

Title: **Surf Soup Dragon Boat Race Festival**  
**Celebrating Asian Culture and Making Zongzi**

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Surf Soup Series



STEAM Reader Guide: The Dragon Boat Festival

Explore Science, Technology, Engineering, Art, and Math with Koa, Little Donna, and Friends!

**S - Science: The Science of Boats and Water Resistance**

How do dragon boats float?

Learn about buoyancy and how boats stay on water. Try floating different objects in a tub to see what sinks or floats!

Why do boats move faster in water?

Explore water resistance and drag by testing different boat shapes in water.

The power of paddling!

Experiment with pushing water using your hands—how does it move differently with fast or slow strokes?

**T - Technology: The History and Modern Advancements of Dragon Boats**

How were ancient dragon boats made?

Learn about traditional woodworking and boat-building techniques from China's history.

Modern dragon boat racing

Watch videos of real dragon boat races. How have modern materials (like fiberglass) improved racing boats?

Create your own dragon boat design!

Use recycled materials to build a mini dragon boat and test it in water.

## **E - Engineering: Building a Strong and Fast Boat**

What makes a boat go faster?

Talk about boat design, balance, and teamwork.

Experiment: Design a Paper Boat

Fold a paper boat and see how much weight (coins, beads) it can carry before sinking!

Paddle Power

Try different paddle sizes and shapes to see how they affect water movement.

## **A - Art: Creativity and Culture in the Dragon Boat Festival**

Design Your Own Dragon Boat Head

Draw or sculpt a dragon head with bright colors and fierce expressions!

The Art of Dumplings

Explore the beautiful wrapping techniques of Jung (Zongzi) and try to fold paper versions before making real ones!

Storytelling through Festivals

Write or draw a short comic about a festival from your own culture.

## **M - Math: Measuring, Timing, and Racing!**

Dragon Boat Speed Math

If a dragon boat moves 5 meters per second, how long does it take to finish a 200-meter race?

Measuring Jung Ingredients

Practice measuring rice and fillings—what happens if you change the ratios?

Race Timing Challenge

Use a stopwatch to time how fast different objects move through water. Can you make them go faster?

Fun Challenge: STEAM Dragon Boat Race!

Gather friends and family to build mini dragon boats, race them in water, and record observations. Who can design the fastest or most creative boat?