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Nature's Noticeboard

Autumn 2012

Bog Asphodel, a miniature, yellow-flowered lily that can colour bogs in mid-summer. See more bog plants on page 12.

Boomi

ne Br

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Editor's Page

A Seal of Approval!

My brother Robbie was out with his camera last week and got a wonderful shot of Grey Seals, perched on rocks near Sherkin Island. The areas where seals pull themselves out of the water and onto land, are called "haul-outs". A haul-out can be used for different reasons. It may be where seals mate and give birth or they may just need to rest, socialise with other seals or adjust their body temperature. Sometimes they may even need to escape from predators, such as killer whales and sharks, though these predators are scarce enough around Ireland.

We have two types of seals in Irish waters, the Grey seal and the Common or Harbour seal. The Grey Seal has a longer snout and its nostrils are parallel rather than "v"-shaped like those of the Common Seal.



SEAFOOD RECIPE Grilled Haddock Strips with Ruby Orange Sauce

WHAT'S NEEDED:

- 700g/1½lb filleted haddock, cut into wide strips
- 2 tablespoons soy sauce

SAUCE:

 Juice of 4 ruby oranges or 3 pink grapefruit

What to do:

- Dip haddock strips in soy sauce & grill until golden.
- Meanwhile make sauce combine juice, shallots, tarragon & rosemary in saucepan.
- Boil until reduced to a third.
- Add cream & reduce to half. Add butter a little at a time, mixing well. Check seasoning.
- Arrange lightly seasoned boiled rice in centre of hot plates.
- Place fish strips on top & sauce around edge.
- Sprinkle with julienne of orange, chives and chervil. FISH ALTERNATIVES: cod, hake, pollock, ling, plaice.

- 55g/2oz shallots or onion thinly sliced
- 1 sprig, tarragon and rosemary
- 150ml/¼ pint cream
- 55g/2oz butter
- Salt and freshly milled pepper

GARNISH:

• Julienne (fine strips) of orange Serves 4



Brought to you by BIM & Simon Regan, Institute of Technology Tralee. www.bim.ie.

Welcome to the Autumn Edition of Nature's Web!





Welcome everyone to the Autumn 2012 issue of Nature's Web. We are delighted to feature the marine biologist, author and cartoonist, John Joyce in this issue. We think John's illustrations are fantastic and help us to learn about marine life in a really humorous way. We are thrilled that he is giving us some tips on how to produces some of these cartoons ourselves, so lets get drawing! Ballycroy National Park have given us lots of information about blanket bogs and the plants that can be found in them and we also learn from WEEE Ireland about items we can recycled. Check out nature news from around the world on page 11 and enjoy a giggle with the jokes on page 13. We would love to hear your views and comments and suggestions for future articles. Have a good read! Susan Email: editor@naturesweb.ie

Email: editor@naturesweb.ie Web: www.naturesweb.ie Editor:

Susan Murphy Wickens Layout and Design: Susan Murphy Wickens Photographs & Clipart: Copyright © 2012 Sherkin Island Marine Station & its licensors. All rights reserved. Foreign Correspondent: Michael Ludwig

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Bird Life

Meadow Pipit



Scientific Name: Anthus pratensis Irish Name: Riabhóg Mhóna

By Lewis Gospel

The meadow pipit is a small bird and is part of the pipit family. As the first half of its name suggests it can be found in areas of wide open country. The second half of its name dates back all the way to 1768, when it used to be called a tit lark! It is a hard species to tell apart from others in the pipit family. If you look closely it has a thin bill and white, pale pinkish yellow legs with a hind claw at the back of the feet. This claw is a lot longer than its other claws.

It mostly likes to eat on the ground and its favourite food in summer are insects and wriggling earthworms. In winter it likes to eat seeds and berries. These give it plenty of energy when other food is not as plentiful.

How you can spot it!

If you find yourself in any grassland, heath or moor listen out for a squeaky 'tsip'-like call as the Meadow Pipit travels in little flocks. Be sure to look where you are walking, as these little birds likes to nest on the ground. If disturbed they will rise in ones or twos, or in a little body or group. The Meadow Pipit looks a lot like its close relative the Tree Pipit, and in Ireland there is a subspecies called 'Anthus pratensis whistleri' that is a little darker than the ones you find in other countries in Europe.



FACT FILE

Colour: Light brown body with darker streaks of brown with pink and yellowish legs. Length: 14.5 cm Wingspan: 24 cm Weight: 14.5 g Eggs: 2-7 Diet: Insects, earthworms, seeds and berries

Pest!

When the Meadow Pipit is nesting in the breeding season it may get an unwanted visit from the cuckoo. The cuckoo is a 'brood parasite', which means it lays its eggs in the nests of another birds. In Ireland, their main host species is the Meadow Pipit. In the nest the cuckoo's egg hatches first and the chick then 'evicts' or pushes out the Meadow Pipit's eggs. It is all part of nature though and it doesn't affect the population of Meadow Pipits because the cuckoo lives off other birds as well.

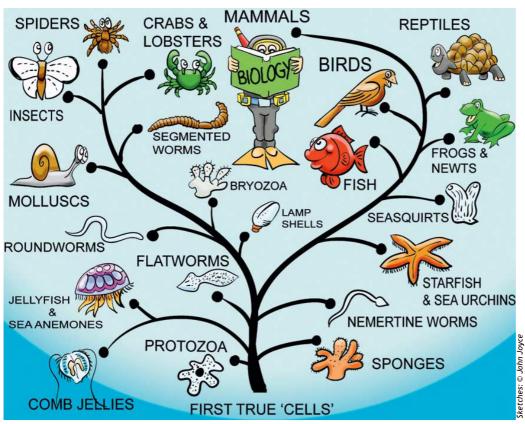


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Photos: © Robbie Murphy

Aquatic Life

The Tree of Life

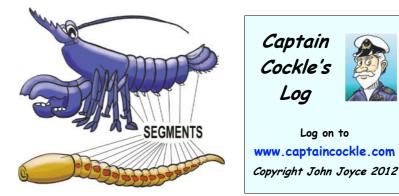


Life on Earth Began in the Sea

Scientists believe that life on Earth began over 3,000 million years ago. It happened when individual atoms of oxygen and hydrogen (present in water) fused with atoms of carbon and nitrogen (present in the atmosphere) to form the first building blocks of life - proteins, carbohydrates and fats. This could have happened when lightning struck the water in the shallow pools at the edge of the ocean. Or it might have come about around deep sea volcanic vents where the sea is very hot.

'he diagram above shows one possible version of how the main animal groups evolved from the first primitive 'true cells'. At the base of the tree simple single cell animals develop into animals formed of sheets of cells working together in layers such as jellyfish and sea anemones (see below). As millions of years pass, these simple animals become more complex - with specialist organs and nervous systems.

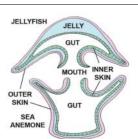
To the left of the tree animals develop with no backbone (invertebrates) and to the right of the tree animals gradually evolve a backbone and an increasingly complex nervous system. Many of the invertebrate animals - such as the insects, spiders, lobsters, crabs and worms have bodies that are divided into segments (see above right). While to the right of the tree, the first appearance of a 'backbone' is seen in the free-swimming larva of the sea squirt.



Close Relations

Jellyfish and sea anemones share the same basic design and are closely related. In fact, a juvenile sea anemone is free swimming and looks exactly like a tiny jellyfish, while a juvenile jellyfish looks like a pile of cup-like sea anemones stacked one on top of the other. Both animals share the same deadly stinging

cells (nematocysts) that line their tentacles, although the sting of a jellyfish is far more powerful than that of an anemone.



Log on to

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Autumn 2012

Animal Life

American Mink

Irish Name: Minc Mheiriceánach Scientific Name: Mustela vison



Photo courtesy of Peter G Trimming Photostream CC by 2.0

Mink look very similar to otters, though they are smaller. They have a long, slender body, are covered in a thick fur, have a long, furry tail and webbed feet. Their eyesight is not very good and though they do not usually make much noise, they can produce a high-pitched call when alarmed.

Mink are carnivorous animals, which means they are meat-eaters. Being semi-aquatic and good swimmers, fish form a large part of their diet, as well as crabs, rodents, frogs and birds. To be near their source of food, mink are usually found near water. Each adult mink lives in a den and has its own territory, which it marks with its scent. No animals hunt mink for food so they are at the top of their foodchain. As they have such a thick fur to keep them warm during a cold winter, they have no need to hibernate and so hunt for prey all through the year, usually in the afternoon and after dark.

FACT FILE:

Colour: Dark brown fur.

Length: 45-65 cm. Males are bigger than females.

Diet: Fish, crabs, rodents, frogs and birds.

Habitat: Usually found near water, such as rivers, lakes, canals and along the coast.

'he American Mink is not native to Ireland. The species originated in North America and was first brought to Ireland in the 1950s, to be farmed for its thick fur for winter clothing. Some of these animals escaped or were released from captivity and went on to breed in the wild. Since then the American Mink has colonised every county in Ireland. It is listed as an invasive species in Ireland and is not protected. Many consider it a pest and a problem for fish stocks and waterbirds.

Though there is a European Mink, this species has never reached Ireland's shores. It looks similar to the American Mink but is smaller.





Minks belong to the mustelid family carnivorous animals that have short legs and long bodies. Members of the family include otters, pine marten, badger and stoat.

Mink reproduce in early spring and carry their young from about 1 month to 80 days. When they give births, usually to about 3-5 young known as kits, they are born blind and naked.

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Plant Life

Blanket Bogs



Ballycroy National Park in Co. Mayo is made up of 11,000 hectares of Atlantic blanket bog and mountainous land.

By Robert O'Dwyer Ballycroy National Park, Co. Mayo

What are blanket bogs?

Blanket bog is the name given to large areas 'blanketed' by bog. 8% of the worlds blanket bogs are found in Ireland. There are two types: Atlantic Blanket Bog; which occurs in low lying coastal plains and mountain valleys, and Mountain Blanket Bog; which occurs higher up in mountains. Blanket bogs get their moisture only from the rain and are very acidic and nutrient poor. Very little evaporation occurs, which means they are very wet year round.

Where in the world are they found?

Blanket Bog is mainly found in the Northern Hemisphere: in Europe, Russia and North America. In Ireland the rain falls along the west coast more than anywhere else in the country, and so here blanket bog can grow over mountains all the way to the sea. This is where Atlantic Blanket Bog is found. Mountain Blanket Bog is found inland and on all the coasts.

Left: Yellow Flag Iris, a plant found in bogs.

How is a blanket bog formed?

Thousands of years ago Ireland (and Europe) used to be covered in forests.

Humans arrived and cut down most of the trees. The climate at the time was getting much warmer, and there was a lot more rain. With few trees to hold the soil in place, all the iron was washed down through





it making a solid layer so no further rainwater could get through. The soil became very wet and only plants like moss could grow.

When these plants died they didn't break down fully because there wasn't enough oxygen in the wet soil and it was very acidic. The dead plant matter then built up forming what's called peat.



After thousands of years and over very large areas you got blanket bog.

One metre of peat takes 1000 years to form! In Ireland the depth can be 1.5 to 7 metres thick.

Protection/Conservation

As we know blanket bog takes thousands of years to grow. But did you know that the peatlands of the world contain twice the amount of carbon as all the forests? If a lot of this carbon was released by burning the peat as turf the world would be a much hotter place, with many important plants and animals that need the bog to live dying out.

www.naturesweb.ie Autumn 2012

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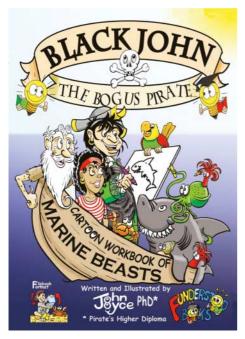
All in a Day's Work

Dr John Joyce - Marine Biologist, Author & Cartoonist

John Joyce is a marine biologist, author and cartoonist. He met his wife Jane in 1977 when they were running a seashore biology course together in Cork. His 'Black John the Bogus Pirate Cartoon Workbook on Marine Beasts' was published during the summer and his next novel 'Fire & Ice' comes out on 1^{st} October. See: www.spindriftpress.com

Have you always been interested in what you do?

I've always been interested in learning about the sea. As a child I spent hours mucking about in rock pools. When I saw Walt Disney's movie '20,000 Leagues Under the Sea' I realised I wanted to be a submarine captain or a marine biologist.



What training did you do to get where you are today?

I couldn't be a submarine captain because I was short sighted, so I trained as a marine biologist. I taught myself to write and draw cartoons using books and watching other people.

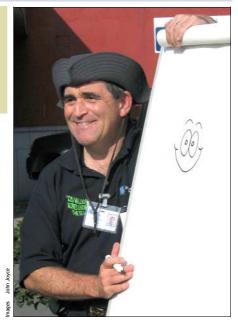
What is your main aim? To use writing and cartoons to teach people about the sea. When I worked for the Marine Institute we used cartoons as part of our 'Explorers' primary school programme. Now that I am retired, I use cartoons as part of my 'Funderstood' books to teach people to draw and show them what goes on in the sea.

What is a day in your life like? Busy! Some days I may be working on a book, talking to printers, book shops or drawing cartoons. On other days I may be working on marine education projects in Ireland or overseas, or talking to teachers, pupils or experts in marine science and education.

Do you enjoy your work? I can't call it 'work'! It's more about doing all the things I always wanted to do with people I like and respect. Creating the 'Black John Cartoon Workbook' meant I could work with artists, scientists, teachers, pupils, and education experts. Writing the novel 'Fire & Ice' meant Jane and

I could go on board a submarine, climb down into the Grand Canyon, visit Las Vegas and fly in a helicopter. That's not 'work' that's having fun!

How important is education in protecting the seas? Most children



John Joyce giving a cartoon workshop on Marine Beasts!

choose their future careers (as I did) when they are young. So learning about the sea at an early age is vital if we are to care for our oceans and ensure the future of this planet.

What is the best piece of advice you ever had?

'There are no mistakes - only results!' If you don't get the result you want first time, keep trying new things and eventually it will work out the way you want it to.



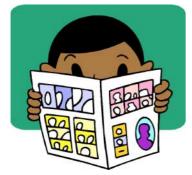
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Colour In



Nature's Web Wordsearch



Nature's Web Autumn 2012

Try out this giant wordsearch containing words found in this issue of the newsletter.

В	Е	S	Ρ	L	Н	L	U	Н	G	L	J	Ν	L	K	S	А	D	
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Solutions: (Over, Down, Direction) American Mink (17,1,5); Black John (1,1,5E), Blanket Bog (1,10,NE); Bog Asphodel (14,7,5W); Bog Plants (1,1,5); Cartoons (10,8,NW); Fin Whale (2,8,N); Gecko (5,9,5E); Goose Barnacles (2,10,E); Grey Seal (7,8,NE); Haddock (1,18,E); John Joyce (12,1,5W); Lonesome George (5,1,5E); Marine Biologist (1,16,NE); Meadow Pipit (17,15,W); Recycling (14,16,W); Tree of Life (8,14,E); WEEE Ireland (18,11,N).

American Mink Black John Blanket Bog **Bog Asphodel Bog Plants** Cartoons Fin Whale Gecko Goose **Barnacles Grey Seal** Haddock John Joyce Lonesome George Marine Biologist **Meadow Pipit** Recycling Tree of Life WEEE Ireland



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Learn More

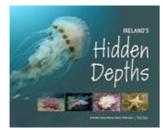
Sherkin Island Marine Station has published a range of colouring books, guides and activity books for children. Each 32-page *Colouring & Guide Book* gives you the chance to colour, identify and learn about the wildlife around Ireland. *My Nature Diary* contains lined pages to fill in a daily record of sightings and nature news.

A Beginner's Guide to Ireland's Wild

Flowers With the help of this pocket-sized guide, beginners of all ages will be introduced to the many common wild flowers found around Ireland. 206pp €8.50 inc.



Ireland's Hidden Depths has just been published by



Sherkin Island Marine Station. Ireland's amazing marine life, glorious kelp forests and spectacular undersea scenery are featured in over 200 spectacular photographs by nature photographer Paul Kay. 277 × 227 mm 160 pps Only €17.99 plus 2.00 postage

Sea Life DVD:

"On the Water's Edge" Produced by Sherkin Island Marine Station, the dvd 'On the Water's Edge', features a short film on life

beside the sea. Presented by Audrey Murphy, it includes 6-10 hours of interactive material for children of all ages. Only €7.30 including postage.



An A to Z of Geology" explores the fascinating world of rocks and geology - a world of volcanoes, tsunamis, earthquakes, diamonds, gold and even dinosaurs!

wonders of

marine life

Ireland.

found on the

shores around

A Beginner's Guide to

Ireland's Seashore is a

suitable for beginners of

all ages. This book will

help you to explore the

Ireland's

Seashore

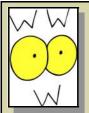
pocket-sized guide,

world of Volcanoes, tsunamis, earthquakes, diamonds, gold and even dinosaurs! Produced by Sherkin Island Marine Station, in association with the Geological Survey of Ireland.

Only €5.99 plus €1.00 postage

To order books, send your name and address along with a cheque or postal order made payable to Sherkin Island Marine Station to: Sherkin Island Marine Station, Sherkin Island, Co.Cork. Ireland. Or Visit: www.sherkinmarine.ie where you can order by Paypal.

On the Water's Edu



Useful Web Addresses

There are lots of websites to be found on the internet that will give you further information on topics we have covered in this newsletter. Here are a few that may be of interest:

Editorial: http://sealtrack.ucc.ie/?page_id=31 http://www.whalewatchwestcork.com/seals-ireland.html

Meadow Pipit: http://www.birdwatchireland.ie/IrelandsBirds/PipitsWagtails/MeadowPipit/tabid/1036/Default.aspx http://www.rspb.org.uk/wildlife/birdguide/name/m/meadowpipit/index.aspx

The Tree of Life: http://www.captaincockle.com/ http://marinebio.org/oceans/marine-taxonomy.asp http://www.nhm.ac.uk/nature-online/science-of-natural-history/taxonomy-systematics/index.html

American Mink: http://www.wicklowmountainsnationalpark.ie/Mink.html http://www.nhptv.org/natureworks/mink.htm http://www.conserveireland.com/mammals/americanmink.php

Blanket Bogs: http://www.ballycroynationalpark.ie/wildlife.html http://www.irishbogrestorationproject.ie/index.html http://www.ipcc.ie/a-to-z-peatlands/blanket-bogs/

John Joyce: www.spindriftpress.com http://www.captaincockle.com/

Fin Whale in Baltimore: http://www.iwdg.ie/index.php?option=com_k2&view=item&id=2311:baltimore-whale-update http://www.irelandswildlife.com/2012/08/baltimore-whale-stranding-a-good-news-story/

Goose Barnacles: http://www.ryaninstitute.ie/?s=goose+barnacle&x=0&y=0

Gecko: http://www.nanowerk.com/news/newsid=24315.php

Lonesome George: http://www.galapagospark.org/boletin.php?noticia=630 http://www.bbc.co.uk/news/world-18574279

Bogs Plants: http://www.ballycroynationalpark.ie/Flora.html http://www.irishbogrestorationproject.ie/flora_and_fauna.html http://www.wildflowersofireland.net/plant_detail.php?id_flower=272&wildflower=Sundew,%20Round-leaved

WEEE Ireland: http://www.weeeireland.ie/ http://www.recyclefree.ie/

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The World Around Us



"Foreign Correspondent" Michael Ludwig reports on interesting news from the natural world.



The Fin Whale in Baltimore, Co. Cork – the sadder side to the cycle of life

In the middle of August there was a flurry of excitement in Baltimore when a young female fin whale swam into shallow water by the pier. The excitement soon turned to sadness when it became clear that the whale was not in good health and dying. Given its location, little could be done to put it

out of its misery, except hope that its end would be painless. After a few days it died and that created an education opportunity. By sinking and holding the carcass on the seafloor with weights, other marine animals can feed on the tissue and leave the skeleton. If that happens, perhaps it could be displayed in Baltimore sometime in the future? For further information visit the Irish Whale and Dolphin Group website at <u>www.iwdg.ie</u>

Can you help find the Goose Barnacle?

Researchers from the Ryan Institute at NUI Galway are looking for help to find a rare barnacle that occasionally washes up on Irish shores. Barnacles have an amazing ability to attach themselves to every surface imaginable - even non-stick frying pans. The researchers want to study how the glue that barnacles produce works. They hope that synthetic versions of this natural underwater super-glue could be used for such things as surgery and dentistry. The barnacle that the researchers wish to study is the goose barnacle (*Lepas anatifera*), which lives offshore and is very difficult to find. However, these barnacles sometimes wash ashore and the researchers would like to collect them before they die from being stranded on the shore. Live specimens in a Lab aquarium let the researchers study these glue makers. If you come across these barnacles, alive, on the Irish coast, please put them in some ocean water and contact the researchers at the Department of Zoology, NUI Galway on 091 493191 or email < j.jonker1@nuigalway.ie >.



How would you like to be Spiderman?

Perhaps you can! Gecko lizards can run up walls and across shiny objects without falling. The secret lies in the skin on their feet. Now researchers at the University of Massachusetts have developed an artificial Gecko foot covering. It works like an adhesive but with a surprise. It sticks to almost



anything but a simple twist releases it from the surface and it doesn't leave a mark when removed. A postcard-sized piece supports up to 3,175 kg, more than enough to let a person scale walls with ease.

Goodbye Lonesome George

Lonesome George of the Galapagos National Park, and



known as the rarest creature in the world, died in June. George was the symbol of the Park, a unique Archipelago of islands and organisms. Estimated to be about 100 years old, George was a Pinta Island Tortoise, thought to be the last of his subspecies. The subspecies is now believed to be extinct because no one can find another one. Scientists did try to mate George with closely related females but, though eggs were produced, they were infertile. Charles Darwin studied the islands' unique animals and plants for his theory of evolution.

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Up Close

Bog Plants

B lanket bog naturally contains very low levels of nutrients that plants need to survive and grow. Plants living on the bog have had to come up with special ways of surviving...

Sphagnum Moss (Sphagnum sp. - Seanmhóin súsáin)

This is one of the main plants that forms blanket bog. Its leaves contain a chemical that makes the soil acidic. Many plants can't survive under very wet conditions, however sphagnum moss can absorb up to 20 times its own weight in water and still be alright. This absorbent property is why it was used as bandages in olden times. It also has this property after it dies.





Reindeer Lichen (Cladonia sp. - Léicean réinfhia)

This grey coloured plant is mainly found in cold climates. It grows very slowly 3 - 5 mm a year and so doesn't need many nutrients. It got its name from the fact that reindeer feed on it. Also, if you look closely the individual stems look like little antlers.

Sundew (Drosera rotundifolia - Drúchtín móna)

(Flowering July through August)

This plant has a smart way of getting nutrients. It has round reddish leaves, each covered in sticky spikes. When an insect lands on these spikes it gets stuck and the leaves curl around the insect absorbing nutrients from it.





Ling Heather (Calluna vulgaris, Fraoch mór)

(Flowering July through September)

This has pale purple flowers and is another of the main plants that form blanket bog. Its leaves also have acidic properties. It is a woody evergreen plant with leaves that are very small and scaly and closely attached to the stems so they can hold onto water. Being evergreen the plant can absorb energy from the sun year round. It is an important food source for the Red Grouse, who also use it for shelter.

Bog Asphodel (Narthecium ossifragum, Sciollam na móna)

(Flowering July through August)

This is a very attractive plant with golden star-shaped flowers and swordlike leaves which come out from the ground. It grows in large numbers and can be very toxic to cattle if they happen to eat it. After flowering the whole plant turns orange-brown and can be seen until late autumn.



Text by Robert O'Dwyer, Ballycroy National Park, Co. Mayo. Images courtesy of Ballycroy National Park/NPWS

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Fun Page

How much did you learn?

The answers to all these questions can be found in the newsletter...see if you can remember!

1. From which unusual source do sundew plants get nutrients?

2. WEEE Ireland recycles anything with a plug or battery. True or false?

3. Who is the main character in John Joyce's new cartoon workbook?

4. Is the American Mink native to Ireland?

5. Which unwanted visitor might the Meadow Pipit have during the breeding season?

6. What percentage of the world's blanket bogs are found in Ireland?

7. What is the most important thing to learn when drawing cartoon?

8. Lonesome George, the Galapagos tortoise that died recently, was 20 years old when he died. True or false?

9. How much water can Sphagnum Moss absorb?

10. What is WEEE Ireland's superhero called?

11. When John Joyce saw the movie "20,000 Leagues Under The Sea", what did he want to become?

12. Name the two types of blanket bog.

13. When do scientists believe life on Earth began?

14. Which type of seals did Robbie Murphy photograph near Sherkin Island?

15. How much does Reindeer Lichen grow each year?

3,000 million years ago; (14) Grey Seals; (15) 3-5mm per year. Answers: (1) From insects; (2) True; (3) Black John the Bogus Pirate; (4) No; (5) The Cuckoo; (6) Eight percent; (7) How to draw faces; (8) False - he was about 100 years old; (9) 20 times its weight; (10) Sparky; (11); A submarine captain or marine biologist; (12) Atlantic and Mountain Blanket Bogs; (13) Over

What a Picture!

Have fun with your friends making up a title for this picture of an American alligator, which live in a wildlife refuge in the Gulf of Mexico.



Nature Jokes



What happened to the dog that ate nothing but garlic?

His bark was much worse than its bite!

Why didn't the banana snore? Because it didn't want to wake up the rest of the bunch.





What flies around your light at night and can bite off your head? A tiger moth.

How many balls of string would it take to reach the moon? Just one if it's long enough!





What happened when the shark ate the comedian? He felt funny.

What did the cat do when he broke his toe? He called a tow truck.



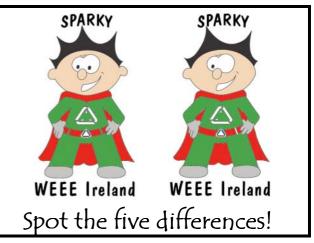


What sleeps at the bottom of the sea? A kipper!

What do you get if you cross a worm and a elephant?



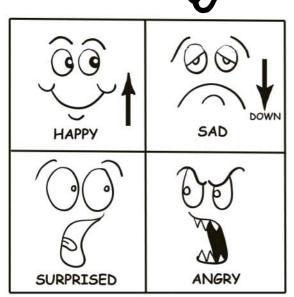
Very big worm holes in your garden!



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Feature

e Draws Cartoons

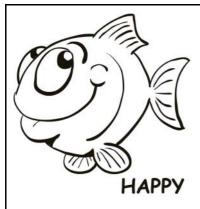


How

The most important thing to learn about drawing a cartoon is how to draw a face. Once you know how to draw a simple face - be it happy, sad, angry or surprised - you can go on to make a cartoon character out of anything.

Look at your own face in the mirror and watch what happens when you make the following expressions:

- HAPPY The corners of your mouth, your eyelids and your eyebrows go UP. Your eyes are WIDE OPEN.
- SAD The corners of your mouth, your eyelids and your eyebrows go DOWN
- SURPRISED Your mouth and your eyes are WIDE OPEN so that you can see your tongue. Your eyebrows are UP.
- ANGRY Your mouth is OPEN (but not in a good way!) so that you see teeth. Your eyebrows dip in the middle like the wings of a bird.



nce you know how to make happy, sad, surprised and angry faces, you can use them to make cartoon characters out of any person, animal or object.

Simply draw the outline of the person, animal or object you want to make a cartoon character from and draw the face inside. Or start by drawing the face and then draw the person, object or animal around it. There are no rules with cartoons - ANYTHING GOES! so have fun and draw lots of them.

The more you draw, the better you get and the more fun you have.

Here I've drawn four cartoon fish. Sometimes it is best to draw things that are funny because they don't make sense. So instead of drawing a big angry shark, I've made him into a nervous wreck who's frightened of a tiny little crab!

I start by drawing a pencil outline on paper that I can easily rub out and change if I need to. Then I either ink that in with a black felt pen or a Japanese brush pen, wait for it to dry completely and rub out the pencil.

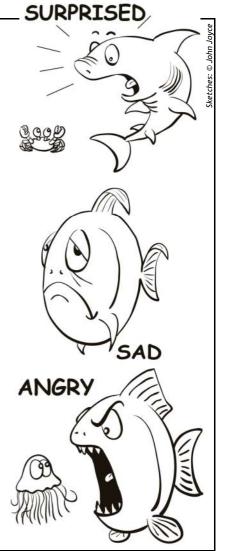
More lately, I have been scanning the pencil sketch into my computer (or even taking a picture of it with my Smartphone) and then using that digital image as the bottom layer for inking with a computer graphics package like Adobe® Illustrator® or Photoshop®. Using a computer makes it very easy to correct and change the drawing as you are doing it. And you can get some really great special effects, such as making the image larger or smaller, flipping it round, changing bits of it or colouring it in.

Have fun and 'Happy Cartooning'!



www.spindriftpress.com

(Read about John Joyce in "All in a Day's Work" on page 7 & Captain Cockle on page 4.)



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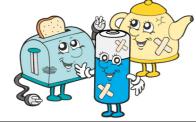
Conservation

Sparky is the WEEE Ireland superhero. His mission is to keep Ireland green and remind us to recycle WEEE and waste batteries. Can you

help him in his mission?

What is WEEE?

WEEE stands for *Waste Electrical and Electronic Equipment* - this is anything with a plug or battery at the end of its useful life.



Today electrical appliances help us in many ways, e.g. a vacuum cleaner helps clean our home and school or a washing machine helps us keep clothes clean. When these items can no longer do their work they can become waste and be recycled.

Instead of putting these items into the normal rubbish bin, the materials they contain, such as metal, glass or plastic, can be taken out and used again to make new things.

We don't have to stop using the earth's resources but we do have to stop wasting them.

Schools Awareness Campaign

If your school is interested in hearing more about WEEE and battery recycling, you can apply online at www.recyclefree.ie.

Recycling Anything with a Plug or Battery



What happens to your recycled WEEE items?

These items go through a Recycling Process (see above). The items are brought to a WEEE collection area where they are sorted into different categories. The items are dismantled and recycled at specialised treatment plants. Some electrical items or batteries can contain chemicals that would be bad for our environment if they are not recycled properly. For examples, refrigerators contain certain chemicals that if released into the atmosphere could be harmful. Recycling can help keep these chemicals out of our environment and keep it clean.

Where can you recycle WEEE?



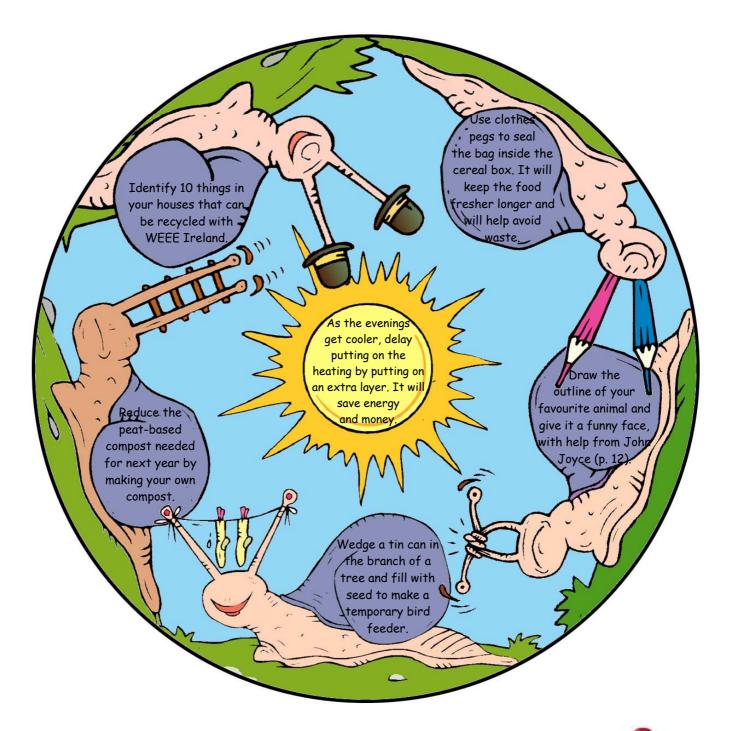
- Local Recycling Centres have areas especially for WEEE. Look up your local council's website for more information about where these centres are located.
- If you or your family are buying a new electrical item, the shop will take back your old and broken item for recycling.
- WEEE collection events may be held in your area once or twice a year and your family can bring old electrical items to them for recycling. Visit www.recyclefree.ie to see if one is in your area.

Information courtesy of WEEE Ireland. For more information visit www.weeeireland.ie

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Nature's Noticeboard

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PHARMACHEMICAL IRELAND Focused on a Healthy Future

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