

**FIRST
LEGO
LEAGUE**

EXPLORE

ENGINEERING NOTEBOOK



You will develop new skills as you work together.

Core Values

Draw or write an example of your team using each Core Value when directed in the sessions.

DISCOVERY

We explore new skills and ideas.

INCLUSION

We respect each other and embrace our differences.

INNOVATION

We use creativity and persistence to solve problems.

TEAMWORK

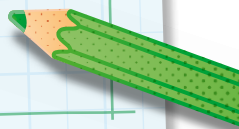
We are stronger when we work together.

IMPACT

We apply what we learn to improve our world.

FUN

We enjoy and celebrate what we do!



Session 1

Activity 1 Tasks

- Read the Explore story to learn about the SUBMERGEDSM theme.
- Talk about what you know about the oceans with your teammates.
- There are many ocean mysteries left to explore. Think about what part of the oceans you and your teammates would want to explore and hope to discover.
- List your questions about the ocean below.

Your team needs:



What did you learn from reading the Explore story?

What animals or objects did you recognize in the Explore story?

More than 80% of the ocean has never been mapped, explored, or even seen by humans!

What animals and objects do you want to learn more about?

Your team needs:



An autonomous underwater vehicle (AUV) is like a small submarine that doesn't need a person to drive it. A remotely operated vehicle (ROV) requires a person to drive it, and it is connected to the ship with cables.



Dive In!

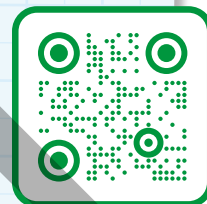
Activity 2 Tasks

- Build the submarine from the Explore set using Bags 1 and 2.
- Talk about the different parts of the submarine and what they might be used for.
- Think of something your submarine might discover in the ocean.
- Use the space below to draw your ideas.

Challenge

- Use the prototyping pieces to build animals, plants, or unknown object that your team wants to learn about.
- Share your ideas.

My ideas:



Scan me to see a video of the submarine model.

Team Journey

