

GRADE 5 Science: Lung Health and Safety

Summary of Learning Opportunity

This assessment project was a component of the Human Body unit in Science. The students built knowledge about the structure and function of the respiratory system. I also engaged students in developing content knowledge through visual, kinesthetic and hands-on learning strategies and through practicing critical thinking skills. In this task, students created pamphlets or a poster about a factor affecting lung health and safety. I assessed students' ability to comprehend and apply their prior learning to communicate effectively. Students were highly engaged and created very informative products of learning based on the unit's emphasis on synthesizing information.

Science 5

Learning Standards

- Contribute to care for self, others and community through personal or collaborative approaches
- Transfer and apply learning to new situations
- Communicate ideas, explanations and processes in a variety of ways
- Basic structures and functions of body systems

Literacy Connections

Instruction and Assessment

Competencies Developed, Practiced and/or Assessed

LITERACY: Applies
Understanding—Synthesizes
ideas and information

1. Students learned about the respiratory system by looking at diagrams, learning key vocabulary terms and summarizing the process of breathing. I used learning strategies like watching videos, having students read and summarize articles, visualizing the flow of air through the lungs and building a lung model. We used similar learning strategies when building knowledge about other body systems in this unit.

- Contribute to care for self, others and community through personal or collaborative approaches

LITERACY: Communicates—
Expresses ideas and
information, Presents ideas
and information

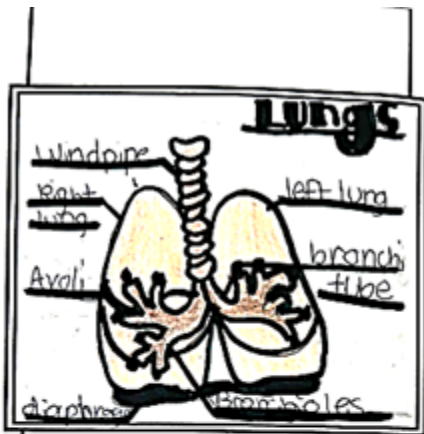
2. For the Lung Health and Safety project, students applied their learning from this unit, coupled with free resources:

- Heart and Stroke Foundation
<https://hskids.ca/hsk-at-home/>
- BC Lung Foundation
<https://bclung.ca/programs-initiatives/vaping-and-lung-health/vaping-health-education-toolkits/clearing-cloud-grades-5>

Students were tasked with creating a pamphlet or poster about lung health and safety. Their product must include: five or more interesting facts about lung health, a diagram of a lung and have an appealing design to attract viewers.

- Contribute to care for self, others and community through personal or collaborative approaches
- Transfer and apply learning to new situations
- Communicate ideas, explanations and processes in a variety of ways

Demonstrations of Student Learning, Teacher Assessment, and Reflection



The respiratory system moves oxygen and carbon dioxide in and out of your body by energy air gets forced down your wind pipe to our lungs. Our Alveoli are also really responsible for carrying the waste product from cells back to our lungs and out of our bodies when we breath out.



E-juice contains harmful chemicals which have nicotine. Nicotine is addictive. When a person starts vaping it is really hard to stop after you even have one puff of a vape or a cigarette. They are both really expensive cigarettes.

Teacher's Assessment

This student demonstrated **proficient** thinking by synthesizing information from various sources and texts. They selected and provided informative facts and diagrams and carefully planned their pamphlet layout to demonstrate what they deemed important for their personal well-being and greater community. This student also went back to learning from the unit to make sure all the facts were scientifically accurate. They expressed their ideas though vocabulary, images and paragraphs to present information in a visually appealing way.

Teacher's Reflection on Planning

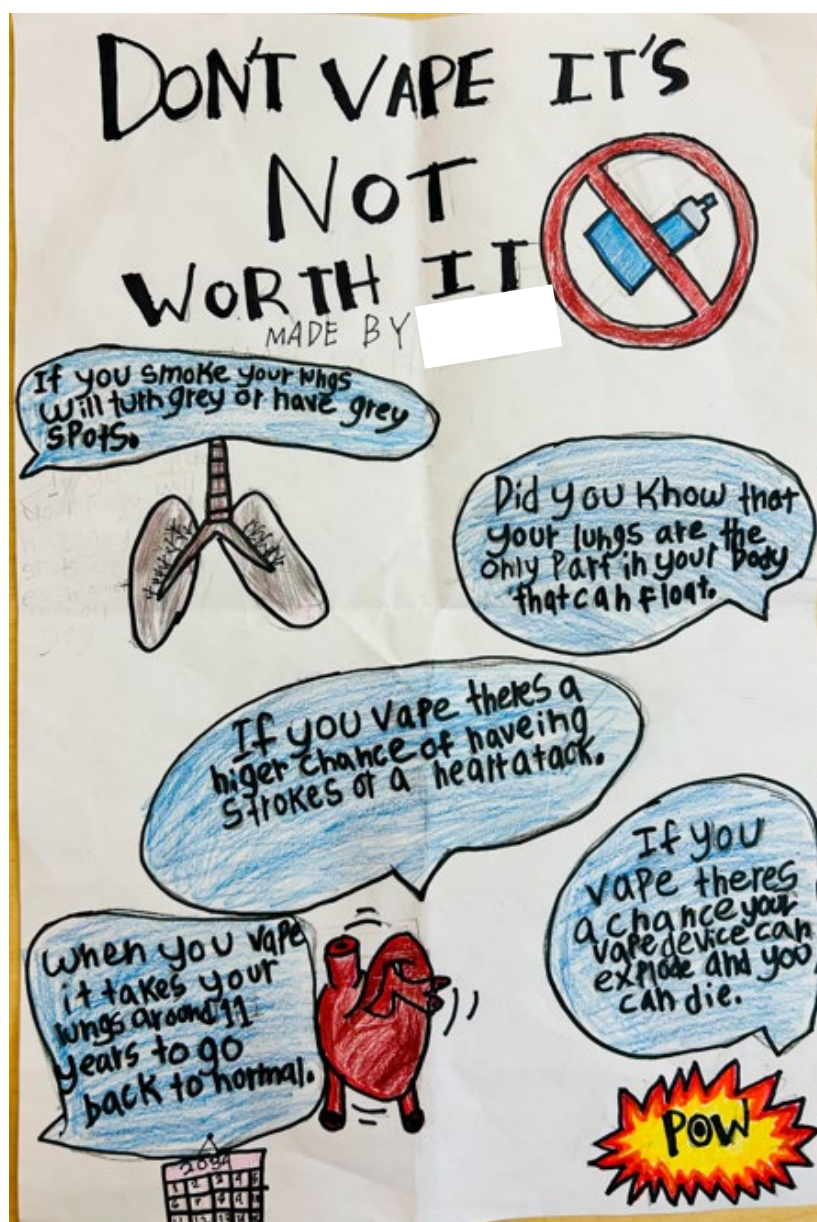
Focusing on embedding literacy in science is very important in my teaching practice. When I teach science, I think it is essential to emphasize understanding and synthesis of credible sources of information especially in this digital age. I think it sets the stage for academic success, ethical behaviour and critical thinking skills. It also fosters a sense of respect in students for both their own work and the work of others.

In this assessment, utilizing a pamphlet/poster format was essential for reaching diverse audiences effectively. Creating a pamphlet helps students practice literacy skills like focusing on key messages, summarizing text and using graphics/illustrations to aid understanding. The pamphlet content can also be tailored to address the needs and concerns of a particular group, ensuring that the information is relevant and impactful to various audiences. Students who are newcomers or English Language Learners can feel more successful as the pamphlet format uses less text, but does require concise and focused content due to limited space. This also makes it easier for readers to grasp and retain essential points. In the real world, pamphlets are given in many health care settings. I wanted my students to design and write in a different communication format that is accessible and engaging for the needs of the intended recipients.

Teacher's Assessment

This student enjoyed planning, researching and designing a poster. They attracted the viewer's attention by presenting information using colourful designs, images and concise information, encouraging viewers to explore the content. The student is **proficient** in contributing to care of the community and communicating ideas through their thoughtful poster design and presentation.

The student is **developing** in the curricular competency of transferring and applying learning. The student could improve by synthesizing information from our unit to cohesively express why vaping negatively affects the lungs and heart.



Teacher's Reflection on Assessment

The Learning Pathways offers me a comprehensive framework that aligns with the new curriculum, promoting competency-based learning, inclusivity and personalized approaches while providing guidance for effective classroom assessment practices.

In my classroom, the Literacy and Numeracy Cross Curricular Learning Progression descriptors assist me in providing descriptive feedback to communicate student learning. After familiarizing myself with the Literacy skills and sub-skills, I was able to foster constructive and informative dialogue between myself and students to help break down the curricular competencies into critical thinking skills for students to demonstrate and for me to assess throughout the learning process.

The BC Learning Pathways also emphasizes the integration of literacy and numeracy skills across various subjects, ensuring a holistic development of students' abilities. It shifts the emphasis from mere content delivery to deep thinking.