

Health Science Unit for High School Classroom

Name

Institution



Health Science Unit

I. Unit Description and Rationale

The unit discussed here below is meant for a high school science classroom, grade 9 through 12. The main purpose of this health science unit is to help students in a high school science classroom to analyze external factors that affect health behaviors. As such, this unit is based on a health standard that requires students in Arizona school districts to analyze and evaluate the influences of culture, family, peers, technology, and media on health behaviors (Arizona Department of Education, n.d.). In particular, the unit seeks to achieve the following six learning objectives:

1. Analyzing how a family impacts the health of family members.
2. Analyzing how cultures challenge and support health practices, beliefs and behaviors.
3. Evaluating how peers and colleagues influence both unhealthy and healthy behaviors.
4. Evaluating how the community and school affect health behaviors and practices of individuals.
5. Evaluating the effects of media on health at both family and personal levels.
6. Evaluating the impacts of technology on community, family and personal health.

Fundamentally, the unit would engage students in various activities using varied lessons to achieve the above learning objectives. Firstly, the unit would include a lesson that teaches students to analyze how food content and methods for food preparation in homes affect the health of family members. Another lesson would teach students to analyze how cultural challenges influence body image, eating behaviors and meal patterns, affecting the health of individuals practicing those cultures. Additionally, there would be a lesson that would teach students to evaluate how peer-pressure influences eating behaviors and meal patterns. Another lesson would teach students to evaluate the way media affects feelings, thoughts, and health

behaviors pertaining to sexual behaviors, alcohol abuse, and smoking. Consequently, a different lesson would teach students to evaluate the ways communities and schools support nutritionally balanced diets, meal patterns, and healthy snacks. The last lesson would cover the influence of technology on eating patterns at family, personal, and community levels.

II. Learning Opportunities

Students in the Health Science classroom would have two learning opportunities including. Firstly, students would attend lessons in the classroom to write and read concepts taught by the teacher after which they will complete exams and quizzes to challenge their abilities to apply what they have learned. Therefore, the first learning opportunity would be based on the instructor-centered model. Secondly, students would learn together using collaborative methods to share knowledge among themselves even in the absence of an instructor. As such, the latter would be a student-centered learning opportunity.

III. Collaboration

Students will learn through a deeper student collaboration to ensure that they utilize the available resources and tools to foster the learning of content in varied contexts. The attempts to promote collaboration can be futile without proper strategies for facilitating the way students collaborate and interact among themselves. As such, the first strategy to facilitate collaboration would be helping students to form effective teams and give them ample opportunities and time to develop essential skills such as communication, leadership, trust-building, decision-making, and conflict management skills (Barkley, Cross & Major, 2012). By doing this, each member of a team would understand norms and expectations for completing classroom activities together. Another strategy would be minimizing opportunities for students to free ride in an attempt to prevent situations where some members let other members complete all the classroom work.

Maintaining groups of less than five students would eliminate free riding because there would be

minimal opportunities for nonparticipation. Most importantly, students would utilize online collaborative tools to connect with each other and share their knowledge. Essentially, online collaborative tools would allow for discussions between students and experts as well as among students themselves (Pitler, Hubbell & Kuhn, 2012).

IV. Support

Literacy is crucial and fundamental to learning all subjects in high school including health science. Therefore, scaffolding support would be implemented to foster student literacy development across content areas. Students with difficulties in reading and writing complex academic texts found in the health science unit would be supported by a teacher to read and write appropriately to boost their comprehension of content. Furthermore, the teacher would break down complex content areas into smaller manageable tasks and provide support to students by modelling each section. Moreover, the teacher would provide students with tiered literacy interventions such as Response-to-Intervention (RTI) whereby each student within a specific tier would receive specialized support that suits the learning needs across the content areas (“RTI in Secondary Schools,” n.d.).

V. Differentiation

The lessons within this health science unit would be properly prepared to provide differentiated instruction. Tomlinson (n.d.) states that differentiated instruction requires lessons to be tailored to meet students’ individual needs. By doing this, the teacher acknowledges that every student is unique and different from other students so the learning style and learning needs differ from one student to another. Differentiated instruction would assist the teacher in responding to variance among students in the Health Science classroom. The teacher would

provide differentiated instructions based on the interests, readiness, and learning profile of students.

VI. Strategies

Fundamentally, the teacher would need to advocate for equity in the Health Science classroom to provide all students with a favorable learning environment. Firstly, I would promote gender equity by involving both male and female students in any classroom activities at all times. For instance, the teacher would be expected to ask a male and a female student to explain a concept to the classroom, one at a time. By doing this, the teacher would have promoted gender equity. Secondly, I would advocate for equity among students of different races. For instance, the teacher needs to use all races when giving examples during a lesson instead of giving examples using one race all the time. All students would feel that their teacher recognizes all races when examples are based on all races but not merely on a single race. In general, the teacher would advocate for equity by providing equal opportunities and access to educational tools and resources (Difranza, 2019).

VII. Cultural Diversity

The Health Science classroom would consist of students from different demographic backgrounds so the classroom is a mix of different cultures. Cultural diversity in the classroom can be detrimental to reading and writing development because some cultures might exhibit contrasting and conflicting attitudes toward reading and writing some specific content areas (Garner, n.d.). For instance, some cultures do not have restrictions on reading and writing about human private parts while others have stringent restrictions on the same. In another perspective, cultural diversity results in challenges in reading and writing because students from diverse backgrounds may not have the same background knowledge needed to understand some texts

(“Literacy and Culture,” n.d.). As a result, cultural diversity may result in diverse comprehension of some texts among students. The unit emphasizes on cultural diversity by supporting the use of local languages, incorporating various teaching styles, allowing the use of diverse learning tools and materials, and accepting differing perspectives when responding to quizzes and tests at the end of each lesson.

VIII. Resources

The unit would require students to use various learning materials, resources, and tools to foster the learning experience. These resources including books, internet, online materials, writing materials, online collaborative tools, assessments, whiteboards, and audio-visual tools.



References

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