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| **Learning Set 6: Community Action Project: How Can We Work Together to Make Our Community Healthier?** |

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| |  | | --- | | **Unit Driving Question:**  What controls my health?  **Sub-Driving Question:**  How can we work together to make our community healthier? | | |  | | --- | | [**Materials**](https://docs.google.com/document/d/115cTm-HCX9d3SQ65uiYJ9DGmAURuNaXve8XmwlMIjEw/edit?usp=sharing) **List**   * Computer * *Other materials could be needed depending on the inquiry question and investigation.* |   **Resources-** in the Learning Set 6 Teacher Resources   * Community Projects & Final Presentations Guidelines Handbook, 2022-23 * CARP Diabetes Presentation Outline * Diabetes Action Items * Guidelines for Judges - * Scavenger Hunt for Students - Teacher Instructions V2022-23 * Social Determinants * Photovoice SHOWED worksheet (if using this data collection method) * My Diabetes Modeling Chart - Student Version (not filled in); Teacher’s version (filled in)   **Links**  Monique Diary #7: <https://drive.google.com/open?id=1QyYHLTbrsdwq5BcJF3N0c9YDFB_0Yj_x>  Monique Diary # 6 <https://drive.google.com/file/d/1k3tXs7cnwr39KtWwt9Y9MCipJuUrHciM/view?usp=sharing>  Motivation Coach videos-   * [Mayor](https://drive.google.com/file/d/1HkfJ1KxewsC3X5Kgag5sxQW83hn_lxj1/view) <https://drive.google.com/file/d/1HkfJ1KxewsC3X5Kgag5sxQW83hn_lxj1/view?usp=sharing> * [Dr. Sofia](https://drive.google.com/file/d/1-t704Irmk9vJGunZvBv0p2QTNYn-JUcB/view) <https://drive.google.com/file/d/1-t704Irmk9vJGunZvBv0p2QTNYn-JUcB/view?usp=sharing> * [Anthony Basketball Player](https://drive.google.com/file/d/1S3dt8a48NzJAwsadm9ntDwhhSpMv-5Ny/view) <https://drive.google.com/file/d/1S3dt8a48NzJAwsadm9ntDwhhSpMv-5Ny/view?usp=sharing>   Optional Extension Activity- Scenario Cards  Sub-driving question cards- what controls my health? | |  | | --- | | **Suggested lesson time**  2-3 weeks | |

**Student materials:**

* Scavenger Hunt worksheet (0ptional student activity for the Health Summit)
* Thinking about my Community Project handout. Reflective piece for students

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| **Framing the Learning Set** |

**Purpose**

There are obstacles to making healthy choices in one’s environment. The purpose of this learning set is to support students’ understanding that they can make their community healthier, and of the importance of such changes. In this learning set, students will conduct community action projects, discuss the data they have gathered, and develop ways to improve their neighborhood.

**Learning Set Learning Goals (For instructional use)**

* Students plan and carry out an investigation about obstacles to a healthy lifestyle in their environment.
* Students analyze data and communicate findings with peers to explain environmental factors in their neighborhoods that can be changed to reduce obstacles to making healthy lifestyle choices and make their environment healthier.
* Students revise their models by adding the action component to their health.

Color code: Scientific Practice, Crosscutting Concept, Disciplinary Core Idea

**Building Coherence –** Please refer to the **Storyline**

In previous learning sets, students considered how environmental factors can be changed by individual actions. This learning set continues by considering how collective actions can make the community healthier and why those changes are important.

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| **Overview of the Learning Set** |

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| **Instructional sequence overview** | **What students figure out(DCI)** | **Days** |
| **Lesson 1: Part 1. How can we work together to make our community healthier? Becoming a research team**  The students will (a) develop and choose their inquiry question, (b) design and develop their research tools, and (c) plan and carry out their investigations. | Students understand that they can make their community healthier and why those changes are important. | **1-2 weeks** |
| **Lesson 2: Part 2. How can we work together to make our community healthier? Suggesting evidence-based solutions**  The students will (a) analyze the data and draw conclusions from the various research tools, (b) share their findings with their peers and draw conclusions regarding their inquiry question while considering ethical issues, and (c) suggest solutions and potential actions based on their findings. | **1 week** |
| **Lesson 3 - Modeling - What can we do, individually and together, to make our community healthier?**  The students will return to their models and add the action component and its effect on their health. Then, they will share their models with the whole class, discuss similarities and differences among the components of their models, and evaluate the relationships presented. | **1 day** |

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| **NGSS Connection to Assessment** |

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| **Target Performance Expectations**  [**MS-LS1-5.**](http://www.nextgenscience.org/pe/ms-ls1-5-molecules-organisms-structures-and-processes) Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms. |
| **Learning performance to be assessed**  Students plan and carry out investigations to identify that genetic factors and environmental factors affect the growth and health/development of organisms.  Students analyze and interpret data on how environmental and genetic factors influence the growth and health/development of organisms.   |  |  |  | | --- | --- | --- | | **Disciplinary core idea** | **Science and engineering practices** | **Crosscutting concepts** | | **LS1.B Growth and Development of Organisms**   * The growth of an animal is controlled by genetic factors, food intake, and interactions with other organisms, and each species has a typical adult size range (MS-LS-1 and Framework page 146. ). | **Planning and Carrying out Investigations**   * Plan an investigation individually and collaboratively   **Analyzing and Interpret Data**   * Analyze and interpret data to provide evidence for phenomena. | **Cause and effect**   * Cause and effect relationships may be used to predict phenomena in natural or designed systems. | |
| **How these elements are integrated and embedded in this learning set**  In this learning set, students will conduct an investigation to answer an inquiry question about health issues in their community. They start by generating their own inquiry questions then plan and carry out their investigations. They also analyze the data to draw conclusions and share their findings with their peers to suggest solutions and potential actions based on their findings. In the end, they revisit their model of Monique’s diabetes and revise their models by adding an action component and its effect on their health. |

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| **Connection to Students’ Lives** |

**Link to out-of-school activity and everyday life**

* Through their community projects, the students will be empowered to take steps to make changes in their school or neighborhood environment to improve health and prevent disease.

**Link to career-awareness**

* Related careers include: community organizer, urban planner, public health researcher
* Community activists, public health and urban planners, and researchers from local universities can be invited to class to inspire student researchers and potentially support and play a role in their community action projects. Through these relationships, student researchers may wish to continue to deepen their experience in their community through afterschool and summer programs that may be located at schools, museums, libraries, other community-based organizations, or universities.
* Show Motivation Coach videos as students are preparing for presenting their findings -
  + [Mayor](https://drive.google.com/file/d/1HkfJ1KxewsC3X5Kgag5sxQW83hn_lxj1/view)
  + [Dr. Sofia](https://drive.google.com/file/d/1-t704Irmk9vJGunZvBv0p2QTNYn-JUcB/view)
  + [Anthony Basketball Player](https://drive.google.com/file/d/1S3dt8a48NzJAwsadm9ntDwhhSpMv-5Ny/view)



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| **Instructional Sequence** |

**Introducing the Learning Set**

1. **Keeping coherence using the DQB -** Remind students of their questions related to Monique and diabetes on the Driving Question Board (DQB). Tell students that in this learning set they will further investigate the case study of Monique to determine “What can Monique do to make her environment healthier?” Tell the students that they should pay particular attention to the questions that they had clustered around that Sub-Driving Question.
2. **Keeping coherence -** Revisit [Monique’s Video](https://drive.google.com/file/d/0B0MDMHTsE_4ublU4NEFWY25sOFE/view) (2:44 minutes) and emphasize the changes she made to her environment, focusing on her diet (e.g. how she started eating the “right food”). Show this Monique’s Diary entry #7 about [Monique’s Career Plans](https://drive.google.com/open?id=1QyYHLTbrsdwq5BcJF3N0c9YDFB_0Yj_x). She talks about how she wants to help others improve their health. Finally, show [Diary entry #6 of Monique](https://drive.google.com/file/d/1k3tXs7cnwr39KtWwt9Y9MCipJuUrHciM/view?usp=sharing) talking about how she has taken control of her health.

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| **Lesson 1 - Part 1: How Can We Work Together to Make Our Community Healthier?**  **Becoming a Research Team** |

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| **Learning Goal** | Students plan and carry out an investigation about obstacles to a healthy lifestyle in their environment |
| **Connection to NGSS** | **DCI:** Growth and development of organisms |
| **Practice:** Planning and carrying out an investigations |
| **CCC:** Cause and effect |

In the community action project, the class will transform into a **research group** whose goal is to answer an inquiry question regarding a public health issue in the students’ environment. Each research group will be divided into several **research teams** and will collaboratively investigate the inquiry question that the class generates. Each research team will examine the question using a different research tool.

First, students will review back to Monique’s life and think about the social determinants of health that may have supported, or not, Monique’s personal choices.

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| idea.png | **Community project rationale and relationship to the students’ models**  Models have explanatory and predictive power. Thus, models are helpful for problem solving by enabling informed decision-making based on an understanding of the underlying mechanisms of a phenomenon. In this curriculum, the students’ model of gene-environment interaction will enable the students to decide upon the kind of community projects and actions that can be taken to improve the health of their community.  The community projects in this curriculum serve several purposes:   1. Expressing the role of **models** and **modeling in science.** 2. They are the **action component** of the curriculum. Their major goal is to develop the students’ **Critical Science Agency** - how the students identify themselves within science in ways that advance their participation in their communities. The students view the world with a critical mindset and envision how to advance the world or change it into a more socially just and equitable place using science. 3. They are the **bond** between the schooland the community, both for the students’ personal capital, such as family, friends, peers, and neighbors, and for local resources such as health-related organizations, academic institutions, community, and faith-based organizations. These bonds between schools and out-of-school organizations will support the realization of the students’ action projects.   For more details about the community project, please refer to the handbook, [Community Projects & Final Presentations Guidelines](https://docs.google.com/document/d/1W75dPnWCZsbzSS4gv1GS6NZHJ6ipOCfeEaxcOB4e1iA/edit?usp=sharing). |

1. **Discuss social determinants of health.** Monique can make some changes at the personal level that affect her health. But can she make all the changes alone? Look the Social Determinants of Health infographic. Ask students how each environmental factor can either positively or negatively affect the development of Monique’s diabetes.

* **Individual Actions**
  + What other actions would you recommend for Monique to improve the environment and support her health?
  + What actions would you recommend Monique decrease or stop doing? What environmental factors might negatively affect Monique’s health?
  + If needed, watch the [video of Monique](https://drive.google.com/file/d/1AAwT54C8mLYkk-vQffUHXvhsfhyRfW-d/view?usp=sharing) to see what changes she has made. Discuss those changes she talked about.
* **Collective Actions**
  + What other actions could be taken, by Monique’s family, friends, school, community that could help improve Monique’s environment and support her health?
  + Discuss the Conclusions and Action Items PPT slide and brainstorm different actions that could be taken at each level
* Thinking about OUR Collective Action
  + Are there things in our own communities that support, or not, our healthy life choices?
  + Could we use this chart to think about our own health and what we have learned about diabetes from Monique?

1. **Introduce the role of models in science - Lead** a class discussion about the role of models and modeling in science. Use the following prompts to address these roles, and talk about the students’ personal experiences during the process in which these roles were expressed:
   1. When did you feel that your model helped you to **make sense** of what was learned in class?
   2. When did you feel that your model helped you **communicate your knowledge** to others?
   3. When did you feel that your model helped you **understand** something about diabetes that you didn’t understand before?
2. **Connect models and action -** Lead a class discussion to connect the students’ models and the upcoming community action projects:
   1. Explain to the students that because scientific models can be used to **explain** and **predict**:
      1. They can be used for**problem solving**
      2. They help us make informed decisions based on a scientific understanding of the phenomenon
      3. We can make changes both as **individuals** and as a **community**.
   2. Project a student’s model to the class and ask them to describe the gene-environment interaction and its relationship to diabetes based on that model.
      1. Prompt the students to think about the use of the model they have created:
         1. How can we use our models to make a change in our health?
         2. How can the model help us as **individuals** or as a **community** to make a change in our health?
      2. Prompt the students to discuss possible actions that can be undertaken to improve our health based on the model:
         1. What area of our model could be changed to affect the health of our community?
         2. From our models and experiences with the unit, what are we interested in researching to make our community healthier?
      3. Prompt the students to discuss who might be able to help them with their research:
         1. What kind of people work in the area we are interested in researching, or have that career?
         2. What career professionals can help us with our research?
         3. Who should we contact to help us? Or who could we interview to learn more about our research interest?
   3. Lead a general discussion about “social determinants of health”.
      1. Prompt students to list the “lifestyle changes” that they talked about in previous learning sets that can control our health like choosing healthy foods and exercising regularly.
      2. Ask them to consider obstacles in their environment that can prevent people from making healthy choices.
      3. Emphasize that these obstacles can be “Social determinants” that can determine our health - The conditions in which you live, learn, work and age affect your health.
         1. Ask students to think about how social determinants such as neighborhood, education and health care can influence their lifelong well-being.
         2. Show this infographic **Social Determinants**and ask them for examples of how SDOH can affect healthy choices (How can poverty affect someone’s ability to make healthy choices? How can access to healthy food affect choices? How can literacy or graduating from high school affect healthy choices?)

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| idea.png | It is important to acknowledge that it’s not **only** an individual choice. Many of our students’ choices are limited by their environment, the conditions where they live, learn, work, and age, which are called Social Determinants of Health (SDOH). This discussion can help students identify obstacles to investigate that cause health disparities in their environment and consider ways to address those obstacles. Review the NIH SDOH introductory article and a series and resources that can help teachers dive more deeply into SDOH from [The Nation’s Health.](https://www.nimhd.nih.gov/resources/phenx/) |

1. **Introduce the community action projects** - Tell the students that in this lesson they will conduct community action projects, which focus on the environmental aspect of diabetes, to improve their own health as well as their community’s health. Then, explain to the students what they will be doing during the projects.

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| idea.png | In the **Community Action Project**, the class is transformed into a **research group**whose goal is to examine a health issue in their environment that can be changed to improve the community’s health. Together, the students will: a) develop their inquiry question, b) design the investigation, c) collect and analyze data, d) draw conclusions and generate potential actions, and e) report back to their community (for more information refer to the handbook Community Projects & Final Presentations Guidelines.)  **NOTE: The above document includes a library of community action project outlines that teachers have used with their classes. These projects can provide inspiration and be adapted for your local environment.** |

1. **Develop an inquiry question** - The first step in the community projects is to generate an inquiry question to be investigated. For this purpose, **brainstorm** together with the entire class to think of as many potential questions as possible. Write the questions on the board, as it is important to keep a record of the generated questions. Try to connect the students’ questions with their model.

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| creativity.png | **Scaffolding students using *learning strategies***   1. **What are learning strategies -** Remind the students what learning strategies are and emphasize the importance of learning strategies for effective learning. 2. **Remind students about Brainstorming and how it can be used** - Brainstorming is a strategy for generating ideas. It includes generating a list of spontaneous ideas which are associated with a specific topic. For effective brainstorming, a) focus on quantity, b) withhold criticism, c) welcome unusual and wild ideas, and d) combine and improve ideas. 3. **Scaffold *Brainstorming*** - Together with the entire class, use the *brainstorming* strategy to generate as many questions as possible regarding public health issues in students’ environment. Topics may have arisen in class discussions such as school lunch or breakfast options, access to exercise in neighborhoods or during hot or cold weather, family food consumption habits, etc.    1. **Generating “anchors:”** Tell students to imagine their neighborhood in their minds in as many details as they can through a “health lens” based on the SDOH they have talked about in the curriculum; for example, their homes, family, habits, hobbies, exercise, recreational activities, after-school activities, sports, city infrastructure, health clinics and hospitals, schools, libraries and internet access, markets, food-stores, restaurants, etc. All these aspects will serve as “anchors” for the next step of generating the inquiry question. Write these anchors on the board and guide the students to use them to generate questions that connect these environmental factors to their health.    2. **Generating questions\***:   **Homes/Family/Habits/Culture**(as an *anchor*)   1. How does my family’s perception of a healthy lifestyle affect my health habits? 2. How does my culture affect my healthy lifestyle?   **Friends**   1. How does social pressure at school affect my eating habits/exercise habits/healthy lifestyle?   **Hobbies/Recreational activities/After-school activities/Sports/Exercise/Libraries**   1. How does the “screens culture” affect children’s/youth’s healthy lifestyle? (e.g. watching TV and playing video games) 2. How do science/health exhibitions affect children’s/youth’s healthy lifestyle? (such as in museums and libraries, or documentaries on TV or internet) 3. How do my recreational activities affect my healthy lifestyle? 4. How does access to exercise facilities in the neighborhood affect children’s/youth’s/adults’ exercise habits?   **City infrastructure**   1. How do commercial advertisements in my neighborhood affect my community’s food consumption/healthy lifestyle? 2. How do the town’s transportation facilities (roads for bicycle, safe sidewalk) affect my exercise habits or walking to school? 3. How do worries about neighborhood safety and crime affect my exercise habits or walking to school?   **Health Clinics and Hospitals**   1. How does being able to get to healthcare in the neighborhood affect children’s/youth’s/adults’ health? 2. How does the cost of health care affect children’s/youth’s/adults’ health?   **Schools**   1. Howdo school health, breakfast, or lunch programs affect the students’/ teachers’ eating habits? 2. How do food choices in the cafeteria or sports events affect the students’/ teachers’ eating habits? 3. How does the school curriculum affect my health? 4. How does exercise at school affect my health?   **Food stores/supermarkets/markets/restaurants**   1. How do the arrangements of food in the supermarket/school cafeteria affect the eating habits of children/youth/adults? 2. How does access to healthy/fast food affect eating habits? 3. How does access to a farmer’s market affect eating habits? 4. How does the distribution of restaurants or markets affect eating habits? 5. How does the price of foods affect consumption of food? 6. How does information about nutrition affect eating habits?   ***\* This is not an exhaustive list*** |

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| idea.png | **Connecting school and community together**  To promote the school-community partnership:   1. Ask the students to share the generated inquiry questions with their families and discuss with them the various choices. Encourage them to generate additional questions at home with their families, peers, and neighbors. 2. Contact local organizations and agencies and invite them to class to introduce their resources/exhibitions/facilities that may support the students’ community projects and influence the choice of the inquiry question. |

1. **Choose an inquiry question -** Discuss the variousinquiry questions and criteria for making a thoughtful choice with the class. Criteria could include:
   1. Interest
   2. Place-based issue of concern
   3. Resources and facilities to conduct the investigation
   4. Feasibility of making a change to the environment
2. **Generate the research tools** - Divide the class into **research teams**, each consisting of 4-6 students. Lead a class discussion about the content and behavioral perspectives of their work in the teams, and then let them develop their research tools:
   1. **Content perspective:**
      1. Instruct the students in each **research team** to collaboratively develop a research tool to investigate the class inquiry question. Research tools and technologies could include:

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| **Research tool** | **Useful technologies** |
| **1. Surveys** | Google forms |
| **2. Interviews** | Videotape or audiotape and editing software (e.g. [StoryCorps,](https://storycorps.org/participate/) movie maker) |
| **3. Mapping** | Google maps, GPS, Google Street view, aerial photos, Google earth |
| **4. Focus groups** | Videotape or audiotape and editing software (e.g. movie maker) |
| **5. Observations** | Videotape or photographs, checklists |
| **6.** [**Photo-voice**](https://en.wikipedia.org/wiki/Photovoice)**/Video-voice** | Take pictures, videotape or audiotape and editing software (e.g., movie maker) |

* + 1. Discuss the differences and advantages of the various research tools and the reasons why a researcher would use either one.
    2. Instruct the research teams to develop different research tools from each other. Emphasize the importance of **triangulation** - collecting data from different aspects and viewpoints to answer the same inquiry question.
    3. Encourage the students to use technology in the designs of their research tools.
    4. Present the students with the process they will use in their learning in the **research teams***:*
       1. Work in the **research teams** and develop the research tools
       2. Provide constructive feedback to other research teams
       3. In the **research teams**, make changes according to feedback and personal insights
       4. Plan data collection and analysis.
  1. **Behavioral perspective:**
     1. Encourage **within-teams** and **between-teams** collaboration. Explain the importance of both types of collaborations:
        1. **Within-teams collaboration** - multiple perspectives enhance creativity
        2. **Between-teams collaboration** - insights from other teams
     2. Highlight the importance of **constructive feedback** - criticize ideas, not people.

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| idea.png | **Providing constructive feedback**  Have the students from the different *research teams* share their research tools with each other. Ask the students from the different research teams to provide constructive feedback to each other based on the discussions that they had in their own research teams. The feedback should include the following aspects:  **Strengths** - What did you like about the other team’s research tool?  **Weaknesses** - How do you think the other team’s research tool could be improved?  **Insights** - How did looking at the other team’s research tool help you improve your own research tool? |

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| idea.png | **Connecting school and community learning**  To improve the school-community partnership:  Students (such as Public Health and Medical graduate students), AmeriCorps members, or other volunteers can be invited to classes to mentor the students as they conduct each phase of the research process including, a) design their research and develop their research tools, b) plan and conduct the data collection, c) analyze and interpret data, etc. These mentors also can be role models and inform students about potential careers related to the curriculum. |

1. **Share -** Lead a class discussion and share **examples** of students' research tools. Ask the students to provide **constructive feedback** to each other based on the discussions that they had in their own *research teams*. The feedback should include: **Strengths, Weaknesses, and Insights** as described above. Instruct the students to continue to provide constructive feedback to each other. Then, they should review and finalize their research tools according to the feedback.
2. **Plan and conduct data collection -** In their **research teams**, instruct the students to plan their data collection.

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| **Lesson 2 - Part 2: How Can We Work Together to Make Our Community Healthier?**  **Suggesting Evidence-Based Solutions** |

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| **Learning Goal** | Students analyze data and communicate findings with peers to explain environmental factors in their neighborhoods that can be changed to reduce obstacles to making healthy lifestyle choices and make their environment healthier |
| **Connection to NGSS** | DCI: Growth and development of organisms |
| Practice: Analyzing and interpreting data |
| CCC: Cause and effect |

In this lesson, the students will continue their community action projects.

1. **Analyze the data -** Lead a class discussion regarding ways to analyze the collected data. These could include:

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| **Research tool** | **Useful technologies** | **Data presentation** | **Data analysis** |
| **1. Surveys** | Google forms | Graphs | Draw a conclusion from the graphs |
| **2. Interviews** | Videotape or audiotape and editing software (e.g. movie maker) | Edited audiotape or videotape | Description of major themes, ideas, and conclusions |
| **3. Mapping** | Google maps, GPS, Google Street view, aerial photos, Google earth | Screenshots or pictures | Add written explanations and conclusions |
| **4. Focus groups** | Videotape or audiotape and editing software (e.g. movie maker) | Edited audiotape or videotape | Description of major themes, ideas, and conclusions |
| **5. Observations** | Videotape or photographs, checklists | Edited audiotape or videotape, pictures,  charts | Description of major themes, ideas, and conclusions. Add written explanations and conclusions |
| **6. Photovoice/ Video-voice** | Videotape or audiotape and editing software (e.g. movie maker) | Photos with labels or video | Description of major themes, ideas, and conclusions using the photovoice SHOWED worksheet. |

1. **Share the findings** - Instruct the students to prepare a short presentation of their findings and share it with the other research teams. The presentation should include:
   1. A description of their research tool and the rationale for using it
   2. A description of the data collection process
   3. A presentation of their data
   4. Evidence-based conclusions

Encourage the students to provide constructive feedback to each other based on the discussions that they had in their **own** research teams. Emphasize the importance of evidence-based conclusions and instruct the students to critically examine whether the team's conclusions are well-supported by their data.

1. **Revisit the data analysis and conclusions -** Instruct the students to revise their findings and conclusions according to their peers’ feedback and discussion in the class.
2. **Answer the inquiry question and design solutions and potential actions** - Summarize the research team’s main conclusions on the board. Then:
   1. Answer the class inquiry question through the integration of the team’s conclusions. Emphasize the importance of evidence-based conclusions in answering the inquiry question. This is an opportunity to ask them to consider ethical issues (such as equity and fairness, personal rights and responsibility vs. social good) regarding their conclusions to the inquiry question.
   2. Together, think of possible solutions and potential actions to address the inquiry question. Write them on the board. Ask the students to share their findings and conclusions with their family and think of more actions that can be done. What next steps can students take as a class to work to see their recommendations carried out? This might be for example (based on actual follow up student suggestions and activities):
      1. A presentation to the school board, city council, a local organization board, at a local health-related conference, or letters, e.g. to the mayor or local newspaper.
      2. Organize their school and parents to carry out a recommendation, such as a school event or garden to encourage healthy lifestyle changes.

An example of a table that can be used can be used for this purpose:

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| **Research Team** | **Main conclusions** |
| **Research Team 1 -** Surveys |  |
| **Research Team 2 -** Interview |  |
| **Research Team 3 -** Mapping |  |
| **Research Team 4 -** Focus Group |  |
| **Research Team 5 -** Observations |  |
| **Research Team 6 -** Photovoice/Video-voice |  |
| **Answer to class inquiry question:** | |
| **Possible solutions and potential actions:** | |

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| idea.png | **Preparing for the final presentations and Health Summit**  In the final exhibition, the research team’s main conclusions and answer to the class inquiry question are presented. Therefore, save a copy of the table with the research team’s main conclusions, answer the inquiry question, and possible solutions and potential actions in order to present it later as a poster or in a presentation. |

1. **Prepare for the Final Presentations / Health Summit** - See the handbook Community Projects & Final Presentations Guidelines, 2022-23. This document includes a draft schedule for the final presentations, guidelines for judges and awards, a list of awards and award criteria, guidelines for posters, a student reflection form, general guidelines for Community Action Projects, and a library of project outlines that teachers have used in the past that can be adapted for local environments.
   1. The first step is to identify any school, district, or community resources available in your community to partner with you in organizing the final presentation event. Set a date for your presentations and invite family members, school personnel and other community members to attend. See box below for suggestions. If the event is planned for an out-of-school location, send home field trip permission slips. Include a media release statement. Final presentations are a highly photographic event and can be used in social media to highlight science achievements at your school!
   2. Develop a schedule for your class/class’s final presentation and review with your class/classes so they understand how their presentations will fit into the event.
   3. Use the table in #4 above to help students begin to develop and display their final presentation. The presentation can be displayed on posters or PowerPoint presentations. See suggested guidelines for displays.
   4. Prepare the class for presenting their results: Tell students about the judges and awards. Show students the Motivation Coaches videos ([Mayor](https://drive.google.com/file/d/1HkfJ1KxewsC3X5Kgag5sxQW83hn_lxj1/view), [Dr. Sofia](https://drive.google.com/file/d/1-t704Irmk9vJGunZvBv0p2QTNYn-JUcB/view), [Anthony Basketball Player](https://drive.google.com/file/d/1S3dt8a48NzJAwsadm9ntDwhhSpMv-5Ny/view)) and lead a class discussion about the criteria for the awards and the rationale behind the criteria. Share the questions that judges will ask them but remind them that judges may also ask questions that they come up with.
   5. Provide time and opportunity for students to practice their presentation: this can include in-class to each other with peer-review and a “dress rehearsal” in school for other students and family members.
   6. Discuss student roles and responsibilities during the final presentation event. Students can rotate in teams through 1) presenting their project and 2) reviewing other projects by listening to other groups' presentations. The Scavenger Hunt worksheet can be used to support students in peer-reviewing other class projects (the Scavenger Hunt worksheet includes instructions for use).

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| idea.png | **Preparing for the final presentations / Health Summit**  An important step in student learning is for students to communicate their results to their peers, family members and broader community. This focuses on the scientific practice, “Obtaining, evaluating, and communicating information.” Our research shows that this step leads to deeper cognitive and social emotional learning.  In the final presentations, each of the research teams will present their findings. The final presentation is similar to a research conference setting where students present in a poster session. Therefore, have the students design and develop posters or presentations which describe their findings and can be presented later at the final presentations/Health Summit. See p. 18 in the handbook Community Projects & Final Presentations Guidelines.  The final presentations can be organized in the classroom, at school, or a community setting. A Health Summit is a final presentation event that includes more than one teachers’ classes, or multiple schools or districts. Planning a final presentation in its simplest form entails setting a date and agenda, identifying judges, printing awards, and inviting family members, school personnel, and community members to attend. Final presentations can include a healthy lunch, speeches by local dignitaries and health-related providers, and STEM afterschool and career program mini workshops, etc.  “Judges” motivate students to be prepared to present, listen and provide feedback about their research, and celebrate their accomplishments. Judges can be other school personnel, family members, and invited guests - community-school partners or representatives from relevant community organizations (such as the health department, city government, community agencies or organizations, community-based organizations, after school program facilitators, etc.). Judges distribute award certificates to classes and stickers to individual students. It is helpful to schedule a short orientation for judges, so they understand their role and feel prepared to interact with the presenters. Orientation materials are provided in the handbook Community Projects & Final Presentations Guidelines.  The Motivation Coaches videos (See links above) are designed to help students understand the rationale behind the judging and award criteria and encourage students while they practice demonstrating how they have met the criteria in their presentations. They introduce relevant careers and demonstrate how the subject of the awards (e.g. teamwork, creativity, evidence-based solutions) are used in real-life work settings.  Some school districts and some community agencies (such as health departments or youth-serving agencies) have personnel whose role it is to make community-school connections. Organizing HiOH final presentations/health summit events can be an excellent vehicle to engage community members and families in STEM and improve family and community health. One step for HiOH teachers is to identify district resources to organize or help organize the event. Here is one example of a county-wide partnership of community-education-health organizations who support Health in Our Hands in the classroom: hioh.education. <http://hioh.education/partners> |

6. **Debrief Health Summit and/or Final Presentations**

1. Once students have presented their final community projects in class, and or attended the Health Summit, have students fill out the Thinking about my Community Project handout. The handout can also be found in the HiOH (Health in Our Hands) Community Projects Guidelines.
2. After students have filled out the handout, use the handout questions to encourage a discussion around their responses to the questions.

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| **Optional Lesson** |

A next step is to plan a community service activity that takes an aspect of their action project recommendations and carries it out. The community action project results can be used to support an evidenced-based proposal for funding. For example, they could plant a community garden or clean up a park so children could exercise.

