings due to inclement weather. Students are expected to log in and participate in their daily classroom schedule, even when Houston Public School’s traditional sites are closed.

**Academic Support Available**

Each student has multiple staff available to provide support. In addition to the availability of scheduling one-on-one sessions with the instructor, students may contact their homeroom teacher and/or school counselor to offer assistance. The homeroom teacher will be monitoring student class attendance and grades, work with their homeroom students to complete the PLP (personalized learning plan) and checking in with their student to provide support in terms of school related issues. The counselors serve to ensure the student is enrolled in the necessary coursework, both for graduation requirements and preparation for pursuits beyond high school. School counselors also provide social and emotional support for our students.

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| **Technical Support Available**If a student is using his/her home computer, the student is responsible for computer hardware and software issues. If a technical need arises in regard to course material or a course CD, the student should contact K12 Technical Support at (866) 512-2273 and the technical support staff will assist him/her with the issue. If an MNVA-HS student is experiencing difficulties with an MNVA-HS-supplied computer, the student should contact K12 Technical Support immediately at (866) 512-2273 so the repair can begin promptly. The student should contact his/her teachers and the MNVA-HS office toll-free at (866) 215-2292 option 4 if he/she is experiencing technical issues.  |

**Communications with Resident District for Part-time Students**

**Format and Frequency of Reports:**

The Lead Academic Advisor faxes grades at mid-semester and the end of the semester to the local school contact person, the parent and the student. If requested by the enrolling district, progress reports are faxed on a more regular basis.

**Format and Frequency of Communication:**

The Lead Academic Advisor phones or emails the enrolling district if any of the following issues arise:

 Plagiarism

 Lack of Attendance

 Lack of Progress toward Course Completion

 Compliance requirements due to 504 Plans or IEPs.

**Final Grades and Submission:**

The Lead Academic Advisor faxes final grades within 10 days of the end of the semester unless the enrolling district has requested the grades earlier.

**B) Course Outline**

**Course Name: Physical Science 102A**

**Course Credits:** 1

**Course Prerequisites:** Middle School Earth Science or equivalent

**Course Goals and Objectives**

In Physical Science 102A, students focus on the basic Newtonian physics. Students learn how energy is transformed and transferred through motion, waves, and heat energy, light and electricity. Fluid dynamics and forces are also investigated. Students can expect to spend two days a week working on a virtual lab. Students will need to take a quiz on most days when there is a reading assignment. Students will need to block at least 45 minutes per day to meet the requirements of SCI 102A.

**Topic Outline**

**Unit 1: Matter and Energy**

**Unit 2: Forces and Motion**

**Unit 3: Application of Forces**

**Unit 4: Fluid Forces**

**Unit 5: Energy**

**Unit 6: Work**

**Unit 7: Waves**

**Unit 8: Light**

**Unit 9: Electricity**

**Unit 10: Semester Review and Test**

**Required Texts and / or educational materials**

Everything students need for this class is online.

**Minimum Technical Requirements**

***Chromebooks, Android powered phones and tablets, and iOS devices are not supported and cannot run all necessary programs at MNVA***

**K12 Computer Technical Requirements**
Sep 7, 2017•Customer Care and Technical Support

**SUPPORT INFORMATION**
To use K12's program, you'll need a computer with an Internet connection and free software programs, which you can download from the Internet.

**Hardware and Browsers Minimum Recommendations**
**Windows OS**
The minimum hardware recommendations to use the program are as follows:
CPU: Intel 1.0 GHz or faster processor (or equivalent)
Browser: Microsoft Internet Explorer 9.0 or higher, Mozilla Firefox 35.0 versions or higher, Chrome 40.0 or higher.
RAM: 1GB of RAM

***K12 presently supports the Windows 7 Operating System. The online school should also function with Windows 8 and Windows 10. Windows Vista and Windows XP OS’s are no longer supported by Microsoft and no longer compatible with doing work on the online school.***

**Mac OS**
CPU: PowerPC G4 1 GHz or faster processor; Intel Core Duo 1.83 GHz or faster processor
RAM: 1GB of RAM
Browser: Microsoft Internet Explorer 9.0 or higher, Mozilla Firefox 35.0 versions or higher, Chrome 40.0 or higher.

**Using Mobile Devices with the Online School**
Unfortunately, many portable do not support the software products required to run the Online School. These devices may include (but not limited to): Chromebooks, iPads, iPhones, iPods, Kindles, eReaders, and the newer Android phone. See iPhones, iPods, iPads, Smart Phones and Mobile Apps to learn about K12 Apps for smart phones and other mobile devices.

**Software**
**The free software below is for both a Windows or Mac computer unless noted:**
Adobe Flash Player 16 or higher (click here)
Java Runtime Environment SE7 or higher (click here)
Mozilla Firefox 35.0 versions or higher\* (click here)
Internet Explorer 9.0 or higher (Windows only) (click here)
Adobe Reader 8 or later (click here)

**Internet Connections**
It is highly recommended that a broadband connection be used instead of dial up. Please note the following if you are using a dial-up connection:

***ALL web acceleration software must be disabled for the school to work properly.***

If you are using NetZero, the 3G or Hi-Speed version of the NetZero software is not able to be used consistently with the Online School. The basic version of the NetZero Software should installed.

If you are using AOL you must minimize AOL after Connecting and use an approved browser

If you are using MSN, you cannot use MSN Explorer consistently

You MUST meet the minimum speed of 56kbps

**Gigabyte Usage**
The amount of data transferred over your Internet connection each month depends on the student's enrolled course(s). We are not able to provide this information. Please contact your ISP provider if they have concerns.

**Additional Concerns**
Pop-up Blockers can affect your ability to access the Online School

Internet Security Products, such as Norton, can inhibit your online experience

Software firewalls installed on your PC often will cause accessibility problems

Firewalls must have the following ports open to both TCP and UDP traffic to allow access to the OLS: 80, 8080 and 443

Touchscreens and Wacom tablets can interfere with accessing links in the Online School -- please see the manufacturer's support site for instructions on how to configure these devices to work consistently with Flash Player

Students are expected to be competent in using current technology appropriate for this class. Such technology may include word processing, spreadsheet, and presentation software. Ability to use the Internet and e-mail, download files from e-mails and the Internet, and attach files to e-mails and upload files is also required.

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| **Final Exam (Date, Time and Location)****Must be done before 3PM on last day of semester. If last day is a student half day, the exam must be done by NOON.** |

**Extra Credit Option (If available):**

2 points is given for coming to live CC’s.

1 point is given for watching recordings if it is watched during the same week.

There may be other points available during a live CC.

**Redoing Assignments:**

A student may redo a lab assignment once if they received a D or F on it. This must be redone before the mid-semester deadline if it is a lab in the first quarter of the course.

**Assessment of Student Work**

**Grading**

During online courses, students will receive grades for homework assignments, quizzes, tests, projects, participation and other activities. **Students will be able to see their grades at any time by going to their grade books.** If students have questions about grading procedures, they should contact their instructors. ***Students are required to save their work throughout the semester.*** By saving their work, students will be able to retrieve any assignments in question and review them with their teachers in the event of a dispute or question over a grade.

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| **General Description of Assignments, papers, projects, exams and other student work with a schedule of due dates and relative weight in the grade.** See gradebook and schedule within the course |

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| **MNVA-HS Grading Scale**

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| 93-100 = A  | 4.0 | 83-86 = B | 3.0 | 73-76 = C | 2.0 | 63-66 = D | 1.0 |  |
|  90-92 = A- | 3.7 | 80-82 = B- | 2.7 | 70-72 = C- | 1.7 | 60-62 = D- | 0.7 |  |
|  87-89 = B+ | 3.3 | 77-79 = C+ | 2.3 | 67-69 = D+ | 1.3 |  0-59 = F | 0 |  |

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**Late Work Policy:**

* All assignments each week should be done on the date they are scheduled. They will not be counted late until after the Sunday at the end of the week.
* Graded assignments – whether teacher or computer scored – should be completed and submitted on the due date.  Students can earn full credit for assignments that are submitted by the Sunday following the due date (11:59PM).
* Zeros are entered as grades for every assignment not received by the Sunday following the due date.
* **Teacher graded work (discussion assignments, lab assignments, part 2 of tests, etc.) that is turned in after the Sunday due date (late work) will receive a 25% late penalty. So if you turn in a lab worth 20 points after the due date, the highest you could receive is 15 points.**
* **IMPORTANT: ALL ASSIGNMENTS DUE BEFORE the end of Quarter 1 (1st semester) or quarter 3(2nd semester) WILL NOT BE ACCEPTED AFTER MID-SEMESTER. THIS IS CALLED A MID-SEMESTER DEADLINE. Labs are an important part of the course and must be done in conjunction with other assignments in the unit to be meaningful learning.**
* If you are planning an absence ahead of time for vacation or medical reasons, plan to find out the assignments ahead of time and complete them before you go. I will grant due date extensions on assignments under some circumstances.  Family vacations, illnesses, tech problems, and other emergencies do come up.  **You should never assume that I will automatically grant these requests, however**.  Due date extensions must be requested **before** the due date of the assignment and on a school day.  Requests received on or past the due date, or on a non-school day will most likely not be granted.

If extenuating circumstances prevent you from completing work before a deadline, please contact your teacher in advance. The late policy may be adjusted on a case by case basis at the discretion of the teacher. Students with IEPs and 504 Plans may be subject to a different policy as stated in their IEP or 504.

**Policy for Addressing Academic Dishonesty**

If a student is found plagiarizing or cheating, disciplinary action will be taken. The student will be notified by the teacher regarding the plagiarism. The teacher will also send notification of the plagiarism to the MNVA-HS office to be placed in the student’s file.

●**First offense**: the student will be required to redo the assignment. Based on the teacher’s syllabus, the student’s grade will reflect a reduction of points for the plagiarized assignment.

●**Second offense**: the teacher will notify the student and his/her learning coach and arrange a meeting to discuss plagiarism and establish a system to ensure the behavior stops. The student will receive a zero on the assignment or be asked to redo it for partial credit.

●**Third offense**: a meeting will be called between the student, learning coach, teacher, advisor and administrator to address the recurrent plagiarism and discuss an academic plan to correct the problem and increase the student’s understanding of academic integrity.

***Repeated offenses may result in the recommendation that the student be removed from the course. Removal from a course is subject to authorization by administration and, where necessary, will result in a failing grade in the course for the semester.***

**Minnesota Academic Standards Alignment (If no Minnesota Academic Standards exist, alignments follow national professional standards.)**

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| 9P.2.2.1.1 | Use vectors and free-body diagrams to describe force, position, velocity and acceleration of objects in two-dimensional space.  |
| 9P.2.2.1.2 | Apply Newton’s three laws of motion to calculate and analyze the effect of forces and momentum on motion.  |
| 9P.2.2.1.3 | Use gravitational force to explain the motion of objects near Earth and in the universe. |
| 9P.2.2.2.1 | Explain and calculate the work, power, potential energy and kinetic energy involved in objects moving under the influence of gravity and other mechanical forces.  |
| 9P.2.2.2.2 | Describe and calculate the change in velocity for objects when forces are applied perpendicular to the direction of motion.  *For example:* Objects in orbit.  |
| 9P.2.2.2.3 | Use conservation of momentum and conservation of energy to analyze an elastic collision of two solid objects in one-dimensional motion. |
| 9P.2.3.1.1 | Analyze the frequency, period and amplitude of an oscillatory system. *For example:* An ideal pendulum, a vibrating string, or a vibrating spring-and-mass system. |
| 9P.2.3.1.2 | Describe how vibration of physical objects sets up transverse and/or longitudinal waves in gases, liquids and solid materials.  |
| 9P.2.3.1.3 | Explain how interference, resonance, refraction and reflection affect sound waves. |
| 9P.2.3.1.4 | Describe the Doppler effect changes that occur in an observed sound as a result of the motion of a source of the sound relative to a receiver. |
| 9P.2.3.2.1 | Explain why currents flow when free charges are placed in an electric field, and how that forms the basis for electric circuits.  |
| 9P.2.3.2.2 | Explain and calculate the relationship of current, voltage, resistance and power in series and parallel circuits. *For example:*  Determine the voltage between two points in a series circuit with two resistors. |
| 9P.2.3.2.3 | Describe how moving electric charges produce magnetic forces and moving magnets produce electric forces.  |
| 9P.2.3.2.4 | Use the interplay of electric and magnetic forces to explain how motors, generators, and transformers work. |
| 9P.2.3.3.1 | Describe the nature of the magnetic and electric fields in a propagating electromagnetic wave.  |
| 9P.2.3.3.2 | Explain and calculate how the speed of light and its wavelength change when the medium changes. |
| 9P.2.3.3.3 | Explain the refraction and/or total internal reflection of light in transparent media, such as lenses and optical fibers. |
| 9P.2.3.3.4 | Use properties of light, including reflection, refraction, interference, Doppler effect and the photoelectric effect, to explain phenomena and describe applications. |