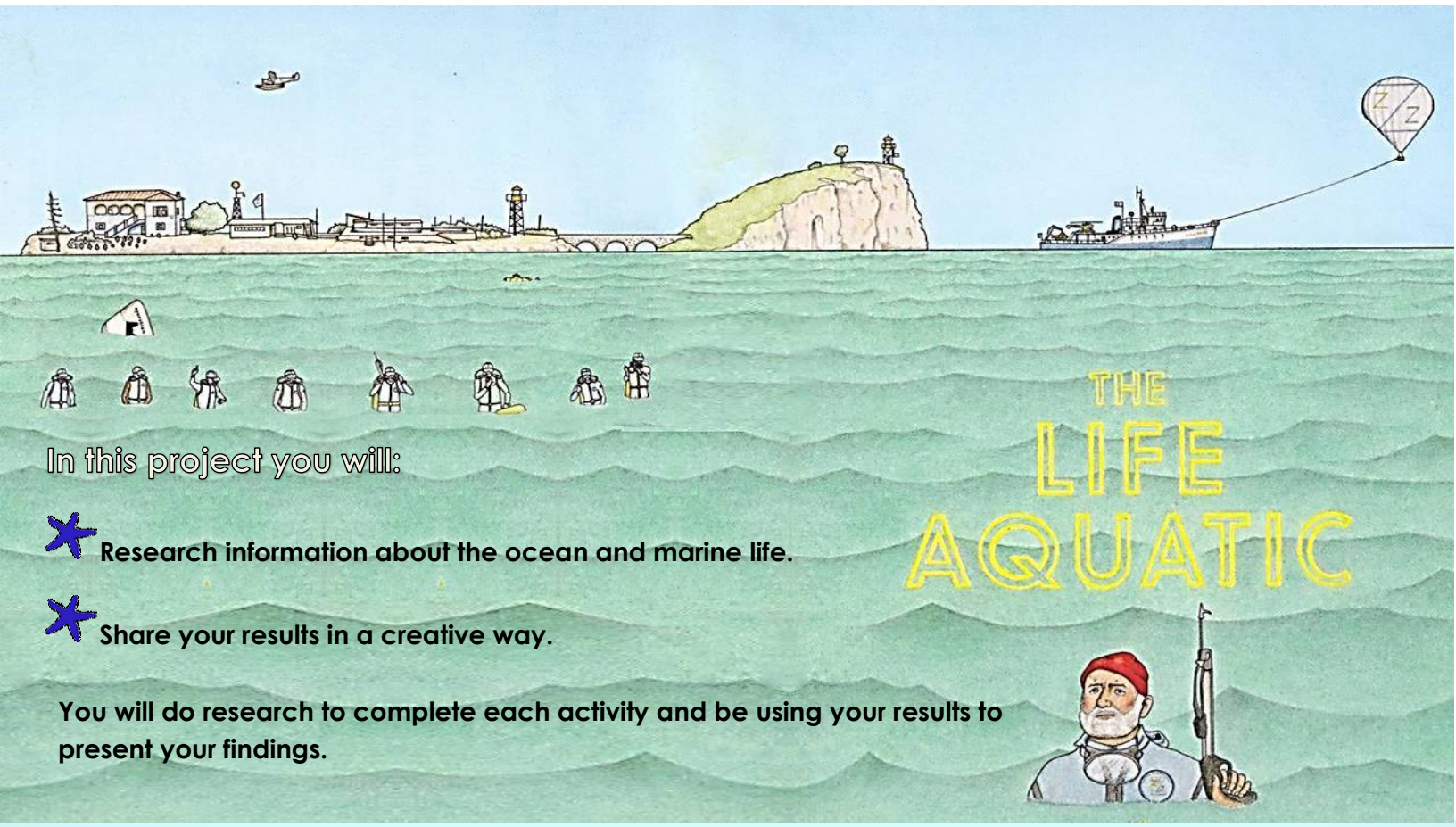

In this project you will:

- **Research information about the ocean and marine life.**
- **Share your results in a creative way.**

You will do research to complete each activity and be using your results to present your findings.

1. Deep water coral can be found 6,600 below the ocean's surface where water temperatures may be as cold as 39 °F. The average depth of the coral found on a coral reef is 78 inches below sea level.
   a. What is the difference in elevations between deep water coral and coral on a reef?
   b. Is the elevation halfway between the deep water coral and the coral found on reefs above sea level or below sea level? Explain without calculating the exact value.
   c. What elevation is halfway between the dep water coral and coral found on a reef?

2. How much of the ocean does the coral reef take up? What is happening to the coral reefs? What is the relationship between the reefs and other aquatic life? Is the coral reef important?

3. A mobile offshore drilling unit (MODU) has dug to a height of –35 feet after one full day of continuous use.
   a. Assuming the MODU drilled at a constant rate, what was the height of the drill after 15 hours?
   b. If the rig has been running constantly and is currently at a height of –143.6 feet, for how long has the MODU drilling unit been running?

4. What are the relationships between divers and the worlds they discover underwater? What is protocol for divers? Why is this put in place? Jacques Cousteau, one of the most famous oceanographers, loved the ocean. What in his background shaped his identity and led to his relationship with the water?

Decide on a way to share what you have learned about the ocean. You can use poster board, an online visual such as Prezi, a PowerPoint, get creative! Remember to show how you used your knowledge of integers in your project! Include a reflection in your presentation and answer these two questions:

5. How were mathematical ideas involving integers represented in the information you discovered?

6. How were mathematical ideas involving rational numbers represented in the information you discovered?