

September 13, 2013

Brod Bagert

Muse Project Batch #8

—28 Life Science Poems—


Dear Muse,

Here's Batch 8, which consists of 28 Life Science poems, each correlated to the NGSS (Next Generation Science Standards).

As you know, I decided to focus first on the science curriculum. I'm a whisper away from finishing it. It's a very exciting moment.

Once again, thanks for being part of Muse Project and for everything you do. Writing a comprehensive collection of content literature for your classroom has been my passion for twenty years. For most of that time it seemed like an impossible dream. Now, thanks to your inspiration, it's happening.

Sincerely,



Brod Bagert

Table of Contents - Batch 8

| | |
|---|---------|
| Naked Jungle? or The Fur Coat Kid)..... | Page 1 |
| NGSS: K-LS1-1 2-LS4-1 MS-LS1-1 | |
| The Acid Test..... | Page 2 |
| NGSS: MS-LS1-3 | |
| Noble Glands in the Land of Homeostasis..... | Page 3 |
| NGSS: MS-LS1-3 | |
| Ins and Outs of the Human Heart-or- The Difference between Arteries and Veins..... | Page 4 |
| NGSS: MS-LS1-3 | |
| Cell-Brain Sister | Page 5 |
| NGSS: MS-LS1-3 | |
| Plant Nostrils | Page 6 |
| NGSS: 4-LS1-1 5-LS1-1 5-LS2-1 MS-LS1-4 | |
| The Wrestler, the Cheerleader-Geek, and the Dicot A Recipe for Biscuits and Honey..... | Page 7 |
| NGSS: 4-LS1-1 MS-LS1-4 | |
| Metamorphic Me | Page 8 |
| NGSS: 3-LS1-1 MS-LS1-4 | |
| Fish Food | Page 9 |
| NGSS: MS-LS1-4 | |
| Flying Worms..... | Page 10 |
| NGSS: 3-LS1-1 MS-LS1-4 | |
| True Love and a Blue Blooded Scorpion Spider..... | Page 11 |
| NGSS: 3-LS1-1 MS-LS1-4 | |
| Mystery Seeds, Fertilizer, and a Happy Surprise..... | Page 12 |
| NGSS: 1-LS1-1 2-LS2-2 3-LS3-2 5-LS1-1 | |
| The Weed Power Revolt..... | Page 13 |
| NGSS: 3-LS3-2 5-LS1-1 MS-LS1-4 | |
| A Pearl of Brotherly Hope..... | Page 14 |
| NGSS: 3-LS3-2 5-LS1-1 MS-LS1-4 | |
| The Hornet Song..... | Page 15 |
| NGSS: MS-LS1-4 | |
| Primate Me..... | Page 16 |
| NGSS: MS-LS1-3 | |

| | |
|--|---------|
| Mammal Madness..... | Page 17 |
| NGSS: MS-LS1-4 | |
| The Structure of Life..... | Page 18 |
| NGSS: 2-LS4-1 MS-LS1-4 | |
| Dragon Queen..... | Page 19 |
| NGSS: 2-LS4-1 MS-LS1-4 | |
| The Difference Between Insects and Arachnids—By the Numbers..... | Page 20 |
| NGSS: MS-LS1-4 | |
| The Reptile and the Amphibian..... | Page 21 |
| NGSS: MS-LS1-4 | |
| Peanut Butter Biome | Page 22 |
| NGSS: 3-LS4-4 5-LS2-1 MS-LS2-1 | |
| Ups and Downs of Life on the Prairie..... | Page 23 |
| NGSS: 2-LS4-1 3-LS4-3 MS-LS2-1 | |
| A Life and Death Debate..... | Page 24 |
| NGSS: 2-LS4-1 3-LS4-4 MS-LS2-2 | |
| Symbiotic Friends..... | Page 25 |
| NGSS: MS-LS2-2 | |
| Ant Birds and Army Ants (A Commensal Complaint)..... | Page 26 |
| NGSS: MS-LS2-2 | |
| Competition—Larger and Small..... | Page 27 |
| NGSS: 5-LS2-1, MS-LS2-2 | |
| A Nature Walk..... | Page 28 |
| NGSS: K-LS1-1 1-LS1-2 3-LS4-4 5-LS2-1 | |
| Permission to Use Poems..... | Page 29 |

Naked Jungle? or The Fur Coat Kid

by Brod Bagert

Today we reviewed what animals need
in order to survive—
four simple basic things
they need to stay alive.

“You know them by now,” my teacher said.
“Let’s say them all together.
AIR... WATER... healthy FOOD...
and SHELTER from the weather.”



My brain was thinking really fast
then suddenly I froze.
Animal needs are the same as mine,
except they don’t need clothes.

BIG FAT NAKED ELEPHANTS!
NAKED MONKEYS TOO!
A GRUMPY NAKED CROCODILE!
A NAKED KANGAROO!

And then I thought—naked or clothes?
Which one would I prefer?
Naked would be simple
but I’d have to grow a fur.

But then my hands began to shake.
I felt a lump in my throat.
What if they tried to capture me
and turn me into a coat.

No, I’ll never be a monkey
climbing naked in a tree,
and no one’s ever going to make
a fur coat out of me.

PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 116

NGSS: K-LS1-1 2-LS4-1 MS-LS1-1

The Acid Test

by Brod Bagert

A partner for science lab? The one you want is me,
cause I'm the queen of science, and my partners all agree.
So they switch my partner every month, which gives everyone a chance,
cause when you're the queen of science everybody wants to dance.
But with this month's partner, Peter Prince, there's one very curious thing,
every time he smiles at me my heart begins to sing.



Now testing personal pH is a simple thing to do.
Acid to alkalis – 0 to 14 – deep red to purplish blue.
You touch the strip to the tip of your tongue, give a little lick,
then compare it to the color chart. It's simple and it's quick.
So Peter's turned toothpaste turquoise, and mine turned tomato juice green—
alkaline the handsome prince; acidic the science queen.

Chemically incompatible! Doomed from the very start!
I never thought a pH test could break a young girl's heart.
Next month we won't be partners, and I'm really going to miss him,
cause I love the way he smiles at me... but I'm never going to kiss him.

MIDDLE – SC. 3. 117

NGSS: MS-LS1-3

Noble Glands in the Land of Homeostasis

by Brod Bagert

Glands and hormones, hormones and glands,
constantly sending out bio-commands.
Like noble lords in the service of kings,
they constantly regulate bodily things.

Sir Pancreas, you are truly a knight,
without you my glucose would shoot out of sight.
Like that gyroscope thing on a ship out in space,
you keep it from zapping all over the place.



And dear Duke Adrenal, you help me let loose;
when I've got to get going you give me the juice.
Like a cowboy on horseback a-cracking his whip,
you get my attention and fill me with ZIP.

And Baron Pituitary, you are the master,
without you my life would be total disaster.
Now don't be so humble, you know that it's true,
most of the other glands listen to you.

Glands and hormones, hormones and glands,
constantly sending out bio-commands.
adjusting my state on an hourly basis,
keeping my body in homeostasis.

Homeostasis refers to the body's ability to maintain a constant internal state in response to changing circumstances. It comes from two Greek words. The first part comes from *homoios* (ὅμοιος) which means "the same." The second part comes from *stasis* (στάσις) which means "standing still."

Ins and Outs of the Human Heart or The Difference between Arteries and Veins

by Brod Bagert

Of course I know they're different,
but there's just one little glitch—
although I know they're not the same
I don't know which is which.

Some vessels take blood-flow away from the heart—
Arteries, right? Now that's a good start.
And others bring blood-flow back into the heart—
Those must be veins. I am totally smart.

So give it a scream! And give it a shout!
Veins in! Arteries out!
That's the way it's always been.
Arteries out! Veins in!

PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 119

Some of the other differences between arteries and veins.

| | | |
|------------------|--|--|
| Oxygen | Arteries carry oxygenated blood (except for the pulmonary artery and umbilical artery). | Veins carry deoxygenated blood (except for pulmonary veins and umbilical vein). |
| Anatomy: | Arteries have a thick, elastic layer of muscle to withstand the pressure of blood being pumped by the heart. | Veins have a thin, elastic layer of muscle with valves that stop the blood from flowing backwards. |
| Location: | Arteries are deeper in the body | Veins are closer to the skin |

NGSS: MS-LS1-3



Cell-Brain Sister

by Brod Bagert

Bone cells! Blood cells!
Nerve cells too!
The smallest things inside of me,
the smallest things in you.

But not my little sister.
That girl is such a pain
I'm sure the smallest thing in her
has got to be her brain.

Every time I think of it
it fills my heart with wrath:
Soap! In my aquarium!
To give the fish a bath!

That girl could use a brain transplant,
I'm sure she wouldn't mind it,
the problem is her brain's so small
the doctor couldn't find it.

INTERMEDIATE, & MIDDLE – SC. 2. 120

NGSS: MS-LS1-3

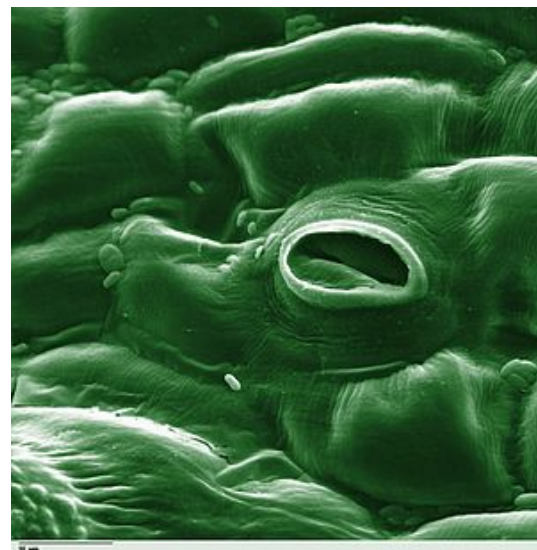
Plant Nostrils

by Brod Bagert

Can plants really breathe without having a nose?
It's a little plant secret I'd like to disclose.
Look under a leaf, you'll find them with ease,
those vents called stomata that suck in the breeze.

Respiration? Stomata! That's what they're about
cause it's CO₂ *in* and it's oxygen *out*.
And during a drought all those stomata get small,
so the vapor escaping is nothing at all.

Yes plants don't have noses, that's certainly true,
but they've got tons of nostrils instead of just two.
So now someone tell me; I'm begging you; please!
If I tickle a leaf can I get it to sneeze?



PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 121

NGSS: 4-LS1-1 5-LS1-1 5-LS2-1 MS-LS1-4

The Wrestler, the Cheerleader-Geek, and the Dicot A Recipe for Biscuits and Honey

by Brod Bagert

My name is Rosalind Clark,
and yesterday was the best day of my life:
It started when the bus pulled up to the gym.
Colby Gram's been a top ranked wrestler for the last two years,
but this year he went up a weight class,
so nobody expected him to win state, but he did,
and we all cheered when stepped off the bus,
then after it was over he said he'd like to walk me home,
and on the way he picked a dandelion put it in my hand and said
that walking home with me was about as good as winning state.

Now nobody knows this about me,
but I live two lives—cheerleader on the outside,
total geek on the inside,
so when I looked at that dandelion,
the first thing that went through my head was:

Broad leaf with branching veins,
got to be a dicot,
petals must be in multiples of four or five.

Which is when Colby started to laugh,
and I realized I must have said it out loud,
which was horrible because now un-geek Colby
would think I was totally weird,
so my mind was racing to figure out what to say to cover it up,
but before I could say a word,











Colby took the flower and started to examine it:

I think you're right,
which means the vascular bundles in this stem must be in a ring,
it probably has a tap root system,
and those fuzzy little dandelion seeds that fly everywhere
must contain two cotyledons,
not just one like it would if it were a monocot.

Then he smiled again, gave me back the flower,
and looked me right in the eyes:

You don't have to hide from me, Rosalind.
I know who you are,
and now you know me.
And the two of us....?

And again that big white-toothed smile
as he leaned forward and whispered in my ear:
Biscuits and honey.

| | Monocots | Dicots |
|------------------|---|---|
| Vascular bundles |  scattered throughout stem |  arranged in ring in stem |
| Seed leaves |  one cotyledon |  two cotyledons |
| Flower parts |  multiples of three |  multiples of four or five |
| Mature leaves |  narrow leaves parallel veins |  broad leaves branching veins |
| Roots |  fibrous root system |  tap root system |
| Examples | orchids, wheat, rice, bananas | oak and maple trees, cacti, sunflowers |

Metamorphic Me

by Brod Bagert

We saw it happen in our class,
it's not a bunch of lies—
some caterpillars made cocoons
and came out butterflies.

It's a common thing in nature,
but it's hard to understand—
a tadpole turns into a frog
and hops up on the land.

They call it metamorphosis,
which means a total change,
and though it happens all the time
it seems a little strange.

What if I got in bed one night,
all comfortable and snug,
and discovered the next morning
I had turned into a bug.

They call it metamorphosis,
a total transformation,
but I'm glad my DNA
doesn't store that information.

INTERMEDIATE, & MIDDLE – SC. 2. 123



This is the cover of a book written by Franz Kafka, a famous Russian author. Can you guess what the story is about?

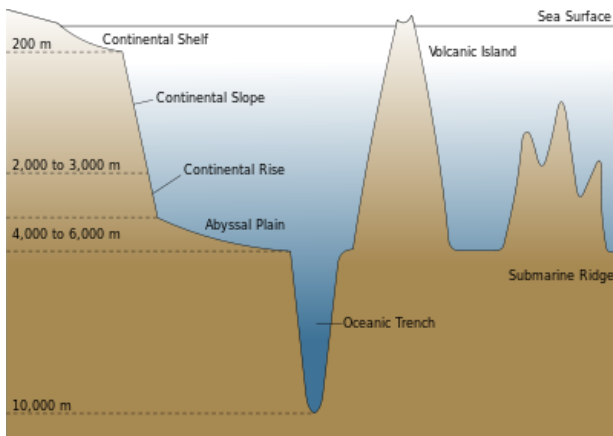
“Metamorphosis” comes from two Greek words: **μετα** (meta) which means “change,” and **μορφή** (morphe) which means “form.”

NGSS: 3-LS1-1 MS-LS1-4

Fish Food

by Brod Bagert

If I could have a single wish
I think I'd like to be a fish.
Just think of all the things I'd see
if I could live beneath the sea.



I'm swimming alone, all by myself,
down past the continental shelf.
Deeper down, heart full of hope,
down past the continental slope.

Along the continental rise,
oh what a sight for a fish's eyes,
the abyssal plain forever and ever,
but nothing will stop my exploring endeavor.

So as I begin my final descent
to a place no human ever went,
I have no fear, not one little bit,
as I enter what seems like a bottomless pit.

The ocean trench—30,000 feet down,
not a twinkle of light, not a jingle of sound.
If a monstrous creature were lurking below
I might swim right into it before I would know.

I imagine the horror in bloody detail—
being squished by a squid, being whacked by a whale.
It could happen, I'm suddenly forced to conclude.
Every fish in the sea can turn into fish-FOOD!

This isn't so cool. This isn't much fun.
Where am I going? What have I done?
The deeper I go, the deeper I dive,
the greater the chance I'll be eaten alive.

I take it back! Forget the wish!
I never want to be a fish!
Forget the ocean! Forget the sea!
Dry land's the habitat me!

PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 124

NGSS: MS-LS1-4

Flying Worms

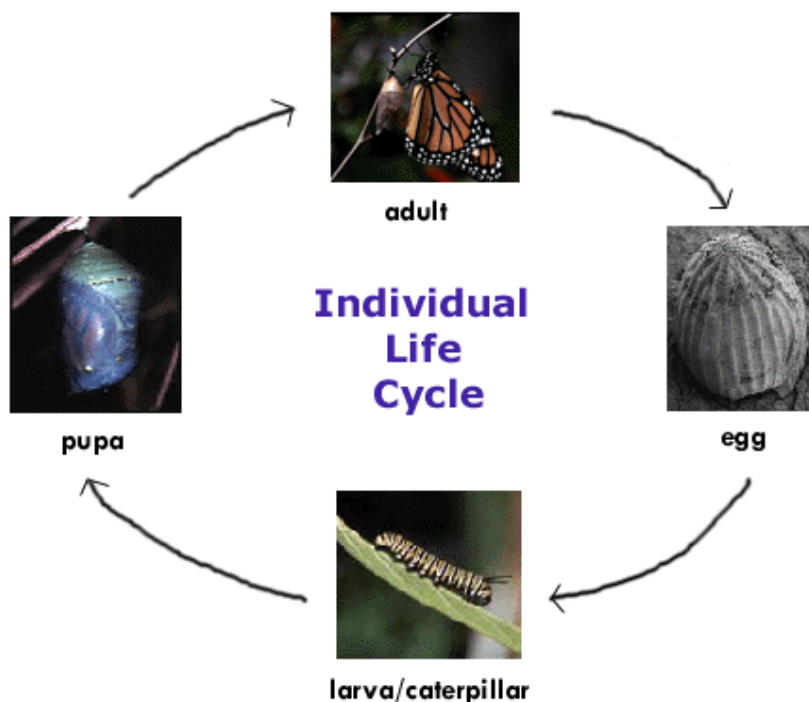
by Brod Bagert

It made me quiver, it made me squirm—
that creepy, crawling, hairy worm.
It got even worse, imagine this—
it turned into a chrysalis.

It stayed that way for about a week
and that's when things got really bleak.
What happened next? I tell no lie,
that creepy worm has learned to fly.

Sweet butterflies? Such lovely things?
They're just a bunch of worms with wings.
It makes me quiver. It makes me squirm.
The butterfly—A FLYING WORM!

PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 125



True Love and a Blue Blooded Scorpion-Spider

by Brod Bagert

Mr. Crandell is our science teacher,
and he seems normal except for two things:
he hangs out with Miss Thornapple
(who is undoubtedly the weirdest teacher in the history of the world),
and he loves horseshoe crabs.

He has a horseshoe crab shell on his desk,
he hangs pictures of horseshoe crabs all over the science room,
he even has a poster with a horseshoe crab poem on it.

Weird, right?

I mean, what's so cool about horseshoe crabs?

Which is what I said to Mr. Crandell.

I said it like I was almost making fun of him,
but Mr. Crandell got all excited.

*First off, they're not crustaceans like regular crabs.
They're arachnids, like spiders and scorpions.*

*They call them living fossils
because their species is over 450 million years old,
which is 200 million years older than the oldest dinosaur,
and they haven't changed,
a horseshoe crab alive today
is almost exactly the same as its ancestors 450 million years ago.*

And their blood is blue.

*The rest of us earth-creatures have red blood,
because the thing in our blood that carries oxygen has iron in it,
but the oxygen thing in horseshoe crab blood is copper
which makes their blood blue.*

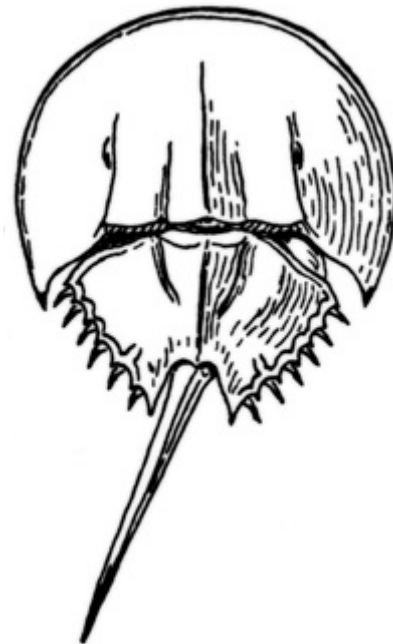
And that pointy tail is not a stinger,

they just use it to turn over if they get flipped on their backs.

and at first I was like yea-yea-yea, like I wasn't really interested, but Dude!
A blue-blooded scorpion-crab 200 million years older than the oldest dinosaurs!

So I had admit it was cool, which is a problem,
because if Mr. Crandell is right about horseshoe crabs,
maybe he's right about Miss Thornapple,
and if he's right about Miss Thornapple
than I'm going to have to rethink everything I thought I knew
about girls and stuff, because the possibility that Miss Thornapple
was anything but weird was definitely off my radar.

Inside out, upside down,
our world is constantly turning.
So much cool stuff to understand,
which is why I am constantly learning.



MIDDLE – SC. 3. 126

NGSS: 3-LS1-1 MS-LS1-4

Mystery Seeds, Fertilizer, and a Happy Surprise

by Brod Bagert

In March the sun got really hot
and melted all the snow,
so at school we planted mystery seeds
to see what we could grow

Kashim worked very hard,
he worked and worked like crazy.
With soil and sun and lots of care
he grew a Gerber Daisy.

Andrew grew a Sunflower
that was almost six feet tall,
and Paula said her Pansy
was the prettiest of all.

And me? I had this scrubby vine
that hardly looked alive,
so I thought—a little plant food
might just help it to survive.

So I sprinkled and I sprinkled,
(I'm a slightly hyper child)
but I must have done it right
cause it started growing wild.

Right through the classroom door,
and I thought—now that was fast.
that fertilizer gets it done,
but how long can it last?

Then it grew on down the hallway.
It grew along the wall.
It grew up to the principal
and wrapped her in a ball.

So take good care of your plants,
it's the wisest thing to do,
because when you take care of them
they take good care of you.



The Weed Power Revolt

by Brod Bagert

Fragile plants that can hardly survive—
Mom works to keep those plants alive.
She prepares the bed, she plants the seed,
she satisfies their every need.

And then as they begin to sprout,
as stems and leaves come popping out,
she showers them with love so sweet,
but on their own they can't compete.

But there's another side to tell,
some plants she doesn't treat so well.
She'll satisfy your every need
unless, of course, you're born a weed.

Standing by her hybrid breeds,
she spots a patch of healthy weeds.
She drops to her knees, a merciless brute,
and rips each weed out by the root.

It's not all perfect joy and bliss,
this land of photosynthesis.
I try hard not to ridicule,
but I think... maybe... weeds should rule.

I hear the distant sound of drums?
Oh yes.... THE REVOLUTION COMES!
Approaching with relentless speed—
THE ERA OF THE MIGHTY WEED!



PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 128

NGSS: 3-LS3-2 5-LS1-1 MS-LS1-4



A Pearl of Brotherly Hope

by Brod Bagert

This slimy little oyster in this grimy little shell,
is a kind of bivalve mollusk, and for now it's doing well.
But a single grain of sand, an annoying little jerk,
and immediately this little oyster starts to do its work.

It secretes this stuff called *nacre*, a quiet little swirl
that layers around that grain until it turns into a pearl.
Pain turns into beauty, it's a show of nature's might,
a natural transformation of unparalleled delight.

Which brings me to my sister—revolting, annoying, and vile.
It's impossible to imagine such an irritating child.
But I'll never give up hope; she's an awful little girl,
but someday... maybe... I can help her turn into a pearl.

PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 129

NGSS: 3-LS3-2 5-LS1-1 MS-LS1-4

The Hornet Song

by Brod Bagert

Some people say we're bad,
but we're really very good.
We work all day on hornet stuff,
just like a hornet should.

We chew up little bits of wood,
we do our very best
to make a kind of paper
that we use to make a nest.

We don't intend to hurt you,
hurting things is wrong,
but we will protect our larvae
so they'll get to grow up strong.

So it's summer-worm for breakfast,
and for lunch it's autumn-fly,
until winter turns the world to ice
and most of us must die.

But our queen? She will survive.
It's a most amazing thing,
how she hibernates all winter
and starts laying eggs in spring.

So you see, we really aren't bad,
we're actually quite good,
We work and work and work just like
a good-ole hornet should.

Our life is like a circle.
Our life is like a song.
We celebrate each day,
and we don't live very long.

PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 130

NGSS: MS-LS1-4



Primate Me

by Brod Bagert

A pack of wild chimpanzees....
Try to see it in your head.
Now swap those monkeys for a pack
of sixth grade boys instead.



Now laughing's not appropriate,
cause this is not a game.
Chimpanzees and sixth grade boys
are very near the same.

They're both hairy and they're noisy
and they laze around all day,
and their body odor's bad enough
to make you run away.

You'll see them playing roughhouse games
and making silly faces,
and you always see them scratching
in the very strangest places.

Both mammals of the order primate.
It is absolutely true.
Yes, sixth-grade boys are primates,
but the fact is ... so are you.

PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 131

NGSS: MS-LS1-3

Mammal Madness

by Brod Bagert

I just can't get it in my head.
I've run into a wall.
I've been learning about mammals,
but it makes no sense at all.



Mammal young are born alive
and live on mother's milk,
they have lungs for breathing air
and fur as smooth as silk.

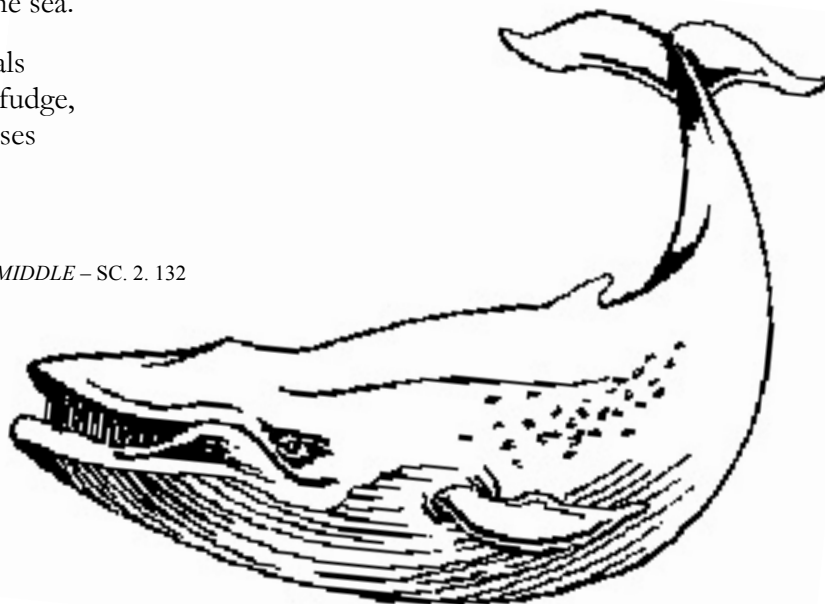
But a platypus is a mammal
that's got *duck*-feet on its legs,
and a *duck*-bill for a mouth,
and it's babies hatch from eggs.



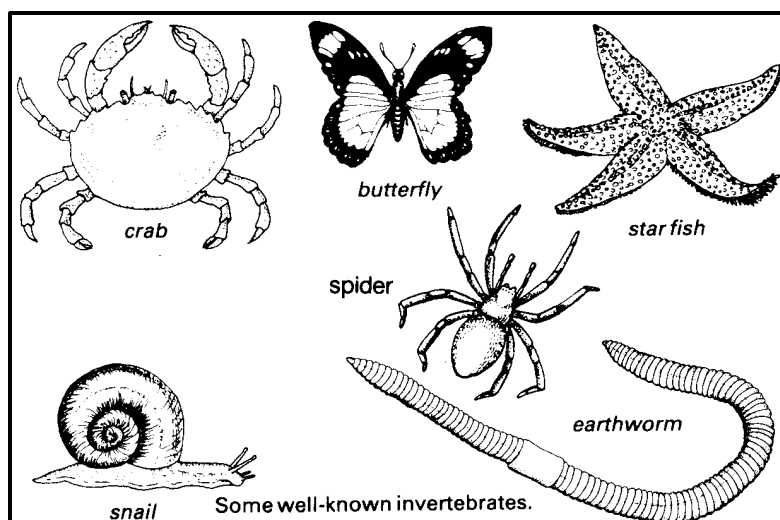
And a bat's a mammal too,
which is totally absurd,
cause bats can flap those furry wings
and fly just like a bird.

And when it comes to whales
it's confusing as can be:
they have lungs for breathing air,
but they live beneath the sea.

When classifying animals
sometimes we have to fudge,
cause in very special cases
it is very hard to judge.



PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 132



The Structure of Life

by Brod Bagert

Invertebrates:

We're invertebrates! Hear us yell!
Exoskeleton, skin, or shell!
Got no backbone! No-siree!
Not a single bone in me.

Vertebrates

We're the vertebrates! Oh so fine!
Big ole backbone for a spine.
You don't have one? That sounds bad.
That must make you very sad.

Invertebrates:

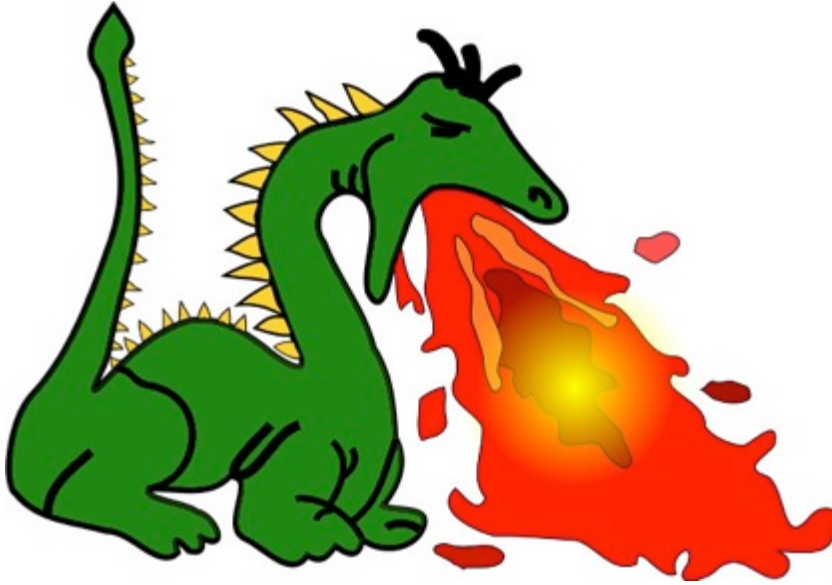
Got no backbone, yes it's true,
But we do not feel sad and blue.
To you we seem a bit bizarre,
but we quite like the way we are.

All Together:

From tiny worms to giant apes,
life comes in many forms and shapes.
So many different ways to be....
We love biodiversity!

PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 133

NGSS: 2-LS4-1 MS-LS1-4



Dragon Queen

by Brod Bagert

Peter's sitting next to me.
 He's a *canine*, Yes-siree!
 Puppy bark! Puppy wail!
 Puppy breath and puppy tail!

Jasmine sitting next to me.
 She's a *feline*, yes-siree!
 Kitty cuddle! Kitty sweet!
 Kitty claws on kitty feet!

Dylan sitting next to me.
 He's a *primate*, yes-siree!
 Monkey face! Monkey feet!
 Monkey messy, never neat!

Sheila sitting next to me.
 She's a *rodent*, yes-siree!
 Mousy shivers! Mousy fears!
 Mousy teeth and mousy ears!

Teacher glaring down me.
 She's a dragon! Yes-siree!
 Dragon grumpy! Dragon mean!
 FIRE BREATHING DRAGON QUEEN!

The Difference Between Insects and Arachnids By the Numbers

by Brod Bagert

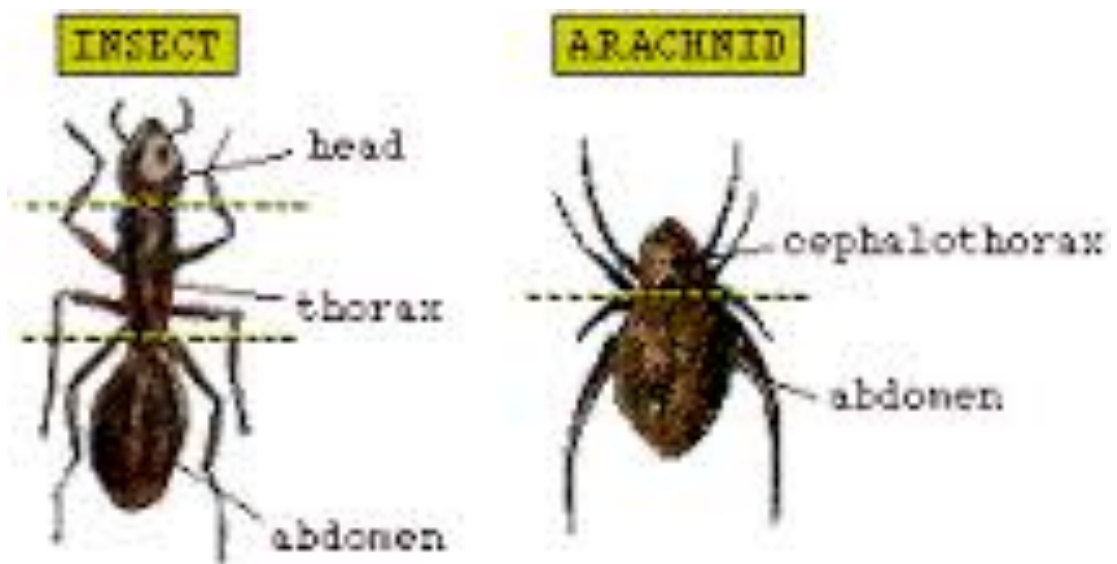
Insects have **6** legs.
Now keep these numbers straight,
cause when you count arachnid legs
you'll get the number **8**.

Insects have **3** body parts.
That's right, it's always true,
which is different from arachnids
cause arachnids have just **2**.

Insects and arachnids,
to some they seem the same,
but the difference is the numbers,
it's a simple counting game.

But to me there's little difference,
at least that's how it seems,
they're all shivery and quivery
and creepy in my dreams.

PRIMARY & INTERMEDIATE – SC. 1. 135



NGSS: MS-LS1-4

The Reptile and the Amphibian

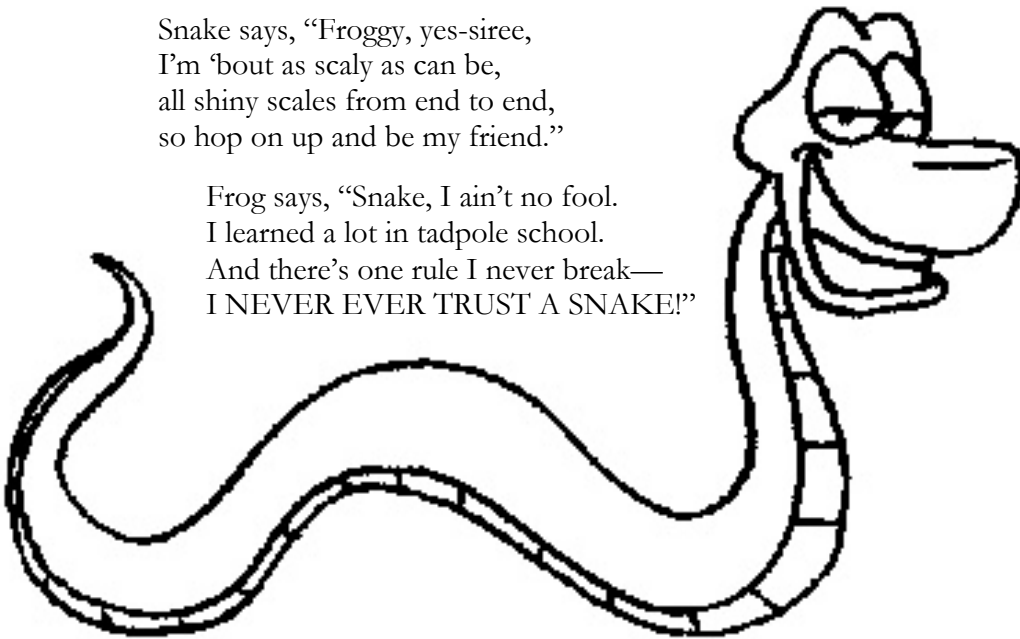
by Brod Bagert

Snake says, “Frog, you’re such a fool.
You start out swimming in a pool,
but then you make a croaky sound,
and next you’re hopping on the ground.
Listen, Frog, here’s my advice—
a double life is not so nice.
Make a choice! Take a stand!
Live in the water, or live on the land.”

Frog says, “What? I ain’t no fool!
I studied hard in tadpole school.
I live in the water as well as the land,
cause I am an... AMPHIBIAN!
But let me take a look at you.
Yeah, I see something else that’s true—
unless I’ve made a big mistake,
you are a scaly-reptile-snake.”

Snake says, “Froggy, yes-siree,
I’m ‘bout as scaly as can be,
all shiny scales from end to end,
so hop on up and be my friend.”

Frog says, “Snake, I ain’t no fool.
I learned a lot in tadpole school.
And there’s one rule I never break—
I NEVER EVER TRUST A SNAKE!”



PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 136

NGSS: MS-LS1-4

Peanut Butter Biome

by Brod Bagert

Snow and ice! Alpine high!
Oh so cold it makes me cry.
Tundra! Tundra! Permafrost!
Out there the grizzly bear is boss.

Coniferous forest! Smells so sweet!
Pinecones sticking on my feet.
Deciduous forest! Oh so bold!
Branches naked in the cold.

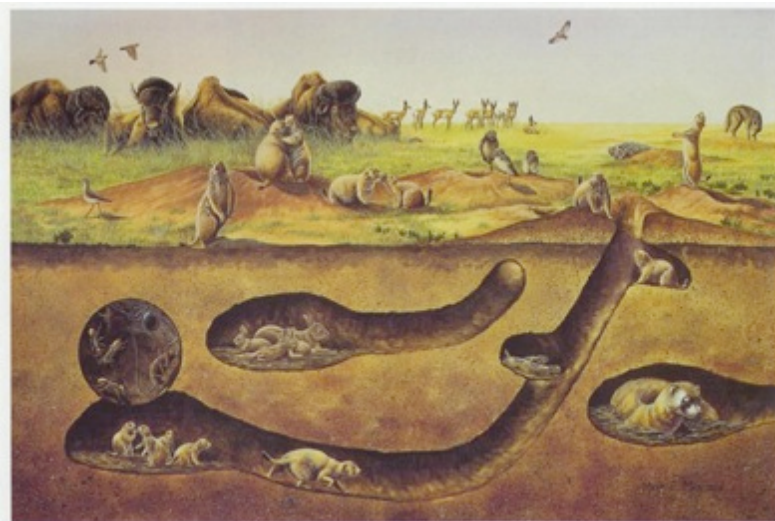
Grassland! Grassland! Desert too!
Not much water here for you.
Tropical forest! Lots of rain!
Army ants can bring the pain.

Kitchen! Kitchen! In my home!
From this spot I will not roam.
My favorite food, my favorite place,
PEANUT BUTTER ON MY FACE!

PRIMARY & INTERMEDIATE – SC. 1. 137



NGSS: 3-LS4-4 5-LS2-1 MS-LS2-1



Cross section of a prairie dog burrow. (Drawing by Mark E. Maccuson; courtesy University of Nebraska-Lincoln, Department of Forestry, Fisheries, and Wildlife)

Ups and Downs of Life on the Prairie

by Brod Bagert

Yesterday in science class,
we watched a prairie dog eat grass.
Now this is strange but still it's true,
a buffalo will eat it too.

Buffalo like sun and glare,
they live up in the open air.
But prairie dogs make little mounds
when digging tunnels underground.

Prairie life is such a wonder,
some live on top, some live down under.
Buffalo up. Prairie dog down.
Green grass growing all around.

PRIMARY & INTERMEDIATE – SC. 1. 138

NGSS: 2-LS4-1 3-LS4-3 MS-LS2-1

A Life and Death Debate

by Brod Bagert

It's cozy in my bedroom,
as I snuggle into bed,
but then I see it hanging there—
a spider on a thread.

With spider legs and spider fangs
and creepy spider eyes.
"I will not share my space with you!"
A voice inside me cries.

"Your presence in my bedroom
is a thing I won't allow,
so if you have a prayer to say
you'd better say it now."

But then I heard a second voice
and it began to plead,
"Maybe it's a mother,
with a bunch of kids to feed."

"Smushed by a giant hand...
now that's a terrible fate.
Maybe it's a teenager
who never had a date."

Should I share my room with a spider?
A community of two?
My conscience is at war...
and I don't know what to do.



PRIMARY, INTERMEDIATE, & MIDDLE – SC. 2. 139

NGSS: 2-LS4-1 3-LS4-4 MS-LS2-2



Symbiotic Friends

by Brod Bagert

We were learning symbiosis:

Different species, side by side, in every kind of weather,
and that's what got me wondering—Why do they stick together?

So I read more and learned that the two major kinds of symbiotic relationships
are mutualism and parasitism:

The mutuals both benefit, like the flowers and the bees.
but parasites can hurt their host, like dogs are hurt by fleas.

Which is when I started thinking,
that's exactly like my friends:

With some friends you can give, cause with them it's give and take,
but with others, if you give, you have made a big mistake.

And that's when I thought—Dude! It's a metaphor for life:

Friends are real important so be careful how you choose 'em,
and when friends turn into parasites, it's time for you to loose 'em.

INTERMEDIATE, & MIDDLE – SC. 2. 140

NGSS: MS-LS2-2

Ant Birds and Army Ants (A Commensal Complaint)

by Brod Bagert

Life for a rainforest beetle
is sometimes not so nice;
I have to flee from predators
like lizards, frogs, and mice.

And staying alive in the rainforest
is not a lot of fun,
but it's really hard when predators
are working two on one.

I'm eating poop on the forest floor,
so happy I could dance,
when all at once I'm face to face
with an army of foraging ants.

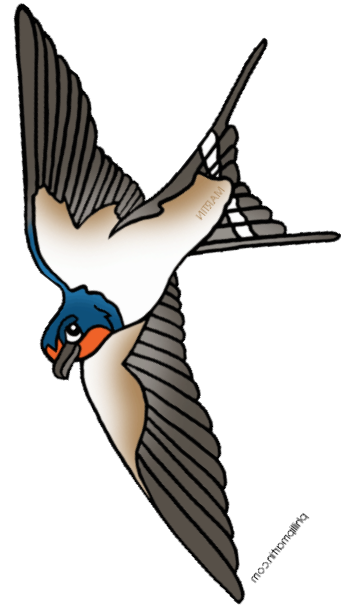
No problem for a beetle, right.
I can jump and fly away,
but there's still another predator,
and I am still the prey.

They're these birds that follow the army
just looking for the chance
to catch and eat us critters
when we're fleeing from the ants.

It's not exactly fair,
I'm sure you all agree,
the ants work hard to help the birds,
but they do the work for free.

"Commensalism!" you say,
cause it only helps one side,
but we beetles say it's a trap,
cause there ain't no place to hide.

Those ant birds are real sneaky,
and for beetles they're a curse;
our world is full of predators,
but ant birds are the worst.



INTERMEDIATE, & MIDDLE — SC. 2. 141

NGSS: MS-LS2-2

Competition— Large and Small

by Brod Bagert

A grazer's life on the grassland
can be a little rough;
sometimes the grass is plentiful;
sometimes there's not enough.

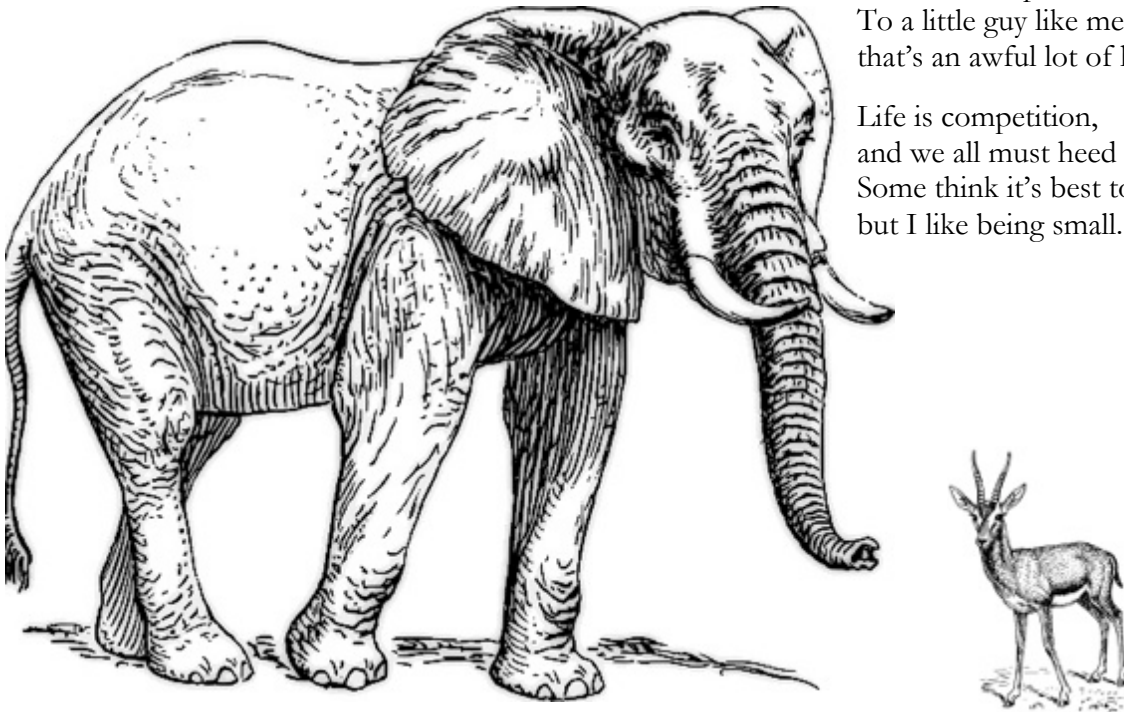
Which is why there's competition
when we're nibbling out there,
and the competition, it might seem,
is not exactly fair.

First off, I'm a gazelle,
which is why I'm feeling glum,
cause out here in the grazing land
I'm little as they come.

Buffalo! Zebra! Elephants!
Grazers one and all!
Yet I compete with all of them
and I'm hardly three feet tall!

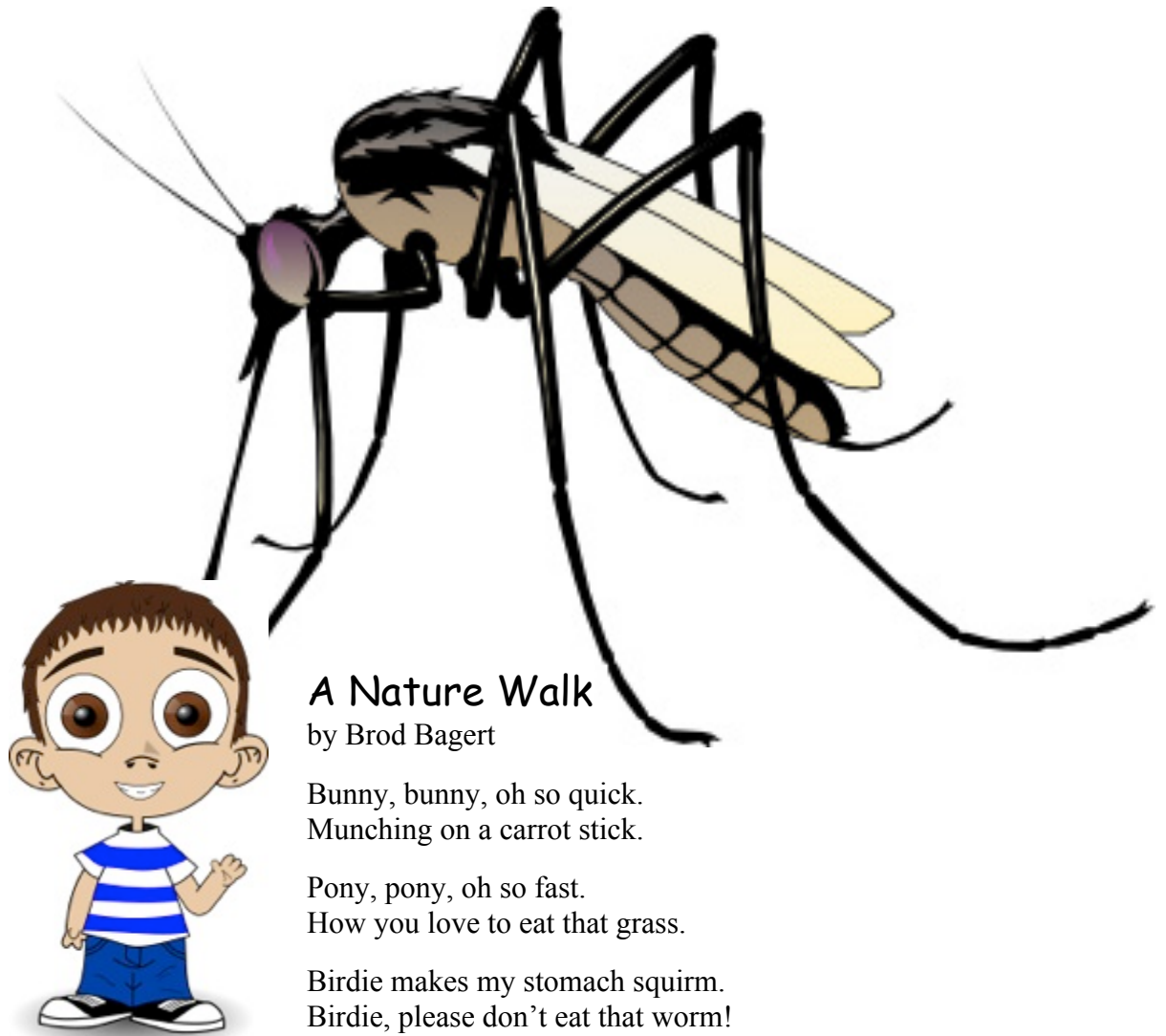
But elephants need a lot of food,
five hundred pounds a day.
To a little guy like me
that's an awful lot of hay.

Life is competition,
and we all must heed the call.
Some think it's best to be really big,
but I like being small.



PRIMARY & INTERMEDIATE – SC. 1. 142

NGSS: 5-LS2-1, MS-LS2-2



A Nature Walk

by Brod Bagert

Bunny, bunny, oh so quick.
Munching on a carrot stick.

Pony, pony, oh so fast.
How you love to eat that grass.

Birdie makes my stomach squirm.
Birdie, please don't eat that worm!

Fat mosquito on my knee...?
Ahhh! Why are you eating me?

Nature isn't always sweet.
Everybody's got to eat.

Nature green, nature blue.
I am part of nature too!

Should someone raise the question, here's your official permission to use this material.

Permission to Use Poems

While poems received by Muse Project participants are copyrighted material, participants are authorized to use this material in their classrooms and make copies for their students. All such copies must include the copyright indicia as follows:

Muse Project • Text © Brod Bagert 2013 • Work in Progress.

Thus done this 4thth day of March, 2013,

A handwritten signature in cursive script, reading "Brod Bagert". The signature is written in dark ink and is positioned below the date line.

To obtain authorization for any additional use, please contact Brod Bagert at the museproject@brodbagert.com.

Note on Graphics:

The graphics included with this material are public domain and for the most part temporary. The completed version, when officially published, will include custom illustrations.