LEARNING wildly

Field Notes for Exploration

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Illustrated by Kelly Koller and Wendi Pillars

A note from the author

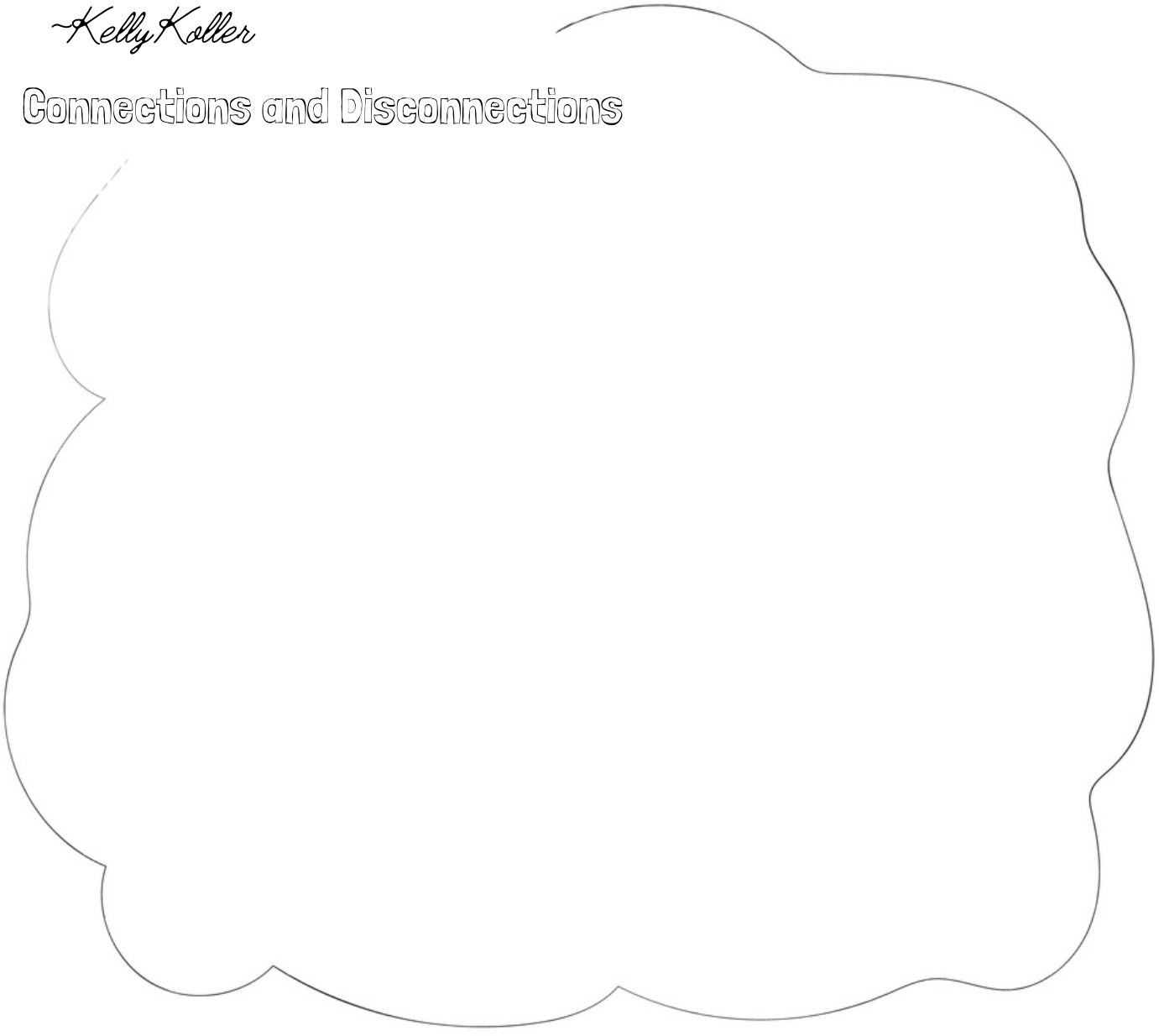
This journal is broken up into two parts that go along with corresponding videos on the Explorer Mindset App or can be found at www.explorermindsetapp.com. The videos are helpful but not necessary.

As you will read, neuroevolutionary evidence tells us we are all explorers; seekers. We are also hard-wired with emotions of nurturing (care) and play (social joy). This book is a journey connecting with the idea that we all have the natural foundation for an Explorer Mindset. Use of the word "explorer" refers to the attitudes and skills of National Geographic Society explorers as described in the Learning Framework from National Geographic. It is important to note, however, that the word "explorer" may also connect the reader to historical (or current) colonizing and capitalizing behavior of individuals seeking resources or personal gain. The collective spirit of empowerment, curiosity and responsibility is what is important to cultivate, however, not so much the word "explorer" itself. Be free, *learning wildly,* to connect or disconnect with the word "explorer". If you don't feel it best describes you, brainstorm a replacement...Pathfinder? Adventurer? Seeker? Use the space below to draw or note any connections and disconnections before (or after!) your journey with this book.

Much gratitude to National Geographic Society for supporting this project and to National Geographic Education for providing the inspiration!

~Kelly Koller

Connections and Disconnections

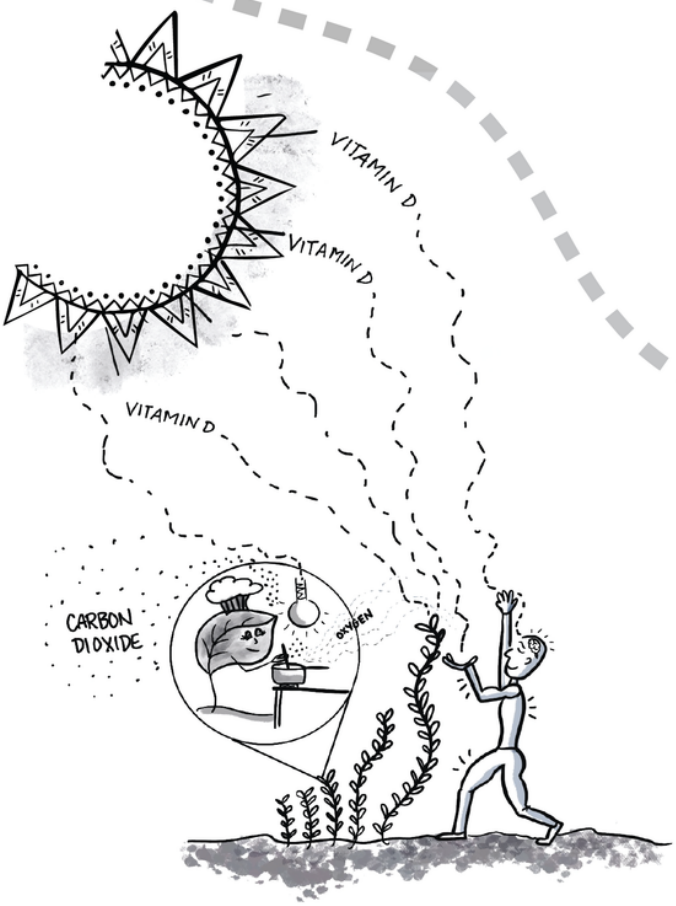


Part One

A beaming mid-morning sun rises, filling the heart of a human growing curiously on a soft patch of wild earth. The young human pondered the seeds that were in abundance and looked closely at the soil, made up of a rich tapestry of particles... imagining what would grow.

Field Note

What do you love to see growing where you live? Begin your journey by drawing a seed turning into a great, impressive plant. It can be a real plant or one crafted from your imagination.



Interesting FACTS

Not only do plants need sunlight to grow, sunlight is also the primary source of Vitamin D. Sunlight hits cholesterol in skin cells, providing the energy for Vitamin D synthesis. Vitamin D is important to healthy brain function, keeps bones strong, helps cell growth and benefits the immune system.

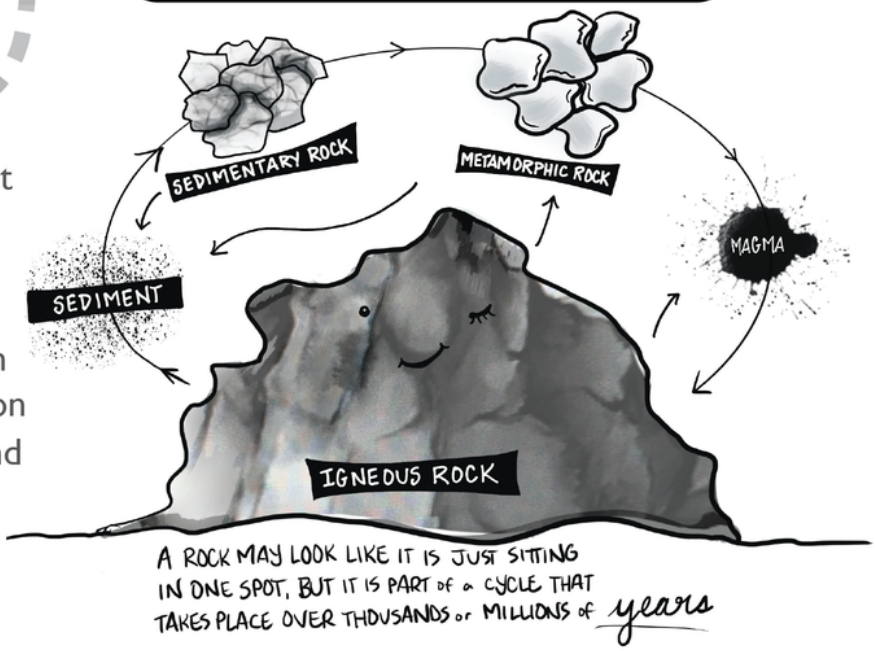
Inspired by the earth that was both peaceful and always changing, the human grew, brimming with hope and wonder. As the human explored, in every direction there was something to observe and discover.

Field Note

What makes you feel at peace or excited to explore outdoors?

Interesting FACTS

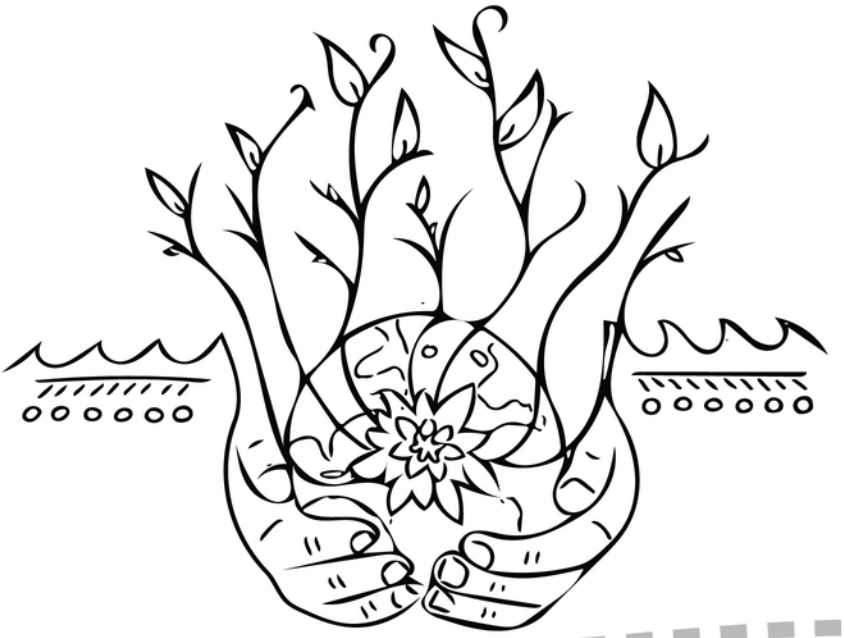
The Earth can seem delightfully peaceful, but there are always cycles and changes taking place. From the cycles of rotation and revolution that give us days and years, to hydrologic, biologic and geologic cycles such as rock cycles, nitrogen, hydrogen and carbon cycles and more…the Earth is a dynamic and fascinating place of continuous change.



Along with the thriving beauty of the Earth, the human's spirit grew too, and was strengthened by interconnectedness. Connected locally, in the place the human lived, and globally, to places far of and unknown.

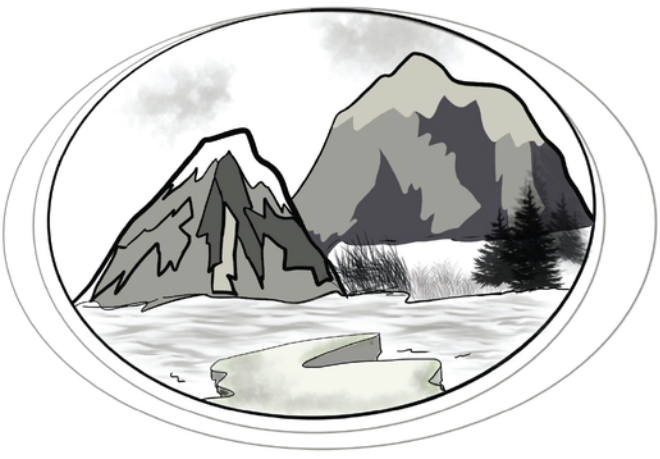
Field Note

Think about your connectedness to your local place.
Draw or write about something you love about where you live.



Interesting FACTS

There are five types of biomes: aquatic, grassland, forest, desert and tundra. Each type of biome consists of many different ecosystems on a wide range of scales. Ultimately though, the planet functions as one large, interconnected system. An event in one singular location can impact any other location on the planet, even if it is thousands of miles away.



Surfacing from deep into the past of human evolution, basic positive emotions developed: Seeking, Care and Play (social joy). All humans have systems in their brains for these emotions.

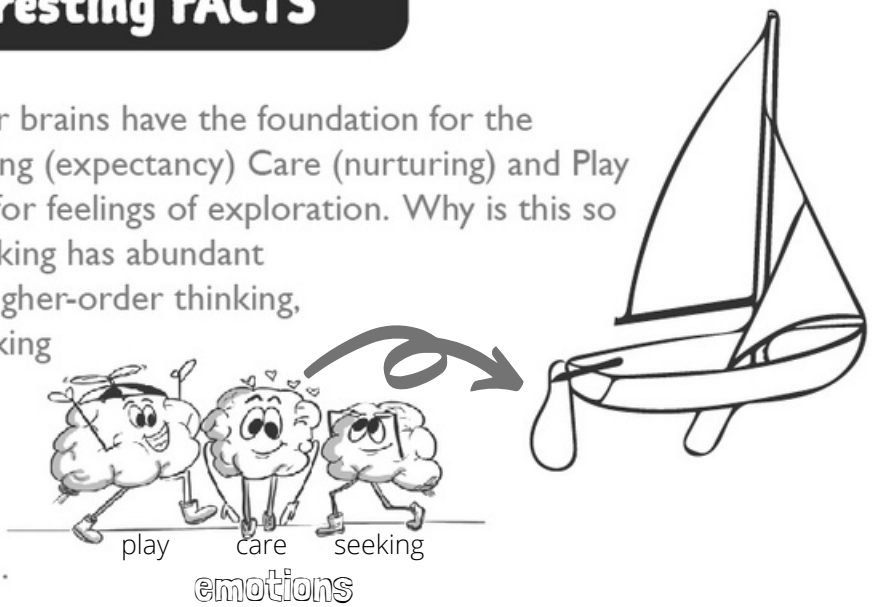
There are three main evolutionary tiers, or levels, to the human brain. The oldest, the reptilian, the middle level, the mammalian, and the newest level, the cortex. It is in the middle, the mammalian level, that systems for those foundational emotions reside, like Seeking. These emotions control global states of the brain--meaning, if something is wrong, or something is right with our emotions, it has a profound effect on how or what we are able to process with our higher order thinking skills like problem-solving and creativity.

Field Note

What emotions are you feeling? What creative ideas are you thinking? Draw or write about your brain

Interesting FACTS

Neuroevolutionary science tells us that our brains have the foundation for the following positive emotional systems: Seeking (expectancy) Care (nurturing) and Play (social joy). This means we are hardwired for feelings of exploration. Why is this so interesting? Like all emotional systems, Seeking has abundant connections to the cortex, where we do higher-order thinking, problem-solving, and store memories. Seeking energizes human creativity and intellectual understanding. Because emotions are the rudder that steer thinking, Seeking, the spirit of exploration, is a driving force within all humans to learn.



Out of these foundational feelings, more complex emotions and understandings developed.

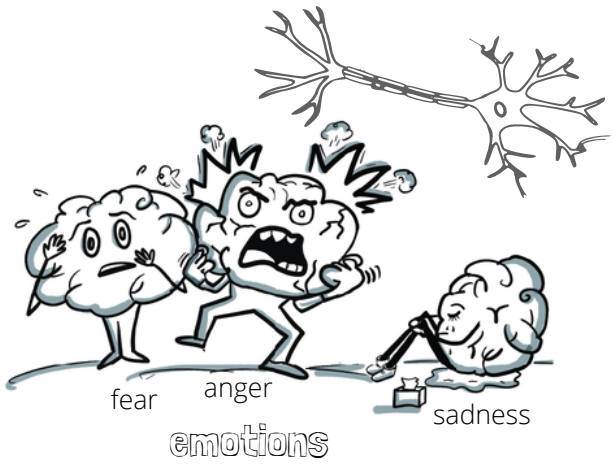
As the human continued to grow, the foundational emotion of Seeking helped drive the human's capacity to navigate problems, opportunities and obstacles. But inevitably, pain and difficulty began to emerge. In addition to foundational emotions of Seeking, Care and Play (social joy), the human brain is also hardwired with systems for fear, anger and sadness. In the beginning, it was easy for the human to navigate challenges, but it could be overwhelming. Sometimes the human paid more attention to the negative than the positive.

Field Note

What is a problem you solved or a challenge you faced?

Interesting FACTS

Neuroevolutionary science also tells us that our brains have the foundation for the following negative root emotion systems: Fear (anxiety), Rage (anger) and Panic/Grief (sadness).



These serve as an embedded survival mechanism to look out for dangers. In one study, a psychologist analyzed all the emotion words that could be found in the English language (558 of them) and found that 62% were negative versus 38% positive.

Because our brains are neuroplastic, however, we have the ability, through self-coaching and positive affirmations to strengthen or grow new connections that support positive thinking.

Time passed. And when old enough the human adored attending school, but sometimes hope was hard to see there too, and it could be easier to look more at the negative than the positive.

Field Note

What joys or challenges do you experience at school?

Interesting FACTS

According to the World Health Organization, depression and anxiety are on the rise globally.

(Globally between 2005 and 2015 the amount of people with depression rose 18% and anxiety 15%). Additionally, annual Gallup polls in the US show a "student engagement cliff" that starts approximately at 6th grade; where self-reported feelings of hope and engagement decrease each year until the end of senior year.
Schools are responding to this data showing mental health concerns with more programming to support emotional wellness.

Over time, the adversity sometimes seemed insurmountable as negative feelings and images flooded the human's mind. Often feeling stuck in it's ancient roots and a response of flight, fight or freeze, the human's brain found it increasingly hard to imagine, be creative or curious.

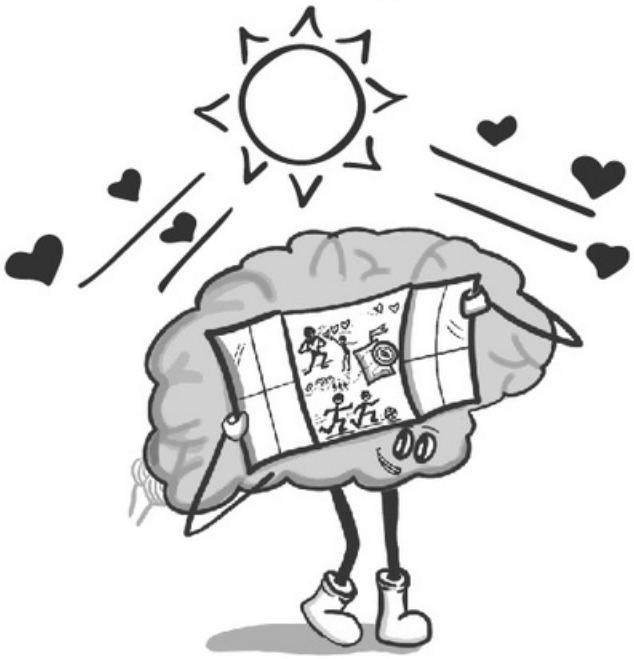
Happiest when distracted, an undeterminable amount of time passed. Plenty of beauty still existed in the outside world, but it didn't matter.

Field Note

Write or draw about a worry, problem or time you gave up

Interesting FACTS

Our emotional systems are shaped in response to experiences. Positive feelings fuel learning and understanding processes that happen in the cortex. If the human feels threatened, depending on the degree of the threat, the focus stays in the brain stem and emotional (also called limbic) system. Because the focus stays in these systems, the human loses executive functioning, reasoning, curiosity and creativity.



Part Two

One day, there was something significant about the angle the sun hit the human's face through the window. It unearthed positive, warm memories, and melted away some of the adversity. The human's eyes softened, and a thirst for something different stirred quietly. It was enough to prompt the human to go outside and take a deep, energizing breath.
With every deep breath of fresh air, the human drank in hope.

Field Note

Draw or write about an outdoor area by your home

Interesting FACTS

Physical and psychological benefits from being outdoors include lowering stress, stimulating senses in the cortex, increased alertness, concentration and creativity, increased immune response, improved self-esteem and mood, and much more. Humans are living organisms that respond to and are affected by their environment. Not only are outdoor spaces psychological beneficial, they are physically beneficial too. Indoor air is often high in CO_2, making people feel sluggish. When we experience fresh air, we perk up. Our feelings are also impacted by what foods we choose to nourish ourselves with. Daily, we are affected by ***what*** we put in our bodies and ***where*** we put our bodies.

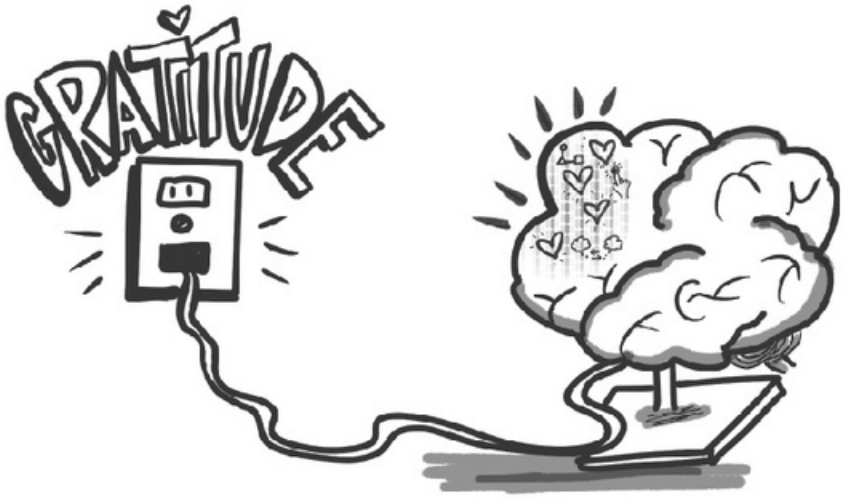
One way to help our brains and bodies shift from the sympathetic (stress) to parasympathetic (calm) state is through deep breathing. Breathing in through the nose and out the mouth in a few repeated slow, deep breaths can calm the nervous system by reducing our heart rate, facilitating full oxygen exchange and stabilizing blood pressure. It also stimulates the vagus nerve which runs from our head all the way through the bottom of our spine. This activates our relaxation (parasympathetic) state.

Once again energized with the spark of Seeking, the human explored. Finding a seed, the human scooped it up with some soil. "What kind of seed is it? What if I try to grow it?, the human wondered. With many other seeds around, the human decided it was ok to keep one, vowing to take care of it fiercely with sun, water, soil and most of all...hope. Having experienced hardship, the human had a new appreciation for everything outdoors and the interconnectedness that binds all that exists on Earth.

Gratitude regulated the human's focus.

Field Note

Write or draw about yourself caring for, or growing something; or a person place or idea you are grateful for.



Interesting FACTS

Where we focus our thinking matters. When we practice writing or thinking of things we are grateful for, we shift the focus from the sympathetic (stress, fight or flight response) to the parasympathetic system (rest and calm response), as well as increase brain activity in the medial prefrontal cortex, an area of the brain associated with learning and decision making.

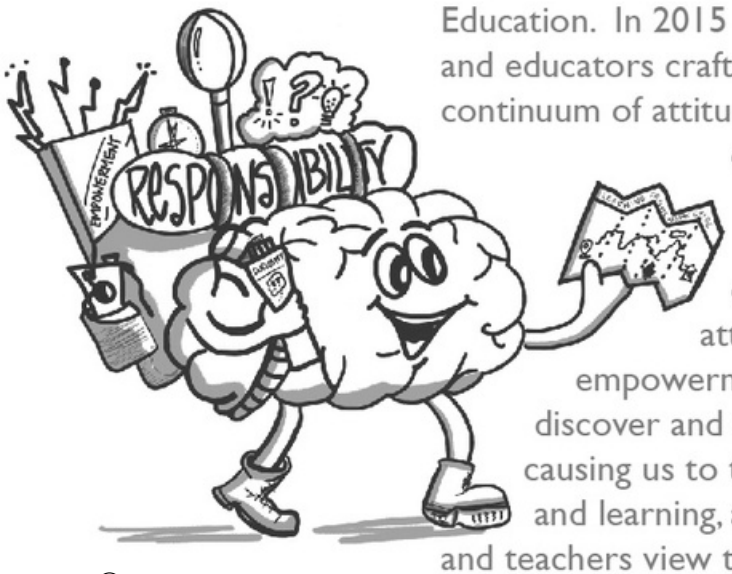
Despite being displaced, the sprout grew, and all the care that was poured into the seed helped the human understand what it means to become. Our experiences, both positive and negative, can be nourishing soil from which we grow.

Learning from the intrepid being of the sprout, the human came to feel empowered too. Instead of trying to deflect from hardships and challenges, the human asked questions. Why is this happening? What solutions are there? What can I do? How can I adapt? With this mindset, the human was a seeker, an exlporer of it all--the positive and the negative.

Field Note

Draw or write about yourself as a pathfinder, seeker, explorer...which word do you connect with the most?

Interesting FACTS



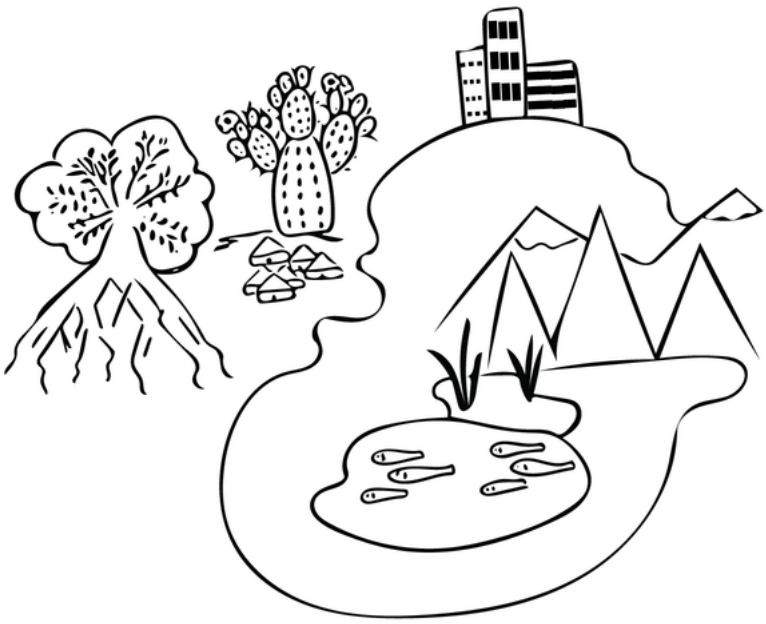
The idea of an Explorer Mindset comes from National Geographic Education. In 2015 a team of Nat Geo staff, child development experts and educators crafted and publically shared the Learning Framework, a continuum of attitudes and skills for exploration, based on the work of National Geographic Explorers. A mindset is your thoughts and ideas on something. An Explorer Mindset is recognizing that you are empowered; an explorer of the world. The attitudes of curiosity, responsibility and empowerment are synergetic----curiosity, the drive to discover and understand, fuels our sense of responsibility, causing us to take action and make a positive impact. In teaching and learning, an Explorer Mindset is a perspective where students and teachers view themselves as catalysts in the learning process.

Taking care of the seed made the human marvel at the many riches received through the years from family, community, friends and the Earth. Being an explorer means to recognize not just our own strengths, but to see all of the assets, beauty and possibilities in our natural and human communities

Field Note

Draw or write about some of the assets you have from your family, friends, community or place.

An asset is a useful or valuable trait, perspective, experience or quality.



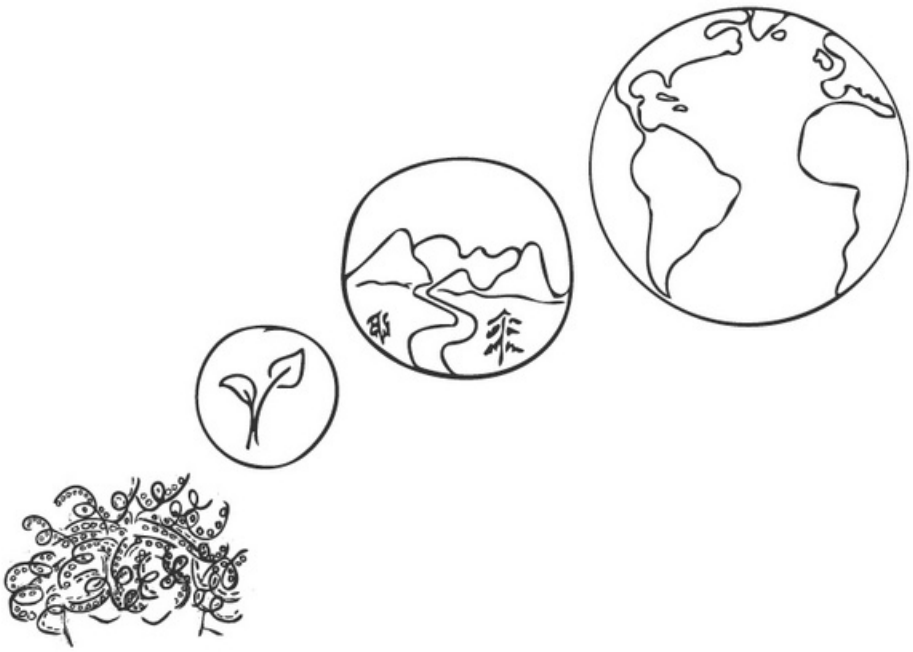
Interesting FACTS

An asset-based perspective focuses the strength of diversity in our thoughts, communities, families and cultures. By actively seeking out value and strength in diversity and highlighting assets vs deficits in ourselves and each other, we honor the potential in all of us, individually and collectively. In the natural world, diversity is what maintains essential food webs and interdependence of species. In the human world, diversity catalyzes economic and technological growth.

Soon the human recognized that sprout turned to seedling, and it was too big to be contained. It had sun, water and nutrients, but it needed space for its roots so that it could live to its fullest potential. The scale of the human's thinking was growing beyond the singular plant.

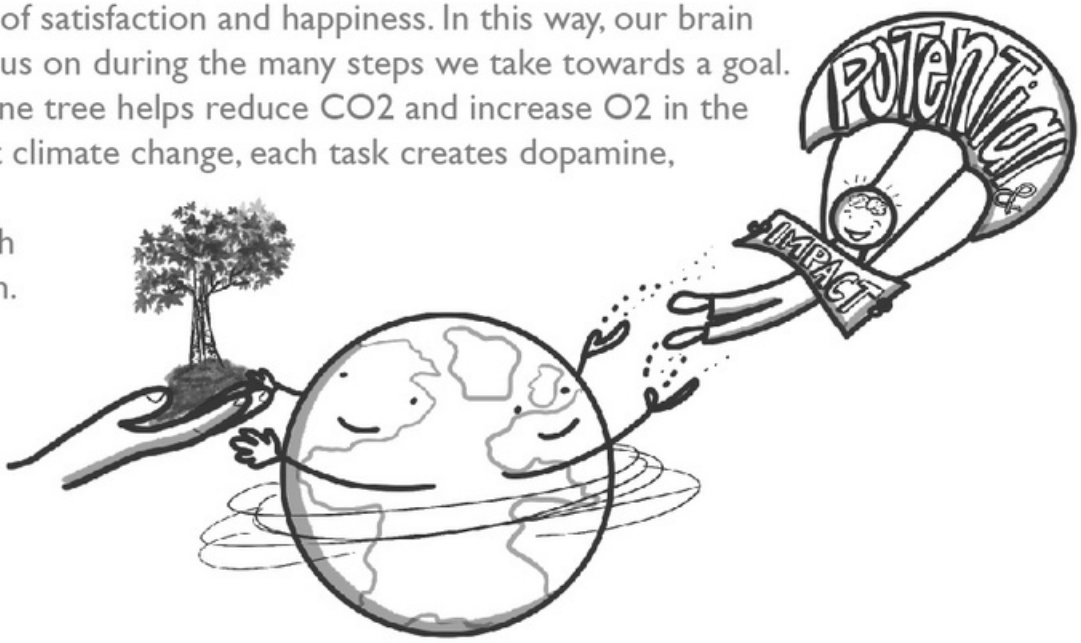
Field Note

Write or draw something you care about locally, regionally or globally



Interesting FACTS

When we accomplish a task or project our brains release dopamine, a neurotransmitter that helps produce feelings of satisfaction and happiness. In this way, our brain chemistry helps cheer us on during the many steps we take towards a goal. Just like one planting one tree helps reduce CO_2 and increase O_2 in the atmosphere to combat climate change, each task creates dopamine, which helps us feel good to accomplish another task, and so on. If we keep moving forward in this way, before we know it we have planted a whole forest and achieved a goal.



It was not long before the human was flooded with ideas, Everywhere the human went--- at school, at home, in the community, there were issues and topics to discover and explore.

With confidence in the innate emotion of seeking and the process of exploration and continuous growth, the human felt empowered, even limitless---all while understanding the positive impact that can be made caring for the Earth and all inhabitants.

Field Note

Draw a map of you on your way to future explorations. Include one or many ideas of what you want to explore locally, regionally or globally

MAP IT!

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