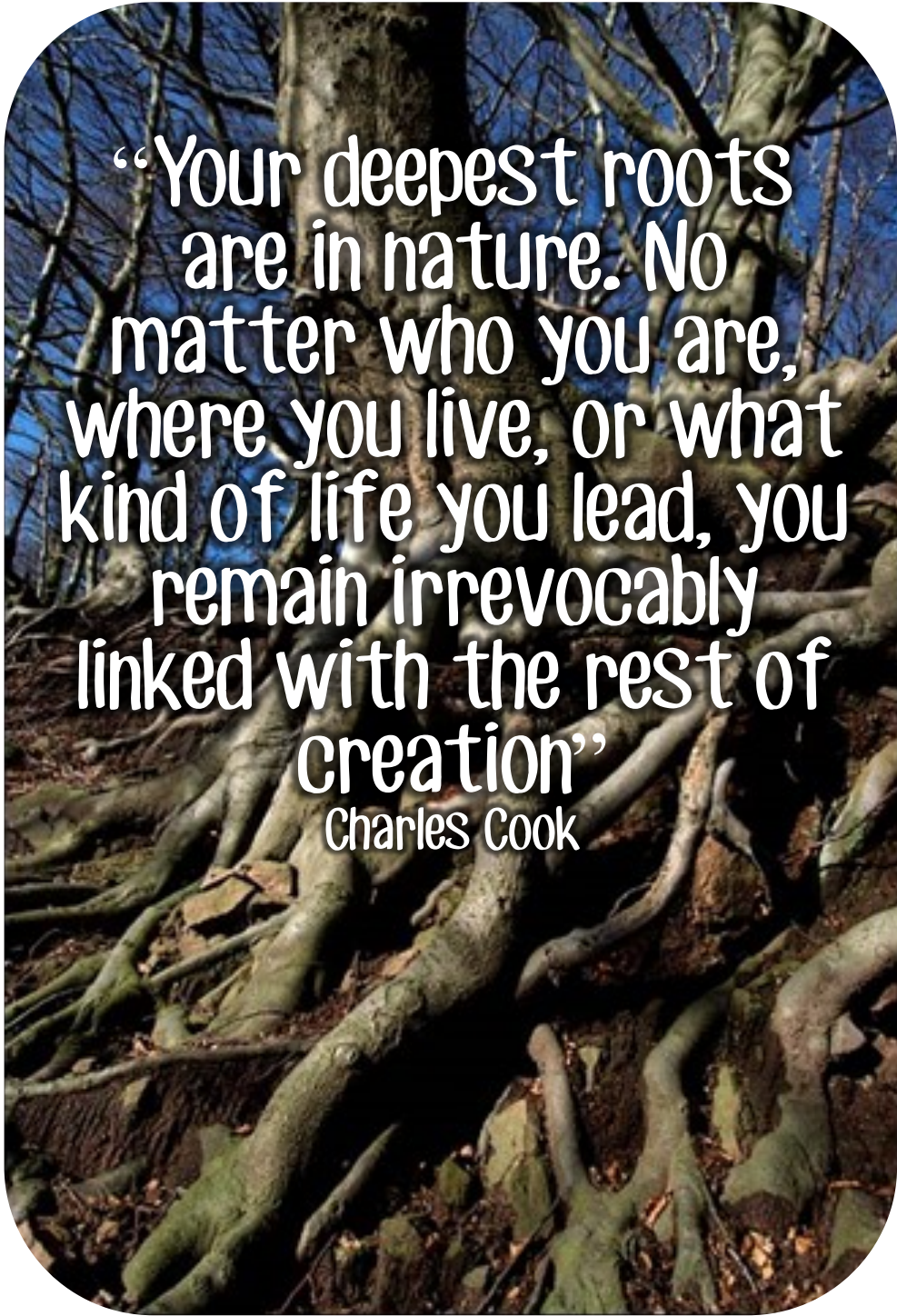




# Nature at Work

Engaging with nature for a happier and more sustainable workplace

“He who is in harmony with Nature hits the mark without effort and apprehends the truth without thinking.” Confucius



“Your deepest roots  
are in nature. No  
matter who you are,  
where you live, or what  
kind of life you lead, you  
remain irrevocably  
linked with the rest of  
creation”

Charles Cook

# We ARE Nature

Humans have evolved amidst everything else on our planet, and we therefore have a deeply rooted evolutionary preference for connecting with other forms of life.

This love of living things and affinity with nature is known as **biophilia**. This term was first used by Harvard naturalist Dr. Edward O. Wilson to describe what he saw as humanity’s “innate tendency to focus on life and lifelike processes”.

*Write down 3 ways that this affinity with nature affects you personally:*

- 1.
- 2.
- 3.

Human beings have evolved to function best in nature-rich surroundings—being in or near nature is good for us. **It also helps us to become better employees and better learners, in turn creating more effective teams and organisations.**



# Research shows that ...

- Workers exposed to sunlight and natural elements in the workplace report better moods, higher satisfaction with their work, and more commitment to their employer *(An M, Colarelli SM, O'Brien K, Royajian ME, 2016)*
- Flowers and plants in a workplace increase cognitive functioning and can create a 15% rise in innovative ideas and more creative, flexible problem-solving *(Ulrich, 2009)*
- Using nature analogies and embedding experiences in a larger natural context helps people to find meaning when experiencing change *(Berger & McLeod, 2006)*
- Connection with nature has a significant positive effect on autonomy, personal growth, and purpose in life *(Nisbet, Zelenski, & Murphy, 2011)*
- When people relate to nature they experience greater feelings of vitality, regardless of levels of exercise and social activity *(Ryan et al, 2010)*
- People who spend 15 minutes each day in nature develop a more positive outlook than those in urban conditions *(Mayer et al, 2009)*
- People who affiliate with nature derive a greater sense of meaningful existence which in turn boosts well-being *(Howell, Passmore, & Puro, 2012)*
- When immersed in a natural environment, people report feeling more connected to others and to the world around them *(Terhaar, 2009)*
- Walking in nature improves memory by up to 20% *(Perman et al. 2008)*
- People are more considerate and generous when exposed to nature *(Ryan, Weinstein, 2009)*
- Being immersed in nature and disconnected from technology increases creative problem-solving ability by 50% *(Atchley et al, 2012)*
- Exposure to nature leads to improved cognitive functioning and mental well-being *(Kaplan, 1993, 2001)*
- Being in a forest reduces pulse rate, blood pressure, and cortisol (stress hormone) levels *(Chiba University)*

These research findings show some of the ways that connecting with nature could help people to function better at work. Read through them and consider:

- How could this knowledge be helpful to my team/organisation?
- What practical action can I take to apply this in my workplace?

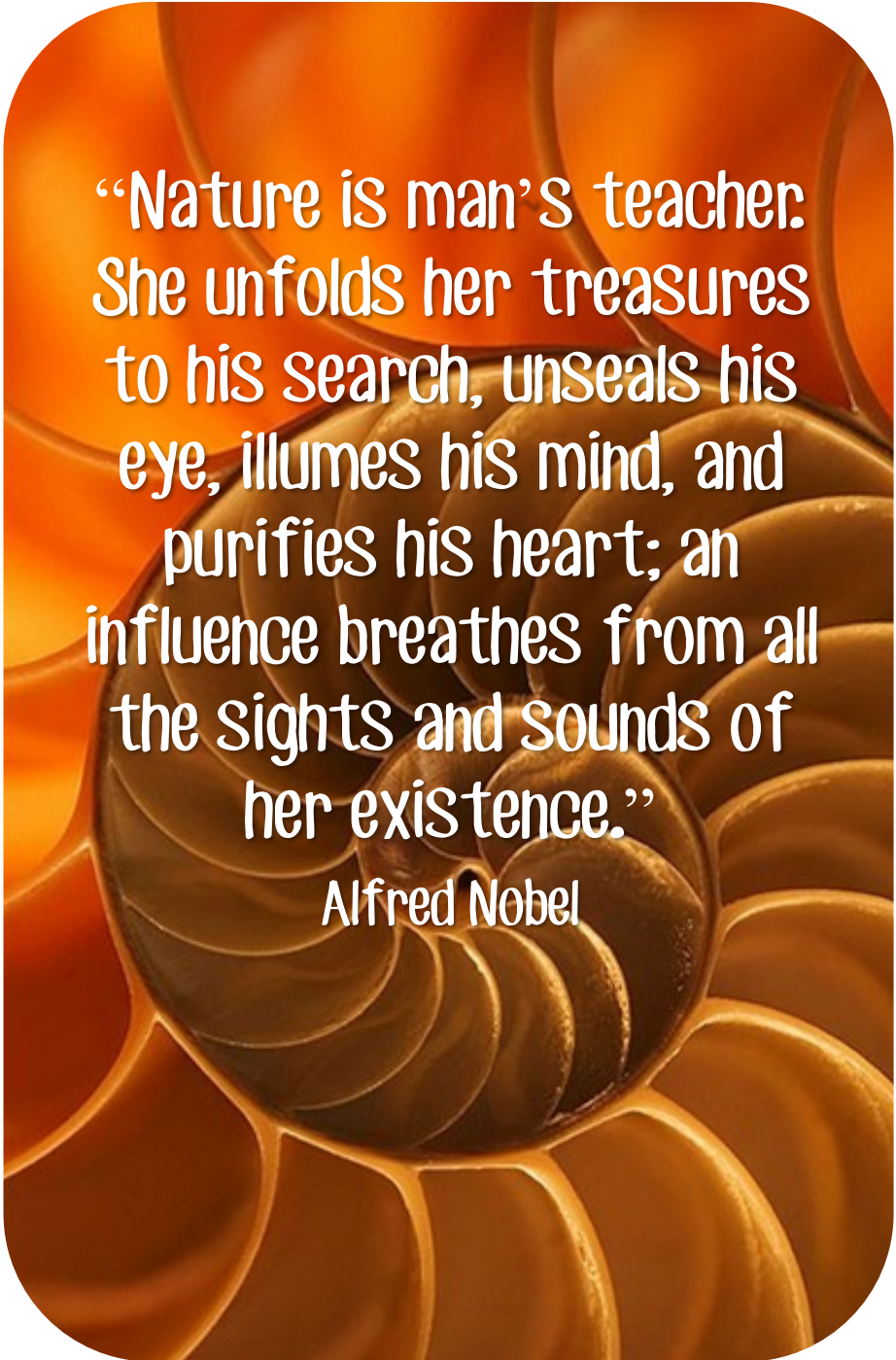
*List 4 actions that you can take to connect your employees with nature*

1.

2.

3.

4.



“Nature is man’s teacher.  
She unfolds her treasures  
to his search, unseals his  
eye, illumines his mind, and  
purifies his heart; an  
influence breathes from all  
the sights and sounds of  
her existence.”

Alfred Nobel

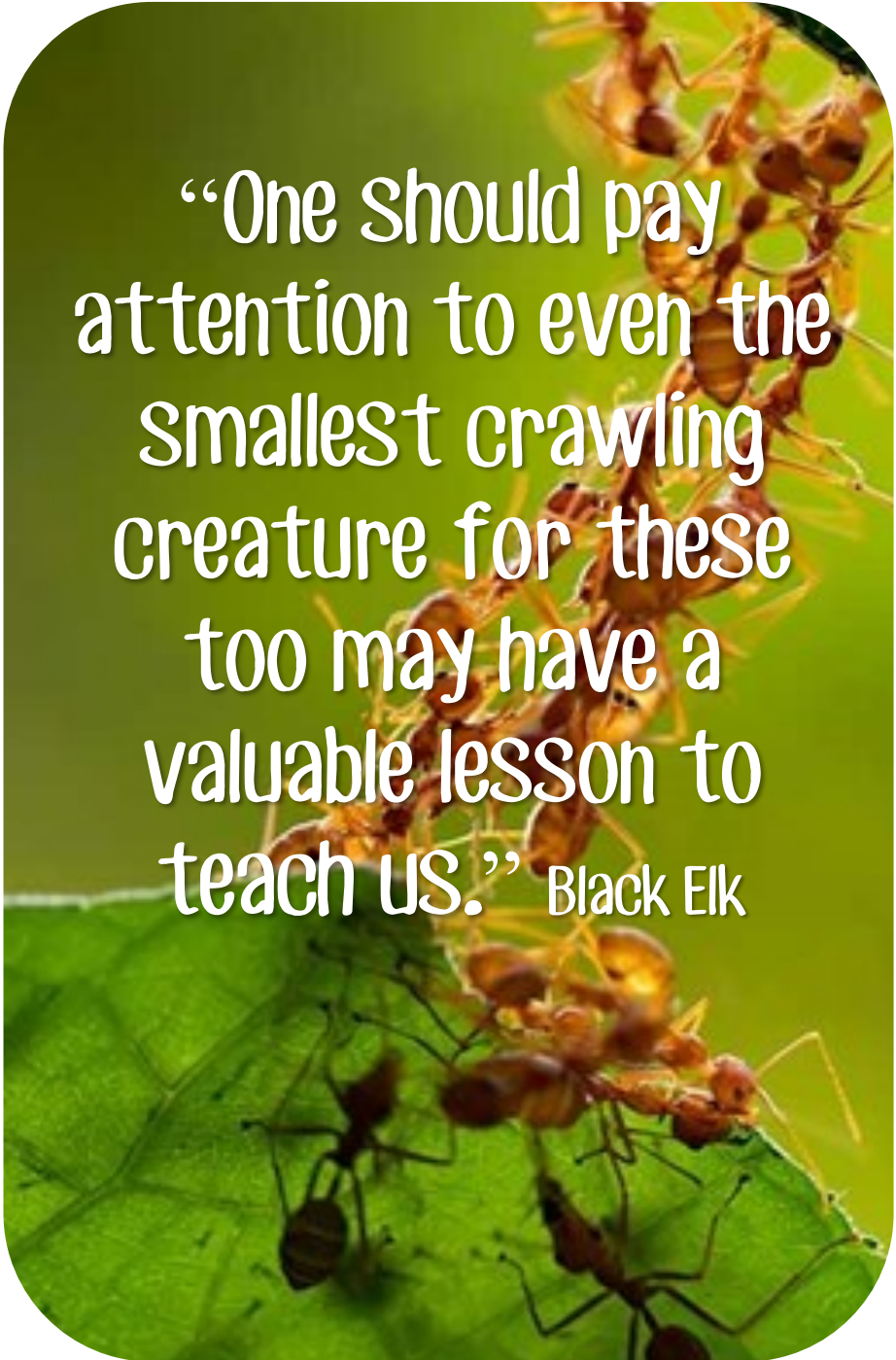
## Learning in Nature

Being in nature improves our ability to focus and pay attention, our cognitive processing, and our memory, enhancing brain function and increasing our ability to learn. Stress and negative emotions are two of the biggest barriers to learning, but nature reduces stress and elevates people’s mood so they are in a positive learning state. Help people learn better by ...

- Using venues with gardens or access to nature and outdoor space, or going to the local park
- Bringing picnic blankets if no outdoor seating is available and work outside.
- Getting people to take a walk whilst doing individual reflective activities or paired discussions.
- Bringing nature into the training room with flowers, plants, natural materials, essential oils.
- Opening the windows so that people can hear the sounds of birdsong, the wind in the trees etc.
- Using recordings of bird song, rippling streams, or other nature sounds (available online).
- Using visualisations where people visualise themselves in nature.
- Create training activities where people use items from nature such as sticks, leaves, shells etc

*What else could you do? List your ideas below:*





“One should pay attention to even the smallest crawling creature for these too may have a valuable lesson to teach us.” Black Elk

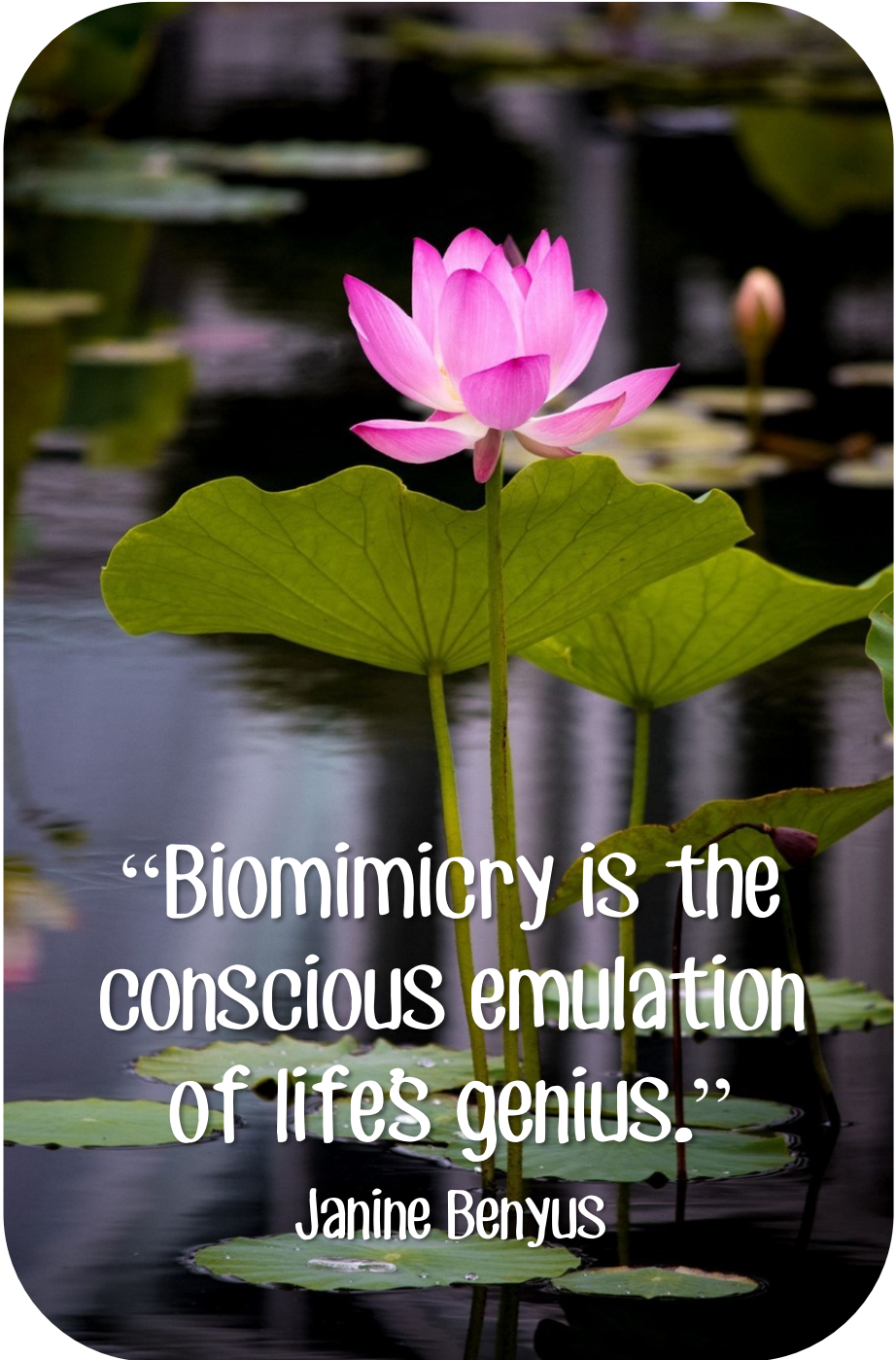
## Learning From Nature

Nature is a sustainability authority and expert problem solver with over 6.5 billion years of experience. She is infinitely complex, diverse, subtle and inventive and we should look to her for guidance, learn her lessons, and adopt her principles.

There are many ways we can do this including:

- Solving problems and generating new ideas by imitating nature (biomimicry)
- Helping people make sense of complex ideas or processes by using metaphors from nature
- Promoting self-reflection and enabling people to gain deep insights by connecting them with nature for self-awareness and personal growth

*What issues could you address by using nature to help generate ideas and solutions?*



“Biomimicry is the  
conscious emulation  
of life's genius.”

Janine Benyus

# Biomimicry

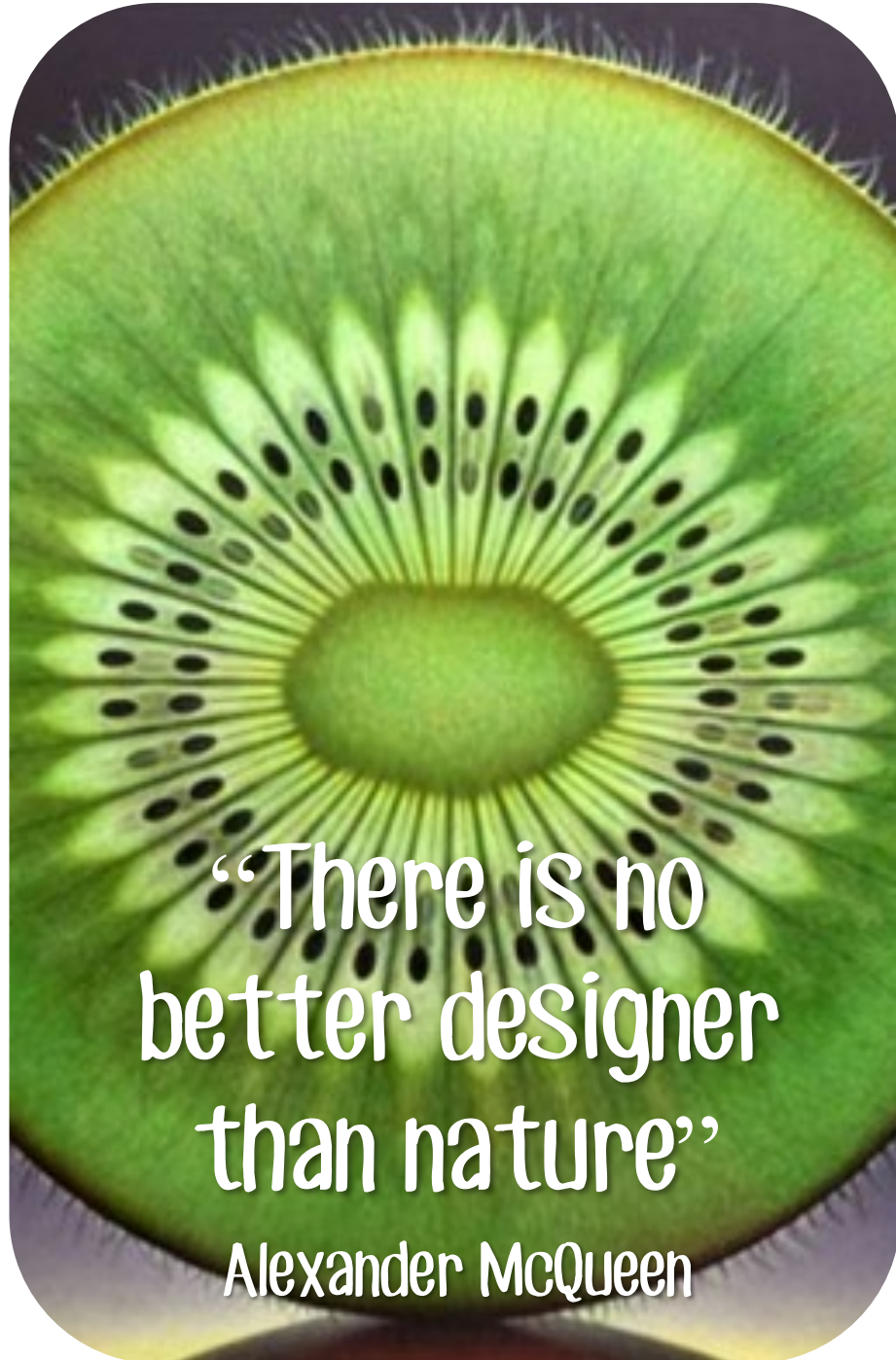
**Biomimicry** is the imitation of the models, systems, and elements of nature in order to solve problems, improve processes or generate new ideas. There are many examples of innovations inspired by nature, including...

- Velcro was invented by Swiss engineer George de Mestral in 1941 after he was inspired by the burrs he had to remove from his dog.
- German company Ispo developed self-cleaning paint inspired by the lotus plant which naturally repels dust and dirt due to tiny nail-like protuberances which cause water to collect any dust and debris as it rolls over the surface.
- Supply chain companies are solving logistics problems by learning from ants, who find the optimal path between food and nest regardless of obstacles.

Visit <https://biomimicry.org/biomimicry-examples/> to be inspired by more examples

*How can your team/organisation solve problems by studying nature's best ideas?*





“There is no  
better designer  
than nature”

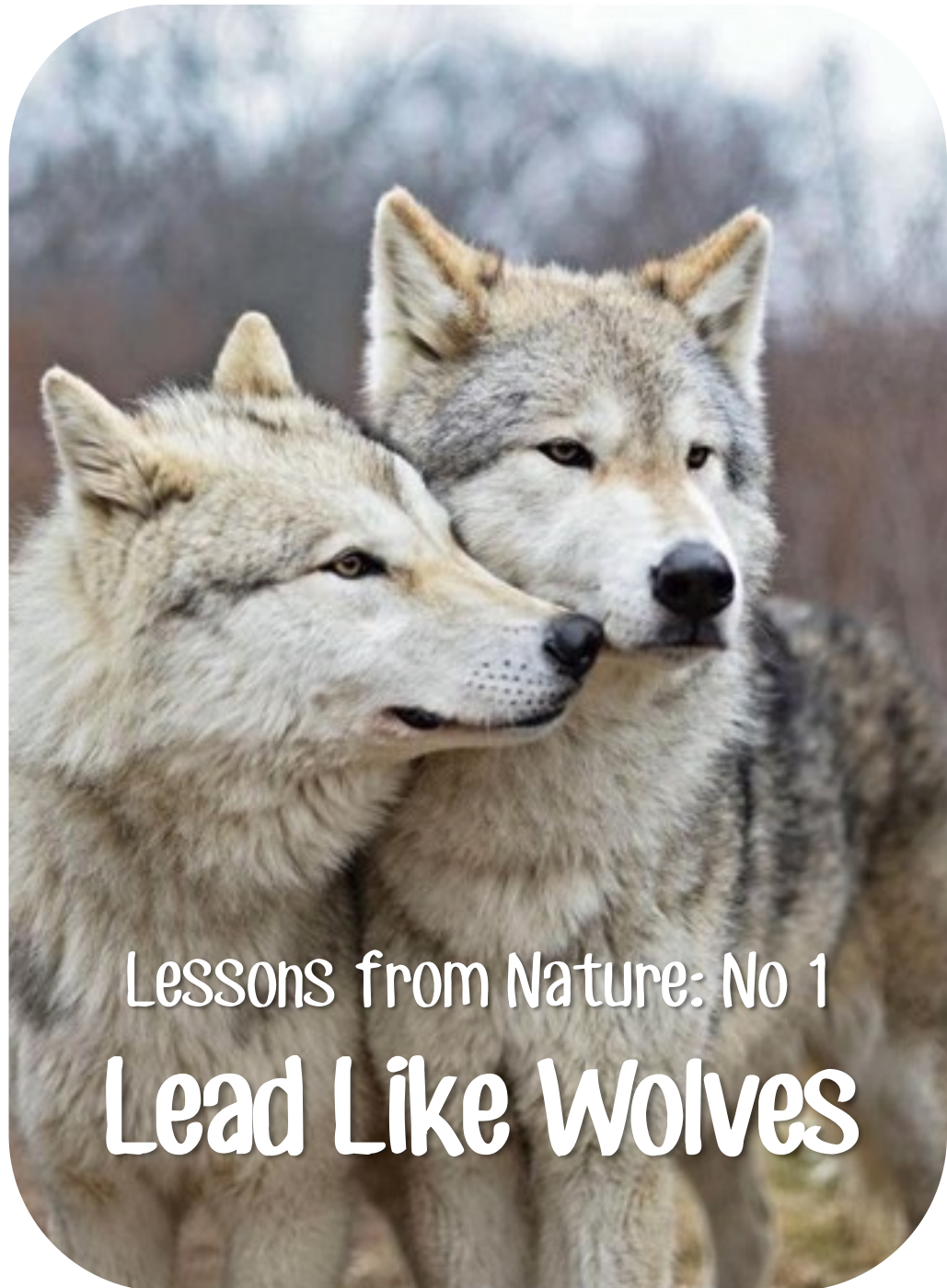
Alexander McQueen

## More on Biomimicry

Janine Benyus, one of the key proponents of Biomimicry, outlined the **9 Basic Principles of Biomimicry** as follows:

1. Nature runs on sunlight
2. Nature uses only the energy it needs
3. Nature fits form to function
4. Nature recycles everything
5. Nature rewards cooperation
6. Nature relies on diversity
7. Nature demands local expertise
8. Nature curbs excesses from within
9. Nature taps the power of limits

*Choose one or two of these principles to discuss in a team meeting and identify ways in which your organisation can apply this principle to improve its culture or its performance.*



## Lessons from Nature: No 1 Lead Like Wolves

### In the wild, wolves share leadership—the alpha wolf concept is a myth

In their natural environment, wolf packs aren't led by the biggest, strongest or bravest wolf—the leadership role is shared. Different wolves take on leadership roles in different situations according to their abilities, while the main role of the overall pack leader is to unite and create harmony within the pack. The experience or abilities of each wolf are recognised by the other wolves, so that if a wolf makes a decision in a particular situation, it is accepted by the whole group. The wolves accept decisions made by wolves in leadership roles because they trust that this leader wants the best for them.

*How can you or your team or organisation share leadership so that everyone's gifts and talents are recognised and used?*

*How can you ensure that people trust those who take on the leadership role at different times or in different situations?*

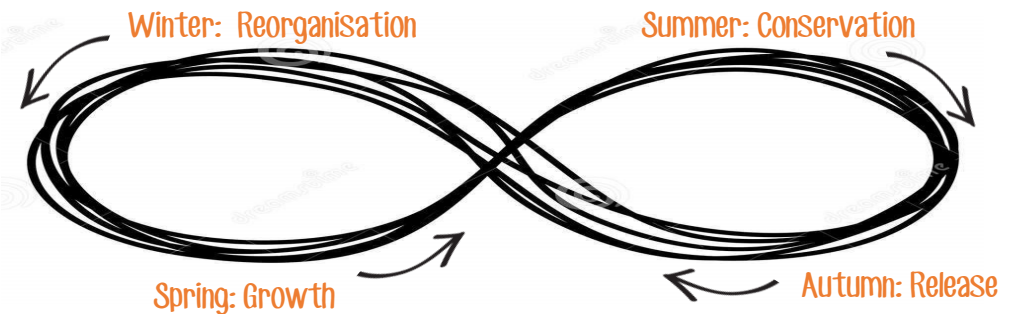


# Lessons from Nature: No 2

## Everything is cyclical

### All natural processes go through 4 key stages in the “Panarchy Loop”

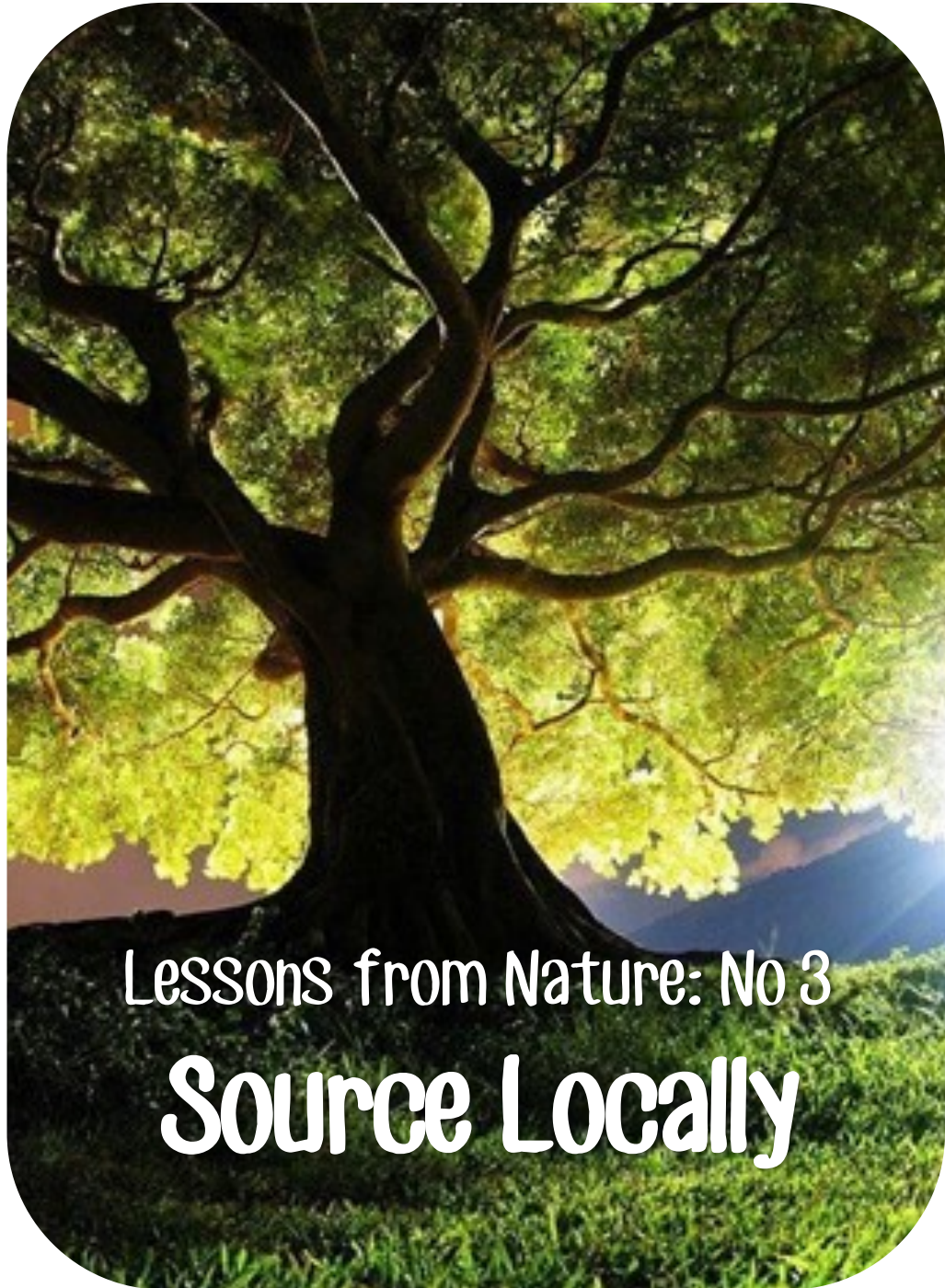
These four stages are Growth, Conservation, Release, and Reorganisation. In nature the stages may take place over a few days (eg life cycle of a butterfly), over the course of a year (eg the seasonal cycle of spring, summer, autumn, winter), over hundreds of years (such as the formation of a forest) or over millennia (such as geological processes), and each stage is essential to the cycle.



*On your own or with a group, consider the cycle of the seasons and identify the processes that take place at each stage. Why are these necessary in order to move into the next stage of the cycle?*

*Use this as a metaphor to identify what is needed at each stage of a project cycle, the life cycle of a team, or the future of the organisation as a whole.*





## Lessons from Nature: No 3 Source Locally

**In nature, organisms don't source the materials they need from far away—everything is sourced locally and recycled.**

For example, the leaves of a tree are made from materials in the tree's local environment (eg the soil it grows in). These leaves capture local solar energy (sunlight), draw water from the ground and carbon dioxide from the air around them, and turn them into the oxygen and simple sugars that it needs for growth and reproduction. At the end of the growing season, the leaves fall, decompose and these raw materials are returned to the soil to be re-used by the same tree or by other organisms.

*How can you or your team or organisation create systems that use locally-sourced resources and materials and ensure that these are reused or recycled?*





## Lessons from Nature: No 5 Self-organise

Bees use collective intelligence—they coordinate complex activities without any single bee in control.

Bees, ants and other social species work together so that the individual behaviours and responses of each member are combined in order to make better decisions and achieve more than any single member could do alone.

This “collective brain” has 5 key features:

1. Self-organised networks
2. Aggregating fragments of scattered information to see the big picture
3. Cultivating diversity and independence
4. Communicating openly and constantly in all directions
5. Making decisions using simple rules and feedback loops

*How can you use these principles of collective intelligence and self-organisation to function better as a team or organisation?*





## Lessons from Nature: No 6 Collaborate and Communicate

### Trees communicate and collaborate with each other via the “Wood-Wide Web”.

There is a vast, interconnected network throughout the woods formed by millions of species of fungi and bacteria through which trees share resources and information with each other. For example a dying tree shares its resources (sugar, nitrogen, phosphorous) with others, young seedlings receive extra nutrients from stronger neighbours, and trees under attack from aphids send signals to nearby trees telling them to increase production of aphid-repelling chemicals.

*Watch the short film “How trees secretly talk to each other” at  
<https://www.youtube.com/watch?v=yW0qeyPIVRo>*

*How can your team or organisation create a web which enables better communication, collaboration and mutual support?*



A photograph of two elk in a field with a forested hill in the background. The elk are in the foreground, one with large antlers. The background shows a dense forest of evergreen trees on a hillside under a cloudy sky.

# Lessons from Nature: No 7 Everything is interconnected

## Nature is a complex collection of interconnected, interdependent systems

Ecosystems are geographic areas where living elements such as plants, animals and other organisms and non-living elements such as rocks, temperature, and humidity are inextricably linked to act as a system which generates and sustains life. Every factor in an ecosystem depends on every other factor, either directly or indirectly. Ecosystems can be very large or very small, such as a rock pool or a tropical rain forest. When any part of an ecosystem changes, it has a knock-on effect on other parts of the system.

*Watch the short film “How Wolves Change Rivers” at*

*<https://www.youtube.com/watch?v=y5a50PhXz-Q>*

*Choose a natural ecosystem to act as a metaphor for your team/organisation. Draw it, identifying the different elements within it, and decide which aspects of your team/organisation they represent (including processes, resources, stakeholders, people, values, culture, departments etc).*

*Explore how these are interconnected by considering how changes to one element will affect other elements. Use this approach when making decisions.*



# Long-term benefits of using and engaging with nature

By acknowledging and nurturing our connection with nature and by looking to nature for solutions, inspiration and ideas, we can improve the way organisations work and create real and lasting benefits for individuals, organisations, the planet and future generations

## For employees:

- Improved health and wellbeing
- Increased energy, creativity, concentration, and insight
- The ability to reflect and learn
- Improved problem-solving and decision-making abilities
- More harmonious relationships
- An improved working environment

## For organisations:

- Purposeful, ethical leadership
- Increased productivity and performance
- Lower staff turnover and reduced recruitment/training costs
- Better relationships, collaboration and teamwork
- Increased employee engagement, trust and loyalty
- More effective, integrated systems and processes
- More creativity, innovation and better problem-solving
- Improved customer satisfaction and external reputation

## For the world:

- More respect for nature and the environment
- More ethical and sustainable actions and behaviour
- Improvements to local communities and environment
- Decision-making based on long-term impact rather than short-term gain
- Increased sustainability and reduced negative impact on the planet
- A better future for our children's children



Thank you for using this playbook (more fun than a workbook).

We hope you enjoyed it and found it helpful and thought-provoking.

If you'd like us to help you, your team or your organisation to engage with nature, be inspired by nature, or to learn in, with and from nature, please contact us. We'll share our nature-based magic with you and help you find the right path for you and your colleagues.

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Visit: [www.salt-box.co.uk](http://www.salt-box.co.uk)

Email: [info@salt-box.co.uk](mailto:info@salt-box.co.uk)

Ring: **01373 837333**

