

Hydrosphere Unit Project

| Target | 1 | 2 (all of 1 plus) | 3 (all of 2 plus) | 4 (all of 3 plus) |
|----------------------------|---|--|---|--|
| LE 5.7 Preparedness | Does not complete formative or summative in an effortful and timely manner, is not engaged, does not arrive on time with class materials ready to learn, does not communicate when issues arise | Completes formative or summative in an effortful or timely manner, is sometimes engaged, sometimes arrives on time with class materials ready to learn, sometimes communicates when issues arise | Completes formative or summative in an effortful and timely manner, remains engaged, arrives on time with materials ready to learn, communicates when issues arise | Completes formative or summative in an effortful and timely manner, remains engaged, arrives on time with materials ready to learn, communicates when issues arise, and is reflective on strengths and challenges within your preparedness skill |
| LE 7.4 Connections | Recognizes that multiple ideas may be connected | Recognizes that connecting multiple ideas may provide deeper meaning | Recognizes connection between multiple ideas, systems or solutions to construct meaning | Connects multiple ideas, systems or solutions that provoke meaning in novel ways (i.e. demonstrating empathy by synthesizing complexity, metaphoric thinking, applying patterns) |
| Hydro 11/12 Project | I can identify ways human activities amplify negative aspects of runoff | (all of 1 plus) I can identify broad solutions to mitigate runoff | (all of 2 plus) I can evaluate and assess issues specific to our region that pertain to humans' contribution to runoff, and propose specific solutions to mitigate the associated negative effects | (all of 3 plus) Nailed it! <i>Depth and/or breadth</i> |

Over the next weeks we are going to be working on a project that applies the knowledge you have gained from the Geosphere unit, Phusikos (atomic structure and bonding), Hydro 5-7 (shapes, polarity, solubility), and Hydro 8-9 (watersheds, water cycle).

The overall goal of the project is to address runoff issues that impact the water quality of the Winooski River.

Groups:

Groups of a maximum of two individuals will be permitted. The groups must be approved by the teacher, and approval will be based on your Semester 1 Preparedness marks being similar. You are welcome to work alone on the project.

Project format:

You will present your work to your peers in a poster session. You will present your work, and view the work of others during this session.

There are two options for the project...

Stormwater Infrastructure Design

Background: In this option you will be working to apply your understanding of watersheds and issues of runoff. You will identify problems in regards to potentially harmful runoff from a particular site and you will work to re-design/improve upon existing design and implement green stormwater infrastructure that is functional, aesthetically pleasing, and useful for generations of Montpelier students like yourself.

Water Quality Testing

Background: We all spend the majority of our day within the Winooski watershed. It is our responsibility to be responsible stewards to this land to protect the river for future generations. In this project you will be identifying, researching and measuring factors associated with water quality in the Winooski. Your task will include identifying potential sources that may negatively impact these quality factors, and propose potential solutions.

