



NOTES FOR TEACHERS

Not just surfers, not just sewage

If your school isn't near a coast, you may be tempted to think that these materials are not relevant to you or your children. SAS feel strongly that the sea is a resource for everyone and that thinking Green is everyone's responsibility. We campaign on many issues, not just sewage!

Surfers Against Sewage (SAS) is a UK-based non profit-making organisation campaigning for clean, safe recreational waters, free from sewage effluents, toxic chemicals, marine litter and nuclear waste.

We were founded in 1990 by a group of surfers, who were literally 'sick of getting sick' through repeated ear, nose, throat and gastric infections after going in the sea. We now have a highly successful national campaign that gives recreational water users a voice on building a clean and safe water environment.

As a result of this campaign SAS have become respected eco-campaigners and are now putting skills learnt to good use in campaigning vigorously on a broader range of water issues that can impact both on the health of the water user and that of the water environment.

Current campaigns include:

- Sewage and Sickness
- Safer Shipping
- No To Toxics
- Climate Chaos
- Marine Litter.

Along with our campaigning work we believe strongly that education is equally important and that's why we've designed this free resource for you.

If you want to find out more about us or our work, go to www.sas.org.uk

About Save Our Seas

The SOS resource is designed to raise children's awareness of environmental issues through a series of planned activities, quizzes and games written by an experienced educationalist.

Whilst aimed at Years 4, 5 and 6 (KS 2), many of the activities could be easily adapted for Year 3 or even Year 7 children.

The emphasis is on entertainment and enjoyment and, occasionally irreverent humour. How many times do you usually get to say the word 'poo' in lessons? But despite the broad humour that runs throughout the materials, children will be challenged and learning at the same time.



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Dear Duffy

In this section, children can read Duffy's FAQ's and have fun with the Dolphin Body Parts activity.

As children work through the activities, if they have questions that they'd like to ask or comments they'd like to make about SOS, Duffy or SAS, they can email these* to **dearduffy@sas.org.uk** A member of staff will reply within 5 working days.

*We will only reply to emails sent from your school's email account not to those from private addresses.

Gallery

We'd also like to build up a Gallery of children's work, whether this be poems, raps, songs, videos, posters, stories, collages, advertisements or photographs.

We hope that, as the Gallery expands, you'll take the time to come back and look at some of the work done by other children in other schools across the country.

Each child who emails us some of their work will receive a free sticker or, for more than one piece of work, a key ring from our sponsor, Rip Curl. (Please note: we can only send out one parcel of stickers and key rings to each school, not individual items. And make sure that you send the school's address, too, to avoid disappointment!)

www.sas.org.uk/sos/gallery/

Quizzes

Each of our four main subject areas, English, Science, Citizenship and Geography begins with a short pop quiz to get children involved in the learning that will take place. These are designed to be fun and guide children towards the correct answers (most of the time) through humour. You'll see what we mean!

You may also like children to do the pop quizzes when they have completed the activities as a way of measuring their learning.

Certificates

When you have completed the SOS resources, why not encourage children to print off their own personalised certificates.



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Children can choose which character awards the certificate to them (our two surfers Crystal Clear and Sandy Bottoms, or Duffy the Dolphin). They can also choose the typefaces and borders. Each certificate says that the child has graduated from 'Stinkbomb' to 'Ecogrom'.

We hope you'll display their certificates with pride!

English

Activity 1: A home for Duffy / Writing an advertisement

Children read about the preferred habitats of bottlenose dolphins.

More able readers will be able to complete this activity individually. For less able readers, you may wish to model the writing of an ad, or ask children to work in pairs or small groups.

Activity 2: Formal writing / persuasive writing

This activity is based on the analysis of a real newspaper article that appeared in October 2007.

We have provided you with a plain text that you may wish to analyse with children as well as a version that has already had some comments added.

This short article has some complex sentence structure which will challenge more able readers as well as a simple story line that all children will be able to follow.

You may also wish to discuss 'bias' in newspaper articles (especially as newspapers and journalists would like to be thought of as objective and truthful). In this case, no opposing or contrasting view has been sought from the fishing industry, for example.

The activities are scaffolded with checklists for children to use on newspaper articles and formal writing.

The activity also asks children to do some research on 'pingers': sonar devices that frighten dolphins and other marine mammals away from fishing nets. A suitable website has been suggested for the research.

Activity 3: Duffy's Day / Story Openings

Children are invited to use what they have learned about Duffy to write a story about his best day ever or worst day.

An online activity helps them to select characters and have fun writing some opening lines of dialogue that can then be printed out as cartoon story starters.

Again, the activity is scaffolded by providing a reminder of what a story mountain looks like.



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Activity 4: Do the Duffy Rap / write a rap poem

Children are given two verses of Duffy's Rap and are asked to do some basic analysis of it.

They are then invited to write a third verse and/or their own rap poem about Duffy or the work of SAS.

Checklists for a rap poem and rap performance are provided.

Why not film or record your children performing their rap and email it to us at dearduffy@sas.org.uk

The Glossary we have written will be a useful resource for children completing the English activities.

Science

There are four activities in this section and eight simple experiments in total.

Activity 1: Evaporation / All about evaporation

These two experiments are simple to do and require resources that you will easily be able to source.

- Experiment 1: Does temperature have an effect on evaporation?
- Experiment 2: Does air flow have an effect on evaporation?

Each experiment is formally laid out to encourage children to get used to the idea of having an opening question, resources that they'll need, a method, results and conclusion.

Activity 2: Filtration / Separating salt and sand

This is a slightly more complex experiment and requires children to have access to a heat source.

If this is something that you do not have easy access, to the same results can be obtained by first filtering the water then leaving it on a sunny windowsill for several days.

The wordbank gives children the terms they'll need to use (and which are explained in the Glossary).

Activity 3: pH levels (acidity) / comparing pH levels

A simple experiment that supports a complex idea: that of alkaline and acidic water.

The work is clearly showed to have a practical link to environmental concerns and the production of acid rain.



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Activity 4: Materials / Things that float

There are four experiments in this section, each one builds on the one before to give children a firm understanding of the complex scientific concepts of density and upthrust.

- Experiment 1: Things that float
- Experiment 2: Why things float
- Experiment 3: Testing upthrust
- Experiment 4: Making a ship's hull.

The Glossary we have written will be a useful resource for children completing the Science activities.

Citizenship

This section offers two audit sheets so children can see how Green their homes are and their school.

They can be used before a discussion of Green issues so that children can begin to see the issues and challenges, or after a general discussion so that they know what to look for.

Do encourage children to email a picture of their completed posters to dearduff@sas.org.uk to receive their free stickers.

Geography

There are two activities in this section.

The information and images are drawn from *Climate Change: A Surfer's Perspective*, published by SAS, June 2007.

www.sas.org.uk/pr/2007/docs07/climate_change_report.pdf

Activity 1: Duffy's Oceans / Name the oceans

This activity can be done online as a click-and-drag game or you can download the PDF for children to do individually using atlases.

Note that although bottlenose dolphins are seen in many places in the world, they do not survive in the very cold waters of the Arctic and Antarctic Seas.



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Activity 2: Duffy's Coasts / Investigating coasts

This online activity is a fun way of introducing children to coastal terms like 'sea arch' or 'beach', or as a revision game if this is a topic you have already covered.

The Glossary we have written will be a useful resource for children completing the Geography activities.

More activities

Activity 1: Design your own surfboard / Design & Technology

Also mentions the Ecoboard made by the Eden Project from balsa wood.

Activity 2: Surf clothes / Design & Technology

Also explains why surfers need wetsuits and a normal body temperature.

Activity 3: What a load of rubbish! / Spot the difference

A fun activity for younger children or as ten-minute warm up exercise.

Activity 4: Lost for words / Wordsearch

Children can individualise their wordsearches as the computer will scramble the letters differently for each person.

Activity 5: Lines in the sand / Art & Design, sand sculpture

Sand sculpture practises 3D techniques

If you can make them at the beach, that's great, but if you can borrow the sandpit from the Infants' department, that will work, too. If you don't have access to a sandpit, how about using builders' sand on a plastic sheet?

Don't forget beach health & safety. A useful website is www.nationalbeachsafety.org.uk

Sand sculpture can be amazingly detailed and complex. Children can look at www.sandsculpture.co.uk to see some of the possibilities, including work done by other children.



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Activity 6: Double Trouble / Art & Design, Make your own Duffy

This simple pattern will work for all children.

If children struggle with the skills needed to sew the felt together, a strong glue will do the same job (but please don't use a superglue that will glue small fingers together)!

Always ensure that the stuffing used is fireproof.

Activity 7: Wipeout! / Art & Design, Flicker book

This activity can be used as a stand alone A&D activity or lead into a discussion of the science of how the eye sees www.kidshealth.org/kid/body/eye_noSW.html

Why not look at other optical toys such as the thaumatrope and diaorama.
billdouglas.ex.ac.uk/eve/moreaboutBDC.asp?strCollection=Optical

There's a great website on how to make a thaumatrope at
www.vam.ac.uk/moc/kids/things_to_make/thaumatrope/index.html

Thank you

We hope you enjoy these resources and, as Duffy would say, "So long! And thanks for all the fish!"

www.sas.org.uk