RYA BRITISH MARINE

A joint environment initiative

SCOUT BOOKLET

BOATING AND ENVIRONMENT PROGRAMME

NAME: _____

Introduction

If you complete the activities in this booklet you will earn a certificate and bespoke badge from the Royal Yachting Association and British Marine's environmental programme called The Green Blue.

You will complete your badge over a course of 6 scout sessions with support from your leaders. Each session will involve you undertaking an activity to learn about some of the impacts boating can have on our environment and ways boaters can help minimise these impacts.

For some activities you will need to record your findings in this booklet to show your Scout Leader you have successfully completed an activity.

Each activity section in this booklet needs to be signed off by your Scout Leader using the programme table on the opposite page.

Whilst working on this badge you will gain the following knowledge and skills:

- Who The Green Blue is and what they do.
- How boating can impact your local environment.
- Ways you and other boaters can minimise their impact on the environment.
- How to work effectively in a team.
- How to solve problems as a team and on your own.
- How to present and deliver information in an interesting and effective way.

THE PROGRAMME

WEEK	ACTIVITY TITLE	TO COMPLETE THE BADGE YOU NEED TO COMPLETE THE FOLLOWING ACTIVITIES	FOCUS AREA	ASSESSORS INITIALS
1	**Who is The Green Blue?**	Understand who The Green Blue is and what they do.	N/A	
	Marine CSI	Undertake the Marine CSI activity to demonstrate you understand four environmental issues that The Green Blue raises awareness about to the boating community and how boaters can minimise their environment impacts.	Litter Oil + Fuel Greywater Alien Species	
2	**Eco-Checks**	Complete a checklist of environmental features around your scout hut and grounds and an eco-check of your boats. Suggest ways your boats and	Variety	
	Eco-Bunting Design	Create eco-bunting which will inform boaters on one action they can take to minimise their impact on the environment.		
3	**The Marine Litter Human Photocopier**	Identify different types of litter that could come from boating, and how long it takes for certain litter to degrade in the environment.	Litter	
	The Litter Pick	Perform a litter pick around the club grounds and along the shoreline where you do your water sports. Sort found litter into specified groups.		
4	**Alien Species Advise Video/ Presentation**	Create an advisory video clip or deliver a presentation to inform boaters on what alien species are, how they impact our environment and a demonstration on how boaters can reduce their contribution to the spread of these species around our UK waters e.g. cleaning parts of a dinghy.	Alien Species	
5	**Testing pH Levels**	Testing pH values of different on-board products to classify into acidic, neutral and alkaline. Find out which products could be more harmful than others to our aquatic environment.	Greywater + Oil	
	Oil Clean Up	An activity that gets you to practise and think about the importance of transporting fuel and oil safely to avoid spills.		
6	**The Plunge**	Environmental Quiz in Teams.	Variety	

WEEK 1: ACTIVITY 1

WHO ARE THE GREEN BLUE?

The Green _____ is a Joint environment programme of the _____ Yachting Association and the British Marine.

They are here to encourage everyone who enjoys getting out on the _____ or whose livelihood depends on it, to do so as environmentally friendly as possible.

The Green Blue is a UK wide programme created in 2015 to enable recreational _____

Sector to decrease its impact on the _____ by:

- Raising _____ amongst boaters and the boating industry through events, media, workshops, educational resources and more.
- Reducing the discharge of _____ liquids into the environment.
- Reducing environmental _____.
- Encouraging boaters to make environmentally _____ choices.

BOATERS **ROYAL** **ENVIRONMENT** **BLUE** **WATER**

FRIENDLY **AWARENESS** **HARFMFUL** **DISTURBANCE**

WEEK 1: ACTIVITY 2

MARINE CSI

ACTIVITY:

This activity will introduce you to four environmental incidents that boating can cause and how boaters like yourselves can prevent these incidents from occurring. These incidents are:

1. **Oil and fuel Spills**
2. **Littering**
3. **Chemicals entering the water e.g. cleaning products**
4. **Spreading Invasive Non-Native Species (INNS) around UK waters**

The above impacts have all occurred in a place called Paradise Harbour. Six suspects have been identified. You must help Detective Bob the Buoy find out which suspects committed which environmental incident and record your findings in the tables found on the following pages.

CRIME 1: WHO SPILLED OIL ON THE SLIPWAY?

Who is the culprit?
How can boaters' accidently cause oil and fuel spills? **1.** **2.**
What impacts can oil and fuel have on our sailing environment? **1.** **2.**
What equipment can boaters use to avoid oil and fuel spills? **1.** **2.** **3.**

CRIME 2: WHO DROPPED THE MOST LITTER?

Who is the main culprit?
How can litter enter the water when boating? **1.** **2.**
What impact can litter have on our sailing environment? **1.** **2.**
How can boaters avoid items of litter entering the water? **1.** **2.**

CRIME 3: WHO POURED CHEMICALS IN THE WATER?

Who are the culprits?

What do boaters use that may contain harmful chemicals?

1.

2.

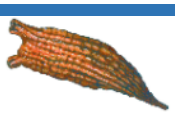
How could these chemicals impact our sailing environment?

1.

What can boaters do to avoid chemicals entering the water?

1.

2.



CRIME 4: WHO SPREAD THE ALIEN INVADERS?

Who are the culprits?

What is an alien invader?

An Alien Invader is a plant or _____ that does not originally come from the _____. Another name given to them is _____ Non Native Species (INNS). They hitch a ride on _____ that come from places as far away as _____, Russia and America.

Once they arrive in UK waters they can harm _____ wildlife and damage boat equipment. The Alien Species _____ themselves to other _____ travelling around UK waters. This means they get spread along our _____and around inland waterbodies and do further damage.

NATIVE **LARGE SHIPS** **COASTLINES** **UK**

INVASIVE **BOATS** **ANIMAL** **CHINA** **ATTACH**

Name three alien species:

1.

2.

3.

What can boaters do to avoid spreading these alien species around UK waters?

1. C_____

2. C_____

3. D_____

WEEK 2
ECO-CHECKLISTS

ACTIVITY 1:

You will perform eco-checks on your dinghies, safety boats and scout building to identify how 'green' they are.

Walk around your boats and scout building whilst filling in your eco-checks. At the end you can review what you have recorded and think about 2 actions you could take to make your boats and Scout building more sustainable.

HOW GREEN ARE YOUR DINGHIES?

	CHECKLIST	YES/NO /NOTES
CLEANING	Are environmentally friendly cleaning products used on board e.g. do not contain phosphates, chlorine or bleach?	
LITTER	Are items secured on your boats so they do not blow overboard? If there are loose items, what are they?	
WILDLIFE & BIODIVERSITY	Which parts of the boat could disturb habitats and wildlife with noise or sudden movement?	
	Which parts of the boat could disturb habitats and wildlife by scouring shallow areas of water?	
	Which parts of the boat or trailer could disturb shoreline habitats if you do not use recognised launching and recovery areas?	
	How often does the boat get checked and washed down to remove any biofouling or invasive plant or animal life?	
	Which parts of your boat and trailer could attract Invasive Non-Native plants and animals? Look for hard surfaces, crevices and damp conditions.	
WASTE	Are there parts of the boat that could be recycled or upcycled into new products?	

HOW GREEN IS YOUR SAFETY BOAT?

	CHECKLIST	YES/NO/NOTES
CLEANING & MAINTENANCE	Are eco-friendly cleaning products used to clean the boat? E.g. which do not contain phosphates, chlorine or bleach which are harmful to the environment.	
	Does the hull require any maintenance and if so, are any products or chemicals used? E.g. Paints	
LITTER	Are items secured on your boats so they do not blow overboard? If there are loose items, what are they?	
WILDLIFE & BIODIVERSITY	Which parts of the boat could disturb habitats and wildlife with noise or sudden movement?	
	Which parts of the boat could disturb habitats and wildlife by scouring shallow areas of water? E.g. does the boat have an anchor?	
	How often does the boat get checked and washed down to remove any biofouling or invasive plant or animal life?	
	Which parts of your boat and trailer could attract invasive Non-Native plants and animals? Look for hard surfaces, crevices and damp conditions.	
WASTE	Do your safety boats have a 'nothing overboard' rule?	
	Are all items secured on-board to stop them falling or blowing overboard? If there are loose items, what are they?	
ENERGY	Does your boat have appliances that require energy e.g. instruments, computer systems, lights?	
	Does the boat use rechargeable batteries?	
OIL & FUEL	Is there a fuel collar on-board to catch drips and spills when refuelling?	
	Is there a spill kit on-board to clean up oil and fuel spills?	
	If you can get access to the engine/outboard can you see any leaks below it?	
	Does the floor of the safety boat look clean or is there any oil or fuel stains or sheens on any water in the boat?	

HOW GREEN IS YOUR BUILDING?

	CHECKLIST	YES/NO /NOTES
AWARENESS	Is there an environmental policy on a notice board?	
	Are there any Green Blue posters around the building?	
WASTE	Are there recycling bins inside the building? If so, what waste is recycled?	
	Are there separate bins outside for hazardous/special, recyclable and general waste?	
	Are the bins clearly labelled?	
	Are the lids of the bins secure so nothing blows away?	
	Is the site clear of litter so nothing can blow into the water?	
WATER	Do the taps have push buttons (or self-closing taps) that stop automatically?	
	Do the showers have push button taps?	
	Do the toilets have dual flush (half flush/full flush) buttons or cistern displacement devices to reduce the amount of water per flush?	
ENERGY	Is an energy monitor used to record energy use and cost?	
	Are energy saving light bulbs used?	
	Are any of the lights triggered by motion sensors?	
	Is equipment switched off when not in use?	
	Are the windows double glazed?	
	Does the building use renewable energy, for example solar panels or wind turbines?	
OIL AND FUEL	Is oil or fuel stored on site?	
	Is it stored at least 10 metres away from the water and any surface water drains?	
	If it is stored in oil drums over 200 litres is there a bund (a wall or tray around and underneath it to capture any leakage)?	
	Does the site have a spill kit which is easily accessible?	
WASHDOWN AREA/ SLIPWAY	Do the hoses have trigger nozzles that switch off automatically?	
	Are boats checked, cleaned and dried when they are recovered from the water to reduce the spread of alien species?	
	Is there any signage reminding boaters to Check Clean Dry their boats?	
	Are there any interceptors or grills in the ground to capture waste water runoff?	
NATURE	Is there a wildlife area or bird boxes to encourage biodiversity?	

REVIEW YOUR ECO-CHECKS

How Green Are Your Dinghies?

What two actions could your Scout group take to make your Dinghies greener?

1.

2.

How Green Is Your Safety Boat?

What two actions could your Scout group take to make your safety boat greener?

1.

2.

How Green Is Your Building?

What two actions could your Scout group take to make your building greener?

1.

2.

ECO – BUNTING DESIGN

Did you know… the term bunting comes from the original material called buntine (a lightweight wool) used for small flags by the Royal Navy to send messages?

ACTIVITY 2:

You will design a section of bunting that could be displayed in a sailing club or scout building to inform boaters on an environmental impact that could be caused by boating and how it could be prevented.

YOU WILL NEED:

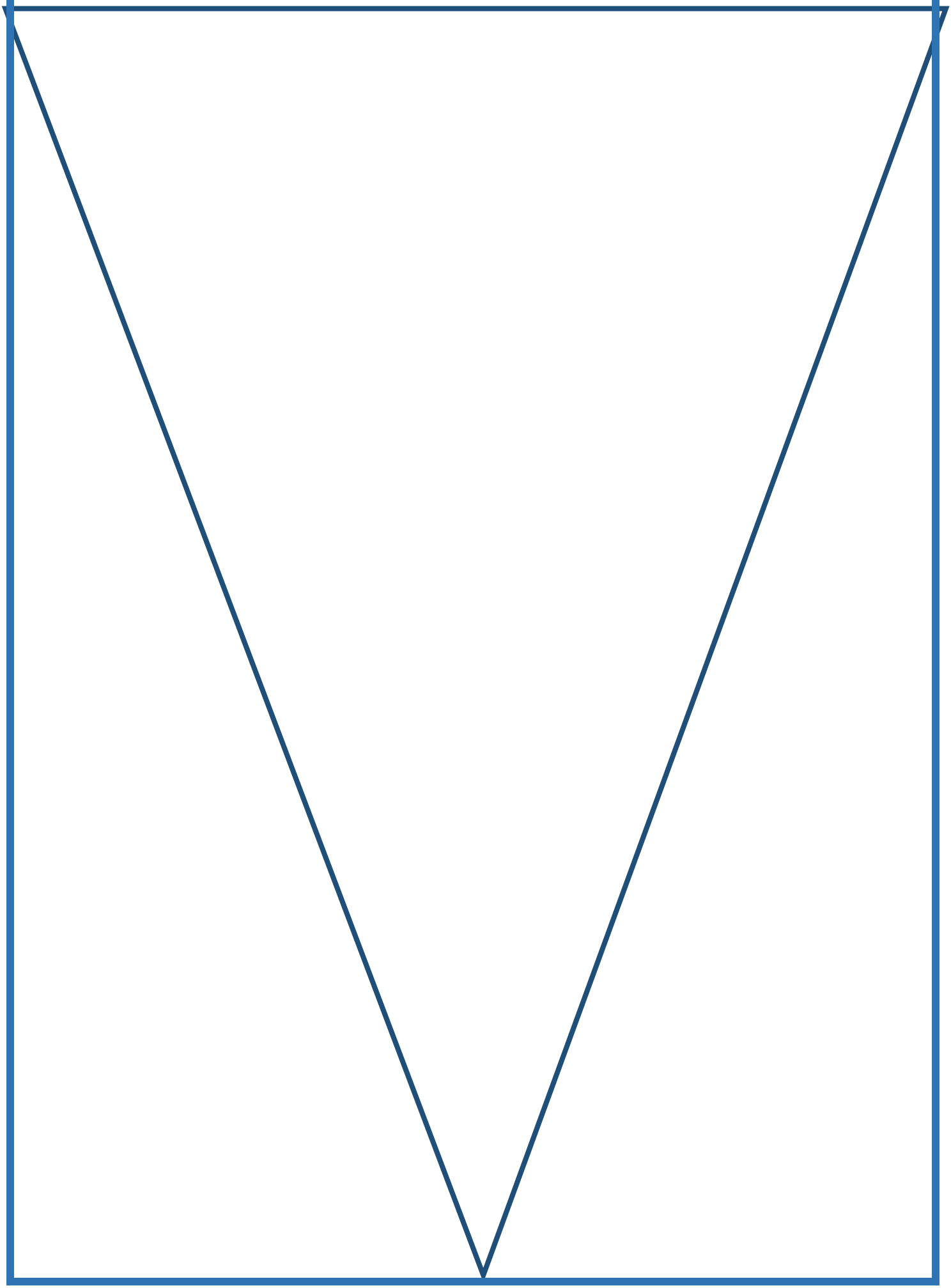
- A4 Eco-Bunting Template
- Scissors
- Colouring pens and pencils
- A Green Guide to coastal/inland boating
- The Green Blue's posters 'How to Green your dinghy/yacht/motorboat/RIB'

INSTRUCTIONS:

1. Use the A5 bunting template on the next page to draft your bunting design and then use the larger A4 sized bunting for your final piece.
2. The bunting must include the following:
   - Information on one environmental impact, with how it could be caused by boaters and how it could be prevented.
   - Colourful images and messages

   [Use The Green Blue's posters and guides to gain ideas]
3. Show and explain your bunting to another scout.
4. The Scout Leader will then select three scouts to stand up and tell everyone about the bunting design they were shown by the other scout.
5. Attach your bunting to the piece of string/ribbon your Scout Leader has hung up in your building.

BUNTING TEMPLATE



WEEK 3
MARINE LITTER

Did you know… organic materials like wood, food and paper get broken down by bacteria? Plastics like water bottles break down by sunlight which weakens the bonds holding the long molecular chain together. This is why plastic simply breaks into tiny parts but never disappears completely!

ACTIVITY 1: THE MARINE LITTER HUMAN PHOTOCOPIER

To work in teams to replicate a marine litter poster from memory. The team that reproduces the most accurate copy will win. Teams will learn about the types of litter boating can cause and how long it takes to degrade.

WHAT YOUR TEAM NEEDS:

1 x A3 plain paper
1 x pack of colouring pencils

INSTRUCTIONS:

1. Your Scout Leader will explain the activity and ask you to get into teams of 3 or 4.
2. Your Scout Leader will then stand in the corner of the room facing away from the scout group and ask one scout from each team to approach and memorize the poster for a maximum of 10 seconds.
3. After 10 seconds they must return to their teams to relay the information. The team can then start to draw and colour their blank A3 paper to replicate the poster.
4. Your Scout Leader will call for another scout from each team to come up and view the poster. Your Leader will call up scouts a certain number of times until they tell teams to stop drawing.
5. Throughout the activity each member of your team must remember a marine litter fact from the poster as your Leader will ask anyone at random to share their fact at the end.
6. One member of each team will be asked to bring their poster to the front and hold it up for everyone to see. Then the original poster will be revealed by your leader for everyone to compare.
7. Your Leader will then choose a winner!

What marine litter fact did you find out about?

……

THE LITTER PICK

ACTIVITY 2:

To collect as many items of litter from around your scout grounds, along the shoreline and from the water where you do your water sports.

EQUIPMENT:

- Black Bin Liners
- Litter Pickers (optional)
- Thick rubber gloves

SAFETY:

DO:

- **Do** wear rubber gloves and closed toe shoes at all times.
- **Do** stay in teams of 3 or more people.
- **Do** notify your Scout Leader of any emergencies or accidents.

DO NOT:

- **Do not** pick up dead animals, or attempt to move an injured animal—inform your supervisor.
- **Do not** pick up syringes, needles, any sharp objects, sanitary items, waste materials or anything of which you are not sure. Mark the area with a ring of stick or stones and notify your supervisor.
- **Do not** lift anything too heavy.
- **Do not** clean near any flowing storm drain outlets.
- **Do not** pick up any weapons.
- **Do not** go in any locations that appear to be unsafe.

BE CAREFUL OF:

- **Be careful** of fragile dune areas.
- **Be careful** of the waves and water. Do not go in the water unless permitted and supervised by your Scout Leader.
- **Be careful** of rocky or unsafe terrain.

INSTRUCTIONS:

1. Collect items of litter following the safety rules provided by your Scout Leader.
2. Separate and lay out your litter into three piles: Recyclable, Non-Recyclable and Compostable.
3. Fill in the table below to determine:

    - What litter items you found and tally how many of each
    - Whether you think it could have come from boating
    - Whether the litter items are recyclable, non-recyclable or compostable.

LITTER FOUND	TALLY	COULD BE BOATING LITTER	RECYCLABLE	NON - RECYCLABLE	COMPOSTABLE
e.g. Plastic Water Bottle	I	✓	✓		
Food Wrappers					

Suggest <u>one</u> thing boaters can do to avoid littering or reduce the amount of waste they produce:

WEEK 4
STOP THE SPREAD!

ACTIVITY

Create a video advert or perform a short presentation to inform boaters on what alien species are, how they impact our environment and a demonstration on how boaters can reduce their contribution to the spread of these species around our UK waters e.g. cleaning parts of a dinghy or yacht.

Use the information you recorded on alien species in week 1 when you did the Marine CSI activity to help you.

PLAN YOR VIDEO/PRESENTATION

What are alien species and how did they get into UK waters?
How do alien species get spread around UK waters?
What impact do they have on wildlife and boaters?

What should boaters do to reduce the spread of alien species?

You can demonstrate this using your sailing kit and equipment and a dinghy, yacht or safety boat.

ADDITONAL PLANNING NOTES:

WEEK 5

HOW HARMFUL ARE YOUR BOATING PRODUCTS?

Did you know… pH is a measure of how many hydrogen ions are contained in a solution? It is tested on a scale of 1 to 12.

pH 1	= highly acidic with high numbers of hydrogen ions
pH 6/7	= neutral (clean water)
pH 12	= highly alkaline with low levels of hydrogen ions.

Most aquatic animals and plants tolerate a pH range from 6 to 8. If boaters allow products that are acidic or alkaline to enter the water it could affect their breeding and survival.

ACTIVITY

You will use litmus paper to test the pH level of everyday products boaters use to find out if they would alter the natural pH level of water.

YOU WILL NEED

- A booklet of pH testing litmus paper
- Small plastic containers
- Pencil
- Rubber gloves
- Suggested solutions you could test:

Washing Up Liquid	**Cooking Oil**	**Lemon Juice**	**Cleaning spray**
Vinegar	**Soap Powder/Gel**	**Paint**	**Orange Juice**
Shampoo	**Toothpaste**	**Fizzy Drink**	**Washing Powder**

INSTRUCTIONS

1. You will be put in a team of approx. 3 or 4 scouts.
2. Put on your rubber gloves so solutions do not come into contact with your skin.
3. Dab a strip of litmus paper into each solution.
4. Remove and wait for the litmus paper to change colour. This should be instant.
5. Complete the recording table on the next page. Look at the colour guide scale on the cover of the litmus paper booklet to identify the pH number that matches the colour of each product you test.

How can boaters avoid letting harmful products into the water?

1.

2.

RESULTS FOR PH TESTING

PRODUCT TESTED	WHAT DO BOATERS USE IT FOR ON-BOARD?	PH NUMBER	PH COLOUR	HARMFUL TO WILDLIFE [YES/NO

STOP THE SPILL!

Did you know……. One litre of oil can contaminate 1 million litres of water?

ACTIVITY

This activity is to raise your awareness of the importance of responsibly transporting and using chemicals, paints, oil and fuel onshore and offshore as unwanted spills can pollute our sailing environment.

To transport fuel, in teams, from one container into another container with minimal amount of spillage using only a small cup attached to a helmet for each scout to transfer the fuel.

INSTRUCTIONS

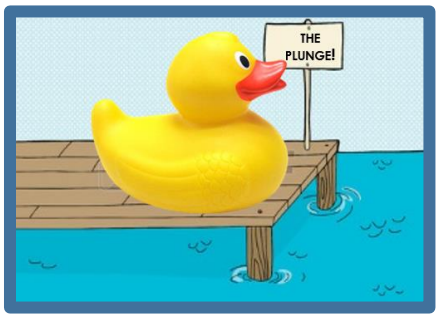
1. Details of the activity will be explained to you by your Scout Leader.
2. Your scout group will be split into two teams.
3. Each team has to number themselves in order of play and stand next to their designated hazardous waste bin.
4. Player one from each team must put on the helmet with attached cup.
5. In a relay race each player in their team have to run from their hazardous waste bin to the second bucket containing water and fill a cup of water up and pour the contents into the cup on their heads.
6. The player must then make their way carefully back to their team's hazardous waste bin and empty the contents of their helmet cup into the bin.
7. Player 1 will then need to pass on the helmet to the next player and so on.
8. Your leader will blow a whistle to indicate when to stop. They will then measure the depth of the water in each teams hazardous waste bin to determine which team transferred the most oil (water) from the bucket.

WEEK 6

THE PLUNGE

ACTIVITY

In teams you will be challenged with answering a mixture of environmental and boating questions in order to win items of litter. With this litter your team will have to build the longest free standing jetty you can which is capable of supporting an RYA rubber Duck called Duncan!



INSTRUCTIONS:

1. Your Scout Leader will put you into a team.
2. Your Scout Leader will read out a mixture of environmental and boating questions.
3. The first team to stand up and salute after a question has been read out in full gets to answer the question and win an item of litter if correct.
4. Once all litter has been distributed teams can start building.
5. Your team will have 10 minutes to design and create a jetty using your litter and a 40cm strip of Sellotape. You must build your jetty out from a table top.
6. After the time is up, your Scout Leader will measure each jetty and place an RYA rubber duck at the end to test the strength.
7. The team with the longest jetty that can support the RYA duck is the winner!

RULES:

- The jetty must only be made of the litter you have won
- The jetty will only be measured from the table edge to the end of the jetty.
- The rubber duck will only be placed at the very end of the jetty.
- The jetty must be free standing, which means no one or anything is allowed to be used to support the jetty other than the table, litter and Sellotape.

NOTES:

NOTES:

The Green Blue is a joint environment programme created by the Royal Yachting Association and British Marine.

The Green Blue helps the UK recreational boating sector to minimise its impact on the environment.

A joint environment initiative

Supported by:

www.thegreenblue.org.uk

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