

Sea Turtle Nest



Challenge:

Build a nest that protects turtle eggs from wind and waves.

Suggested Materials:

- cotton balls
- cups
- sand
- paper
- craft sticks
- tape

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OCEAN ANIMALS STEM CHALLENGE

Shark Fin Design



Challenge:

Design a fin that helps a shark move through water.

Suggested Materials:

- cardboard
- craft foam
- straws
- tape
- paper
- foil

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OCEAN ANIMALS STEM CHALLENGE

Jellyfish Float



Challenge:

Build a jellyfish that can float or stay suspended in water.

Suggested Materials:

- plastic bags
- string
- cups
- tissue paper
- tape
- straws

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OCEAN ANIMALS STEM CHALLENGE

Whale Blubber Test



Challenge:

Create insulation that keeps a whale warm in cold water.

Suggested Materials:

- shortening bag
- cotton balls
- felt, foil
- gloves
- tape

Octopus Arm Tool



Challenge:

Build a tool that can grab small objects like an octopus arm.

Suggested Materials:

- craft sticks
- string
- tape
- paper clips
- rubber bands
- cups

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OCEAN ANIMALS STEM CHALLENGE

Coral Reef Habitat



Challenge:

Design a reef habitat where ocean animals can hide.

Suggested Materials:

- pipe cleaners
- paper
- cardboard
- cups
- tape
- craft foam

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OCEAN ANIMALS STEM CHALLENGE

Fish Camouflage



Challenge:

Create a fish design that blends into its ocean background.

Suggested Materials:

- paper
- markers
- tissue paper
- cotton balls
- glue
- scissors

Crab Claw Grabber



Challenge:

Build a claw arm that can pick up food.

Suggested Materials:

- craft sticks
- rubber bands
- spoons
- paper clips
- tape
- cups

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OCEAN ANIMALS STEM CHALLENGE

Dolphin Jump Ramp



Challenge:

Build a ramp that helps a dolphin jump through a hoop.

Suggested Materials:

- cardboard
- cups
- tape
- straws
- paper
- craft sticks

Seahorse Holdfast



Challenge:

Create a tail or holder that helps a seahorse stay in place.

Suggested Materials:

- pipe cleaners
- string
- straws
- tape
- craft sticks
- paper

Name: _____

Ocean Animal STEM Challenge

Challenge Name:

Make a Plan:

Draw Your Design:

Materials Needed:

Test it: Did it work?

Yes

No

Improve it:

One thing I learned:

Name: _____

Ocean Animal STEM Challenge

Ask: What problem are you solving ?

Imagine: What are your ideas?

Plan: Draw & label your design

Create!

Test it!

Improve it!

Explain: What works? What doesn't work? What would you do differently next time?

Name: _____

Ocean Animal STEM Challenge

Challenge Name:

Supplies:

Draw Your Design:

Test it: Did it work?

Yes

No

Almost

I can make it better by...

Name: _____

Ocean Animal STEM Challenge

Team Members

1. _____
2. _____
3. _____
4. _____
5. _____

Our Challenge:

Our Plan:

Our Design:

Team Jobs:

How will we test it?

Name: _____

Ocean Animal STEM Challenge Reflection

The hardest part was...

The best part was...

One thing I changed was...

Next time, I would...

My design worked because...

Name: _____

Ocean Animal STEM Challenge Ruberic

Criteria	4 Excellent	3 Good Job	2 Keep Trying	1 Beginning
Planning	We made a clear plan and explained our ideas in detail.	We made a plan and explained most of our ideas.	We made a plan, but it was a little unclear.	We did not make a plan or share our ideas.
Building	We built a strong, creative design and used our materials well.	We built a good design and used our materials well.	Our design works somewhat, and we used some materials well.	Our design does not work well, and we did not use materials well.
Testing	We tested our design carefully and recorded our results.	We tested our design and recorded some results.	We tested our design but did not record all our results.	We did not test our design or record results.
Teamwork	We worked together, listened to each other, and helped everyone.	We worked together and listened most of the time.	We worked together some of the time.	We did not work well together.
Improvement	We improved our design using what we learned from testing.	We made some improvements using what we learned.	We made a small change, but it did not help much.	We did not try to improve our design.