7th Grade Service Learning

How it ties into 7th grade curriculum: **Matter and its Interactions** (MS-PS1-1, MS-PS1-3)

Possible School Service
To do a service day(s) for the school and get the kids outside and learning about how the synthetic materials that are created affect the world around us. This will allow the students to do a service for the school by educating and presenting their findings to the class. There will be an option for some of the student to use their observations and reports in their Science Convention Projects, During the Science Fair they will be able to share what they learned in the investigation. They will have presentations that they share with the public. The projects will have their own category and rubric for the science fair. The students will use this to educate and inform the public and the students. They will stress in importance of knowledge of the synthetic materials and their proper use.

Community Issue: **Students will choose between one of these issues to research, create a presentation on how they can help with this issue in Milltown, and then make a pamphlet to be posted.**

Project based Services:

Project Name:	Description
Food Additives	Students will research common food additives. They will do a project on how they are created and the natural resources that are used to make them. The students will identify healthy alternatives. The students should create a model of the molecule that they chose.
Medicine	Students will research synthetic medicines. They will do a project on how they are created and the natural resources that are used to make them. The students will identify how they have improved over the years. The students should create a model of the molecule that they chose.
Synthetic Foods	Students will research synthetic foods . They will do a project on how they are created and the natural resources that are used to make them. The students will identify how healthy they are compared to the natural materials. They will also identify how they are an improvement from the natural materials. They will focus on lab grown and 3D printed foods.The students should create a model of the molecule that they chose.
Alternate Fuels	Students will research alternative fuels. They will do a project on how they are created and the natural resources that are used to make them. The students will identify the positive and negative qualities of the fuels. The students should create a model of the molecule that they chose.
Plastic Recycling	Students will research plastic recycling. They will do a project on how they are created and the natural resources that are used to make them. The students will identify the different plastics and how to properly recycle them. The students should create a model of the molecule that they chose.
Great Pacific	Students will research TheGreat Plastic Garbage Island.. They will do a project on how

Garbage Island	they are trying to solve the problem. Have the students research the correct ways to recycle and reduce the total amount of plastic used.
Microplastics and Society	Students will research microplastics and how they affect the ecosystem.. They will do a project on how the microplastics enter the food chain. They will develop ways to reduce the total amount of microplastics in the environment. The students should create a model of the molecules that they chose.

Pre-Reflection

- Students in their groups, will look over the list of types of projects they can do their project on.
    - They will talk about what they already know about the topic and how they can help it. Using their previous knowledge, they will choose the best project for their group.

Research

- Students will research their topic. They will brainstorm and come up with a concept map of how they want to create their presentation Google Slides and their pamphlet in Google Docs.

Presentation & Pamphlet

- Students will take all of their research on their chosen topic and create a presentation in Google Slides. This presentation will be presented to the class.
- Students will also come up with a pamphlet summarizing their presentations that can be shared on Parent Square to help bring awareness to the Milltown Community.

Reflection

- Students will then reflect (in their science journals?) on how they think their project went, and how they will use the suggestions they provided to help the environment.

Topic Resource Site:

MS-PS1-3

To do a service day(s) for the school and get the kids outside and learning about the environment they live in, we can do a school grounds clean up the day before Field Day. This will allow the students to do a service for the school by helping to clean it up, and also to the students and staff who will be outside doing the activities so they can have fun and not worry about stepping or tripping on trash while they are playing the outside games.

We can also do a follow up the next school day after Field Day to help clean up any messes or trash that was left behind from all of the games.

This will teach the kids that we need to keep our environment clean so the plants can thrive and produce more oxygen for us to breathe and continue the oxygen cycle, and also help the small animals that live around here so that their homes aren't littered with trash.

Engage in frequent integration of research and action
Provide training and practice in research skills such as problem identification, data collection, data analysis
Identify community resources to integrate with curricular goals
Practice strategic thinking skills (such as leadership, critical thinking, time management) and strategies for influencing change
Ensure that student voice and engagement are central to the research and change process
Build supportive networks between school and community
Share power between teachers and student in action process
Connect and embed project into curriculum to reinforce skill development