



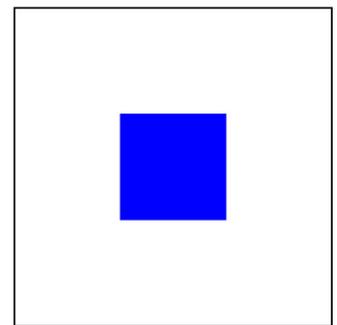
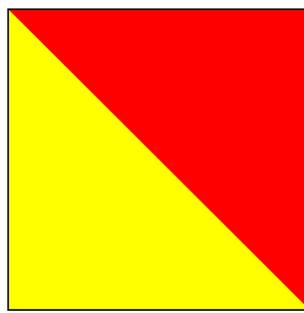
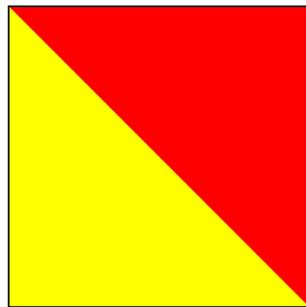
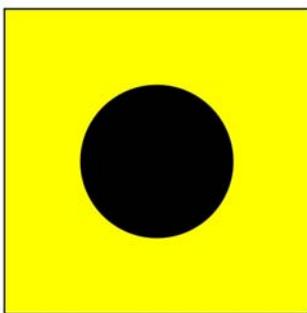
**IOOS**

Integrated Ocean Observing System

# Decoding Maritime Signals

St. Petersburg Science Festival  
Student Day, October 16, 2020

[Register your class: https://stpetescifest.org/kids-teaser/](https://stpetescifest.org/kids-teaser/)



Students will learn about the following:

- 1) The International Code of Signals (ICS);
- 2) Why universal communication on the high seas is important; and
- 3) How the U.S. Integrated Ocean Observing System (IOOS) supports safe and efficient maritime operations.

What will we do?

Students will participate in two activities during the virtual presentation. Following a brief overview of the International Code of Signals and the U.S. IOOS Program, students will:

- 1) Practice decoding** a word given to them in International Code of Signals format. They will use the ICS guide provided to determine each of the five letters. They will then unscramble the letters to determine the word (answer: Shark).

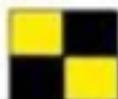
In the teacher packet, you were provided with the 4x4" ICS symbols for the word "shark" on cardstock. This is intended to help you share the lesson with your online students, if you have any. You are also provided with images to print more copies of the ICS guide and word (four "shark" words per page, organized vertically and to be cut into individual strips). See slides 3 and 4 below.

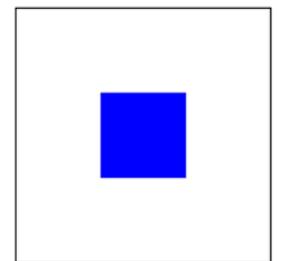
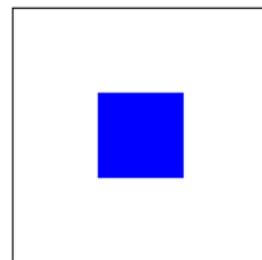
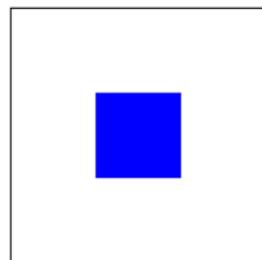
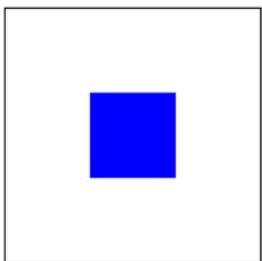
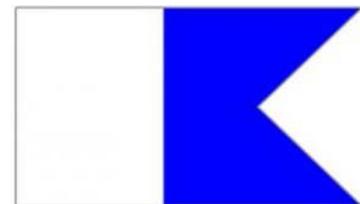
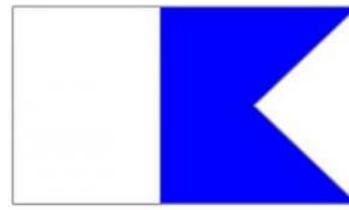
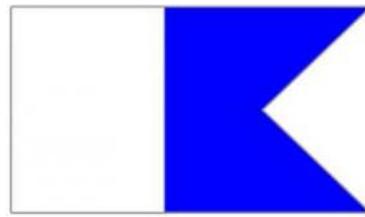
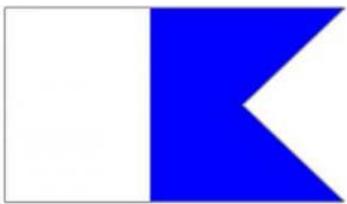
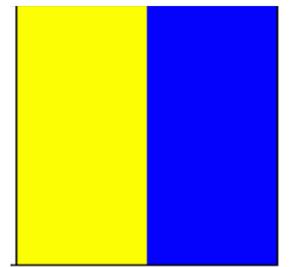
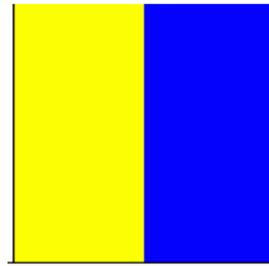
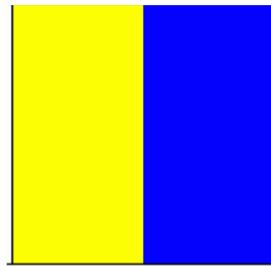
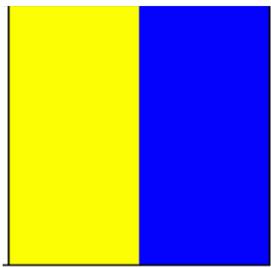
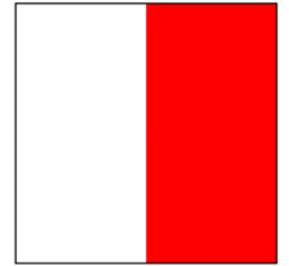
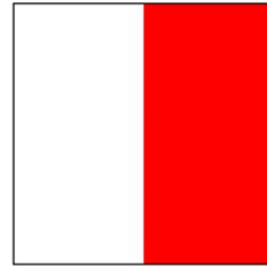
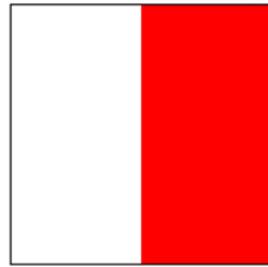
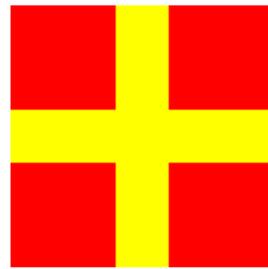
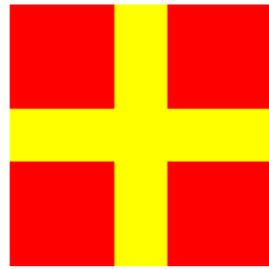
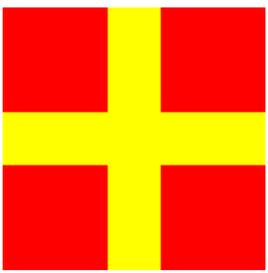
- 2) Class banner:** Students will need up to four crayons, depending on the ICS symbol they are assigned (red, yellow, blue and black) and a 6x6" square of white cardstock with two holes punched at the top. See slide 5 for template.

For the activity, the kids will come up with a saying for their class banner. Whatever they choose needs to have the same number of letters and/or numbers as the number of students (and teacher, if desired) in the class (ie, they each make one symbol for the banner). For example, a Mt. Vernon Elementary class of 20 students might write "Mt. Vernon Unicorns 2020" using ICS symbols. String is provided so you can hang the banner.

Sidebar thought: If you want to make your online students feel connected to their classmates, you can include them in the message you create and have them mail in their symbol. They will likely be excited to see it in the classroom when they are online.

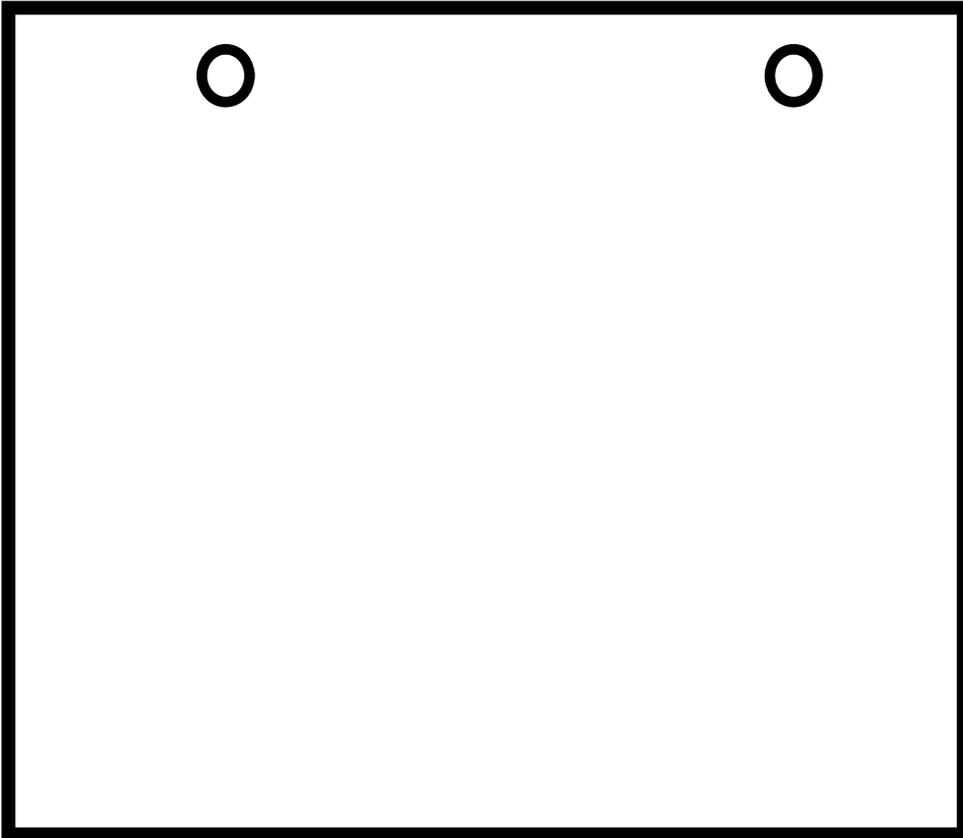
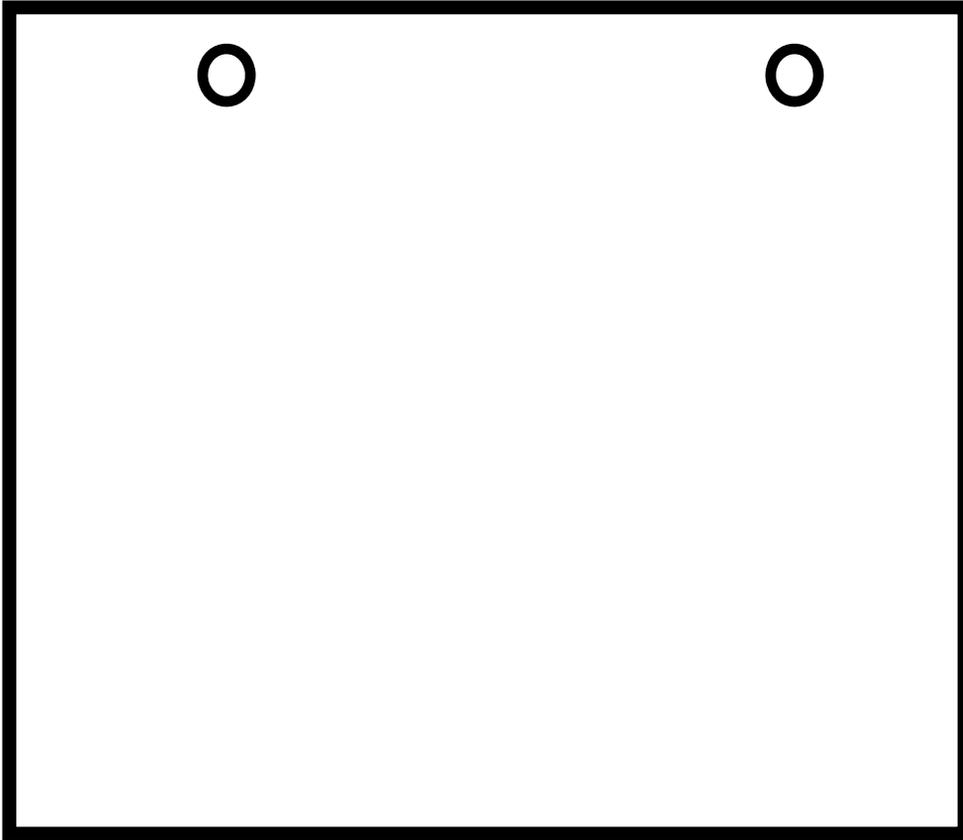
# International Code of Signals

<p><b>Alfa</b> </p> <p>Diver down; keep clear</p>	<p><b>Kilo</b> </p> <p>Communication requested</p>	<p><b>Uniform</b> </p> <p>You are heading into danger</p>	<p>1 </p>
<p><b>Bravo</b> </p> <p>Explosives being moved</p>	<p><b>Lima</b> </p> <p>Stop immediately</p>	<p><b>Victor</b> </p> <p>Assistance required</p>	<p>2 </p>
<p><b>Charlie</b> </p> <p>Yes</p>	<p><b>Mike</b> </p> <p>Stopped &amp; unable to move</p>	<p><b>Whis-key</b> </p> <p>Medical help needed</p>	<p>3 </p>
<p><b>Delta</b> </p> <p>Keep clear; difficulty moving</p>	<p><b>November</b> </p> <p>No</p>	<p><b>Xray</b> </p> <p>Stop &amp; await my signal</p>	<p>4 </p>
<p><b>Echo</b> </p> <p>Changing course to starboard</p>	<p><b>Oscar</b> </p> <p>Man overboard</p>	<p><b>Yankee</b> </p> <p>Dragging anchor</p>	<p>5 </p>
<p><b>Foxtrot</b> </p> <p>Vessel disabled: communicate</p>	<p><b>Papa</b> </p> <p>All aboard. Leaving port</p>	<p><b>Zulu</b> </p> <p>Tugging required</p>	<p>6 </p>
<p><b>Golf</b> </p> <p>Harbor pilot required</p>	<p><b>Quebec</b> </p> <p>Request entry into port</p>	<p><b>SUBSTITUTES</b></p> <p>1st Substitute </p>	<p>7 </p>
<p><b>Hotel</b> </p> <p>Harbor pilot on board</p>	<p><b>Romeo</b> </p> <p>[no message for Romeo]</p>	<p>2nd Substitute </p>	<p>8 </p>
<p><b>India</b> </p> <p>Changing course to port</p>	<p><b>Sierra</b> </p> <p>Moving astern</p>	<p>3rd Substitute </p>	<p>9 </p>
<p><b>Juliatt</b> </p> <p>On fire &amp; have dangerous cargo</p>	<p><b>Tango</b> </p> <p>Pair trawling. Keep clear</p>	<p><b>CODE</b> (Answering Pennant or Decimal Point)</p> 	<p>0 </p>



Students will decode the symbols and unscramble the letters to spell "Shark"

# 6x6" Square Template for Banner



# Thank you for joining us!

Questions or comments?

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