

**Expedition: Lobster Habitats**

**Guiding Questions:**

- What are the components of a D.R. marine ecosystem?
- How do healthy ecosystems benefit humans?
- How do scientists gather and use data?

**Learning Targets:**

- TLW demonstrate an understanding of the components of an ecosystem, including the cycles of carbon, nitrogen, flow of energy, biodiversity and genetic diversity.
- TLW calculate the biodiversity index and population density of ecosystems they have collected data on.
- TLW demonstrate an understanding of how the management of resources affect lobster populations and propose a plan for initiating sustainable development of that industry
- **Learn how to create and maintain lobster habitats**

| Week | Language   | Math                                | Science   | Social Studies  | Art/Music  | Computer  | Biblical Int.   |
|------|--|-------------------------------------|---|---|--|---|---|
| 1    |  |                                     | Begin BBK over fishery management/Investigate tragedy of the commons  | Explore "Tragedy of the commons"                          |  |   |   |
| 2    | Begin persuasive narrative writing by researching and writing about a specific instance  | Cover exponential population growth | Introduce purpose of expedition/need for habitats   | Discuss the interrelated nature of societies, nature etc. | How photographs can be composed to highlight the story you want to tell. |   | Reflect on management of resources/being a good steward. How do the words "Ecologically responsible" and "Stewardship" compare? |
| 3    | representing "The tragedy of the commons.  |                                     | Cover biodiversity and ecology in class   |   |  |   |   |
| 4    |  |                                     | Focus on marine ecosystem biodiversity  |   |  |   |   |
| 5    | How to read scientific papers  |                                     |   |   |  |   |   |
| 6    |  | MICHES                              | MICHES  |   | MICHES   | MICHES  | MICHES  |
| 7    |  |                                     | Rest  |   | Photography  |   |   |
| 8    | Write outline, rough and final copies of letters to the Mayor of Miches regarding our experiences and possibilities for improvement. |                                     | Reading quizzes over lobsters/discuss lobster lifestyle/reproduction/means of survival/begin scientific paper |   | Photo selection and editing (photo for final product)                    | Using photo editing software and internet programs to edit final photos | Communicating ideas in a loving and respectful manner.  |
| 9    |  |                                     | Prepare for expedition night projects   |   |  |   |   |
| 10   |  |                                     | Expedition night  |   |  |   |   |
| 11   |  |                                     | Continue and finish scientific lab reports  |   |  |   |   |

**Products:**

- Scientific lab report showing collected data and calculations of biodiversity
- Personal narrative letters using stories to influence the Mayor of Miches to participate in improvements to the community and ecology of Miches

**Service Projects:**

- Lobster habitats
- Fishermen charla