Friday, June 29, 2012

Muse Project

Batch # 3

14 Brod Bagert Poems

Content Guide

This batch is all science and all weather, ranging from Primary through Intermediate. For the moment I'm focusing on Science and approaching it in content area bites. I'm hoping that this approach will give you complete content blocks when school starts. I'm also hoping to do most of the science curriculum this summer.

Please let me know if I've missed some element in the content area on which this batch focuses. So for example, all of these poems are about weather, and I'd like to know if I've missed something that you need to be included. And as always, keep in mind that these poems are all "Works in Progress" so please look at them with a critical eye.

You'll notice that I've pasted in some non-copyrighted clip art to add a visual spark for your students. And again, should anyone question your right to use and copy these poems for your students, you'll find a formal "Permission to Use Poems" on page 16.

Thanks again for being part of this work. When I'm sitting at my computer, the knowledge that you're there is the motivation that makes this possible.

Sincerely,

Brod Bagert

Dangerous Planet

by Brod Bagert

Tommy Rain:

[7 year-old boy: harmlessly mischievous.]

I am a rainstorm. I make you wet,
They say I'm as bad as the weather can get.
When you see my bright flashes and thunderous roars
shut all the windows and lock all the doors.

Sandstorm Rodriguez:

[10 year-girl: proud and loud.]

Did you hear what he said, that loud little chump?
On the road of bad weather, he's barely a bump.
But sandstorms, like me, we lay down the law.
Our wind-driven sand can scrape paint off your car.
Out of nowhere we rise on a hot desert day.
When you see one of us just get out of the way.

Latoya Blizzard:

[12 year-old girl: fast-talking, bossy, in-your-face.]

Yes, sandstorms are naughty, but I think you should know
that blizzards like me bury houses in snow.
We bury the highways in gray icy-cold
till all transportation is out of control.
When the weatherman says, "A severe winter-storm,"
just find a good book then try to stay warm.

Freddy Tornado:

[Gangster: heavy voice, slow, insincere, threatening.]

That's right… they're all bad… bout as bad as can be…
and there's no need to worry bout little-ole me.
After all, we tornadoes drop out of the sky
and toss eighteen-wheelers a hundred feet high.
And we don't give much warning… so here's what I say:
since you won't have the time to get out of our way,
and there's no way to run, I'm sure you agree,
it's senseless to worry bout little-ole me.

Hurricane:

[Wicked Witch: wicked.]

Those bad little storms can be messy, it's true,
but nothing compares to the damage I do.
There's nowhere to run and there's nowhere to hide
from a furious monster three hundred miles wide.
You'll know it was silly to work and to plan
when I bulldoze an ocean up over the land,
as the scream of my wind and the crash of my rain
makes all the world seem like it's going insane.

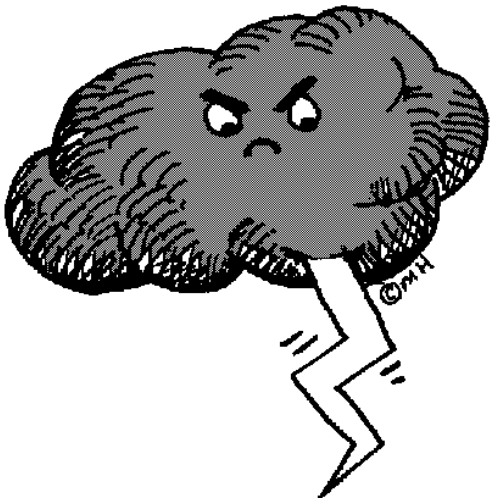
All together:

When you meet one of us, you meet fear face to face,
and you'll know Mother Earth is a dangerous place.
Yet with all of that danger, and all of that fear,
you humans keep facing us, year after year.

PRIMARY & INTERMEDIATE - SS. 2. 35

Need to Know

by Brod Bagert



Forecast! Forecast! What will be?
Tell me what's in store for me.

Dust storm! Dust storm! Hot and dry!
Dust so thick it hides the sky.

Lightening! Thunder! Oh the dread!
Big fat rain drops on my head.

Blizzard! Blizzard! Ice and snow!
Stay inside, nowhere to go.

Hailstorm! Please protect your bones!
Balls of ice as hard as stones.

Wild tornado! Hear that roar!
Houses flying! Lock the door!

HUR… RI… CANE! Holy cow!
EVACUATE! DO IT NOW!

What's the forecast? What will be?
Tell me what's in store for me.

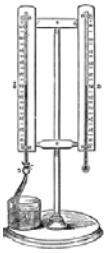
Will it rain? Will it snow?
Tell me now… I NEED TO KNOW!

PRIMARY - SS. 1. 36

Measure the Weather

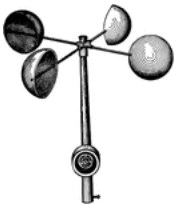
by Brod Bagert

Mr. Thermometer, tell-me-tell-me true.
What exactly, what exactly do you really do?
Fahrenheit or centigrade,
with me, my friend, you've got it made.
I'm a pleasure! I'm a treasure!
Temperature is what I measure.



Please Señor Hygrometer, tell-me, tell-me true.
What exactly, what exactly do you really do?
Forest damp or desert dry,
I will be your favorite guy.
I'm a pleasure! I'm a treasure!
Humidity is what I measure.

Mademoiselle Barometer, tell me, tell me true.
What exactly, what exactly do you really do?
Pressure changes— high or low?
I'll tell you what you need to know.
I'm a pleasure! I'm a treasure!
I gage atmospheric pressure.



Professor Anemometer. tell me, tell me true…
What exactly, what exactly do you really do?
Wind direction? Let me see.
And how fast did it blow by me?
I'm a pleasure! I'm a treasure!
Moving air is what I measure.

Each of us an "-ometer," and what we say is true.
Cause measure, measure, measuring is what we love to do.
It's a joy! It's a treasure!
Measure-measure-measure MEASURE!

PRIMARY & INTERMEDIATE - SS. 2. 37

Note:

The names of these four weather instruments end with the suffix "-ometer" which comes from the Greek word *metron,* which means *measure.* (Here's what it looks like in Greek: *μετρον.)*

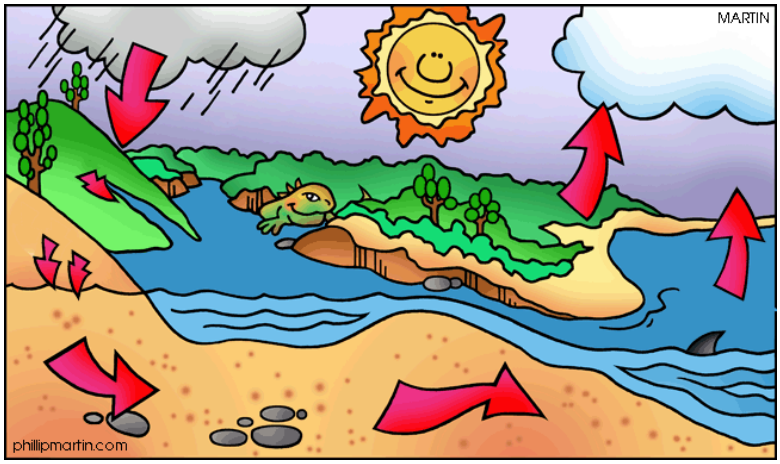
Also, as you probably know, Fahrenheit and Centigrade are two scales for measuring temperature. So here are three questions you may find interesting:

1 – Are there only two temperature scales, or are their others?
2 – What's the difference between these scales?
3 – Is one better for everyday use? Is one better for use by scientists?

No Vacation!
(The Water Cycle)

by Brod Bagert

Runoff and *accumulation*!
H_2O gets no vacation!
Yes-oh-yes, oh-yes I know!
Watch the water come and go.
Starting high and running down,
on the surface, underground—
a river winding like a snake,
a tiny pond, a giant lake.
Water loves to be in motion,
always looking for the ocean.



Yes-oh-yes, oh-yes I know!
Watch the water come and go.
What comes next? *Evaporation*!
H_2O gets no vacation!
When the sun gets very hot
water doesn't have a shot.
In a lake or in a stream
sunshine turns it into steam.
Then PUFF… the water isn't there.
It floated up into the air.

Yes-oh-yes, oh-yes I know!
Watch the water come and go.
H_2O gets no vacation!
What comes next? It's *condensation*!
So here's a scientific rule:
warm stuff always wants to cool,
and cooling vapor never stops
condensing into tiny drops,
forming clouds up in the air,
floating-floating everywhere.

Yes-oh-yes oh-yes I know!
Watch the water come and go.
H_2O gets no vacation!
Here it comes! Precipitation!
Now the clouds are dark and gray.
It's going to be a rainy day.
A zillion droplets, maybe more.
It won't be long, it's going to pour.
Rain-rain! Go away!
Come again another day!

ACCUMULATION! … *EVAPORATION!*
CONDENSATION! … *PRECIPITATION!*
H_2O… GETS NO… VACATION!

Note:
The *percent humidity* tells us how much *water vapor* is floating around in the air around us.

On days with *high humidity* people say, "It's a muggy *90% humidity*." That means lots of *water vapor* in the air.

On days with *low humidity* people say, "It's a crisp *10% humidity*." That means there's very little *water vapor*.

Question: Why does high humidity feel muggy and uncomfortable, while low humidity feels cool and crisp?

Hints: Skin, sweat, evaporation, and the thermodynamics of the human body.

PRIMARY & INTERMEDIATE - SS. 2. 38

The Problem with the Water Cycle
or
Precipitation Pain

by Brod Bagert

My puppy walked up to a lamppost,
he sniffed it all around,
he looked straight ahead, lifted one leg
and pee-peed on the ground.

And that pee-pee sat there in a pool,
in the summer heat and glare,
then it began to evaporate
and floated off in the air.

Then I think, it might get in a cloud,
and that cloud could rain in the river,
and the river's the source of our water,
and my stomach started to quiver.

It's totally disgusting,
I hate to even think it,
but don't you see, there's no guarantee,
someday I might actually drink it.

Our water is almost four billion years old,
so I think you'll have to agree,
chances are every drop I drink
was once some puppy's pee.

PRIMARY & INTERMEDIATE & MIDDLE - SS. 2. 39

The Evaporation Bandit

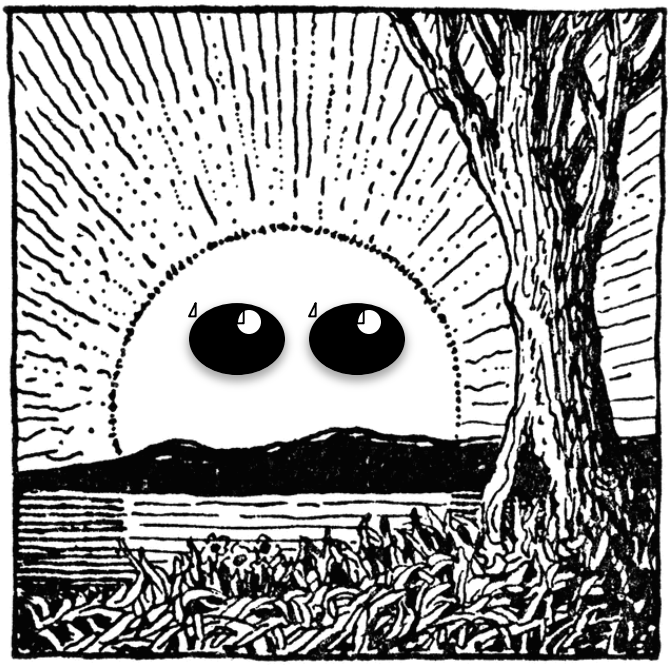
by Brod Bagert

Can a puddle full of water
just up and disappear?
I passed one on my way to school,
but now it isn't here.

And it didn't just happen today,
it happens all the time.
Somebody's stealing puddles
which has got to be a crime.

I could set a trap and catch him,
I could find a place to hide,
but the sun is way too hot today,
I've got to get inside.

PRIMARY - SS. 1. 40



Me and You and CO_2

by Brod Bagert

When molecules of gas get cold,
it makes a lot of sense
to snuggle close together,
so cold makes gases dense.

When molecules of gas get warm,
much warmer than they've been,
they like to keep their distance,
so heat makes gases thin.

And denser gas is heavier
which makes the pressure high,
while thinner gas is lighter
and floats upward in the sky.

Real molecules don't snuggle up,
not like me and you,
it's just a trick that help me learn
what heat makes gases do.

PRIMARY & INTERMEDIATE - SS. 2. 41

- **Two Questions:**

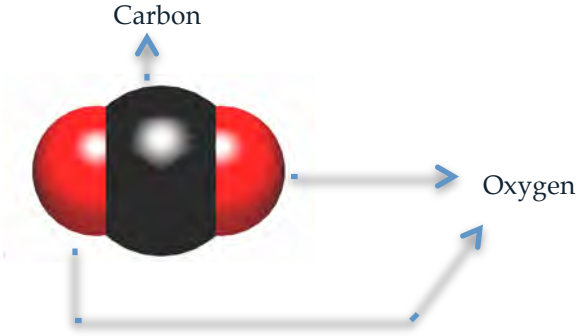
  #1- Why do warm low pressure systems tend to have high humidity?

  #2- Why do weather forecasters think low pressure systems mean rainy weather?

Note:

"CO_2" is the chemical formula for a gas called "carbon dioxide" which has one molecule of carbon (C) bonded with two molecules of oxygen (O). CO_2 is one of the most important gasses in Earth's atmosphere. You'll hear more about it when we learn about *photosynthesis*, the *carbon cycle*, *greenhouse effect*, and lots of other things. But for now here's a brain teaser about why CO_2 is so important:

Question: Is it true that without CO_2 there would be no such thing as pizza?
Hint: Plants need CO_2 to live.



Warm Air: Up-Low
Cold Air: Down-High
and
Where the Heck is My Kite?

by Brod Bagert

It sounds confusing at first,
but it's something you should know.
Warm air likes to float up,
which makes the pressure LOW.

Now please don't get discouraged,
just give it one more try.
Cool air likes to sink down,
which makes the pressure is HIGH.

Hot goes up and leaves a space
where cold comes rushing in,
And all that air… changing places…
That's what makes the wind!

It's really pretty simple,
I'm sure you'll get it right,
just remember, when spring turns warm,
it's time to fly a kite.

INTERMEDIATE & MIDDLE - SS. 2. 42

Note:

How is a low pressure system like a hot air balloon? Imagine you're in the basket of a hot-air balloon, and you're ready to take off. You switch the burners on, a gas flame shoots into the opening at the bottom of the balloon, the air in the balloon gets hot, and it's up-up-and-away.

It's the same with a low pressure system. As air heats up it expands, becoming less dense and therefore lighter than the air around it, and as this lighter warm air starts to rise it (the atmosphere) isn't pressing down so hard on the Earth's surface, which lowers the atmospheric pressure.

Rule: HOT AIR RISES – LOW PRESSURE.

Cold air is just the opposite. As air cools it shrinks becoming a little denser and therefore heaver than the air around it. As this lighter cool air starts to sink it (the atmosphere) is pressing down a little harder on the Earth's surface, which increases the atmospheric pressure.

Rule: COLD AIR SINKS – HIGH PRESSURE.

Flying Water

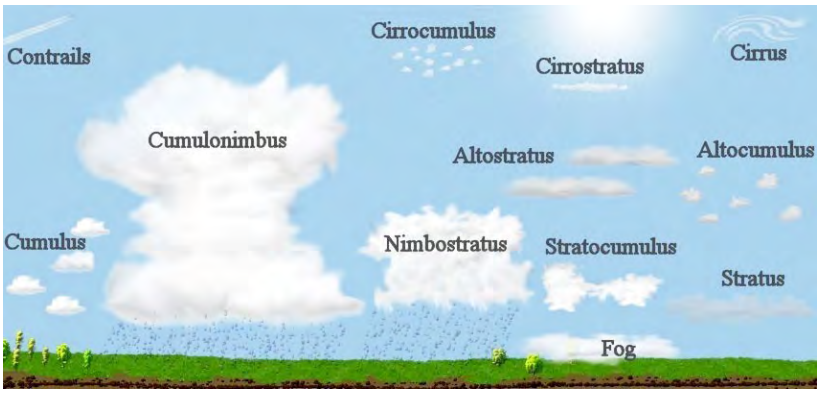
by Brod Bagert

Water! Water! Way up high!
Water flying in the sky!
Look up here! Up in the air!
We clouds are almost always there!
I'm a *Cirrus*, way up high,
icy crystals in the sky.
Way up high and wispy white?
Cirrus! Cirrus! That's right!

Look up here! Up in the air!
We clouds are almost everywhere.
Cumulus! Yes-siree!
I'm as fluffy as can be.
Sometimes high. Sometimes low.
I'm a cloud you need to know!

Look up here! Up in the air!
We clouds are almost everywhere.
I'm a *Stratus*, lower down.
Sometimes I can touch the ground.
That's when I'm fog, imagine that,
but high or low I'm always flat.

Look up here! Up in the air!
We clouds are almost everywhere
Nimbus! Nimbus! Don't complain!
Nimbus means it's going to rain.
Rain or sleet or snow or ice,
with me the weather's never nice.
Look up here! Up in the air!
We clouds are almost everywhere.
Water! Water! Way up high!
Water flying in the sky!



PRIMARY & INTERMEDIATE - SS. 2. 43

Note:

- *Nimbus* is a Latin word that means "storm."
- If you were a Nimbus cloud you could be either cumulus or stratus.
- If cumulus cloud , we put the "nimbus" on the end of your name and call you "cumulo*nimbus*."
- If stratus cloud, we put the "nimbus" in front of your name and call you "***nimbo***stratus."
- Either way, Nimbus means that rain or snow or hale, some form of H_2O, is on its way.

My Favorite Cloud

by Brod Bagert

Some clouds are white and fluffy,
and some are dark and gray,
but every cloud get started
in a very simple way.

First water turns to vapor,
summer, winter, fall or spring,
but the vapor is invisible,
your eyes can't see a thing.

It rises in the atmosphere
like it's headed for the top,
but soon the vapor starts to cool
and makes a tiny drop.

Then drops bunch up together
in a kind of floating crowd,
and when you get enough of them,
that's whey you see a cloud.

And when that cloud get dark and gray
you need not guess or wonder,
pretty soon you'll see a flash
and then you'll hear the thunder.

I know I shouldn't be afraid,
I know it in my head,
but thunder makes me want to run
and hide beneath my bed.

My daddy says we human beings
must learn to face our fears,
but my favorite cloud's the one that doesn't
thunder in my ears.

PRIMARY - SS. 1. 44

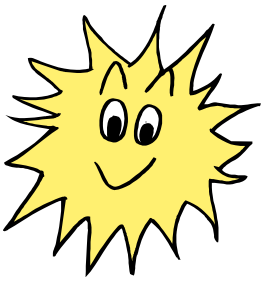
Taking Turns

by Brod Bagert

Summer sunshine, summer heat,
summer sandals on my feet.
Lots of time for me to play
summer please don't go away.

Autumn, autumn — turning cool.
Time for me to go to school.
Something tingles in the air…
I see pumpkins everywhere!

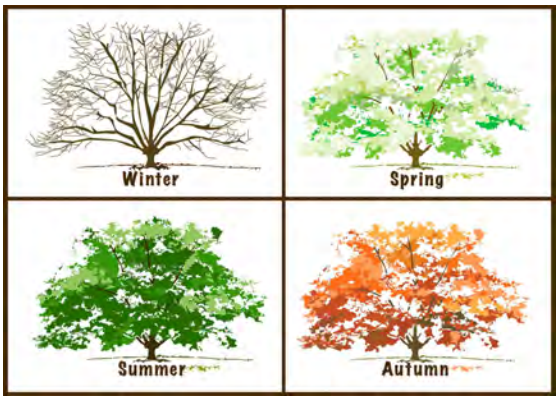
Winter, winter — ice and snow,
bundle up from head to toe.
Snow at sunset, snow at dawn,
soon the snow will all be gone.



Springtime! Springtime! Spring is here!
Springtime flowers make me cheer!
Springtime showers, warm and clean!
Everything I see is green!

Every year, it's only fair,
all the seasons have to share.
All the seasons have to learn
that every season takes a turn.

PRIMARY - SS. 1. 45



Stairway to the Stars

by Brod Bagert

They surround the Earth, five separate layers,
like giant atmospheric stairs,
which from our little earthy base
become our stairway into space.

The bottom layer is way down here,
we're walking in the ***troposphere***.

Where airplanes fly it's cold and clear
they're up there in the ***stratosphere***.

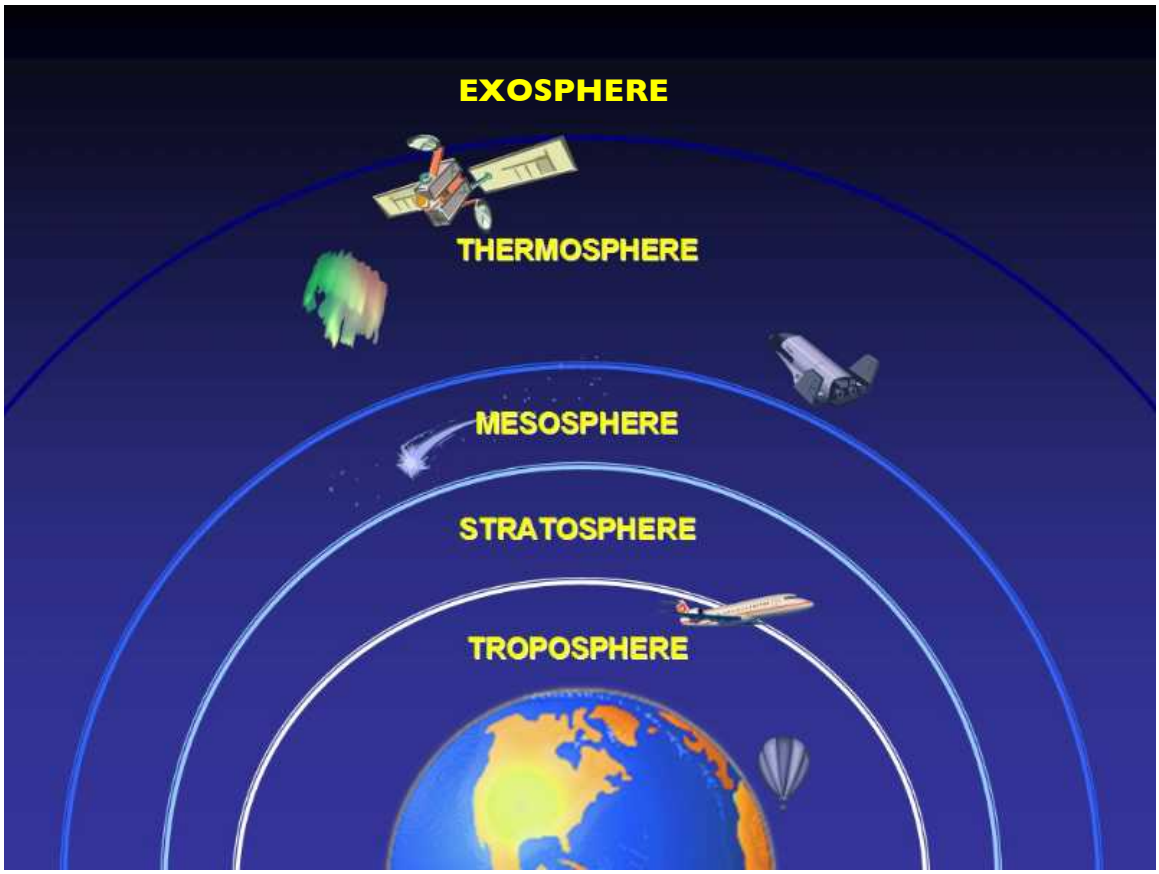
Radio waves range far or near
by bouncing off the ***mesosphere*** .

And every season of the year,
it's toasty in the ***thermosphere***.

Then satellites on the space-frontier,
go round and round in the ***exosphere***.

Around the earth in separate layers,
like giant atmospheric stairs,
for us, who live here all alone,
a stairway to the great unknown.

INTERMEDIATE & MIDDLE - SS. 2. 46



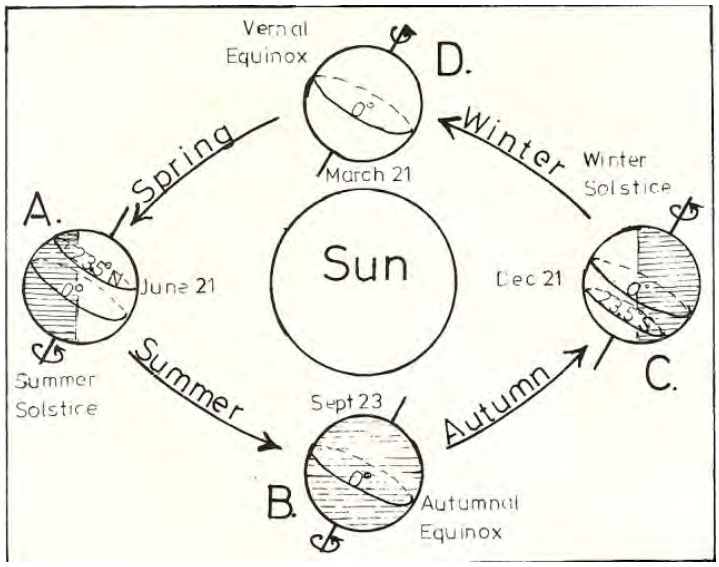
Chocolate Cake Solar System
or
The Importance of 23.5°

by Brod Bagert

The earth rotates at an angle
of twenty-three point five degrees,
a tilt that makes the summer hot
and makes the winter freeze.

And that very same tilt, at different times,
is what causes the autumn and spring.
So please don't take it for granted,
it's a truly amazing thing.

When our half of the earth tilts toward the sun,
the air begins to heat,
and that's the time for growing food
like cocoa beans and wheat.



But when we tilt the other way
in about six months or so,
all that air turns icy cold
and nothing much will grow.

Cocoa beans and wheat?
Now that was no mistake,
cause that's the stuff a person needs
to bake a chocolate cake.

And I live for chocolate cake
So pay attention PLEASE!
Stick it in your head right now—
TWENTY-THREE… POINT FIVE… DEGREES!

INTERMEDIATE & MIDDLE - SS. 2. 47

NOTE:

Some people are really good at imagining angles and shapes, and some people are not so good at it. It doesn't have anything to do with how smart we are; it's just a talent, and we all have different talents. So check it out and don't be discouraged if it doesn't pop in your head right away, but hang in there, because eventually you'll learn some really cool stuff.

- The sun's lowest spot in the winter sky is 23.5° **below** the *celestial equator*.
- The sun's highest spot in the summer sky is 23.5° **above** the *celestial equator*.
- And that 47° band of sky (23.5° below + 23.5° above) is what ancient *astronomers* called the Zodiac.
- And the sun and the moon and all the planets all live in the Zodiac, along with twelve famous constellations that *astrologists* use when they try to predict the future.
- And you'll also learn the very big difference between an *astronomer* and an *astrologist*.

By the way, here's the right way to say it: "23.5° is the angle of Earth's rotation to the Earth's ecliptic plane.

Questions and Answers

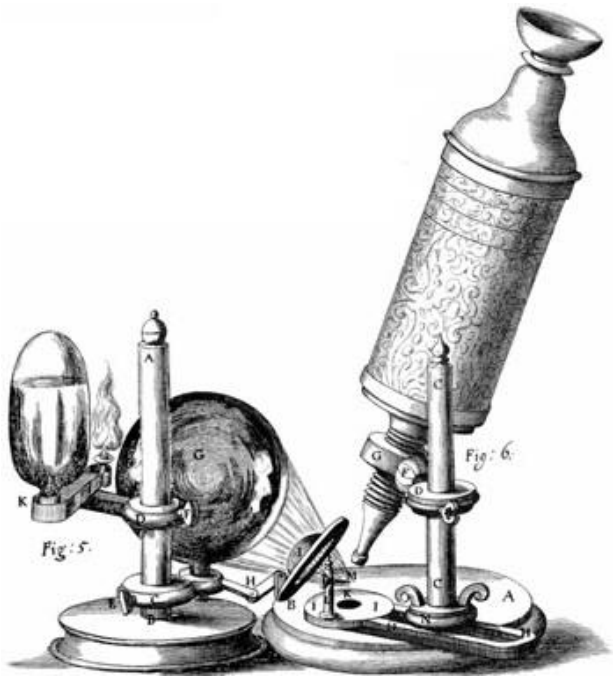
by Brod Bagert

Who? What? When? and Where?
are questions that often apply,
but my very favorite question of all
is the ever-spectacular… **WHY?**

And many a *why* has no answer,
we live in a world of doubt,
which is why it's such fun when you are the one
who gets to figure it out.

A world where all questions have answers
would be an unbearable bore.
and the joy of each life, amidst struggle and strife,
is to answer a little bit more.

PRIMARY & INTERMEDIATE & MIDDLE - SS. 2. 48



Note:
If you become a scientist, asking questions and searching for answers is what your life will be all about. You can think of scientific knowledge as a brick tower that gets taller and taller as each generation of scientists adds few more layers of brick.

Here's how it works. A team of scientists come up with an idea and do a bunch of experiments to test it, and if it works out they write a paper about it and publish it so that scientists all over the world can read it. And the other scientists think about it. Sometimes they repeat the experiments to make sure they work.

That's how science works today, but it wasn't always that way. Many scientists used to keep their knowledge a secret, and for those who wanted to share what they learned there was no established way to get the word out. All that came to an end on November 28th, 1660 at Gresham College in England, when 12 men met after a lecture and decided to found what came to be known as the Royal Society. It's the birthday of science as we know it today, because that's when science really got cooking.

By the way: the original idea for the Royal Society came from a novel called *New Atlantis* written in 1624 by a lawyer named Sir Francis Bacon. I think it's very cool that one of the most influential people in the history of science was a lawyer-novelist.

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