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## **Vergennes Union High School and Lake Champlain Maritime Museum**

### **Grant Summary:**

With the help of a Flexible Pathways Expanded Learning Opportunities grant Addison Northwest School District is working to create and pilot an innovative approach to individualized, inquiry-based learning. Vergennes Union High School (VUHS) - in partnership with Lake Champlain Maritime Museum (LCMM) - will develop and refine promising practices for supporting and assessing personalized, off-campus learning experiences.

### **Work to Date:**

Over the course of the spring and summer, the collaborative project team was able to draft materials and test them out with faculty, including a working document on the various paths proposed to deepen the VUHS/LCMM connection. The work culminated in an in-service at LCMM in August. The entire 7-12 teaching and academic support staff came to the museum where they each "played student" for the day by choosing and participating in various hands-on, project-based learning experiences. These ranged from microscopy studies of lake water to metal-working to shipwreck artifact study. According to Michael Thomas, Chair of the VUHS English department and grant lead, there were several benefits of the experience for both VUHS and LCMM staff:

- 1) Teachers received an orientation to museum offerings and ideas for future collaborations.
- 2) Teachers experienced project-based learning from a student point of view.
- 3) Teachers received training and experience in inquiry-based teaching methods.
- 4) Teachers universally reported that they felt valued, energized, and inspired.
- 5) LCMM learned about the interests and needs of teachers that would inform future collaborations.
- 6) The museum staff had the opportunity to practice and continue developing their inquiry-based process.

The steering committee believes that this experience will inform VUHS plans on how to broaden their partnerships with other area Expanded Learning Providers such as the Vermont Folklife Center or the Bixby museum. In addition, LCMM will be able to apply this learning to their collaborative work with other schools. "Overall, every participant felt it was a great success," said Thomas.

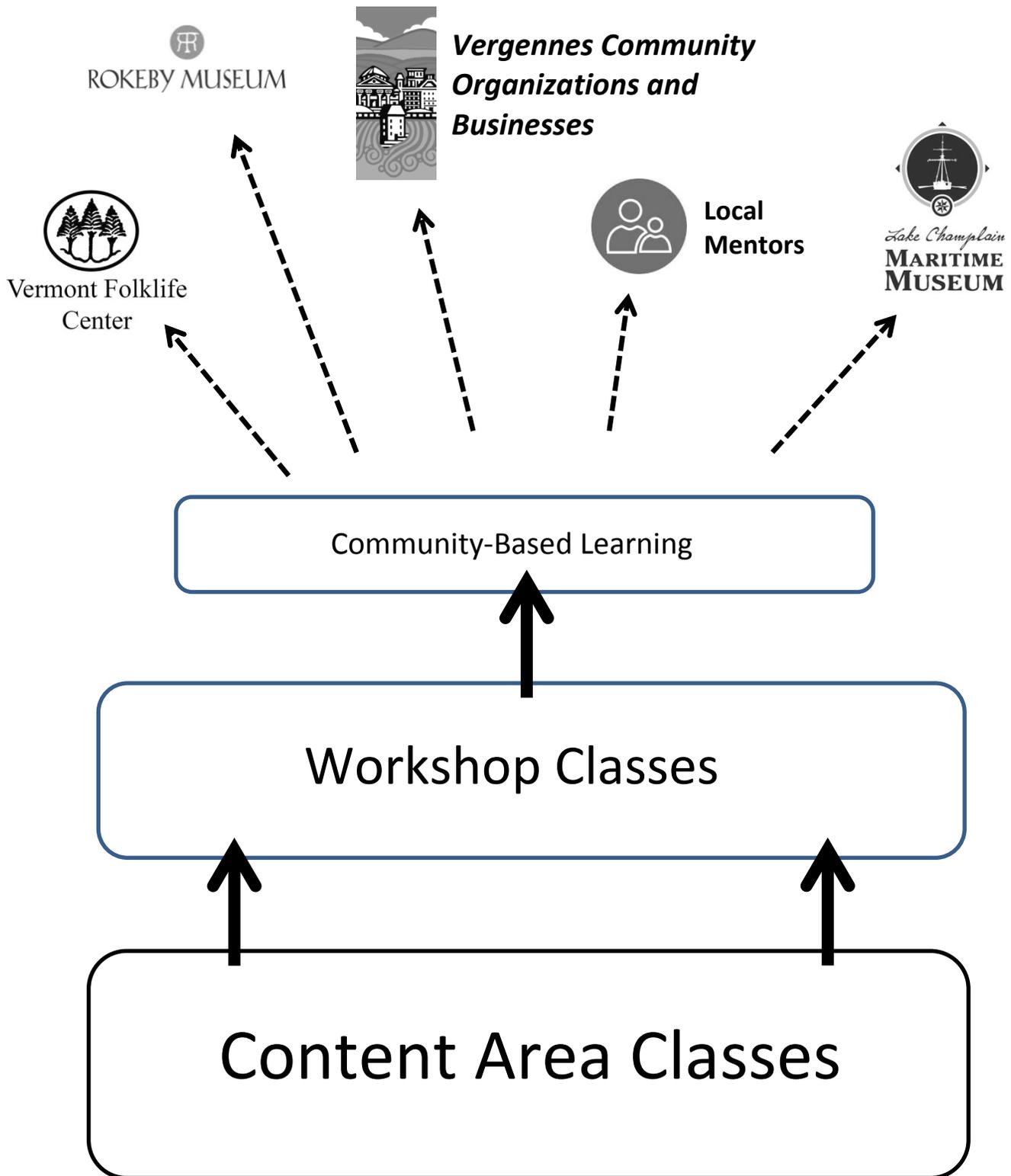
Next steps of the project include piloting community-based workshop classes with a group of VUHS students at LCMM. -In addition, department heads at VUHS will pursue formal, annual or semi-annual school/museum "units" either for specific classes or for entire departments.

# Passions to Projects

- How Can We Help Link Student Interests to Learning Opportunities ?
- How Can We Incorporate Inquiry-Based Learning Methods ?
- How Can We Start Making PLPs Real for Students ?



*Starting in 2018-19, VUHS students will have the opportunity to join interdisciplinary Workshop Classes that support personalized, project-based learning in school and in the community.*



***Each workshop class will offer a different lens for students to explore personal interests and develop individual projects . . .***



### **Culture Studies Workshop**

**Perspective:** Explores the history of ideas, beliefs, and values; interprets the social meanings of language, literature, art, and psychology.

**Possible Projects:** Compare local religions; interpret poetry; trace family history.



### **STEM Workshop**

**Perspective:** Uses scientific methods and tools to answer questions about the physical world, create new technologies, and solve problems for society.

**Possible Projects:** Write a useful phone app; launch a rocket and predict its path; improve a gas engine.



### **Design/Construction Workshop**

**Perspective:** Combines hands-on skills and creative imagination to plan and build projects for artistic expression or practical use.

**Possible Projects:** knit a sweater; build a chicken coop; complete a painting portfolio.



### **Life & Health Workshop**

**Perspective:** Studies how living systems such as the human body and ecological communities function and stay healthy, from personal fitness to environmental protection.

**Possible Projects:** Test local water quality; pursue a fitness plan; raise organic vegetables.



### **Performance Workshop**

**Perspective:** Uses disciplined practice and rehearsal to develop skills in artistic self-expression before an audience such as music, theater, dance, or poetry.

**Possible Projects:** Write a play; form a band; enter a speech contest.

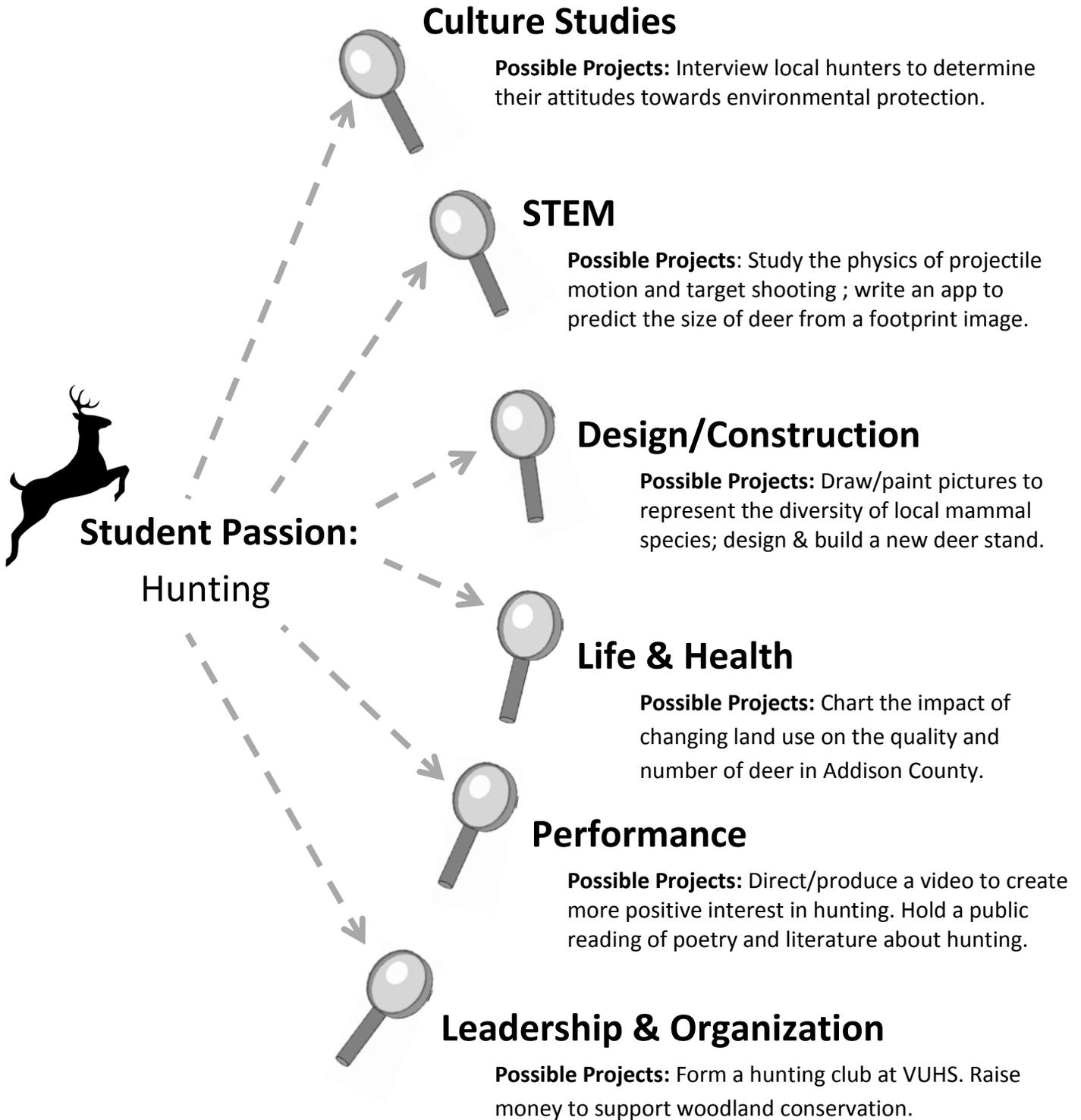


### **Leadership & Organization Workshop**

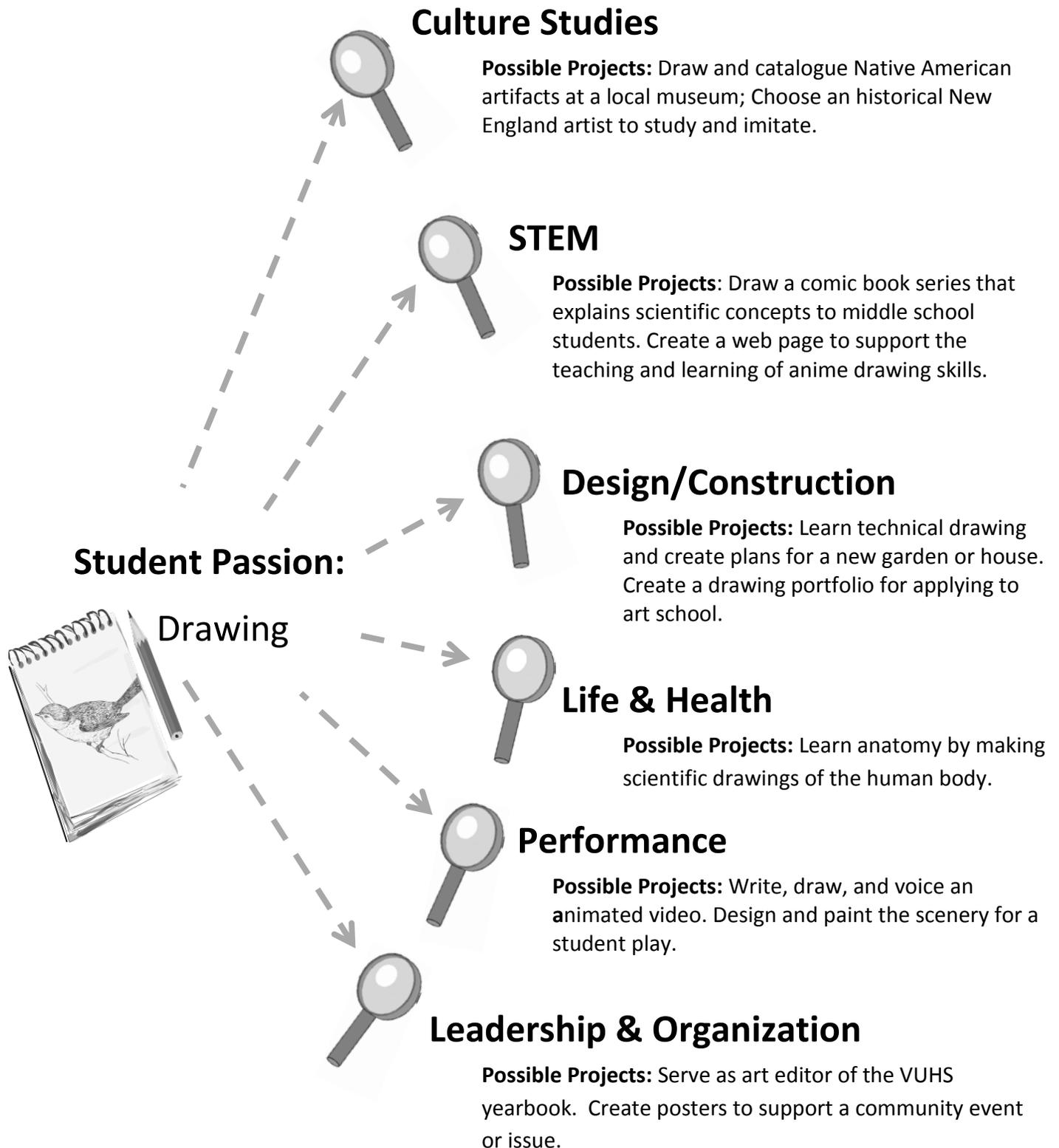
**Perspective:** Applies interpersonal skills to develop and plan projects that motivate and organize social groups, teams, communities, government and other human organizations.

**Possible Projects:** Teach an elementary school class ; start a small business; organize the yearbook or a club.

***Any interest can fit into any workshop, encouraging students to develop different perspectives, methods, and personal goals . . .***



***Each workshop opens new personalized pathways towards career options and lifelong learning . . .***



# Museum Session One (Morning)



Lake Champlain  
**MARITIME  
MUSEUM**

When you first signed up for this activity, what interest motivated you to join?

What new interest(s) or connections with previous interests did you discover during the session?

If you had the opportunity to continue exploring this same activity for a semester class, what specific related interest, driving question, or project could you imagine pursuing through the lenses below ?  
(Pick three)

**Culture Studies:**

**STEM:**

**Design/Construction:**

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**Morning Activity**

**Life & Health:**

**Performance:**

**Leadership & Organization:**

## Museum Session Two (Afternoon)



Lake Champlain  
**MARITIME  
MUSEUM**

When you first signed up for this activity,  
what interest motivated you to join?

What new interest(s) or connections with previous interests did you discover during the session?

If you had the opportunity to continue exploring this same activity for a semester class, what specific related interest, driving question, or project could you imagine pursuing through the lenses below ?  
(Pick three)

**Culture Studies:**

**STEM:**

**Design/Construction:**

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**Afternoon Activity**

**Life & Health:**

**Performance:**

**Leadership & Organization:**

***Based on your experiences today, if you had the opportunity as a VUHS student to develop a personalized learning pathway for one semester at the museum, what new learning might you imagine?***

**Which workshop “lens” would you employ ? (Circle one)**    Culture Studies                  STEM

Design/Construction                  Life & Health                  Performance                  Leadership & Organization

**What one specific driving question/new skill/new knowledge would you pursue?**

**What learning process or learning activities would you engage in to reach your goal?**

**What specific final product/performance would you use to document your new learning?**

**Which VUHS Transferable Skill(s) would you demonstrate? (Circle any that apply)**

**Self-Direction:** I demonstrate reliability while identifying and actively pursuing interests in preparation for lifelong learning and growth.

**Collaboration:** I exhibit the skills to work independently and collaboratively with efficiency and effectiveness.

**Critical Thinking:** I use a variety of sources to understand, interpret, analyze and evaluate information.

**Problem Solving:** I apply a variety of problem-solving strategies demonstrating reflective, creative, critical and innovative thinking and modeling.

**Communication:** I use written and oral communication for a variety of audiences and purposes.

**Technology:** I use technology effectively to find, organize, and communicate information for a variety of purposes.

## Strengthening Connections Between VUHS and LCMM

Type of Connection	Where	When	School Context	Description
Internships/ Volunteers	Museum	After 2:00 /Weekend (semester long)	Workshop Classes	Individual students take on roles assigned by museum to meet museum needs. Some oversight at museum, but academic learning in VUHS workshop.  Student provides transport?
Small Mentored Group PBL	Museum	After 2:00 /Weekend / some full days (semester long)	Workshop Classes	Museum offers a “context” (e.g. artifact collection) and a teacher/mentor for students to explore individual interests/projects within that scope. Supported by VUHS Workshop class.  VUHS transport ?
Large Group Museum Experience	Museum	School Day (s), full or half (1-3 days ?)	Grade Level (10 <sup>th</sup> ?)	A whole grade (or other large group) has an experience like the recent teacher visit and have the opportunity to sample/choose a variety of learning activities.  VUHS transport
One time Field Trip	Museum	School Day (1-3 hours)	Specific course (individual teacher)	A class visits the museum for a specific special purpose (e.g. draw artifacts or sample water) Museum provides specialty instructor.
Regular/annual Field Trip / Curricular Unit	Museum	School Day (Half day or full day)	Specific course/dept (individual teacher/dept head)	Field trip of one or more visits is built into the curriculum of a specific course each year/semester. Museum provides instructor; initial common planning time with VUHS teacher to design . VUHS transport
Museum to School Curricular Unit	School	School Day  (70 min, 1-3 days)	Specific course (individual teacher)	One or more visits to VUHS by museum staff with materials is built into the curriculum of a specific course each year/semester. Museum provides instructor; initial common planning time with VUHS teacher to design. VUHS transport

## Strengthening Connections Between VUHS and LCMM

Type of Connection	When	School Context	Description
Pro Dev: Field Trip Planning	Regular School Day	Individual Course Teacher	Short, one-time planning/prep meeting for a one time field trip Funding: VUHS Pro Dev Funds
Po Dev: Field trip Curricular Unit Planning	Regular School Day	Individual Course Teacher	Full day (?) curriculum design together, VUHS teacher learns specific content/skills Funding: VUHS Pro Dev Funds Grant?
Pro Dev: Dept Orientation	Regular School Day / In service Day	Dept Head, 2-5 faculty	Whole dept learns in depth about specific subjects/skills in order to begin designing curriculum that incorporates ongoing museum visits. E.g. history dept receives detailed overview of artifact/historical resources, lesson ideas, possible activities.  Funding: VUHS Pro Dev Funds maybe. Grant?
Pro Dev: Whole faculty Orientation	In Service Day		Same as above but for multiple depts. at same time, each choosing area of focus for dept. Like the recent VUHS visit, but more content specific. Funding: prob no VUHS Pro Dev funding; grant only.

# Vergennes H.S. Teacher Orientation

## At LCMM, Tuesday, August 29, 2017

<b>Time</b>	<b>Activity</b>	<b>Location</b>	<b>Lead</b>
8:00	Refreshments	Hoehl	Joyce Cameron
8:20	Be sure to finish filling out question form (?)		
8:25	Welcome	“	Elizabeth Lee and/or Joyce
8:30	Introduce Passion to Project; breadth of LCMM offerings	“	Michael Thomas
8:35	Inductive thinking with students	“	Harry Chaucer w/Matt Witten
9:00	Modeling the PLP process	“	Michael T.

### ***First Session of Skill-Builds (9:15-10:45)***

***Track 1 can take up to 21 people. Each other track takes up to 10 people.***

<b>Track 1</b>	<b>Track 2</b>	<b>Track 3</b>	<b>Track 4</b>	<b>Track 5</b>
Longboats & Wood Science*	Shipwreck artifacts (Conservation Lab)	Metal work including bronze casting (Metal shop)	Indigenous Artifacts from Dead Creek (School House)	Microscopy, e.g., plankton & plastics (Auditorium)

\*This activity will include rowing from North Harbor if the weather allows. In case of foul weather it will be held in the boat shop.

### ***Reflection time in pairs (10:45-10:55)***

**LUNCH (provided by LCMM, 11:00-11:25)**

### ***Second Session of Skill-Builds (11:30-1:00)***

<b>Track 1</b>	<b>Track 2</b>	<b>Track 3</b>	<b>Track 4</b>	<b>Track 5</b>
Longboats & Wood Science*	Shipwreck artifacts (Conservation Lab)	Metal work including bronze casting (Metal shop)	Indigenous Artifacts from Dead Creek (School House)	Microscopy, e.g., plankton & plastics (Auditorium)

### ***Return to Auditorium for Wrap-Up***

<b>Time</b>	<b>Activity</b>	<b>Location</b>	<b>Lead</b>
1:10-1:20	Open discussion: What did you notice? What interests you? Study Question? What might you want to pursue? Include in PLP?	Hoehl	Michael/ Elizabeth/ Matt
1:20-1:30	Overview of project-based learning with LCMM; Q&A	“	Elizabeth/ Matt

***Optional Walkabout on the Maritime Museum Campus (1:30-2:00)***







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PERIODIC TABLE  
OF  
ELEMENTS  
ELEMENT  
COMPOUND  
PERIODS  
GROUPS

COMPOUND

ELEMENT  
COPPER  
IRON  
ZINC  
LEAD  
BRASS  
ALLOY