



WHAT EVEN ARE BIRDS?

Birds are animals. Like us humans, they have a spine (this makes them 'vertebrates' - like us!). Unlike us, they are not mammals.

If you were asked to spot the differences between a bird and another animal, could you tell them apart?



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What bird is this? Can you name some features of birds?

What are some differences between birds and lizards? Birds and fish? Birds and humans?



HOW ARE BIRDS SPECIAL?

Instead of mouths like we have, birds have **beaks**. They are **hard and pointy**. Birds use them for **eating, fighting, grooming, and singing**. Beaks are also used to **build nests**, since **birds do not have hands**.

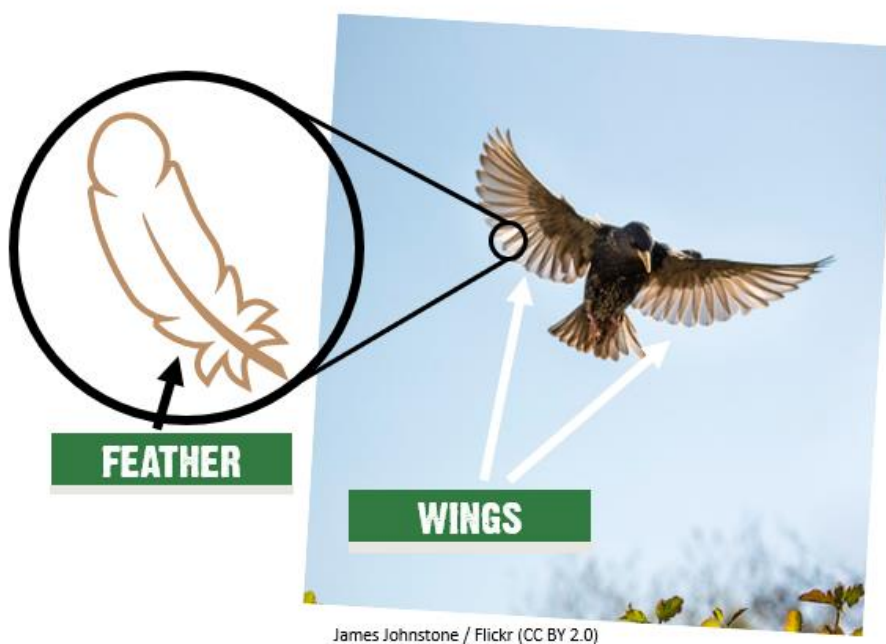


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DID YOU KNOW...?

Starlings' beaks **change colour**! In winter they are **black**, but otherwise they are **yellow**.

You're very likely to see them in the **garden** or in a **park**.



All birds have **feathers**.
Feathers are what makes up the bird's **wings** and **fluffy body**.
What **other** uses do feathers and wings have?

Which of these are birds?



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Why can some birds not fly?
Most have **hollow bones**, but **penguins**, **kiwis** and

emus have **heavy bones**.



BOY BIRDS AND GIRL BIRDS

Some boy and girl birds look identical - like robins. Some are very different.

MALE

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FEMALE



Charles Gates / Flickr (CC BY 2.0)

This **Scottish Crossbill** is **only found in Scotland!**

They live in the **forests** here - what do you think they eat?



SMALL BIRDS

Small birds are the most '**sociable**' - **do you know what that means?**



Ekaterina Chernetsova / Flickr (Public Domain)

The **Whitethroat** is named after its **white throat**. They love gardens - what other birds do you see in your garden or local park?

Small birds also live in the **countryside**, like the **Skylark**.

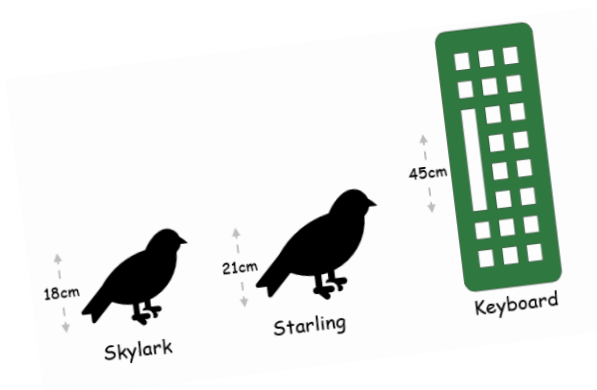
They like to eat seeds in the Summer.



I Am BirdsAsPoetry.com / Flickr (CC BY 2.0)



This **Willow Warbler** is a very small bird. He only visits our forests in the summer.



BIG BIRDS



Big birds are very brave, they like to live in the **town centre**. How many types of pigeon can you name?

This is a **Magpie**. If

Whitethroats and **Willow Warblers** are in the "Warbler" family, **Woodpigeons** in the pigeon family, what is the Magpie in? (What bird does it look like?)





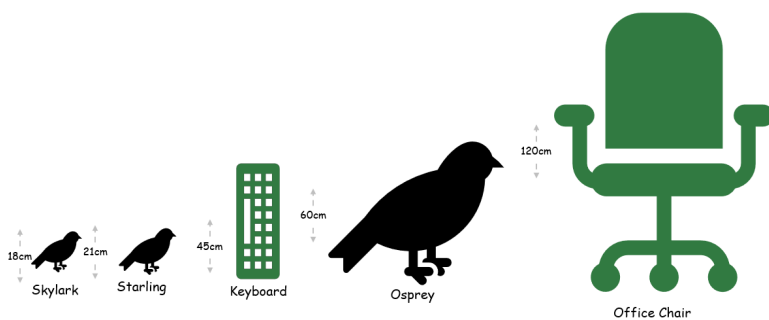
HUUUGE BIRDS

Birds of prey! These birds are **very, very big**. They typically eat **fish, mice, rabbits - or other birds!**

They are excellent hunters due to their **superb eyesight and hearing**. These birds have **hooked beaks and big talons**.

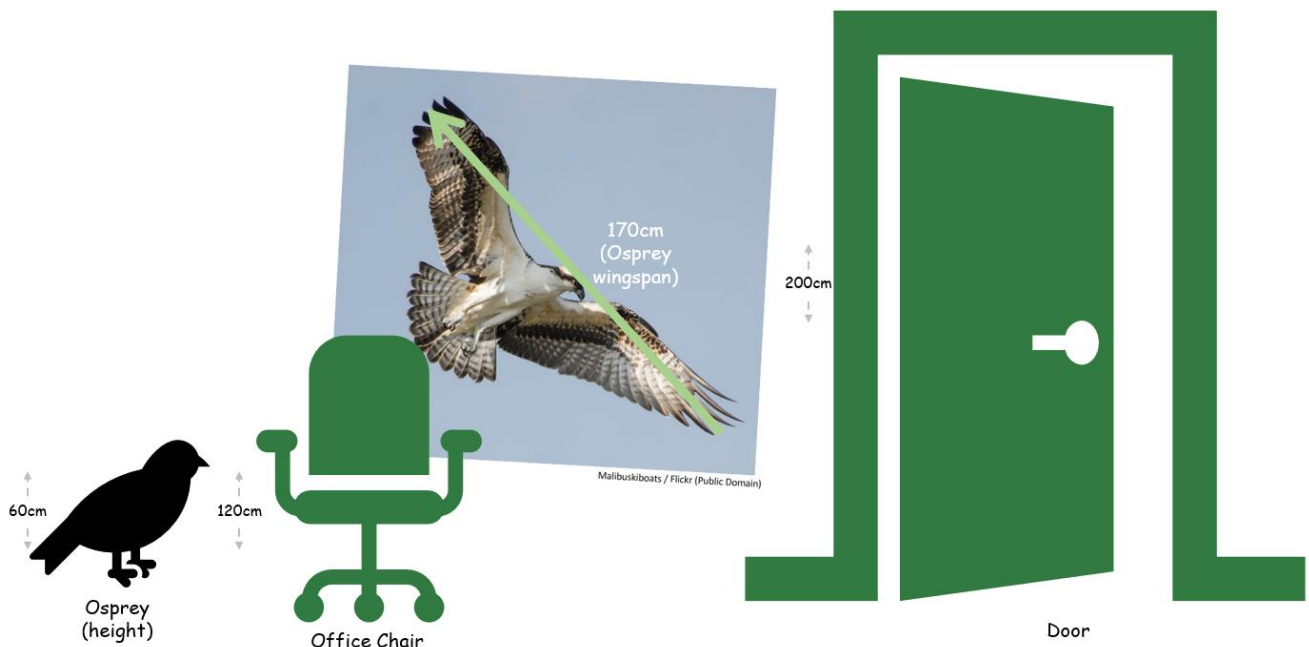


Malibusboats / Flickr (Public Domain)



The **Osprey** likes to visit in Summer and eat **fish**. When they stretch their wings,

they can look **even bigger!**





GARDEN AND PARK BIRDS



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Gardens and parks are great places to find a lot of **food and shelter** - like **seeds, twigs, berries, hedges, flowers and trees**.

Lots of plants means... lots of insects!
Chiffchaffs love to eat spiders and insects when they **visit in the summer**.

Blue Tits also like to eat insects. They live here all year round. **What dangers do you think they might face in your garden?**



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WOODLAND BIRDS



Vine House Farm / Flickr (Public Domain)

The **Woodpecker** makes a very unique sound. **Since we know birds like to live in trees and shrubs, where would we find loads of these? That's right, the forest!**



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The **Great Spotted Woodpecker** likes to live in **deciduous woodland** (trees that lose leaves in autumn.) But you will see them in mature **coniferous trees** (with needles) - like the **Scots Pine tree**.

But no! They don't eat wood!
Woodpeckers drill holes into trees to find **larvae, beetles or spiders**.



FARMLAND BIRDS

Scotland has a lot of farmland. The **Swallow** likes farms because they are **large and open**, so they can spot insects far, far away.

During which season are there a lot of insects?



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Michele Lamberti / Flickr (Public Domain)

This **Wheatear** likes to **hop on the ground** instead of **flying**. Farms do not usually have many **tall** things - like buildings, trees, or mountains.



ScotGov Rural / Flickr (CC BY 2.0)

Look at this picture - **where** would birds live here? And **what type** of bird would live here? **Point to different places** on the picture.



UPLAND (MOUNTAIN) BIRDS



Per Harald Olsen / NTNU (CC BY SA 3.0)

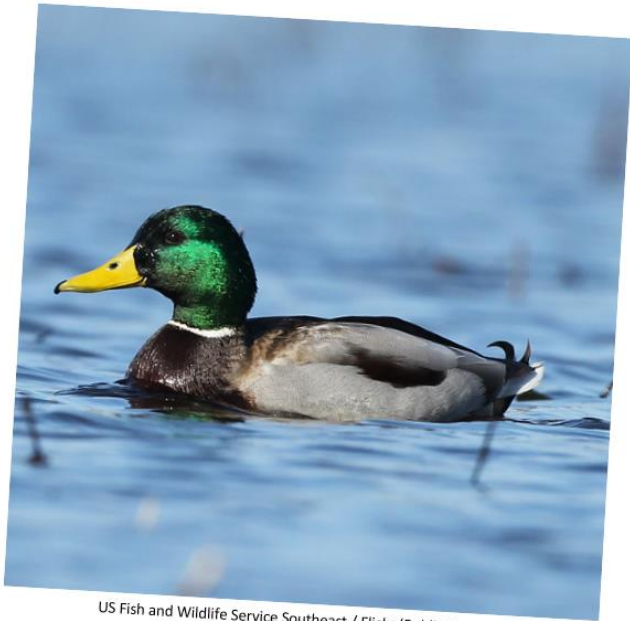
Highland Perthshire has many tall mountains. Not many birds live high up, but in winter there are a few who make it their home.

The **Snow Bunting** visits the **Highlands** from **Canada, Greenland and Scandinavia** in Winter to eat **seeds and berries**.

We have **warmer winters** compared to **countries further north**.



WATER BIRDS



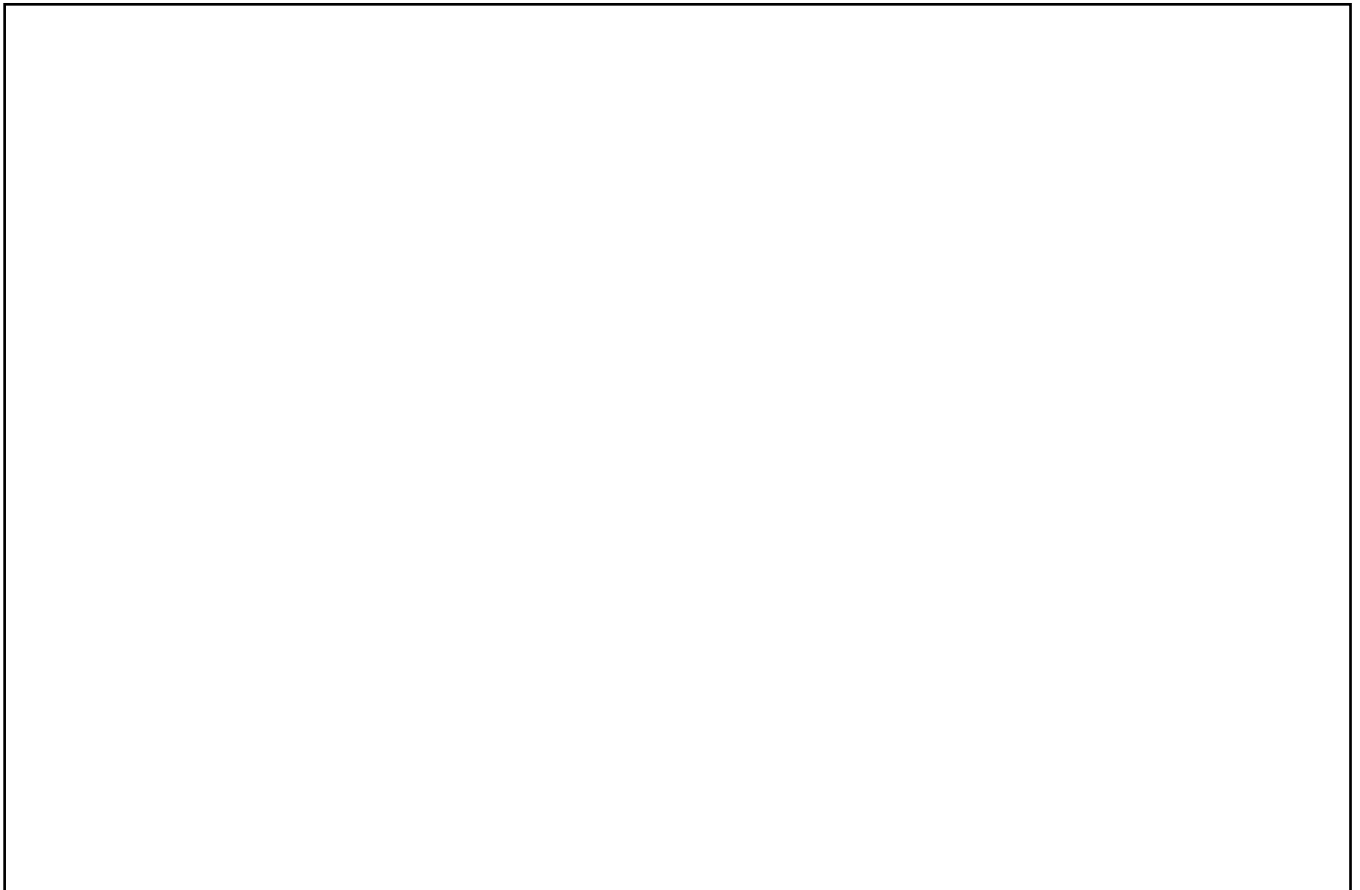
US Fish and Wildlife Service Southeast / Flickr (Public Domain)

Birds are animals with many talents. They can fly, hear very well and see very well. Some are great swimmers too!

The **Mallard** has webbed feet to make swimming easy. They eat fish and plants from the riverbanks.

Try to feed ducks **peas, seeds or oats** instead of **bread**! Bread is very tasty, but it is not very healthy for ducks.

Draw you feeding the ducks healthy food.





BIRDS WHO LIVE IN SCOTLAND



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Many animals move home **every year**, including birds. Some birds fly over seas, some move just a few miles.

When it's gets **colder**, there are **fewer insects and plants to eat**. Birds in Europe migrate north in the spring as there are **more insects further north**.

The **Chaffinch** migrates within Scotland to find **insects and seeds** to eat.

Birds that migrate within Scotland (or birds that don't migrate at all) are **residents** of Scotland.



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SUMMER VISITORS

There are some birds in Scotland that you'll **only see in the summer**! These birds, big and small, arrive to **feast on all the new insects in Scotland**.

One such bird is the **Tree Pipit**! As the name suggests, you can **find them up in the trees**.



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Wildlife Terry / Flickr (Public Domain)

Summer visitors also arrive to **make nests** and **have babies** in Scotland. They **lay eggs**, **raise their young**, then **fly south** again.

This bird, the **Blackcap**, is in Scotland all year round, but they're much more likely to be spotted in the **summer**.



WINTER VISITORS

The Scottish winter may seem **bitterly cold for us**, but for some tough little birds it's **considered warm**.

Our **mild winters** mean **more berries** and **shrubbery** than colder countries, and our **water** typically **doesn't freeze** for long!



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Small, red holly berries are a great food source for waxwings and other winter birds.



PASSING BIRDS

Some birds decide to not stop in Scotland for very long. They stop for a **small break** on a longer trip or to **breed in safety**.



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The **Manx Shearwater** is a **seafaring bird** that visits the **islands and coasts of Scotland**.

Many of them **breed on the west coast**, whereas they **just quickly visit the east coast**. They visit all the way from **Brazil in South America!**



INSECTS AND LARVAE

Birds are small, but they are **excellent hunters and scavengers**. Just like us, birds need to eat. The smallest birds need to eat species that are **even smaller than them!**

Wrens love to eat **insects**. **Insects** are high in **protein and give birds a lot of energy**.

Baby birds will eat baby insects, or **larvae**: **an undeveloped form of an insect**.



Shenandoah National Park / Flickr (Public Domain)



SEEDS AND NUTS



Mathias Appel / Flickr (Public Domain)

The **House Sparrow** has a big appetite. Not only do they eat **seeds**, but they also love to eat **scraps** left by humans.

Seeds and nuts provide excellent sources of **protein** and **carbohydrates** to give birds **energy** and to **help them grow**.

Birds **need healthy fats** to keep their **feathers healthy and strong**. **Seeds and nuts** are great sources of healthy fats for humans, too.



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FRUIT AND BERRIES

Into the winter, insects begin to stop breeding as much and birds need to look for other food sources to keep them fed and healthy.

The Blackbird loves fruit and berries so much that in the wintertime, blackbirds from Europe come to Scotland for our plentiful supply.



Jo Garbutt / Flickr (CC BY 2.0)

Holly berries cannot be eaten by humans or pets, they will make you ill.



CROPS AND GRAINS



Pete Beard / Flickr (CC BY 2.0)

Crops with seeds on the outside are easily-accessible for farmland birds -such as barley, corn or oat!

Crows prefer to pull out the seeds from the ground.

Freshly planted fields can be exposed to hungry crows. To stop this, some farmers use 'scarecrows' to 'scare' the 'crows' away!



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VEGETABLES



Brad Greenlee / Flickr (CC BY 2.0)

When fruits begin to flower, some birds like to eat the buds.

Chaffinches might try to eat from **apple trees**, **pear trees**, or **cherry trees**. When fully bloomed other birds such as **starlings** may try to eat the **new ripe foods**.

Fruit and vegetables that grow out of the ground can also be eaten by birds. Like **strawberries**, **carrots**, **broccoli**, or **spinach**.



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MAMMALS AND OTHER BIRDS



Per Harald Olsen/ NTNU (CC BY 2.0)

Golden Eagles have talons and hooked beaks to kill and eat other animals. They are found in the **hills** and like to eat **rabbits**, **hares**, **sometimes foxes...** and **grouse!**



FISH AND SHELLFISH



Michael Sovran / Flickr (Public Domain)

Puffins are a coastal/sea bird that loves the **colder climates** on the coasts of Scotland.

Even though they look and act a little like **penguins**, **they are not related at all!**

They eat fish!



BIRDHOUSES



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One of the benefits of birds are that they help to make our landscapes greener! They eat seeds and poop them out to plant trees. Their poop also has important nutrients for soil and plants.

Plants may also struggle to **grow** if there are **too many insects**

eating them. Birds help balance this out by eating insects. Without birds, farmers might need to use **chemical pesticides** which can **damage soil and rivers.**



James Johnstone / Flickr (CC BY 2.0)

Forest have declined in Scotland over thousands of years, destroying birds' homes. Bird boxes can help local bird populations.



Ian Sane / Flickr (CC BY 2.0)

To keep these boxes safe for future birds, **we must take care of them.** Many birds **carry fleas, mites and other parasites** which we will need to clean out. After breeding season, **remove the sticks, twigs and grass.**

After that, **boil a kettle and pour the boiling water** all over and inside the bird box. **This will kill**

any nasty parasites. We don't need any sprays or cleaning products.

If **unhatched eggs** are inside, we **must not disturb them** at certain times in the year.

It is illegal to remove bird eggs from nests during breeding season. We can only remove them from **August 1st to January 31st.** **You cannot keep them.**



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Robert Taylor / Flickr (CC BY 2.0)

We can put some **wood shavings** and other materials to allow **insects or small mammals** to **rest** inside the **bird boxes** over winter **when they are not being used by birds.**



CLIMATE CHANGE

Climate change is a massive problem to birds, humans and other animals. It **could change our ecosystem as we know it.**

Climate change is caused by the earth's atmosphere **trapping in heat from the sun.** It traps this heat by being '**thicker**' with gasses such as **carbon dioxide.** Like a blanket or a greenhouse.



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Scotland will get **hotter.** More **birds from warmer countries will move here,** and native **Scottish birds may then have to compete for limited food and shelter.**

Less rainfall will mean that plants do not grow. Insects will not be able to pollinate as many flowers.



HABITAT LOSS



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Around 70% of the UK countryside is used for farming. This means there are fewer hedgerows and woodlands for birds to live in.

Intensive farming means land does not have enough time to regrow healthy habitats for birds and other animals.

Chemical use to get rid of insects may also damage soils and rivers, and even poison birds. Fewer insects also mean birds have less food.

Pollution from cars and littering also worsens nature. Plant life gets damaged, and birds may get plastic stuck in their stomachs.



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DANGERS FROM HOME

Cats are **natural hunters**. One of their favourite things to eat are small birds.

Leafy gardens with lots of trees and bushes will be **safe places** for birds to live. They will have many places to hide and tall spots to look out from.



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Tejvan Pettinger / Flickr (CC BY 2.0)

Another potential danger in our homes is our **windows**. Especially if your **window is reflecting** trees and bushes from the outside; then it will look like the outdoors. You can help by **turning off the lights** when not in use, or by **using window stickers**!