



**beaver
scouts**



NAUTICAL KNOTS REEF KNOT

Step 1



Left over Right
and Under

Step 2



Right over Left
and Under

Step 3



Find out what it
means to
'Reef your Sail'



The perfect knot for joining
Two Ropes of Equal Thickness
together.





NAUTICAL KNOTS FIGURE-OF-8

Step 1



Make a loop...

Step 2



...round you go...

Step 3



...through the hole,
and off you go!

A Stopper Knot is used to
prevent the rope slipping through
a hole or pulley.





Were those knots easy?
Can you do it behind your back!
Who has the fastest fingers?

NAUTICAL KNOTS

CAN YOU NAME THESE KNOTS?



This is the _____ Knot.



This Knot...

- Looks like the number 7 _____
- Is used to anchor my boat _____
- Is a Stopper Knot _____



This is the _____ Knot.



This Knot...

- Ties two ropes together _____
- Can be tied with one-hand _____
- Has loads of uses _____





NAUTICAL KNOTS DIY KNOTBOARD

MATERIALS NEEDED

- Cardboard (approx A4 size)
- Rope
- Scissors
- Markers



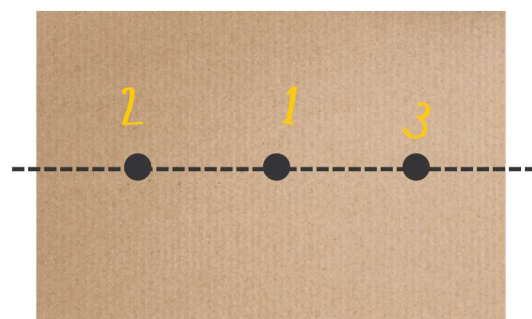
INSTRUCTIONS

Step 1 - Locate the centreline of your cardboard and mark x3 holes; x1 in the very centre and x1 either side of it.

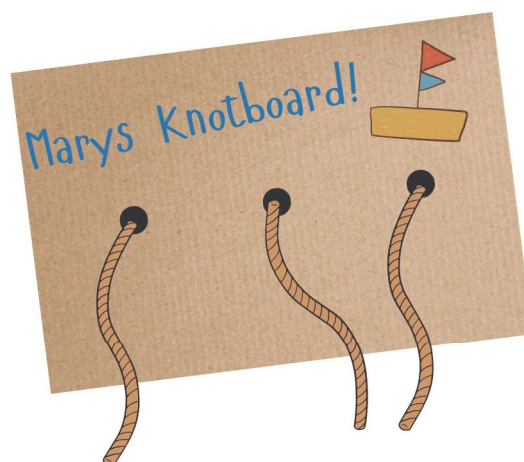
Step 2 - Make x3 lengths of rope (approx 30cm each) and pass these through each of the x3 holes you marked.

Step 3 - Secure each of these ropes by using a stopper knot.

Step 4 - Decorate and design your new knotboard!



What knots do you think you
could practice with this?





SAFETY NEAR THE WATER

Accidents happen and someone, at some time may fall into the water unexpectedly and get into trouble!

Our job is to know how to keep ourselves and our fellow Beavers safe near the water and know what to do in an emergency.

-  Look out for Dangers.
-  Stay with your Buddy.
-  If you find yourself in difficulty, Float.
Tilt your head back, try to relax, use your hands to help keep you floating and call for help.
-  In an emergency, raise the alarm by calling 999 or 112.
Do not get into the water, look for a Ringbuoy.



Some great
resources from
the RNLI

BE SAFE HAVE FUN!

If you are in and around the water
ALWAYS REMEMBER TO:

1 STOP AND THINK

2 STAY TOGETHER

3 FLOAT

4 CALL 999 OR 112

FIND MORE FUN
AND SAFETY TIPS AT
RNLI.org





BUDDY SYSTEM

The Buddy System is a great way to keep everyone safe by staying in pairs or small groups and looking out for each other.

When you're near the shore or on the water, it's important to know how to stay safe and raise the alarm quickly if someone is in trouble.

1. Pair up with a Beaver Buddy!
2. Always stay with your Buddy.
3. Look after and check on your Buddy regularly to make sure they are safe, and they will look after you!
4. Tell your Leader if your Buddy is missing or in trouble!



Safety by the Shore



-  Stay close to your Beaver Buddy.
-  No horseplay near the waters edge.
-  Ask your Leader before getting into the water.
-  Be aware of slippery rocks and shore!
-  Always wear your lifejacket!
-  Learn some basic swimming moves!

HOW TO RAISE THE ALARM

Stay Calm If your buddy or someone else is in trouble, do not panic.

Call for Help Shout loudly, "Help! Someone's in trouble!"

Point to the Person in Trouble

Show where they are so others can help quickly.

Stay Safe Do not try to rescue them yourself. Wait for an adult or a lifeguard.





SAFETY NEAR THE WATER



Beaver
Mariners
Mate

1. What will help keep you Safe on the Water?



Lettuce



Lifejacket



Rollerblades



A delicious
Croissant

2. How can you help someone in trouble?



Throw a
Ringbuoy



Panic!



Jump in
after them



Shout for
Help

3. Before going afloat, you should...



Check the
weather



Learn to Float
Learn to Swim



Tell Someone



Put on your Hiking
Boots





SHORESIDE SAFARI

Take a guided safari along the shore to discover the environment, its wildlife and anything that perhaps shouldn't be there!

Set Up Your Safari Team

- Divide the Beavers into pairs or small groups.
- Assign one Beaver in each group as the "Recorder" who will note down the findings in a provided checklist.
- Give each group their safari kit; a set of flashcards, a map and the do's/ don'ts!

Before setting off, gather the Beavers together to discuss shoreside safety and Leave No Trace.

DO...

- ✓ Take photographs home and leave all creatures where you find them.
- ✓ Check what the tide is doing and find where your nearest ringbuoy is located.
- ✓ Collect any litter shouldn't be there!
- ✓ Work in small groups to minimise your presence.
- ✓ Pay attention to any safety signs.

DO NOT...

- ✗ Take wildlife, shells or rocks home; these could be habitats!
- ✗ Disturb birds that are nesting.
- ✗ Leave anything behind.
- ✗ Go too near the waters edge without your Scouter.





COASTAL SHORESIDE SAFARI CHECKLIST

Here is a quick sample - but don't be shy to make your own!

☐☐☐☐☐



INLAND

SHORESIDE SAFARI CHECKLIST

Here is a quick sample - but don't be shy to make your own!

☐☐☐☐☐



My EXPLORERS SEASHORE GUIDE WORKBOOK



INTRODUCTION

The template for this book was created by Cushla Dromgool-Regan. Cushla loves the seashore and is always amazed at the creatures that live in rockpools, under the seaweeds and buried in the sand.

Cushla enjoys helping children and teachers learn about the importance of our ocean as well as our local seashores, and how it affects our daily lives.

In Ireland we are surrounded by so many different types of beaches ranging from sandy to shingle shores, as well as mudflats to rocky shore lines. This makes it extremely exciting exploring all of the amazing animals, seaweeds, plants and creatures that live there.

This book was created to help you become a seashore explorer. The book can be used on the shore or in the classroom to help gather and document all of the stuff you discover on the shore.

As part of becoming a seashore explorer we have also teamed up with the National Biodiversity Data team to help them identify and locate seashore animals and seaweeds around Ireland.

Check out the Explore Your Shore! pages in this book to see how you can become a marine citizen scientist...

Have a great time!
Remember to Stay Safe on the Shore!





MARINE DEBRIS DESIGNS

As part of your Shoreside Safari, you should be collecting anything that shouldn't be there, like plastic and litter!

We could pick out some of the most interesting and colourful pieces of beach trash and reuse to make cool marine litter artwork!

Wash your favourite pieces with soap!

- Use a bottle as the body of a new sea creature and add its colourful insides!

- Paint a colourful background on paper and glue your marine debris to create a marine scene!

- Create a fishy-shape from discarded bottles and paint a new shoal!



#5MinuteBeachClean



Reduce, Reuse, Recycle

Stop plastic ending
up in our oceans!



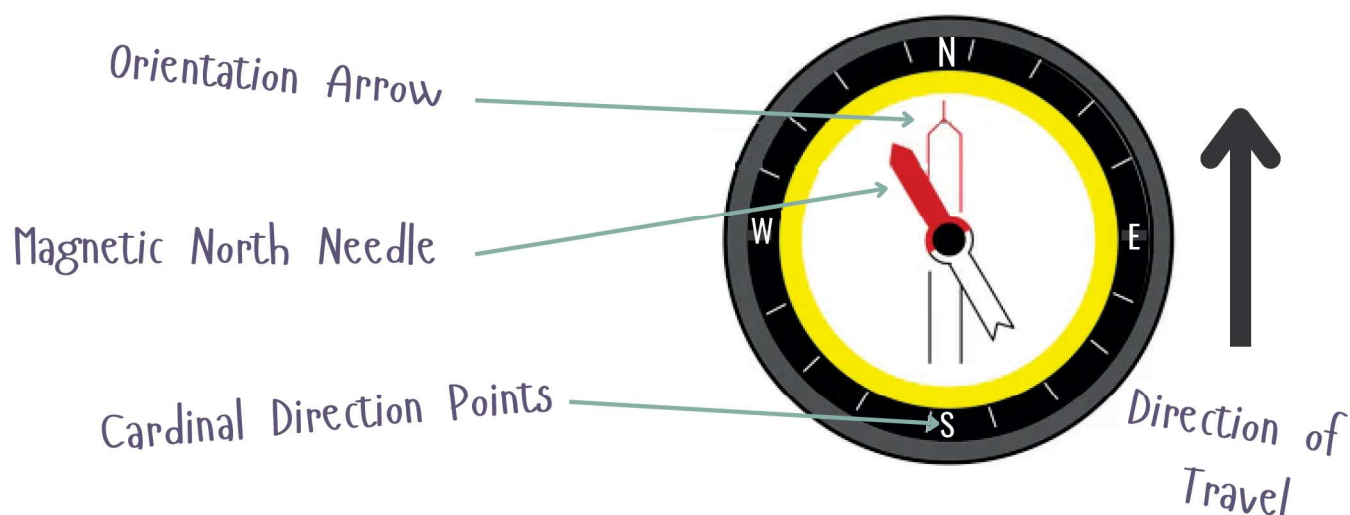


FINDING NORTH

A compass is an impressive tool that tells you where North is. It helps sailors and adventurers find their way!

The main use for compasses were out at sea, as there are no landmarks to help with navigation.

The compass needle is like a little magnet that always points to the North Pole.



Getting more Familiar - Gather the Beavers and together identify what wall may be North, South, East and West. The Scouter can shout one of these Cardinal Compass Points and all Beavers run to that wall as fast as they can!
A memory-aid like **Never Eat Shredded Wheat** can help Beavers remember which Cardinal Point comes next!

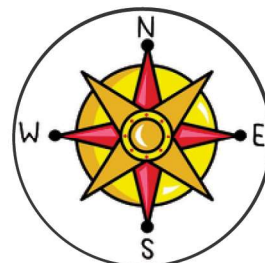
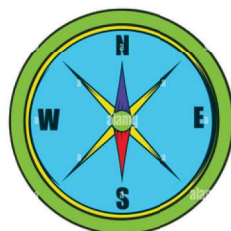


1. Hold your compass flat, like carrying a Dinner plate.
2. Turn your body until the North needle points to 'N' on the compass.

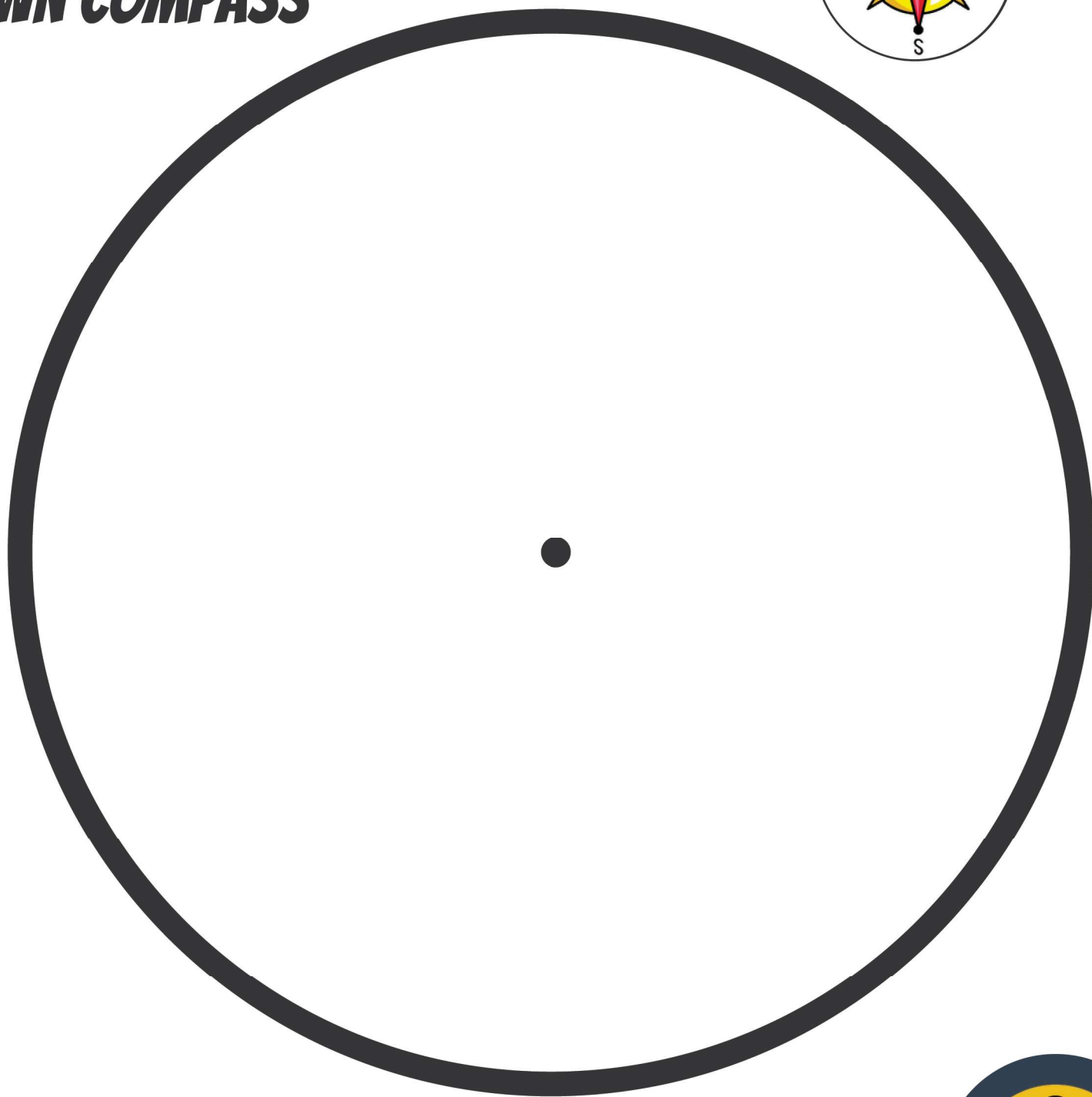




**Beaver
Mariners
Mate**



***DRAW YOUR
OWN COMPASS***





MAKE YOUR OWN PAPER PLATE

COMPASS

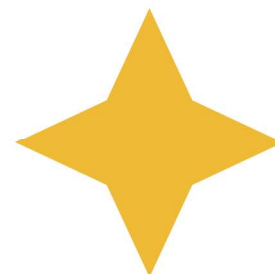
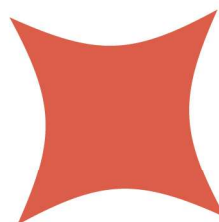
MATERIALS NEEDED

- Paper Plate
- Coloured Paper
- Coloured Markers
- Scissors
- Glue/ Pritt-Stick

INSTRUCTIONS

Using your coloured paper, cut out some 4-pointed stars that can use used as points of a Compass!

Add these together like below and get your markers to write the correct compass points on your plate!



Now get outside and
align your compass with
real North!



ADVENTURES AFLOAT

#ScoutingIrelandOnTheWater



Add the North arrow to
your map, pointing the
correct direction!..



**Beaver
Mariners
Mate**

DRAW A MAP OF YOUR DEN OR WATERS

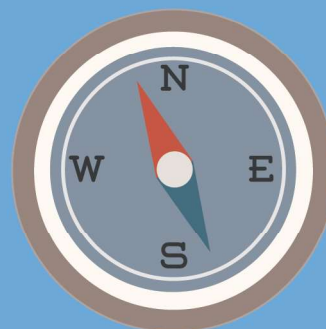




LET'S GET NAVIGATING!

Set your Beaver Adventurers into small teams, each team with a Compass and set of instructions similar to below. Allow Beavers to take it in turns holding the Compass or reading out instructions.

- Face South and walk 5 steps forward.
- Turn to face West, walk 8 steps.
- Face North, walk 5 steps.
- Turn to face East, walk 8 steps.



- Start facing North, walk 6 steps forward.
- Turn to face East, walk 4 steps forward.
- Face South, walk 6 steps.
- Turn to face West, walk 4 steps.



- Face North and walk 7 steps forward.
- Turn to face East and walk 5 steps forward.
- Turn to face South and walk 10 steps forward.
- Turn to face West and walk 5 steps forward.
- Turn to face North and walk 3 steps forward.





WHERE IS THE WIND?

Wind is the air moving around us. Sometimes it's a soft breeze and other times it's strong and makes the trees sway!

Understanding the wind is like having a superpower on the water! It helps us to be prepared and have more fun while staying safe.

Wind has always been very important for us, many years ago sailors would rely on the wind to cross the seas, right up to the modern day where we use wind as a renewable energy source.

Here are some fun ways to figure out which way the wind is blowing...



Feel it on Your Face

Stand still, close your eyes, and turn your face slowly.

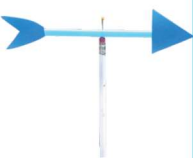
When you feel the wind the strongest on both ears, that's the direction the wind is coming from!



Look at Nature

Watch the trees, the grass or the clouds. See which way they are swaying. That tells you where the wind is blowing!

Look at flags or sails. The way they flap or point shows where the wind is coming from.



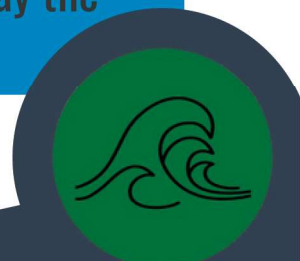
Use a Wind Vane (or Make One!)

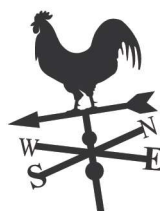
A wind vane is a tool that spins and shows you the wind direction. You can easily make one (we'll show you how in another lesson!).



Bubbles!

Blow bubbles and watch how they move. Notice which way the bubbles drift—that's the wind direction!





BUILDING A WIND VANE

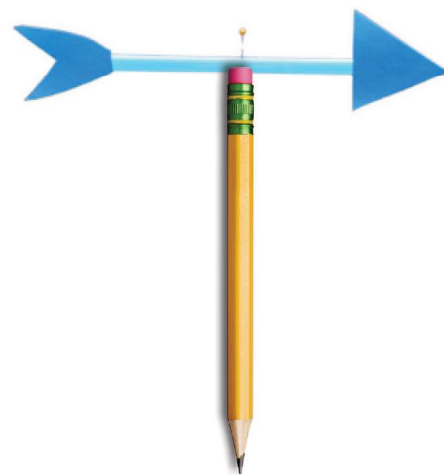
MATERIALS YOU WILL NEED

1. Straw
2. Card Paper
3. Pencil with Eraser on top
4. Pin
5. Sticky Tape
6. Scissors



INSTRUCTIONS

1. Draw an arrow-head and fan-tail on your **Card Paper**.
2. Cut them out and **Sticky Tape** them to either end of the **Straw** to make an arrow!
3. Using your Scouters help, find the middle of your Straw and carefully push the **Pin** through the Straw and into the **Pencil Eraser**.
4. Get outside, hold your wind vane up and see which if it tells you way the wind is blowing!



Expand Write North, South, East, West on a Paper Plate. Using a lump of Blu-tac, attach your Wind Vane to the centre of the plate. Now when you go outside can you tell which compass direction the wind is coming from?





Wind can be used in many ways to help us. People have used wind energy to help them in their day to day lives and one of these tools is using Windmills.

BUILDING A WINDMILL

MATERIALS YOU WILL NEED

- Paper (cut into a square)
- Glue
- Scissors
- Pencil with eraser
- Pin



INSTRUCTIONS

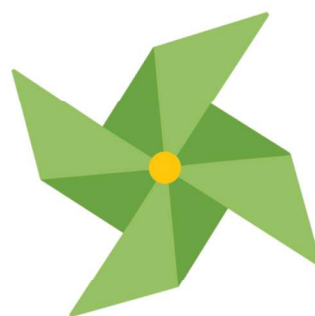
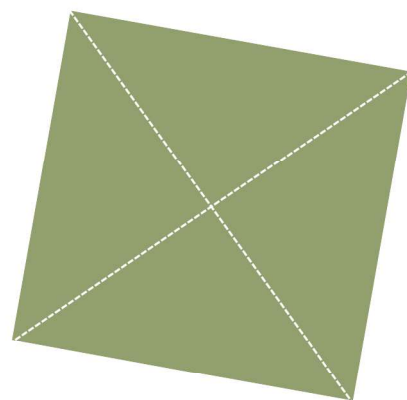
Step 1 - Draw a diagonal line from corner to corner so there is now a big X on your square.

Step 2 - Cut halfway along each line from the outer edge toward the centre.

Step 3 - Fold every second corner into the centre and secure it with glue.

Review template below that has corners numbered.

Step 4 - Push the pin into the pencil's eraser to secure and complete your windmill!

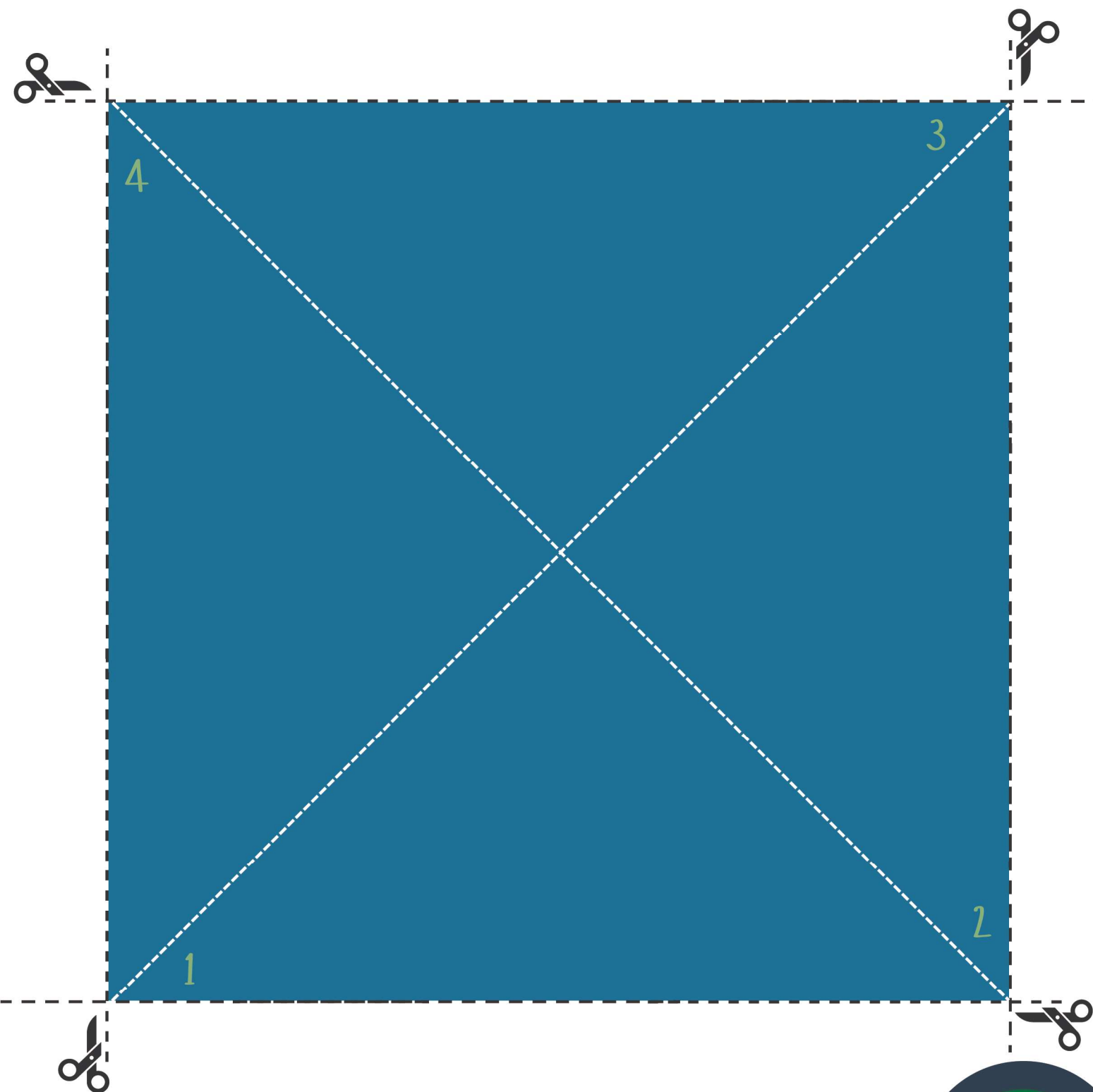


Choose x3 locations around your Den and see if you can determine which location is the windiest using your Windmill!





WINDMILL TEMPLATE





BUILDING A WIND SOCK

MATERIALS YOU WILL NEED

- Bamboo Cane
- Cardboard Tube (toilet roll)
- Coloured Paper or Tissue Paper
- Glue
- Coloured pens and pencils
- String
- Scissors



INSTRUCTIONS

1. Cut the coloured paper into strips.
2. Decorate your cardboard tube. Go crazy with colour or stick some googly-eyes on to create some new species of fish and wildlife that may be under the sea!
3. Glue one end of a each strip to the end of the cardboard tube. Attach enough strips to go around the full opening!
4. Tie a short piece of string to the other end of the cardboard tube, and secure the other string end to the bamboo stick.
5. Get outside and see how well your windsock works! Does it show the wind direction? Will it give you an indication of how windy it is?

You could also try this with more recyclable material like cross-section cuts of a plastic bottle as the core and plastic bags for the streamers.





Bow, Stern,
Port, Starboard

NAUTICAL TERMS

BOW

The front of the boat!

PORT

The LEFT
side of the
boat.



STARBOARD

The RIGHT
side of the
boat.

STERN

The back of the boat!



ADVENTURES AFLOAT

#ScoutingIrelandOnTheWater



**Beaver
Mariners
Mate**



Anchor, Deck,
Hull, Mast,
Rudder

NAUTICAL TERMS

A heavy object
used to hold the
boat in place.

ANCHOR



The body of the
boat that floats in
the water.

HULL

MAST The tall pole that
holds the sails on a
sailboat.

The surface where
your crew stands.

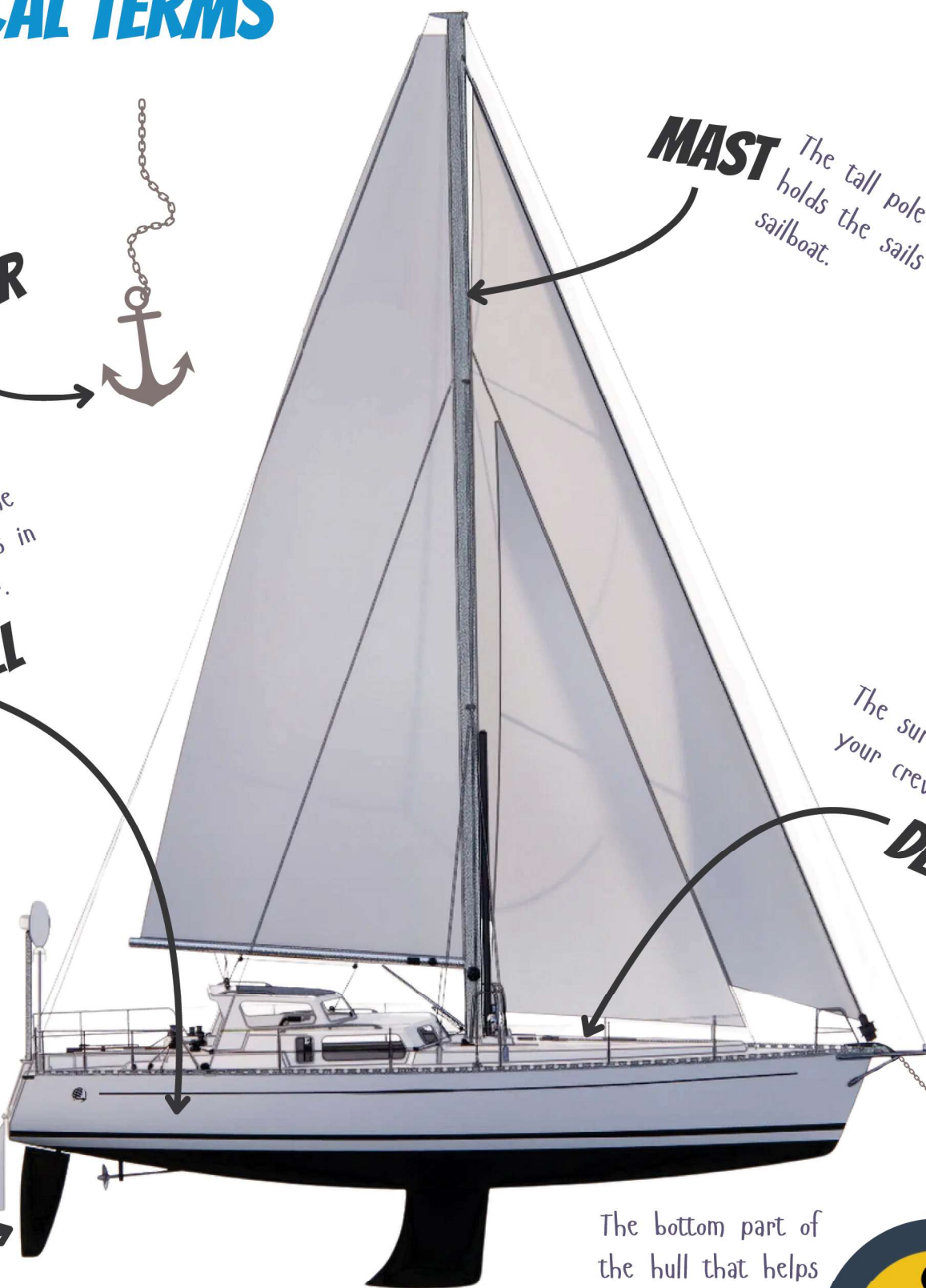
DECK

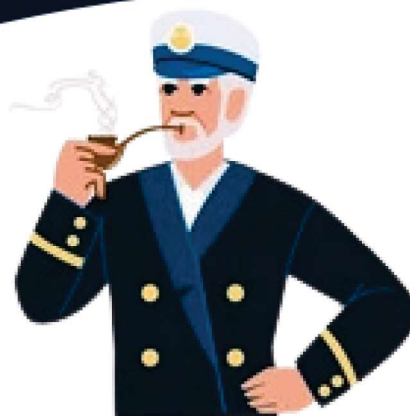
The piece that
steers the boat.

RUDDER

The bottom part of
the hull that helps
the boat stay
steady.

KEEL





CAPTAIN'S COMING ABOARD!

With the Captain coming we best make sure everything is shipshape and we know our nautical terminology!...

Setup With all the Beavers, agree your game boundaries; whether this be the hall or outside field-game boundary.

Instructions Identify the Captain, this person will be calling out the commands. Everyone starts in the centre of the room and awaits the Captains Commands. The Captain will call out the commands and Beavers should quickly follow these to keep the Captain pleased!

If you are slow or incorrect you are out! Walk the Planks!

The last person standing is the winner!

Bow everyone run to the front of the room

Stern to the back

Port to the left

Starboard to the right

Captains Coming! stand like statues and salute!

Seagulls flap your arms like a bird and squak,

Torpedoes get up off the ground

Cannonballs hunker down and cover your ears!

Scrub the Deck pretend to scrub the floor

Climb the Rigging pretend to climb the rigging

Abandon Ship [#] get in groups of the #

Sharks everyone run to the midships with the Captain



PERSONAL FLOATATION DEVICE

A Personal Floatation Device is a special vest that helps you float if you fall into the water. It keeps you from sinking, even if you aren't a good swimmer!

So you can relax and wait for help if you need it.



When Should You Wear a PFD?

- ✓ **On a Boat** of any shape and size!
- ✓ **Near the Water** this is a smart in case you accidentally slip.
- ✓ **Swimming** even if you are a good swimmer! You will be safe.

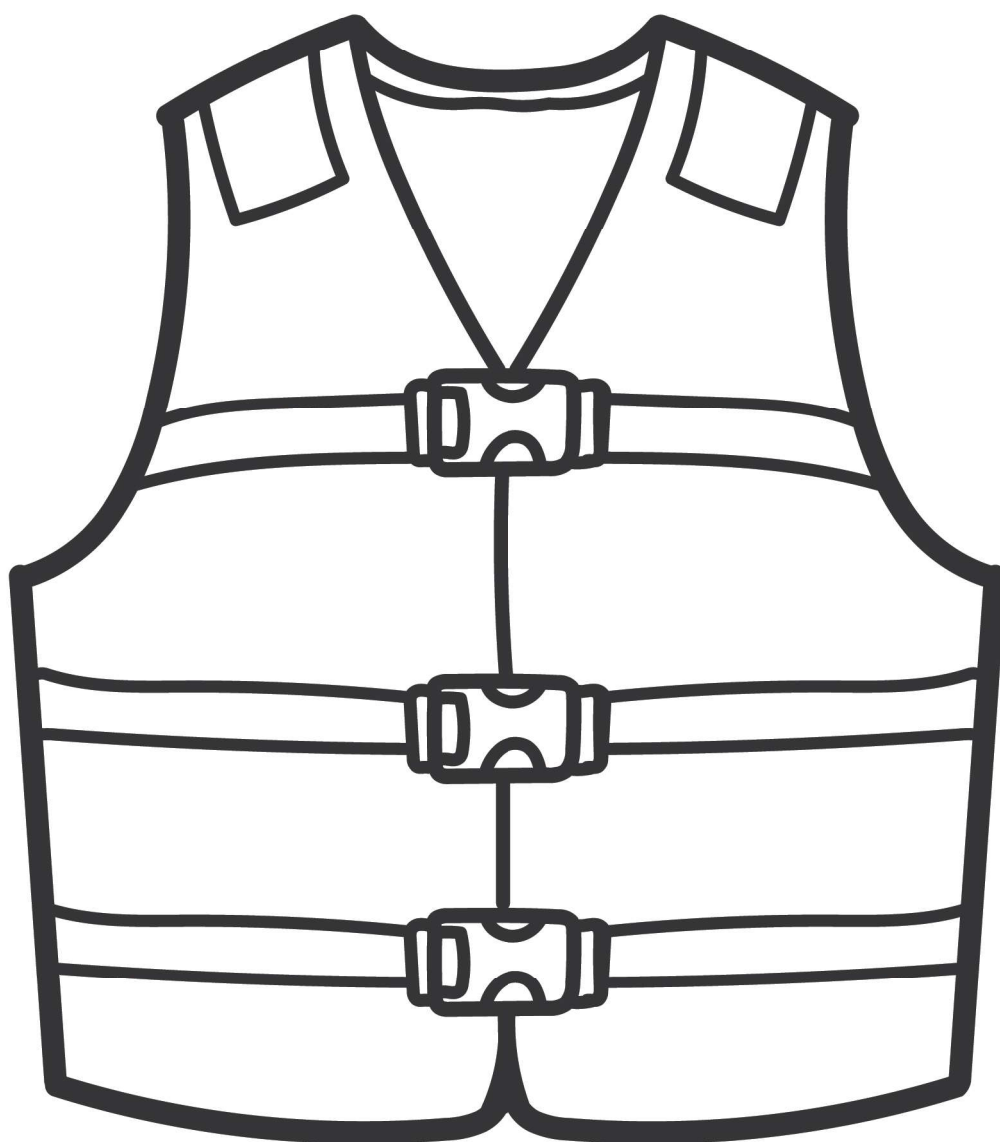


Learn how to put your
PFD on here!...

Be a Water Safety Hero!

Always wear your
lifejacket around water
and remind your friends
and family to wear theirs.
It's the smart and safe
thing to do!

DESIGN AND COLOUR YOUR OWN PERSONAL FLOATATION DEVICE!



Red and Orange are popular colours to use.
Can you think why?

ADVENTURES AFLOAT

#ScoutingIrelandOnTheWater



**Beaver
Mariner**

WHO SHOULD BE WEARING A LIFEJACKET?



WHAT TO WEAR ON THE WATER?



Good Clothing for Fun Afloat



Wetsuit

Keeps you warm.
Do you know how?



Rashvest/ Swimsuit

Keeping you comfortable.



Water-Shoes

Sturdy footwear to
protect your feet and
stop you slipping!



Bad Clothing for Fun Afloat



Flip-Flops

Can easily fall off
your feet!



Hiking Boots

Will help you sink!



Long Hair

Can get caught in
rigging!

Always check the weather on the day!...





WHAT TO WEAR ON THE WATER?



Beaver
Mariner

**CIRCLE ALL THE ITEMS YOU THINK WOULD BE
GOOD FOR AN ADVENTURE AFLOAT**





DRESS TO IMPRESS

NAUTICAL FASHION SHOW!

Starting with an unsorted 'costume rack' of shore and afloat gear, divide the Beavers into teams asking each team to create a fashion design based on a theme;

- Caribbean Cruising
- Artic Adventures
- Wrong-Outfits-Only

warm weather clothing



cold weather clothing



intentionally poor choices to highlight their understanding

Appoint some Judges to flash scorecards and rate outfits on;

- Water Safety
- Comfort
- and of course Style!



Award prizes for best water safety, most stylish or silliest.

Try sort your 'costume-rack' into good choices and bad choices for Adventures Afloat.

Discuss why certain outfits and items might be better than others.





GEAR GRAB RELAY RACE!

Beavers line-up on the starting line in the traditional relay race format...

Each team chooses a Beaver to play as mannequin...

At the far end of the relay, create a pile of clothing and equipment that might (or might not) be needed for an activity on the water...

1. The first Beaver races to the equipment pile, grabs an item they think is good for water-activities and runs back to their team.
2. Start to dress your mannequin Beaver with the gear they grabbed.
3. The next Beaver runs to grab the next item.
4. Keep going until all Beavers have ran or there is no more gear left.
5. Showcase each Beaver mannequin at the end and determine who is best dressed for their activity afloat!



Add mini-obstacles along the relay for an extra challenge; crawl under a rope or around a cone etc.

Before the race starts, give the Beavers a couple of seconds to discuss between themselves what is good/ bad.

Each incorrect item, a Beaver could be hit with a penalty like do a silly-dance or hop on one foot.





DRESS TO IMPRESS

1. Split the Beavers into small groups.
2. Every group will take a surprise scenario from out of a hat. Something like; going for a walk, a day on the beach, a dinghy sailing activity.
3. They will then take a surprise weather condition from out of a hat...

From the information given and from the equipment provided (cut-outs on previous page), Beavers will need to decide what they would wear for the activity!

Give a time-limit for the Beavers to discuss and then an opportunity to pick from the mystery hat again!



WHY DO THINGS FLOAT?

What makes some things float and some things sink?

We can answer this question when we learn more about weight and buoyancy.

Weight How heavy something is.

Buoyancy The force of water that pushes up on objects. If the water's push is stronger than the object's weight, it floats.

MATERIALS

1. Container for Water
2. Blu-Tac
3. A number of different objects to test.
(coin, stick, pebble, rubber-duck)

INSTRUCTIONS

1. Fill your container with water.
2. Discuss whether your items will sink or float...
3. Test your theory and record the results!
4. Now shape your lump of Blu-Tac into a boat hull.
Think carefully about the shape of your Blu-Tac boat to make it float!
With the same weight, why did it now float?...

- **Buoyancy** helps things float.
- **Shape Matters** Wide, flat objects float better.
- **Air Helps** Objects with air inside, like rubber ducks, float easily.



ADVENTURES AFLOAT

#ScoutingIrelandOnTheWater



Call 999 or 112 if
you are in trouble!



**Beaver
Mariner**

WHO WILL COME TO THE RESCUE?



The RNLI (Royal National Lifeboat Institution) and the Irish Coast Guard are vital organisations that save lives at sea and promote water safety in Ireland.



Lifeboats

The RNLI is a charity dedicated to saving lives at sea. It provides 24/7 search and rescue services around the coasts of the UK and Ireland. The RNLI operates a fleet of more than 400 lifeboats!

In addition, RNLI lifeguards patrol over 240 beaches during the summer months.



Irish Coast Guard

The Irish Coast Guard is a government agency responsible for maritime safety and emergency across Irish waters. It coordinates search and rescue missions and utilises rescue helicopters & coastal patrols. The Irish Coast Guard also enforces maritime laws, responds to environmental pollution incidents, and provides weather warnings.



ADVENTURES AFLOAT

#ScoutingIrelandOnTheWater



**Beaver
Mariner**



Shannon
Length: 14m
Max speed: 25 knots
Range: 250 n. miles
Crew: 6



D class
Length: 5m
Max speed: 25 knots
Endurance: 3hrs at max speed
Crew: 4



RNLI Boarding Boat
For boarding All-Weather
Lifeboats on moorings.



RNLI Jetski
Flood Rescue & Lifeguards



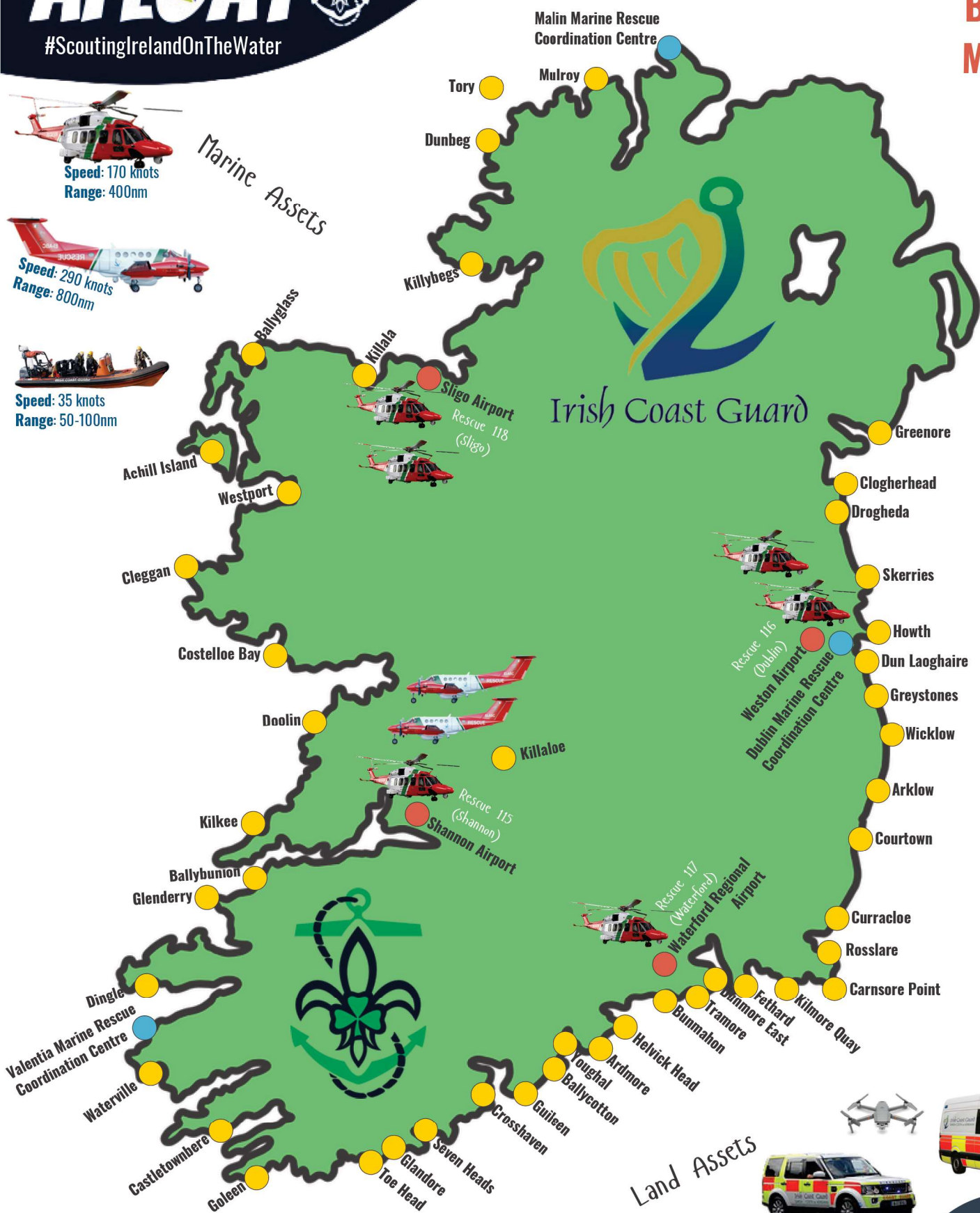
B class (Atlantic 85)
Length: 7.5–8.5m
Max speed: 34–35 knots
Endurance: 3hrs at max speed
Crew: 3–4

ADVENTURES AFLOAT

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Beaver
Mariner

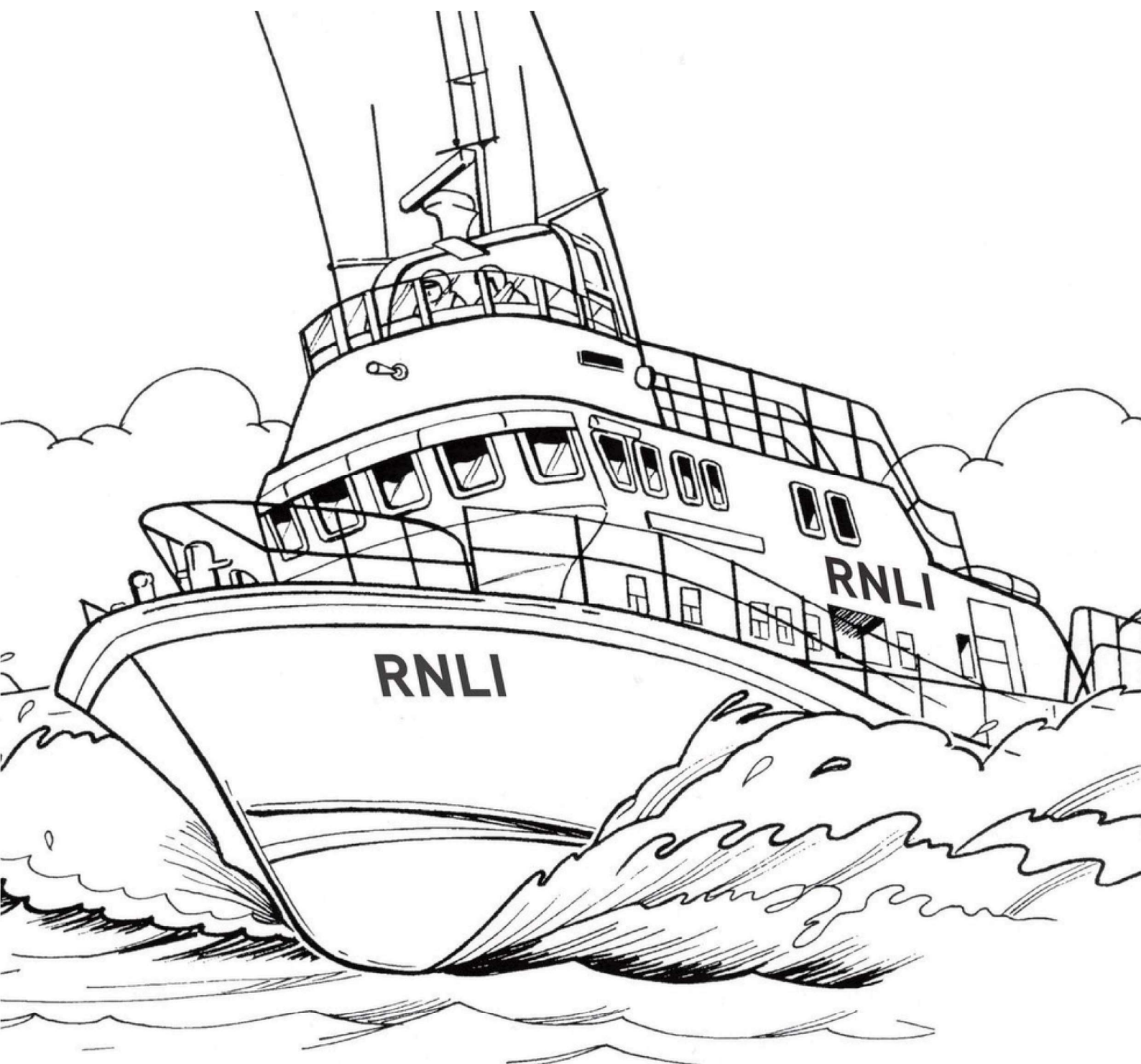


ADVENTURES AFLOAT

#ScoutingIrelandOnTheWater



Beaver
Mariner



Lifeboats



ADVENTURES AFLOAT

#ScoutingIrelandOnTheWater



Irish Coast Guard



Beaver
Mariner



Lifeboats

