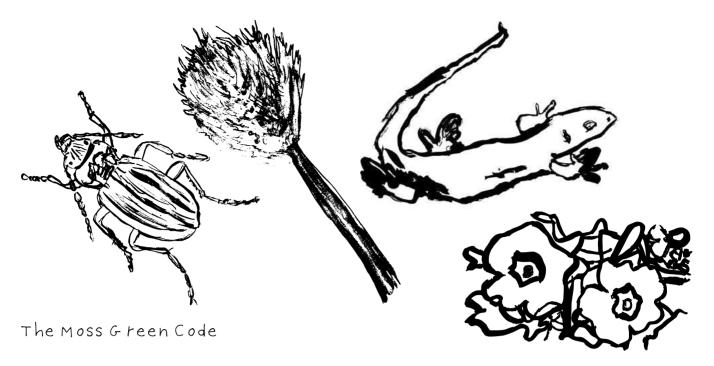




A SPOTTERS GUIDE AND ACTIVITY BOOK



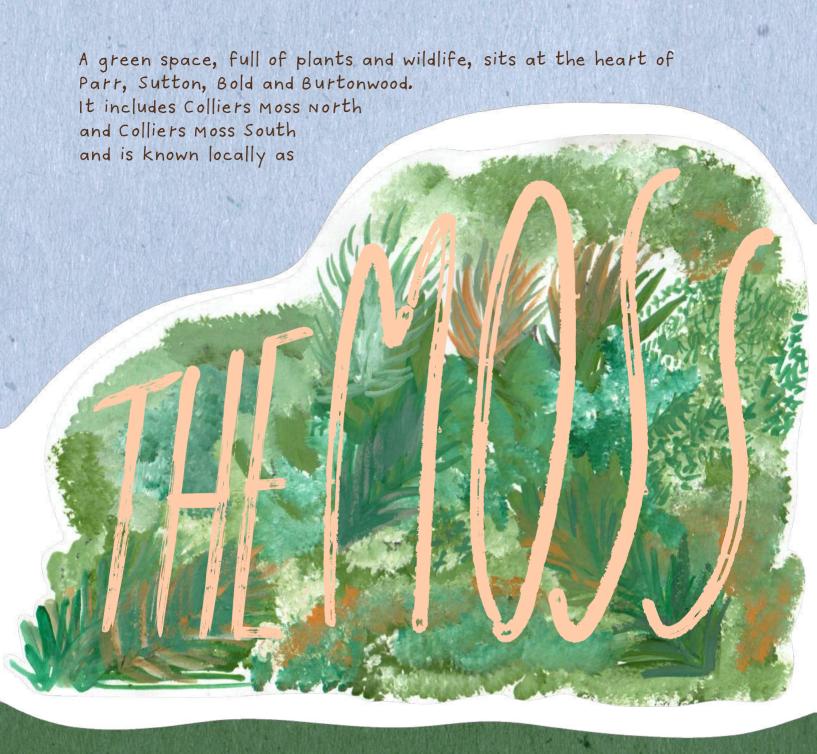
when you are on the Moss, whether spotting wildlife, doing some of these activities or just passing through, follow the Moss Green Code and help keep the Moss a great place for nature.

If you're collecting things for an activity, choose carefully and only pick things you need - make sure to leave enough flowers for the insects. Look for leaves that have already fallen on the ground.

make sure you don't harm any insects while you are collecting things. If you find somewhere where lots of insects live, such as under a stone or log, leave it where you found it and look for another one.

There aren't any bins on the Moss, so please take any litter home with you - this really helps to keep the Moss looking beautiful!





This book has been created by local people who have explored the Moss with Heart of Glass and artists Juneau Projects. We've researched wildlife, walked on the Moss with the Moss Fairies and explored Colliers Moss North with Dave McAleavy from The Mersey Forest & Mark West and Cara Marsden from Green Task Force Veteran Rangers. Together we spotted animals and plants and designed activities to do on the Moss.

We've all made this book together to help you explore the Moss too.



TO CREATURES AND PLANTS ON THE MOSS

You can spot all kinds of creatures and plants on the Moss.

A lot of the creatures are quite shy, so here

are some tips to help spot them!

Find a quiet part of the moss.

Sit or stand quietly for a while and see what creatures come out of hiding. You may have to wait a little while, perhaps 15 or 30 minutes or more. If you have a portable chair you could sit for longer and see what you spot.

You can try different parts of the Moss to see the different creatures that live there. The Moss has a range of environments that suit different animals and plants. Keep an eye out for how the Moss changes as you explore it.

To spot insects like butterflies and dragonflies, look for a patch of sunlight.

They often congregate in sunny spots, especially on a still day.

Different creatures can be seen at different times of the year, so keep a look out each time you visit.

Some birds migrate all over the world, and can only be seen on the Moss at certain times of the year.

The reed warbler, for example, arrives on the Moss in April and stays until August. It then flies thousands of miles to Africa where it spends the winter.

Reed warbler





Amphibians and reptiles



Common toad

Toads are mainly spotted during the warmer months as they hibernate during the winter. They eat slugs,

snails and other insects.

Lizards might be spotted basking in sunny spots. They hibernate during the winter so will only be seen in the warmer months.



The smooth newt spends much of its time out of water, feeding on invertebrates. During winter months it hibernates underground.









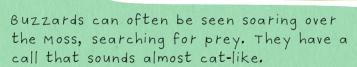
Birds

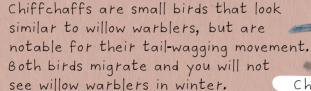
Blue tit



The male blackbird has black feathers and a yellow beak; the female has spotted brown feathers and a brown beak.

Blue tits look similar to great tits but can be identified by their blue heads - great tits have black heads.









Goldfinch

BUZZard

Goldfinches are small finches with striking red, black and white heads. In the winter they roam in large flocks of up to 100 birds, searching for food.



Reed buntings are sparrow-sized birds. The male has a black head; the female has a streaked head. Reed warbler

Water rail

The reed warbler is a summer visitor to the UK, migrating to and from Africa. They are most commonly spotted in reedbeds.

> The robin is famous for its red breast, with both males and females looking alike. They are the UK's favourite bird!

The water rail is a secretive bird that is often heard rather than seen. It is sometimes easier to spot in

Willow tit populations in the UK have dropped drastically since 1970, declining by approximately 95%. The Moss is one of the few places in the UK where these beautiful birds can still be seen.

the winter months.



Garden chafer

Robin



The woodcock is a large wading bird, notable for its long, straight, tapering bill. It is mostly nocturnal and spends its days in the safety of woodlands.



Alder leaf beetle

Ground beetle

The alder leaf beetle is a metallic blue colour and feeds on the leaves of the alder tree. It was considered extinct in the UK until 2004 when it was rediscovered in Manchester.

> Garden chafers are seen mainly between April and June. They are

approximately 8 - 11 millimetres long and have green legs and bellies.

There are many species of ground beetle. Most are shiny black or metallic. They can often be found under tree bark and logsor among rocks.

There are various shield bugs. They vary in colour but are often green and brown. They are notable for their distinctive shield-shaped bodies.

Shield bug



There are around 270 species of bee in the UK. Some live in colonies like this bumblebee, but many are solitary bees with diverse nesting habits.

The common blue is a small butterfly often found in sunny, sheltered spots. The males have bright blue wings, and the females often have less bright, sometimes brown wings.



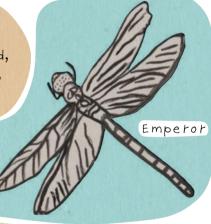
The red admiral is a larger butterfly that enjoys feeding on flowers such as buddleia. Some red admirals migrate to the UK from North Africa in early spring, although some survive the winter here by hibernating.

The black-tailed skimmer is a medium-sized dragonfly. Males have blue abdomens that darken towards their rear, and females have yellow abdomens with a ladder-like pattern.



Common darter dragonflies can be seen late into the year, often until November. The males are orange/ red, and the females are an ochre colour, turning to a dull red with age.

The emperor dragonfly is large with a bright blue body. They are notable for their drooping abdomens when flying.



Ladybird

Common blue

Black-tailed skimmer



The common green grasshopper can be seen throughout the summer. It can often be heard 'singing'. Males rub their legs together to create a churring sound that lasts for around 20 seconds. This 'song' is designed to attract female grasshoppers.

Ladybirds come in various colours and patterns and are often red with black spots. Their bright colours are designed to warn predators that they taste bad.



Woodlice get their name from the fact that they are often found in old wood. They are not insects but are, in fact, descended from marine isopods... when not feeding, rabbits spend a lot of time in their underground warrens (a series of burrows linked by tunnels), often home to up to ten of them at a time.



Mammals





Rabbit

Water voles are protected in the UK as they are an endangered species due to habitat loss and predators. They have chestnut-brown fur and are larger than other voles. They have small ears, furry tails and flat, rounded noses.



Bee orchid





Flowers

Bee orchids have flowers that mimic the appearance of a female bee. This is designed to draw in male bees so that they will pollinate the plant. Unfortunately, the right bee species to do this doesn't live in the UK, so bee orchids are actually self-pollinated.

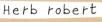


Dandelion

Common water-crowfoot

Common water-crowfoot is a member of the buttercup family. It grows in mats across ponds and streams during the summer.

Dandelions are edible flowers. They flower early and so are a good source of nectar and pollen for insects in spring and early summer.





Dog rose is a climbing plant that weaves between other plants, which it hooks itself to using its curved prickles, to support itself. It has large pink or white flowers with a gentle, sweet smell.

Herb robert tends to grow in shaded areas. It has strongly scented pink flowers that flower from spring to autumn.



This plant is often referred to as the shamrock in Ireland. It is also known as suckling clover. Each of its leaves has three leaflets on short stalks, the centre leaflet being on a slightly longer stalk. Its flowers are bright yellow, turning brown towards autumn.

The marsh thistle can grow to two metres in height. It has purple flowers and provides lots of nectar for pollinating insects.





Lesser hop trefoil



Puffballs are usually found in late summer to early autumn. Though edible when young, they are dangerous to eat once they have begun forming spores, so they should be handled carefully.

Fungi



Turkeytail

The turkeytail is a small bracket fungus that grows in tiered layers. Its caps have colourful concentric rings, but the outer rims are always pale, cream or white.



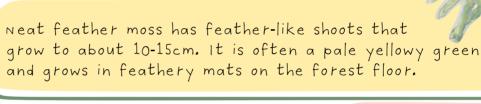
Capillary thread moss

Capillary thread moss grows in patches and tufts, with stems between 1cm and 3cm. It has drooping spore capsules that turn from green to brown as they ripen.



Moss

Neat feather moss





Alder tree leaf



Ash tree leaf

Alder trees are conical in shape. They can often be identified by the small brown cones growing on them all year round.



Trees

Ash tree leaves typically have 3-6 opposite pairs of light green, oval leaflets, with a single leaflet growing at the end. The tree is tall and graceful, growing to a height of 35 metres.



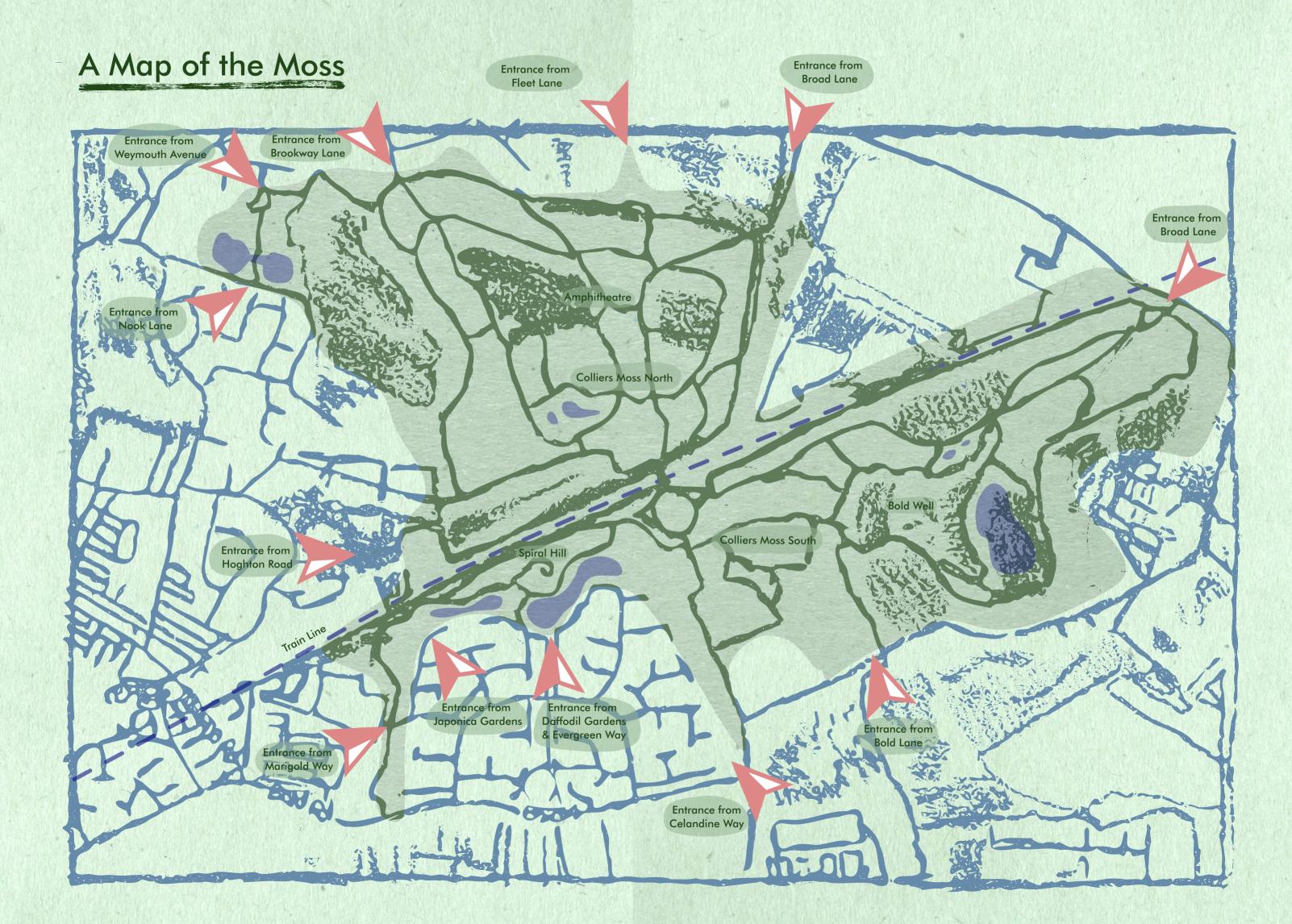
Field maples have five-lobed leaves that turn from a dark green to rich, golden yellow before falling off in the autumn. It is attractive to aphids and so is popular with ladybirds and birds.



Trains, planes and mining machinery

The train line from Liverpool to Manchester runs through the Moss. You can spot trains such as the Northern Rail 156.

What other man-made things can you spot while on the Moss? There is machinery from the old coal mine as well as some artwork. Keep a look out for planes flying overhead!



Conservation

The Moss is a really important resource for nature in St Helens. It's home to some rare creatures, plants and environments. It contains some of the only remaining peat land in the North West. 85% of Europe's peatland is in the UK, so it is great to be able to see some right here in St Helens.

Peat is an important resource. It burns like wood or coal, so it used to be dug up for fuel. It is brown and looks like soil, but is formed by plants, such as sphagnum moss (from which the Moss gets its name), decaying in the acidic environment of bogs and moors. It has a spongy texture when you touch it.

The Moss was once a big flat peatland but 80% of the peat was lost due to coalmining in the area. Today Colliers Moss North still holds a third of all the peat in Merseyside.

Colliers Moss North is now owned and managed by The Mersey Forest. The Mersey Forest is a growing network of woodlands and green spaces across Cheshire and Merseyside, which has been creating 'woodlands on your doorstep' for over 30 years.

The Mersey Forest are doing work to restore the habitats on the Moss, and the Lancashire Wildlife Trust, through the Lancashire Peatland Project, will commence the three areas of peat restoration here. You may see the surface of the peat being churned up - don't worry! This will help it to grow new plants and generate new peat.

You may also see trees being removed. This is called 'thinning'. Sometimes too many trees can grow in one area, which makes it hard for plants to grow as there is too much competition for light. Thinning the trees allows the remaining trees to grow bigger, which in turn helps other plants and animals to thrive.

Colliers Moss North is looked after by a team of rangers. You may spot one of the rangers while on the Moss. They're very friendly - feel free to say hello to them! They know a lot about all the creatures and plants on the Moss, so if you have any questions they're the people to ask!

Here are Dave (from The Mersey Forest) and Cara and Mark (from Green Task Force Veteran Rangers), who all do lots of work on Colliers Moss North to keep it looking beautiful and to help existing and new species of animals and plants thrive:



Colliers Moss North is the most important ecological place in St Helens.

What to say about the Moss? It's pretty much become my home away from home. My heart comes with me every day from Bolton to the Moss.



CARA



Green Task Force is working in partnership with the Mersey Forest and is a veteran intrinsic organisation that promotes a positive pathway for recovery and employment in the land-based sector. The Moss helps us immerse ourselves in nature, build our confidence and work with local community groups. The Moss gives us a focus on nature for healing and enjoying the natural world.

History



The Moss was originally a large peatland. The peat was dug and used as fuel for many years, until the early twentieth century, when other fuels became more popular.

The Moss then spent forty years or so as an untouched natural habitat, with plants and animals living on it.

In 1955 the nearby Bold Colliery (a coal mine adjacent to the Moss) was given permission to begin dumping the waste material from mining, known as spoil, onto the Moss.

For twenty three years, until 1978, nine millions tons of spoil was put on the Moss, causing great damage to the plants and animals that lived there.

This also caused the landscape to be altered from flat peatland to the hilly area we see today.

In 1990, following the closure of Bold Colliery, a lot of work was done to make the Moss into a natural environment again. Paths were put through the Moss so that people could enjoy the landscape once more. The Moss now consists of two areas, divided by the railway line that runs through it: Colliers Moss North and Colliers Moss South. The Mersey Forest own and manage Colliers Moss North, and St Helens Council own and manage Colliers Moss South.

The Moss has been through a lot of changes over the years, and you can see signs of its history all over it as you explore!



The Moss is a great place to do some fun, creative activities. Here are some ideas to get you started!

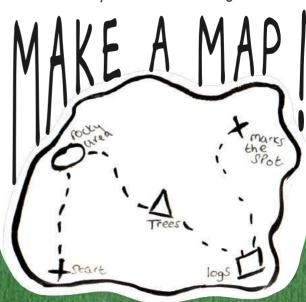


Look for all the different bugs you can find on the Moss. Some of them are included in the spotters guide in this book, but there are many more.

If you have a magnifying glass you can use it to spot the tiny ones. Whoever spots the most bugs wins!

Take some paper and something to draw with when you go to the moss. Something to lean on like a book or clipboard could be useful too. Make a map of your walk.

You could include things you have seen along the way as well as the paths you are taking.



ORIENTEERING!

Set a challenge to find your way to a part of the Moss. It could be an area or landmark. You can also set challenges along the way.

Lets find our way to the pit head wheel...

we have to spot five different birds along the way...

...and photograph eight different flowers!

You could also imagine you are an animal running through the Moss. Can you find the paths the foxes take? Can you find a good spot for a nest?



Like normal eye spy, but using your other senses as well.

"I hear a sound up in the air that's short and high pitched" "Is it a buzzard's call?" "That's right!"



"I smell something sweet and fragrant"

"It's a dog rose!"

MOSS TERRARIUMS

You can make a terrarium to keep plants in with an old jam jar or something similar.

when you're on the Moss, collects a few small moss plants.

Just take small pieces and leave some behind so it can keep growing. Don't dig up any other kinds of plants.

when you're back home, add compost or mud from the garden to your jar. Then arrange your moss top. Water your moss and keep it damp. It grows very slowly, but it will stay green if it's happy with the amount of water and light it is getting.

STONE PAINTING!

Collect a stone or two from the Moss. Take it home and paint a picture on it.

You could paint something from the Moss on your stone -a bird, a water vole, a dragonfly, a northern Rail 156.

You can keep you stone or leave it outside somewhere for someone else to find.



PAPER MAKING

You can make your own paper from scrap paper, cardboard and packaging using a kitchen blender.

Mix your scrap together with water to make a paper pulp.

Then sieve out the water.

Put the pulp on a tea towel and roll it flat with a rolling pin and leave it to dry.

You can also buy paper making frames that you pour the pulp into to make the paper sheet. You could make one by attaching some fine mesh fabric to an old picture frame.



You can find instructions and videos online that will show you the easy paper making process.

You can collect things from the moss like fallen leaves to add to your paper mixture and you can even press them into the surface when the paper mixture is wet!



The Moss is full of stories and history. You may even have your own memories of the Moss. Here are a few stories we were told while exploring the Moss. Do you know any more?

THE ROMANTIC APPLE TREES

Across the moss you can spot several apple trees. These were never planted by anyone, so how they got there is a bit of a mystery.

One theory is that when miners would walk to and from Bold Colliery at the start and end of the day they would often eat an apple that they had brought with them, and toss the apple core away when they had finished. Over the years some of the seeds from these apples took hold and now there are little clumps of apple trees all over the Moss!

STEPHENSON'S ROCKET

'Stephenson's Rocket' was a very important early steam locomotive, designed and built by Robert Stephenson. It won the Rainhill Trials (held in nearby Rainhill!) in 1829 and became the design upon which steam engines were built for the next 150 years. The track it was tested on was part of the Liverpool and Manchester Railway, which now runs through the Moss. The track, designed in part by Stephenson, was also built on cotton bales (produced in Lancashire) to help float it across the local mosslands.

PINE NEEDLE TEA

Feeling a bit under the weather? Did you know that pine needles have more vitamin C in them than oranges? Mark the ranger makes himself a pine needle tea, from needles he picks on the Moss, that gives him all the vitamin C he needs! He warned us though: Don't use yew tree needles as they are poisonous. Make sure to check with someone who knows before picking any pine needles!

The illustrations, ideas and activities in the book were created by:

Arabella, Amelia, Antony, Bella, Carolyn, Charlotte, Den, Emily, Esmeralda, Gary, Grace, Hayley, Henry, Jasmine, Jensen, Joanne, Katie, Landon, Lynn, Maddy, Marcie, Nevaeh, Paula, PCSO Emily, PCSO Nadine, Pixie-Lou, Rachael, Rhyannon



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We would like to thank everyone for their encouragement and enthusiasm for this project. Happy exploring on the Moss!

Ben and Phil Juneau Projects

This booklet is available for digital download:

https://www.heartofglass.org.uk/HeartOfTheMoss



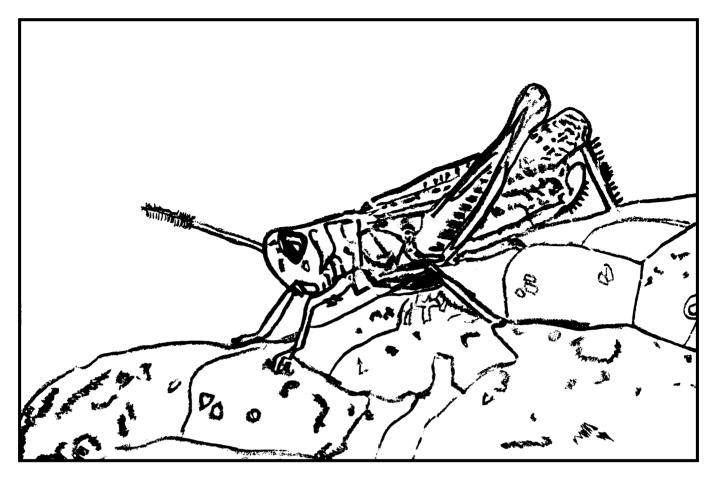












Feeling inspired?

Have a go at colouring in these black and white versions of some of the illustrations. There's more at the front of the book too!

