

I CAN GROW

THE
FOOD ON
MY PLATE



IN A
CHANGING
CLIMATE

A HAPPY
PLACE

FOR
WILDLIFE

PROJECT GUIDE

Small changes to make a big difference



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YOUR INSPIRATION PACK INCLUDES:

- **This project guide!** – Use it to plan your campaign, and choose how you’re going to use the power of plants to get others on board with an environmental or social cause you believe in
- **Two packets of powerful seeds** – Borage is pollinator friendly and its flowers are edible. Lamb’s Ear is covered in tiny hairs which feel nice to touch and is great at trapping polluting air particles
- **A card activity** – Use this to start thinking about the benefits of different plants and to help you decide which cause you want to campaign for
- **Event poster** – Fill this in with all the right details to encourage other people to come and find out about your cause
- **Speech bubble** – Write on this with wipeable marker and send us photos of what you can grow, i.e. ‘I Can Grow...delicious food to share!’

SMALL CHANGES TO MAKE A BIG DIFFERENCE

Welcome to I Can Grow! This project is a chance to discover the benefits of gardening, not only to you, but also to your community, the local area and even the wider world!

PICK A THEME

With your help we want to encourage people to start taking positive action and making small changes in order to protect our irreplaceable planet. You can get involved by shouting about an environmental or social cause that you and your group believe in, which fits into one (or more!) of these four important themes:

Wildlife | Climate change | Food growing | Wellbeing

Discuss these themes with your class or group and decide which is most important to you. Play the card activity in your inspiration pack and use the resources in this project guide to encourage research and debate.

MAKE SOME NOISE!

Once you’ve chosen a theme, you’ll need to get to work and show why it’s important to grow for that reason. Using our help and resources we’d like you to:

CREATE A CAMPAIGN

Actively inspire others to get involved and share the ways that plants can play an important role in solving or supporting your chosen issue or cause

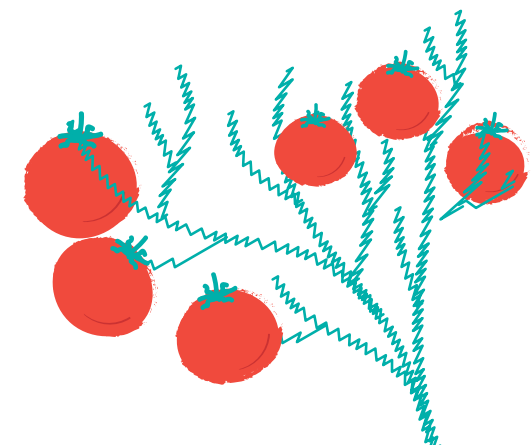


HARNESS THE POWER OF PLANTS

Use plants to support your cause and witness first-hand how gardening can make a big difference in our lives

In this guide you will find information and inspiration to help you pick a theme, create your campaign and get growing.

Now let’s get started...



CREATING A CAMPAIGN

Once you've chosen your theme, find your voice and shout about the benefits of gardening and the power of plants! Plan your campaign and decide how you're going to inspire others to get behind your cause.

TOP TIPS ON RUNNING A SUCCESSFUL CAMPAIGN

Work with your group and agree on how your campaign is going to run. You'll need to think about the following:

1. Set your goals

What do you want to achieve? You might want to pick one element of your theme to focus on. Perhaps you want to encourage pollinators into your garden, or use water more sustainably when caring for your plants?

2. Choose your target audience

Who do you want to influence? Do you want other classmates or group members to get involved? Are you trying to convince your family or community to act differently?

3. Find out more

You might want to research your cause or talk to the people you aim to influence - run a survey, ask questions! Find out what others know about your cause already and see if you can inspire them to get involved

4. Decide how long your campaign is going to last for

This could be anything from two weeks to two months, or more!

5. Chart your success

What will you do to measure the impact of your campaign? How will you know if it's been a success? Collect quotes from people and take photos to chart your efforts. Why not carry out a survey before and after your campaign to see how it's made a difference?

SPREAD THE WORD



How are you going to tell others about the power of plants or get them involved? Take a look at our suggestions and come up with ideas of your own!

Hold an event – host an assembly, garden work party, plant sale, gift-giving day or a bug hunt to inspire others to grow for your cause

Create a display – design persuasive posters to stick up around your school or community, or collaborate with others on a wall display

Make a video or write a blog – chart your progress, share success stories, interview people or ask them why they think gardening is important

Get social – ask your teachers or group leaders to share your campaign online. We'll promote your projects where we can, to help raise awareness of your campaign

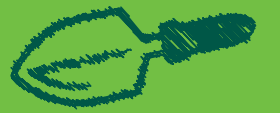
Do a dress up day – ask if you can hold a themed event and get everyone to come dressed up. You could come as different plants, wear old t-shirts that you've decorated, or simply dress in outdoor clothes ready to do lots of work in the garden!

HARNESSING THE POWER OF PLANTS

As part of your I Can Grow campaign, you'll need to explore the power of plants and show how they can benefit our lives in support of your theme.

GREEN FINGERS AT THE READY!

Have a think about how you are going to use plants to support your cause. You could follow one or more of our suggestions below – or come up with your own ideas!



Grow plants to sell – tell people how these plants can benefit the wider world, then put any money you make back into your garden to keep growing for your cause

Give plants as gifts – brighten somebody's day by giving them a plant or a flower as a gift!

Host a seed swap – hold a community event and give away extra seed in exchange for something new you'd like to grow

Replant an area of your garden – you could add to an existing bed or plot to support your cause. Why not include pollinator friendly flowers, pollutant trapping shrubs, new vegetable varieties or brightly coloured blooms?

Create a whole new garden or growing area – sow a wildflower meadow, create a composting corner, start off a sensory garden or dig out a new vegetable bed

Share home grown food with others – invite others to enjoy your produce with you. How many mouths can you feed?

Conduct an experiment – carry out tests related to your theme. Do some quadrat sampling to find out how many insects you have in your garden before and after planting for wildlife. Ask people how happy or relaxed a sensory garden makes them feel. Measure the temperature of the air around two pots, one of which is planted up with air cooling plants

Do some research – what facts or statistics can you find out about the ways in which plants power the planet?

THINK BEFORE YOU GROW

If you're planning on growing new plants or adding to your garden, think about which plants relate to your theme.

If you are growing for **wellbeing**, why not grow flowers that smell good, or have bright colours, and give them to neighbours to make them smile?

Grow pollinator-friendly flowers and berry-laden shrubs to encourage **wildlife** to visit your garden.

If you are planting to combat **climate change**, consider adding plants to your outside area that trap pollution particles or plan how you could work sustainably to conserve resources.

Why not attempt to produce **food** to feed everyone in your school or group, to show how easy – and delicious – is it to grow your own?



SHARE
YOUR
CAMPAIGN

Take photos of your activities, collect quotes and chart each stage of your campaign to evidence your work!



Share photos with us on social media using #ICanGrow or send them to schoolgardening@rhs.org.uk

Find out more about sharing your hard work with us on page 14.

I CAN GROW FOR WILDLIFE

Why's it important?

Biodiversity refers to the web of interconnected species of animals, birds, plants and insects that exist on earth. Wildlife plays an important role in sustaining the planet and affects everything from the food we eat, to the fuel we use, medicines we take and our changing climate. Allowing nature to thrive in your garden increases biodiversity and has a knock-on effect, which influences these processes and more.

What's the current situation?

Some species such as hedgehogs, stag beetles, song thrushes and sparrows are in decline in the UK, which means we have less biodiversity and we are seeing fewer of them in our gardens. This is partly down to habitat destruction due to urbanisation, but habitats are also changing due to intensified farming methods, pesticide use and climate change.

DID YOU KNOW?

There are at least 1,500 insect pollinator species in the UK¹

Conservation projects have helped to save the large blue butterfly, pool frog and red kite from UK extinction²

Between 1970 and 2013, 56% of UK wildlife species declined³



What can you do?

By managing your garden to supplement natural habitats, you can support a huge number and variety of wildlife.

- **Plant a mix of native and non-native species** such as wildflowers, berry-laden bushes and nectar/pollen rich plants to provide food and cover for as long a season as possible
- **Introduce inviting spaces** such as bug hotels, bird feeders, hedgehog houses and bat boxes
- **Build a pond** to provide a water source and encourage frogs and different insects to the garden
- **Compost organic waste** so that worms can break down the uncooked food you throw away and turn it into a fertile soil improver for your garden
- **Avoid the use of pesticides** as these can kill off beneficial insects
- **Make a rock or log pile** in a shady spot to provide shelter for beetles, spiders, woodlice and more!
- **Leave areas of grass to grow long** to protect small mammals such as mice, voles and shrews

BRILLIANT FOR BIRDS

- Elderberry (*Sambucus nigra*)
- Sunflower (*Helianthus annuus*)
- Blackberry (*Rubus fruticosus*)
- Crab apples (*Malus species*)
- Ivy (*Hedera helix*)

PERFECT FOR BEES AND BUTTERFLIES

- Lavender (*Lavandula angustifolia*)
- Teasel (*Dipsacus fullonum*)
- Crocus species
- Catmint (*Nepeta x faassenii*)
- Thistle (*Cirsium species* and *Carduus species*)

RESOURCES

Use these ideas to help you start making a difference to the wildlife in your area.



MAKE A MINI-WORMERY

Witness worms mixing up layers of soil and munching through plant material, and begin to understand why they are so important in our garden.

1. Cut 1/4 off the top of a clear plastic, 2 litre bottle and save it to form a lid.
2. Fill the remaining part of the bottle with alternate layers of soil and sand. Spray each layer lightly with water, as worms like a damp home.
3. Head outside and collect worms! Stamping feet, soaking the ground with water and forking the soil should gradually bring them to the surface.
4. Gently add a few worms to the top of your wormery and watch them burrow down. Provide 'worm food' on the top - vegetable peelings, dead leaves and shredded newspaper are favourites!
5. Worms don't like light, so wrap the bottle with black cardboard to encourage them to burrow around the outside where you can see them. Place the wormery in a safe indoor place and secure the lid.
6. Each day, slide the cardboard tube up to observe the worms at work. Check the soil is damp and top up their food as required.
7. After a week, carefully return your earthworm engineers to their original habitat.



BUILD A BUG HOME

Create a haven for insects to shelter in during the cold winter months or nest in during the summer. Think about the insects you are hoping to attract and 'furnish' the home to suit your guests! Some solitary bees like to nest in hollow plant stems, whereas ladybirds prefer to creep into tiny crevices.

1. Cut the end off a plastic drinks bottle (milk, fizzy drink etc), or use a plant pot.
2. Cut strips of corrugated cardboard that are slightly shorter than the depth of your container. Roll the materials into tubes and secure them with a little glue, leaving gaps of 2-8mm in the centre. Collect bundles of hollow plant stems and bamboo canes, and cut to the same length.
3. Pack the materials tightly into the opening of the bottle or plant pot. Fill any extra space with twigs, leaves or seed heads. Make sure cardboard is placed well inside the bottle – if it gets damp, insects won't use the home!
4. Secure your bug home in a raised, protected spot, with the open end slightly lower down, to give moisture a chance to drain out. Keep an eye out for visitors!



1 <https://www.bumblebeeconservation.org/threats-and-pressures/>
2 http://www.wildlifetrusts.org/sites/default/files/state_of_nature_uk_report_pages_1_sept.pdf
3 http://www.wildlifetrusts.org/sites/default/files/state_of_nature_uk_report_pages_1_sept.pdf

I CAN GROW IN A CHANGING

Why's it important?

The Earth's climate is changing and rapid shifts in temperature around the world are leading to a greater number of extreme weather events such as flooding, droughts and late frosts, which drastically affect life on Earth. Ecosystems are not able to keep up with the rate of change. Many parts of the world are becoming too warm for native plant species, which cannot adapt fast enough to survive. But don't panic, many plants can also help to tackle climate change, and there is time to start making a difference.

What's the current situation?

Global warming is caused by a build-up of gases such as carbon dioxide and methane, which become trapped in the Earth's atmosphere and heat up the planet. In order to reduce the impact of climate change, we need to produce fewer gas emissions and start using energy more efficiently. Around the world, people are using plants to take action against climate change, by planting new forests in order to take carbon dioxide out of the atmosphere, and learning about plants that are good at cooling air, dealing with extreme drought or flooding, or trapping pollution particles.

DID YOU KNOW?

8 of the 10 warmest years for the UK have occurred since 2002 ⁴

7 of the 10 wettest years for the UK have occurred since 1998 ⁵

By 2080, summers could be up to 6.5°C warmer



What can you do?

- **Reduce, reuse and recycle** anything you can when gardening. Milk bottles, toilet roll tubes and empty compost bags can be used for watering, sowing seeds, or suppressing weeds
- **Create a green roof** to reduce the risk of flooding and cool the air
- **Choose the right plant for the right place** by taking the environmental conditions into consideration, i.e. plant drought-resistant plants in dry areas
- **Install a rainwater butt** to a downpipe or greenhouse to provide extra water for your garden
- **Add a peat-free mulch to your beds** to reduce evaporation, suppress weeds and improve soil health, reducing the need for synthetic fertilisers and pesticides
- **Plant a rain garden**, which can receive run-off from roofs and other hard surfaces. Fill it with plants that can stand waterlogging for up to 48 hours at a time

GREAT FOR GREEN ROOFS

- **Biting stonecrop** (*Sedum acre*)
- **White stonecrop** (*Sedum album*)
- **Lamb's ear** (*Stachys byzantina*)
- **Houseleek** (*Sempervivum species*)
- **Thrift** (*Armeria maritima*)

TOLERANT OF CLIMATE EXTREMES

- **Purple Top** (*Verbena bonariensis*)
- **Willow** (*Salix alba*)
- **Common poppy** (*Papaver rhoeas*)
- **Bay** (*Laurus nobilis*)
- **Fountain bamboo** (*Fargesia nitida*)

CLIMATE



RESOURCES

Use these ideas to help you start making a difference to our planet.

BIODEGRADABLE PLANT POTS

Get your seeds off to a good start using recycled plant pots. When the seedlings are ready to go outdoors, just pop the plant straight into a prepared hole. The pot will break down naturally. Good for the environment and the plant!

Use up old newspaper

1. Take a sheet of newspaper and fold it almost in half lengthways. Fold up the extra bit – like an envelope!
2. Using an unopened tin can, place it curved side down so the top lines up with the top of the overlap. You could use different sized tins to create pots of different sizes!
3. Starting at one end, roll the paper around the can.
4. Squash in the bottom part of the pot, where there is the largest gap.
5. Shake the can out of its wrapping and fill your empty pot with compost, ready for planting. Remember to keep a hand under the base when transporting it. Although it may seem fragile at this point, the pot will be sturdy after watering.

Reuse empty toilet rolls

1. Make four cuts into one end of your tube, reaching about a third of the way up.
2. Fold over the flaps as you would to seal a cardboard box.
3. Fill the empty pot with compost ready for seed sowing!



PLANT A GREEN WALL

Environmental change requires team effort. If everyone in your group recycles just one milk bottle each, sows one plant and takes part in one burst of gratifying team work, you could create a whole, sustainable green wall. When each person gives just a small amount of effort, together great things can be achieved.

1. Collect plastic two or four litre milk bottles. Cut an opening in the side of each one, and make some small drainage holes in the base. Cut through the handle, close to the bottom, to create a hook (be careful of any sharp edges).
2. Fill each bottle with compost and plant a seedling of your choice. You could fill the bottles with edible plants, such as herbs or cut-and-come-again salad, or colourful flowers to make a big impact. Water your seedling in.
3. Hang the bottles from a fence or wall. You might need to use tacks or wire to secure them. Arrange them in a close-knit grid, so that when the plants at the top get watered the run off goes to those below.



⁴ <https://www.rhs.org.uk/science/gardening-in-a-changing-world/climate-change>
⁵ <https://www.rhs.org.uk/science/gardening-in-a-changing-world/climate-change>

I CAN GROW THE FOOD ON

Why's it important?

Growing your own produce is rewarding and can help reduce your carbon footprint, as your food doesn't need to be transported, stored or packaged. When you grow your own food organically, you understand where your meals come from and can be sure that they are pesticide-free.

What's the current situation?

There is huge demand across the globe for a wide range of fresh produce to be available all year round. Some foods, like apples, can be grown in the UK and come into season at certain times. During the rest of the year, these foods often have to be imported from other parts of the world, and this requires huge amounts of energy. Many people in the world don't have access to adequate food supplies, whilst others produce huge amounts of food waste.

DID YOU KNOW?

There are more than 2,000 food banks across the UK⁹

A packet of salad seeds (costing the same as one bag of mixed salad leaves) could provide enough salad for a month's supply

In the UK, we throw away 7 million tonnes of food and drink from our homes every year, the majority of which could have been eaten¹⁰



What can you do?

- **Reduce your food miles** by growing produce for specific meals, and planning recipes
- **Grow in any space you have** using pots, raised beds, wooden pallets, old sinks, fruit crates, large cooking oil or food tins – you name it!
- **Grow plants that have multiple uses**, such as radishes, which can be grown for the root crop or for the leaves, which make a tasty addition to salad
- **Rotate crops each year** if possible, to maintain nutrients in the soil and reduce pests and diseases
- **Compost organic plant waste** so that it can be put back on to your garden to improve the soil
- **Grow green manures** to improve soil structure, provide food for wildlife, reduce soil erosion, prevent leaching of nutrients and keep weeds down
- **Make a planting plan** to ensure you can eat home grown food all year round and include vegetables like cabbage, chard and parsnips for winter harvesting

COMPANION PLANTS

- Marigold (*Calendula officinalis*)
- Chives (*Allium schoenoprasum*)
- Nasturtium (*Tropaeolum majus*)
- Wormwood (*Artemisia absinthium*)
- Sage (*Salvia officinalis*)

SPEEDY CROPS THAT CAN GROW IN 3-13 WEEKS

- Radish (*Raphanus sativus*)
- Spinach (*Spinacia oleracea*)
- Carrots (*Daucus carota*)
- Peas (*Pisum sativum*)
- Lettuce (*Lactuca sativa*)

MY PLATE



RESOURCES

Use these resources to discover how easy and exciting it is to grow your own food!

GROW A SALAD SNACK

Use sunny windowsills or create indoor hanging pots to grow quick cropping salads that will keep your taste buds working all year round.

Perfect pea shoots

1. Buy cheaply priced, dried marrowfat peas from the supermarket.
2. Fill pots with multi-purpose compost, make holes twice the depth of the peas and drop one in each hole. Sow as many as possible, making sure they are not touching. Cover the holes with compost and water well. Leave them in a warm, light place.
3. Within a week you should see pea shoots peeping through the compost. They are ready to eat as soon as they have leaves!

Sweetcorn shoot success

1. Fill pots with compost and spread sweetcorn seeds evenly over the surface, making sure they do not touch. F1 Bodacious sweetcorn is good for 'all year' growing.
2. Cover the seeds with 2cm of compost and water well with a fine spray. Keep them in a warm, light place and the shoots should be ready to eat in eight days.
3. Experiment with the effects of light - place some pots into a warm, dark cupboard and some in a warm, sunny place. Sweetcorn shoots grown in the dark should be sweeter but don't take our word for it, give it a try!



PIPS AND SEEDS

Have you ever finished a piece of fruit, looked at the pips and wondered whether they would grow? Growing plants from pips is a fun, low cost activity that, with a little enthusiasm and patience, can be done successfully indoors, all year round.

1. Cut open fruits to find the seeds and carefully remove and wash them. Seeds from large fruits need to be scraped to remove the fruit flesh. Don't forget to taste the fruit!
2. Keep apple and pear seeds in the fridge for a few weeks to get them to start growing. Bring them out into a warm place, indoors.
3. Fill a pot with compost, make a hole twice the size of the seed, drop it in and cover with compost.
4. Water, and cover the pot with a plastic bag. Place in a warm spot if the fruit is from a warmer climate (i.e. orange, lemon, grape, pomegranate).

You may discover you have grown the world's next best variety but remember, fruit trees take years to produce a crop. You could end up with an exotic houseplant like a date palm or avocado plant - they may not bear fruit but are amazing none the less!



I CAN GROW A HAPPY PLACE

Why's it important?

Research has found that gardening is beneficial for everyone's health and wellbeing. Heading outdoors can provide us with a welcome escape from our hectic lives. Gardening gives us a sense of responsibility which can help to boost our confidence and make us feel connected to the world around us. By working with nature, we can relax and enjoy living in the moment, feeling that we are making a difference.

What's the current situation?

Due to modern pressures, adults and young people are experiencing a range of mental and physical health problems. Gardens are spaces where many people find they can relax and enjoy their surroundings, whether they are working outdoors, caring for plants and watching them grow, or whether they just want a calm space to be in.

DID YOU KNOW?

Studies have found that gardening can help to reduce stress and anxiety⁶

A soil bacterium has been found to increase levels of serotonin (a 'happiness hormone')⁷

Gardening can be a form of moderate- to high-intensity exercise⁸

What can you do?

- **Grow plants for the five senses** such as chives, rosemary, sage, thyme, mint and lavender
- **Get outside to relax** and simply enjoy your surroundings or calm yourself down after a stressful situation
- **Do some exercise** that gets your heart pumping, such as digging, raking or turning compost
- **Develop a new skill** and enjoy the sense of achievement. Try something new, such as weeding or pruning, or learn how to make something for the garden, such a bug home or recycled plant pot
- **Notice the small things** by taking time to look around you. Explore what plants feel or smell like. Close your eyes and listen - what you can hear in the garden?
- **Grow plants that can be given away** to hospitals or care homes to brighten up their outdoor spaces. Sharing with others helps them and makes you feel good too

TOP SENSORY PLANTS

- **Lavender** (*Lavandula angustifolia*)
- **Mint** (*Mentha spicata*)
- **Swiss Chard 'Bright Lights'** (*Beta vulgaris subsp. cicla var. flavescens*)
- **Greater quaking grass** (*Briza maxima*)
- **Sage** (*Salvia officinalis*)

THE HEALING POWER OF PLANTS

- **Garlic** – reduces blood pressure and fights infections
- **Peppermint** – soothes headaches and muscle pain
- **Aloe vera** – sap soothes and heals skin
- **Lavender** – helps with anxiety and insomnia
- **Echinacea** – stimulates the body's immune system



RESOURCES

Use these ideas to help make our world a happier place.

AWE AND WONDER!

Appreciating the world around us involves close observation, not just looking. Taking time to listen to what is important to others helps us to appreciate life from a different perspective.

1. In pairs, head outside and find things in the natural world that fill you with awe and wonder. Make sure you're armed with the means to record your findings (tablet or phone). You could take individual or sets of photos, short videos or sound bites.
2. There are no rules to discern what you capture, as long as you can tell others about why it is important to you, or why you find it amazing.
3. Use these sentence starters to help guide you in choosing what to record.
 - This plant is important to me because...
 - When looking at this place I was reminded of....
 - This sound helps me to.....
 - This moment makes me smile because....
4. Present your recordings to a wider group and enjoy sharing your experiences.



NOTICE SMALL THINGS

When the natural world starts becoming as unnoticeable as the wallpaper, it's time to recharge the senses, get outdoors and refocus. This activity involves collecting natural objects, using strips of double sided sticky tape on pieces of card which act as a mount board for your findings.

1. Come up with categories of things to look for. Either decide on categories to look for as a group, or nominate a few people to come up with secret ideas (i.e. particular colours, 'miniscule', 'important', 'smaller than my fingernail', 'furry', 'scratchy' - you can be as inventive as you like!) Use slips of paper and write down one category on each.
2. Distribute the slips of paper around the group. At this point, don't tell anyone else which category you have been given! Make sure everyone has a piece of cardboard with a sticky strip on it.
3. Set a time limit and then head off in search of natural materials which link to your category. Attach these to the sticky strip.
4. Display what you've gathered. Can the category be guessed without telling? Discuss the choices and reasons for each collection in your group.
5. This activity could be the inspiration to writing a group descriptive poem, with each strip acting as the basis for an individual verse.



⁶ <https://www.rhs.org.uk/science/pdf/climate-and-sustainability/urban-greening/gardening-matters-urban-greening.pdf>

⁷ <https://diygarden.co.uk/health/natural-antidepressant-in-soil/>

⁸ <https://www.sciencedaily.com/releases/2014/01/140131130850.htm>

SHARE YOUR HARD WORK

We'd love to see what you get up to during your I Can Grow project.

Take photos at each stage of your campaign, make videos, collect interesting quotes and share them all with us.

We'll be giving away spot prizes and campaign badges for our favourite pictures and stories each week.



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schoolgardening@rhs.org.uk



RHS CAMPAIGN FOR

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