Singin' of the Rain 2017

LYRIC SHEETS

SONG NAME (mostly alphabetical) **SONG NUMBER**

1. *Big Ice* by Daniel Kallman.....SONG 01
2. *Cambridge 2016 Public School Medley* by David Haines.....SONG 02
3. *Climate Zones* by Lauren Mayer.....SONG 03
4. *Clouds* by David Haines .....SONG 04
6. *The Currents of the Ocean* by Leo Hurley.....SONG 06
7. *Drip, Drip* by David Haines.....SONG 07
9. *Falling Rain* by Tim Maurice .....SONG 09
10. *The Global Shuffle* by Bruce Lazarus .....SONG 10
11. *The Gospel of Climate Change* by Stanley Sagov .....SONG 11
12. *How Beautiful Is the Rain* by Bruce Lazarus.....SONG 12
13. *Flying into the Hurricane* by Ruth Hertzman-Miller .....SONG 13
14. *The Ozone Song* by David Haines .....SONG 14
15. *The Pilgrims' Problem* by David Haines .....SONG 15
16. *The Tale of Joe, Svanti, and Charlie* by Molly Ruggles.....SONG 16
17. *There's a Certain Flash of Light* by Andrea Gaudette .....SONG 17
18. *There's a Tornado* by Molly Ruggles.....SONG 18
19. *Vibrio Bacteria* by David Haines.....SONG 19
20. *Water Cycle* by Lauren Mayer .....SONG 20
21. *Water March* by Andrea Gaudette.....SONG 21
22. *Weird Weather* by Lauren Mayer .....SONG 22

SONG 1. BIG ICE

Music by Dan Kallman, Lyrics by Christine Kallman

SOP/ALTO: Mmmm, Oooo,
MEN: Big ice, big, big ice.
SOP/ALTO: Sheets of snow on frozen snow,
Or towering tall and craggy.
MEN: Windswept and barren,
Or nestled in green valley.

ALL: Big ice wide as continents extends its wintry rule.
Big ice keeps our planet cool.
MEN: Big ice,
ALL: Big, big ice.

ALL: Heavy ice sheets, sliding glaciers, and solid seas,
And permafrost—the frozen ground of northern countries—
With the winter snow and ice that come and go each year
Make up the frozen water that we call Earth's cryosphere.

SOP/ALTO: Big ice, MEN: Reflects the sun's light.
Big ice, Chills the air and the ocean streams.
Big ice, Makes the level of the seas just right.
ALL: Big ice keeps our planet cool.
MEN: Big ice,
ALL: Big, big ice.

ALL: In a climate so cold and bleak, who can survive?
The polar bear and penguin have adapted to stay alive.
Tiny fleas and yellow poppies thrive where glaciers creep.
And cozy in their heated homes the Inuit people sleep, on the ice.

SOP/ALTO: Big ice, MEN: Reflects the sun's light.
Big ice, Chills the air and the ocean streams.
Big ice, Makes the level of the seas just right.
ALL: Big ice keeps our planet cool.
MEN: Big ice,
ALL: Big, big ice.

SOP/ALTO: Ice Ages through the years have ruled with frigid hand,
MEN: Then receded leaving paths carved in the land.
ALL: But now big ice is melting, and it's not what we had planned!
Big ice. Big, big ice.

ALL: Greenhouse gases trap the heat inside the atmosphere.
Why this happens, what it means, is beginning to be clear:
The coal and oil we burn make [too much] CO2, we learn;
Perhaps we never will return
SOP/ALTO: To so much ice!

MEN: Big ice, SOP/ALTO: The penguins, the squid,
Big ice, The whales and the seals need ice!
Big ice, The cities, the farms,
Big ice, The people everywhere need ice!
Big ice. Will we find a way to save the ice?

SONG 2. 2016 CAMBRIDGE PUBLIC SCHOOL MEDLEY
by Cambridge Public School Students, facilitated, tweaked, and arranged by David Haines

PART 1: WEATHER WONDER
ALL: Sprinkles, showers, sleet, snow, slush,
Wind, tornado, hurricane,
Storm, squall, flood, thunder, lightning,
Downpour, drizzle, cloud,
Now it's raining cats and dogs, mist and fog,
Hail, frost, blizzard, and rainbow,
MEN: Beautiful rainbow.

ALL: All of these types of weather, every one,
Are caused by energy from the sun,
Energy, energy, energy from the sun,
Energy, energy, energy from the sun,
MEN: Energy, energy, energy from, energy, energy
from the sun.
ALTO: Energy, energy, energy, energy, energy
from the sun.
SOP: Energy, energy, energy from the sun.

PART 2: MY HOUSE FELL DOWN
I spent five million dollars on the house of my dreams,
On a seaside cliff where the morning sun beams.
Twenty years passed, and the weather's been rough.
Colossal waves crashed against the steep bluff.
Year after year, foundations undermined,
Storms, wind, and rain, tough weather unkind,
[weather unkind],

My dream home, built for me [, my dream home]
Fell down into the sea.
I should have known better than [, my dream home]
To build a house on a bed of sand,
To build a house [, house] on a bed of sand.

I thought my house was safe because it looked big
and strong.
Toughened glass, steel, concrete, granite: what could
go wrong?
Ocean levels rose, storms grew more extreme.
Climate change doesn't just hit strangers, it seems.
Rising C-O-2 in our fragile atmosphere
Brought weather more severe, brought so many tears
[, so many tears].

My dream home, loved by me [, my dream home]
Fell down into the sea.
I should have known better than [, my dream home]
To build a house on a bed of sand,
To build a house [, house] on a bed of sand.

PART 3: CLOUD, MIST, FOG, AND SMOG
I was biking down the mountain on a warm,
sunny day,
Saw down, down in the valley, clouds far away.
As I rapidly descended, felt the temp'rature drop,
Much colder than on the mountain top.

[Cloud], cloud, mist, fog, and smog.
What's the difference between cloud, mist, fog, smog?
[Repeat previous two lines]

In the water droplet mist, my skin began to feel damp.
In the fog, it was dark, so I switched on my lamp.
I guess that clouds near the ground are always called
fog.
And a chimney was billowing smoke, making smog.

[Cloud], cloud, mist, fog, and smog.
That's the difference between cloud, mist, fog, smog.
[Cloud], cloud, mist, fog, and smog.
That's the difference between cloud, mist, fog,
and smog.

PART 4: MY "LUCKY DAY"
I popped out for a stroll in my drought-dried town.
Suddenly a lightning bolt struck a tree down.
Trees fell like dominoes spreading flaming fire,
Which conjured a tornado building ever higher.

SOP: My "lucky day", my "lucky day".
ALTO: My "lucky day", my "lucky day", "lucky day",
my "lucky day".
TEN: My "lucky day", my "lucky day", my "lucky
day", my "lucky, lucky, lucky day".
BASS: My "lucky day", my "lucky day", my "lucky
day, lucky, lucky".
ALL: My "lucky day", [my "lucky day",] my "lucky
day".

SONG 2. 2016 CAMBRIDGE PUBLIC SCHOOL MEDLEY (continued)
by Cambridge Public School Students, facilitated, tweaked, and arranged by David Haines

PART 4 (continued)
[[Fire,] fire,] fire-storm spread, but then a quake created a great wave.
Tsunami quenched the furious flames, then I recalled a cave
Halfway up a mountain, I ran up to hide.
The mount erupted, I ran down again, survived!

SOP: My "lucky day", my "lucky day".
ALTO: My "lucky day", my "lucky day", "lucky day", my "lucky day".
TEN: My "lucky day", my "lucky day", my "lucky day", my "lucky, lucky, lucky day".
BASS: My "lucky day", my "lucky day", my "lucky day, lucky, lucky".
ALL: My "lucky day", [my "lucky day",] my "lucky day".
[Optional repeat from after "survived!"]

PART 5: STORY OF A MOLECULE
LOW: Drippity drip, drip, drip,
Drippity drip, drip, drip, drip, drip, drip, drip,
Drippity drip, drip, drip, drip, drip, drip, drip,
Drippity drip, drip, drip, drip, drip, drip, drip,
Drippity drip, drip, molecules

HIGH: I dripped from a glacier in Ice Age Croatia,
And flowed from Adriatic into Mediterranean Sea,
Evaporated up into cumulus cloud,
Condensed with fellow molecules

ALL: Just like me.
It's the story of a molecule of H-2-O,
Seen an awful lot of hist'ry in four billion years or so.

LOW: Drippity drip, drip, drip,
Drippity drip, drip, drip, drip, drip, drip, drip,
Drippity drip, drip, drip, drip, drip, drip, drip,
Drippity drip, drip, drip, drip, drip, drip, drip,
Drippity drip, drip, drippity drip, drip, drippity drip.

HIGH: I precipitated down as a shower of hail,
Landed on a pug as in a puddle it paddled.
A mustang slurped me up down its long equine throat,
Then sweated me all out from under its leather saddle.

ALL: It's the story of a molecule of H-2-O,
Seen an awful lot of hist'ry in four billion years or so.
It's the story of a molecule of H-2-O,
Seen an awful lot of hist'ry in four billion years or so.

SONG 3. CLIMATE ZONES
by Lauren Mayer

ALL:
Climate zones, three climate zones,
A fascinating topic.
Climate zones, three climate zones,
Are Polar, Temperate, and Tropic.
The main determinator
Is their distance from the equator,
'Cause the angle of the sun
Makes diff'rent weather for each one.

HIGH PART:
The polar zone is always cold,
Without much precipitation,
Lots of snow, and winds that blow,
And very little vegetation.
Either tundra or ice cap
Are the variations there,
And if you're planning to visit,
You'd better pack long underwear!

ALL:
Climate zones, three climate zones,
Are Polar, Temperate, and Tropic.

LOW PART:
The tropical zone's the hottest.
It stays warm the whole year long.
Hot and humid, and lots of things bloom,
Because the sun's so strong.
It includes some drier regions
Like Savannah and some desert dunes,
But mostly rain is found the whole year round,
Like Rainforest and Monsoon.

ALL:
Climate zones, three climate zones,
Are Polar, Temperate, and Tropic.

MIDDLE PART:
The temp'rate zone is moderate
With rainfall and some snow,
Not too cold or hot, a perfect spot
For a lot of crops to grow.
You'll see four diff'rent seasons
And variations galore,
Like Mediterranean, Maritime,
Continental and much more.

ALL:
Climate zones, [three] climate zones,
[Such] a fascinating topic.
Climate zones, [three] climate zones,
[Are] Polar, Temperate, and Tropic.

[GO BACK TO 8 LINES OF HIGH PART, MIDDLE PART, OR LOW PART, WHICH ARE NOW SUNG SIMULTANEOUSLY AS HARMONY, THEN RETURN HERE]

ALL:
Climate zones, [three] climate zones,
[Such] a fascinating topic.
Climate zones, [three] climate zones,
[Are] Polar, Temperate, and Tropic.
The main determinator
Is their distance from the equator,
'Cause the angle of the sun
Makes diff'rent weather for each one,
Diff'rent weather for each one,

HIGH: With polar,
MIDDLE: Temperate,
LOW: Tropical,
ALL: Climate zones!

SONG 4. CLOUDS
by Rm 210 Baldwin, arranged by David Haines

Cirrus clouds are wispy white
Like horse tails at the highest height
Cumulus lower in the sky
Float like cotton balls slowly by
Stratus blankets dark and grey
On a soggy, soggy, foggy day
Stratus blankets dark and grey
On a soggy, foggy day.
On a soggy, foggy day.
On a soggy, foggy day.

SONG 6. THE CURRENTS OF THE OCEAN
by Leo Hurley

What makes the ship push towards sea or land,
Or the tides to wash away my castle in the sand?
What keeps the oceans moving, migrating sea life grooving,
To the rhythm of the waters blue and grand?

It's the currents, currents, the currents of the ocean.
They are shallow, deep, and tidal, the currents of the ocean.
In the first few hundred meters, shallow currents glide
Swift and swirling, sometimes twirling, controlled by...

Wind...pulls the shallow waters to and fro.

SOP:	Blows long enough, Begin and grow!	ALTO/MEN:	If it's strong enough, Then also waves begin to grow!
SOP/ALTO:	[As it] nears the shore, A wave's base hits the floor, Forcing it to crash, With a splash!	MEN:	Nears the shore, Hits the floor, It to crash, With a splash!

ALL: It's the currents, [currents,] the currents of the ocean.
They are shallow, deep, and tidal, the currents of the ocean.
When you drop below the surface, deeper currents reign,
And the continental slopes are their domain.

Density moves the deep around our hemispheres
In a single snail-paced cycle that can take up to one thousand years.
If you want to know water's density, check the temp'rature and salinity.
Cold and salty waters sink below.
ALL BUT ALTOS: Earth's rotation causes it to flow!

ALL: [And make currents,] currents, the currents of the ocean.
They are shallow, deep, and tidal, the currents of the ocean.
On ev'ry ocean's edge, tides can be seen,
Helping keep the salty shore fresh and clean.

The moon [pulls] the ebb and flood tides.
Lunar gravity [moves] the shore from low to high.
[And two times] ev'ry day, [the tidal currents] swing and sway,
[From the] land and to the bay, and so we say:

It's the currents, [currents,] the currents of the ocean.

SOP:	They are shallow, deep, and tidal, the currents of the ocean.	ALTO/MEN:	The shallow, deep, and tidal ocean,

ALL: [When the] wind and density and the moon all combine,
We can answer the mystery
Of the [currents, currents, the] currents of the ocean,
[Currents, currents, the] currents of the ocean,
[Currents of the] ocean...nnn.

SONG 7. DRIP DRIP
by David Haines

Chorus 1 (Ten/Bass 2x, then add Sop/Alto):
TEN: Drip, drip, melting away,
BASS: [Drip], drip, drip, melting away,
SOP: Drip, drip, melting,
ALTO: Drip, drip, melting away,
[Repeat through solos]

Soloist Verse 1:
Whoops! There goes another polar bear,
Sadly drowned, what a pity as they're really rather rare.
Whoops! Blast! I rather think that was the very last.
Oh poo! At least there's plenty living in the zoo.

Whoops! There goes another habitat,
Dry as dust where the jungle giants used to live, now flat
As cake. For goodness' sake those greedy peasants burn
To earn dollars putting bargain burgers on our plates.

Chorus 2:

SOP/ALTO/TEN:	BASS:
[Let's fly] – let's fly away	Let's fly, fly,
And leave behind the modern world,	Fly, fly, fly, fly,
Refreshing tired minds	Fly, fly, fly,
With grace and beauty of a world	Fly, fly, fly, world

ALL:
Untouched by modern times,
A world of warmer climes,
Let's go today – let's fly [away].

BACK TO Chorus 1

Soloist Verse 2:
Whoops! There goes another coral reef
Sunk beneath relentless rising ocean, oh, good grief!
There goes that tiny little island just behind.
Whoops! Damn! Not many people live there, never mind.

Whoops! There goes another little house,
Tumbling down to the beach as crumbling cliff collapses, whoops!
Yours next! This problem's quite acute.
I think that what we need is a modern superhero King Canute.

REPEAT Chorus 2

BACK TO Chorus 1
[Repeat until directed to stop.]

SONG 9. FALLING RAIN
by Tim Maurice

SOPRANO:
Raindrops, raindrops, falling rain,
Raining drops of rain, raining drops of rain.

The waters of the ocean are heated by the sun,
Energizing molecules, so quickly it's begun.
Water vapor rises up, evaporate!

One by one those water droplets accumulate
And grow.
Watch them grow in size until
They fall as Rain,
All of that rainfall, tumbling down, it's rain,
Washing the Earth with falling rain.

That's the verb for falling rain, precipitate.
Constantly recycled, constantly.
Rain is constantly recycled, water's never new,
The molecules in raindrops that you feel on you,
Millions of years ago!

Watch that falling rain,
From clouds to the earth, and back to sea again,
Pouring over the earth, precipitation.
Listen to each of those raindrops, one by one:
Raindrops, raindrops, falling rain,
Raining drops of rain, raining drops of rain.

ALTO:
Raindrops, raindrops, drops of rain.

As water vapor rises, it loses all its heat,
Condensing into tiny droplets, elegant and neat.
High up in the atmosphere, the droplets form a cloud.

One by one those water droplets accumulate
And grow.
Watch them grow in size until
They fall as Rain,
All of that rainfall, tumbling down, it's rain,
Washing the Earth with falling rain.

Pulled down by gravity at twenty miles an hour,
The av'rage speed of rainfall in an av'rage rain shower.
Constantly recycled, constantly recycled,
constantly recycled, water cycle.
Rain is constantly recycled, water's never new.
Might be the very same that fell on dinosaurs years ago,
Millions of years ago!

Watch that falling rain,
From clouds to the earth, and back to sea again,
Precipitation. Listen, raindrops, raindrops, rain.

SEE OTHER SIDE FOR TENOR/BASS

SONG 9. FALLING RAIN (continued)
by Tim Maurice

TENOR:
Raindrops, rain fall, raining drops of rain,
Raining drops of, raining drops of rain.

Water vapor rises, loses all its heat,
Condensing, elegant and neat.

And grow.
Watch them grow in size until
They fall as Rain,
All of that rainfall, tumbling down, it's rain,
Washing the Earth with falling rain.

Raindrop! Raindrop!
Rain is constantly recycled, water's never new,
The molecules in raindrops that you feel on you,

Watch that falling rain,
From clouds to the earth,
Pouring over the earth,
To each of those raindrops, one by one:
Raindrops, rain fall,
Raining drops of rain, raining drops of rain, rain.

BASS:
Raindrops, rain fall, raining drops of rain,
Raining drops of, raining drops of rain.

Evaporate, evaporate!
Enumerate, accumulate,
And grow.
Watch them grow in size until
They fall as Rain,
All of that rainfall, tumbling down, it's rain,
Washing the Earth with falling rain.

The av'rage speed of rainfall in an av'rage rain shower.
Precipitate, precipitate.
Recycled, recycled, recycled.
Rain is constantly recycled, water's never new.
The molecules in raindrops that you feel on you,
Might be the very same that fell on dinosaurs years ago,

And back to sea again,
Precipitation. Listen to each of those raindrops, one by one:
Raindrops, rain fall,
Raining drops of rain, raining drops of rain, rain.

SONG 10. THE GLOBAL SHUFFLE
by Bruce Lazarus

When global warming reshapes the seasons,
For many species, it's a fight to survive.
Hibernation times are shorter,
Wildflowers blooming longer,
And ticks hatch sooner than before to thrive.

When it gets too warm, when it gets too dry,
Nature goes searching for new homes to be found.
Some trees are moving north,
Polar bears are ranging south,
And butterflies are seeking higher ground.

It's the great shuffle, the global shuffle,
Changes in timings and places.
It's the great shuffle, the global shuffle.
TEN/BASS: The species that warming displaces
SOP/ALTO: Have patterns which warming erases.
ALL: It's the global shuffle.

When it gets too warm, when it gets too dry,
In some ways homo sapiens have it the worst.
There is nowhere left to go,
[Our] cycles never change,
And water is the only cure for thirst.

It's the great shuffle, the global shuffle,
Changes in timings and places.
It's the great shuffle, the global shuffle.
TEN/BASS: The problems which Nature now faces
SOP/ALTO: Are new schedules and brand new home bases.
ALL: It's the global shuffle.

SONG 11. THE GOSPEL OF CLIMATE CHANGE
Music by Stanley Sagov, Lyrics by David Bass

VERSE 1 ALL:
I like walking in the rain, and playing on a sunny day,
And sashaying when it's cloudy and gray.
I like skiing when it's cold, and also to go
Dashing just like Santa through hailstorms, through sleet and snow.
Weather changes day to day today and changes place to place
The state of the air, whether rainy, cold, or hot, windy, still, clear, or haze.

VERSE 2 TREBLE:
I live where the summer's hot, a lot, and where the winter's not.
And all year, rainfall here is moderate.
Weather averaged over many years makes a cli-
Mate such as polar, tropical, continental, mild, and dry.
Climate stays the same for decades hence and over vast distance,
The climate controls growing seasons, animals, ecosystems, and plants.

VERSE 2 BARITONE:
Here in Massachusetts the summer is hot, and in the winter, it's a lot
Colder than penguin tears. Winter, snow, or summer rainfall here is moderate, somewhat.
Over many years is how we determine a cli-
Mate such as polar, tropical, or continental, such as mild and dry.
Unlike weather, climate has great persistence, both over time and over distance.
Weather is local, climate is regional in extent, oo... ecosystems and plants.

VERSE 3 DESCANT (a few sopranos):
Do for you, a week or two,
Ensue, it's true.
Models can foretell, predicting quite well
Climate and how the Earth will warm due to man over, warm due to man over quite a spell.
We think of climate and weather as a set, don't forget.
Remember this truth: oo... weather is what you get.

VERSE 3 TREBLE:
Weather forecasting we do for you, about a week or two.
After then, we don't know what will ensue.
Climate models can foretell, predicting quite well
How the Earth will warm due to man over quite a spell.
Though we think of these two as a set, they're different, don't forget.
Remember this truth: climate is what you expect, weather is what you get.

VERSE 3 BARITONE:
Weather forecasting for you works up to about a week or maybe two
Accurately and then chaos theory argues we don't know what will ensue, it's true.
Models can foretell, predicting the climate, detail-
Ing how the Earth will warm, global warming caused by man over quite a spell.
We confuse the climate with weather, and yet, they're not the same, don't you forget, or we will be upset.
We must all remember this truth: oo... weather is what you get.

SONG 12. HOW BEAUTIFUL IS THE RAIN
Music by Bruce Lazarus, poem by H. W. Longfellow

How beautiful is the rain!
After the dust and heat,
In the broad and fiery street,
In the narrow lane,
How beautiful is the rain!

How it clatters along the roofs,
Like the tramp, tramp, tramp of hoofs
How it gushes and struggles out
From the throat of the overflowing spout!

Across the window pane
It pours and pours;
And swift and wide,
With a muddy tide,
Like a river down the gutter roars
The rain, the welcome rain!

SONG 13. FLYING INTO THE HURRICANE
Music by Ruth Hertzman-Miller, Lyrics by Meg Muckenhoupt

A megastorm is coming, but we don't know where or when.
The outline's on the radar, but nothing can see in.
A satellite can't see enough, it's blocked by clouds and rain.
We're gonna need a pilot who can fly through hurricanes.

It isn't always easy to get the data you need.
To map the path of the hurricane, you need a plane to measure the speed.

We need to know wind direction and speed before we know for sure
Just where this storm is heading. That's what the plane is for.
We have computer simulations to, to tell where the storm will go,
But to get it to work, we need data when the hurricane starts to blow.

It isn't always easy to get the data you need.
To map the path of the hurricane, you need a plane to measure the speed.

We're going fast, and faster still,
I think I might be getting ill.
We'll use our sensors in the air
To measure wind speeds everywhere.
We're at the edge, the cyclone's rim.
The blowing clouds are looking grim.
We see their counterclockwise spin
As we approach....We're going in.

We're closing on the eyewall with the fastest winds of all.
We can't stay up much longer. I think we're gonna fall...

SOP/TENOR:
We are finding the speed of the wind as we fly.
Where the currents are shifting and the vortices rise.
We are dropping the dropsondes to the ocean below.
We are gathering data while the hurricane blows.
Hurricane blows.

ALTO/BASS:
We are floating in the eye.
We are flying in a spiral.
We are floating in the eye.
Hurricane blows.

ALL:
We're comin' out of the hurricane. We had a perfect flight.
We got information for the storm simulation, we've done our job just right.
Now we'll predict which way the storm will turn when it comes our way.
We'll evacuate; ev'ryone will be safe, and science will save the day.

It isn't always easy to get the data you need.
To map the path of the hurricane, you need a plane to measure the speed.

SONG 14. DELIGHTFUL FIGHTING-FIT FLOATING PHYTOPLANKTON (THE OZONE SONG) by David Haines

INTRO
Humans lie in the bright sunshine
But its rays aren't all of the friendly kind
UVA rays age the skin
UVB rays burn it but just in...
Case you thought it was all bad news
Ultraviolet light makes Vitamin D
In him, in her, in me, in you too….

It isn't just humans that have to take care
Of ultraviolet travelling through space then air
We phytoplankton living in the sea
For photosynthesis need UV
But too much bleaches out the green
And damages our DNA - yes, we've been…

Having a hard time for many years
But now let's celebrate, whoop and cheer
That big Antarctic Ozone Hole
Is healing now thanks to The Montreal Protocol
Healing thanks to The Montreal Protocol
Healing thanks to The Protocol

REFRAIN
We're delightful fighting-fit, floating phytoplankton
Living in the big wet sea
Tiny mighty thronging thriving feisty phytoplankton
Dancing nature's choreography

VERSE 1 (CFCs AND UV PROTECTION)
You naughty humans sprayed
Ozone-depleting stuff
Such as chlorofluorocarbons
Into the air, enough
To interfere with ozone
That shields Earth from UV rays
But international action
Has succeeded in reversing ozone's decay
Hooray, hooray, hooray!

REFRAIN
We're delightful fighting-fit, floating phytoplankton
Living in the big wet sea
Tiny mighty thronging thriving feisty phytoplankton
Dancing nature's choreography

VERSE 2 (WHAT IS OZONE?)
UV radiation splits
Molecules in stratosphere
O2 (oxygen) divides
Quickly recombines, but hear!
One in every half a million
Ends up as ozone
O3 the conquering hero
From UV shields our planetary home
His home, her home, my home your home
Everybody's home!

BRIDGE
We're Life's foundation food
We phytoplankton
Down at the bottom of the food chain
And now the ozone hole is healing
We're feeling fitter, so once again
Once again…

REFRAIN & CODA
We're delightful fighting-fit, floating phytoplankton
Living in the big wet sea
Tiny mighty thronging thriving feisty phytoplankton
Dancing nature's choreography
(It's twinkle-toes zone)
Dancing nature's choreography
(Thanks to ozone)
Dancing nature's choreography!

SONG 15. THE PILGRIMS' PROBLEM
Music by David Haines, Lyrics by Rachael Shearmur

The Pilgrim Fathers sailed [the ocean blue, blue],
[They] sailed the ocean blue.
[From Plymouth in] Old England
To lives and pastures new [, and pastures new].
They found that when they got there,
It wasn't quite as planned:
[The] winter cold, [cold,] [the] summer [hot]
[In] this, their Promised Land [their Promised Land].

The Pilgrim Fathers sailed [the ocean grey, grey],
[They] sailed the ocean grey.
[They rode the] stormy weather
Safe into Cape Cod Bay [, to Cape Cod Bay].
Not all that they expected:
It came as quite a shock
SOP/TEN: When they stepped off the Mayflower
ALT/BAS: Winter cold, cold snowy
ALL: And onto Plymouth Rock.

If only they had waited
Till eighteen eighty-four [, eighteen eighty-four]
[They] would have had some guidance
Before they stepped ashore.
Vladimir Petrovich Köppen
Got climates classified [, climates classified]
[So] type and rainfall, temp'rature
Were neatly codified.
The climate in England is C f b,
But the New England climate is D f b.

The Pilgrim Fathers sailed [the ocean black, black],
[They] sailed the ocean black.
[The weather] whipped them wildly,
But they did not turn back [, did not turn back].
So buoyed by their beliefs
Which were truly fundamental
SOP/TEN: Cold, cold, cold, snowy
ALT/BAS: The climate they encountered
ALL: [Was] humid continental [, continental].

SOP/TEN: The Pilgrim Fathers sailed the ocean green,
ALT/BAS: The Pilgrim Fathers sailed,
They sailed the ocean green,
ALL: [To Patuxet,] Massachusetts,
[A land,] a land they had not seen.
The climate they abandoned
Was temp'rate oceanic,
Though further south 'twas colder
This side of the Atlantic.

UNISON:
The Pilgrim Fathers struggled,
They struggled to survive
Until the Wampanoags helped them, helped them,
To stay alive.

ROUND:
The Pilgrim Fathers struggled,
They struggled to survive
Until the Wampanoags helped them, helped them,
To stay alive.

SONG 16. THE TALE OF JOE, SVANTI, AND CHARLIE
by Molly Ruggles

Way back when in eighteen twenty-four,

French math'matician, Joseph Fourier,
Thought a lot about the Earth's atmosphere.
Radiation from the sun
Gets reflected back to Earth, makes it comfortable and warm.

This is called the greenhouse effect,
And it's absolutely crucial to supporting life.
The planet's warmth it serves to protect,
Keeps the atmosphere in balance, shields our world from strife.

Late on, in eighteen ninety-six,

Swedish chemist, Svanti Arrhenius,
Thought a lot about Fourier's ideas.
Rising levels of carbon dioxide
Change the fragile balance of the greenhouse effect.

C-O-2's connected to the water vapor level.
Fossil fuel combustion raises global temp'rature.
No one thought that human beings could cause this kind of trouble,
But Charlie Keeling proved it once and all for sure.

He discovered it in nineteen sixty-one.

Mauna Loa Observatory
Recorded C-O-2 for half a century.
From three hundred fifteen parts per million
To four hundred nine due to human activity.

And it's thanks to scientists like Frenchman Joseph Fourier,
Svanti Arrhenius, the stalwart Swede.
Charlie Keeling brought the pieces all together.
Giants of climate change we're all agreed.

SONG 17. THERE'S A CERTAIN FLASH OF LIGHT
by Andrea Gaudette

SOPRANO 1:
There's a certain flash of light,
Twenty-two thousand miles an hour in speed,
Five times hotter than the surface of the sun;
Originating in a cumulonimbus cloud.

Water vapor freezes at the top of the cloud,
Giving ice particles a positive charge.
Warmer water vapor below
Has a negative charge.

Zap, flash, boom, crash, crackle, flash,
Boom.
Spark, zap, flash, rumble, zap, crash,
Crackle, flashing thunder.

There's a certain flash,
Flash of light, from the clouds.
Air separates,
Then compresses,
Causing a wave:
Rumble, crashing, crackle, rumble, boom.
Like the heft
Of heavenly tunes.

When lightning comes,
The landscape listens.
Children hold their
Breath.

Counting time:
Five seconds after lightning makes a mile.
Counting time
To find the distance of the storm.
There's a certain flash of light.

SOPRANO 2:
There's a certain flash of light,
Twenty-two thousand miles an hour in speed,
Five times hotter than the surface of the sun;
Originating in a cumulonimbus cloud.

Water vapor freezes at the top of the cloud,
Giving ice particles a positive charge.
Warmer water vapor below
Has a negative charge.

Wind in this thunder cloud
Causes the charges to collide.
This creates an electric current,
Fifty-four thousand degrees Fahrenheit.

As it travels, it pushes the air away.
This is what creates the thunder,
Zap, flash, boom, crash, crackle, flash,
Boom.
Spark, zap, flash, rumble, zap, crash,
Crackle, flashing crash.

Rumble thunder, boom, zap, spark crash,
Boom, crack, rumble thunder.
Spark, zap, flash, rumble, thunder,
Crackle flashing thunder.

Rumble, thunder, boom, zap, spark, crash,
Boom, crack, rumble, thunder,
Zap, flash, crackle, crash,
Flicker, sparkle, thunder rumble.

Zap, flash, boom, crash, crackle, flash,
Boom.
Zap, flash, crackle, crash,
Flicker, sparkle, thunder, rumble.
Zap, flash, boom, crash,
Flash of light.

SONG 17. THERE'S A CERTAIN FLASH OF LIGHT (continued)
by Andrea Gaudette

ALTO:
There's a certain flash of light,
Twenty-two thousand miles an hour in speed,
Five times hotter than the surface of the sun;
Originating in a cumulonimbus cloud.

Zap, flash, crackle, crash,
Flicker, sparkle, thunder, rumble.
Zap, flash, boom, crash, crackle, flash,
Boom.

Spark, zap, flash, rumble, zap, crash,
Crackle, flashing thunder.
Rumble, thunder, boom, zap, spark, crash,
Boom, crack, rumble, thunder.

Zap, flash, crackle, crash,
Flicker, sparkle, thunder rumble.
Zap, flash, boom, crash, crackle, flash,
Boom.

Spark, zap, flash, rumble, zap, crash,
Crackle, flashing crash.
Rumble, thunder, boom, zap, spark crash,
Boom, crack, rumble, thunder.

Zap, flash, crackle, crash,
Flicker, sparkle, thunder rumble.
Zap, flash, boom, crash, crackle, flash,
Boom.

Spark, zap, flash, rumble, zap, crash,
Crackle, flashing thunder.
Rumble, thunder, boom, zap, spark, crash,
Boom, crack, rumble thunder.

Boom, crackle crash,
Flash of light.

BARITONE:
Wind in this thunder cloud
Causes the charges to collide.
This creates an electric current,
Fifty-four thousand degrees Fahrenheit.

As it travels, it pushes the air away.
This is what creates the thunder.
When the air rushes back,
It causes a sound wave.

Spark, zap, flash, rumble, zap, crash,
Crackle, flashing crash.
Rumble, thunder, boom, zap, spark, crash,
Boom, crack rumble thunder.

Zap, flash, crackle, crash,
Flicker, sparkle, thunder rumble.
Zap, flash, boom, crash, crackle, flash,
Boom.

Spark, zap, flash, rumble thunder,
Crackle, flashing thunder.
Rumble thunder, boom, zap, spark, crash,
Boom, crack, rumble thunder.

Zap, flash, crackle, crash,
Flicker, sparkle, thunder rumble.
Zap, flash, boom, crash, crackle, flash,
Boom.

Spark, zap, flash, rumble, zap, crash,
Flash of light.

SONG 18. THERE'S A TORNADO
by Molly Ruggles

WOMEN: There's a tornado, hurtling down the edge of the street,
MEN: Keep your distance.
WOMEN: Tornadoes form when diff'rent temp'ratures and
Variable humidity meet.
MEN: There's resistance.
WOMEN: Warm air usually rises, but
Cold air can trap the warm air beneath.
ALL: You better lie low.
WOMEN: Here comes a tornado.

MEN: It's quite dramatic It goes round and round counterclockwise.
ALL: In the northern hemisphere.
MEN: But below the equator, it turns the other way
WOMEN: Most of the time.
MEN: It's categorically unpredictable.
You better stay out of its way.
ALL: You better lie low.
MEN: Here comes a tornado.

WOMEN: Now here is something you prob'ly know nothing about.
On the water, they call it a tornadic water spout.
Sometimes it moves from water to land,
Sometimes it moves the opposite way.
You better lie low.
It's still a tornado.

MEN: Now here is something you prob'ly think I know nothing about, you're surmising...
On the water, ooo...it's called a water spout, now that's surprising!
Sometimes it moves from water to land,
Sometimes it moves the opposite way.
You better lie low.

ALL: So let me tell you, I want to make one thing very clear.
WOMEN: Won't you spare me.
ALL: If there's a tornado near by, quickly
Get yourself the heck out of here.
MEN: Now you scare me.
ALL: They've got a mind and mood of their own
They'll smash your car and knock down your home.
You better lie low
If there's a tornado.
You better lie low
If there's a tornado.
Lie low
If there's a tornado.

SONG 19. VIBRIO BACTERIA
Music by David Haines, Lyrics by Rachael Shearmur

Vibrio bacteria are dang'rous little things.
They've neither fur nor feathers, no arms or legs or wings.
They're facultative anaerobes shaped like a little rod,
Curved and motile microbes: an infection-bearing squad.

Vibrio vulnificus,
Para haemolyticus,
[If] there's more now, [then it is 'cause]
Our world's got way too[, way too warm, way too] warm...

Vibrio bacteria within the sea are found.
When oceans warm, they bloom and blossom, pullulate, abound.
As shellfish feed, they filter water, vibrio collects.
Then unsuspecting shellfish-eating humans it infects.

Vibrio vulnificus,
Para haemolyticus,
[If] there's more now, [then it is 'cause]
Our world's got way too[, way too warm, way too] warm...
[Way too warm, way too warm...]

Surface temp'ratures of seas and climate change are interlinked.
The planet warms: whole ecosystems march as if in sync.
Plants, prey, and predators, parasites migrate towards the poles
As northern climes assume rather tropicalish roles.

Vibrio vulnificus,
Para haemolyticus,
[If] there's more now, [then it is 'cause]
Our world's got way too [warm, got] way too warm.

Vibrio vulnificus,
Para haemolyticus,
[If there's] more [more] now, [then it is 'cause]
Our world's got way too[, way too] warm.
[Our] world's got way too[, way too] warm.
[Our] world's got way too[, way too] warm.

SOP: Our world's got way too warm, way too warm, warm, warm, way too warm.
ALTO: World's got way too, way too warm, way too warm, way too warm.
TEN: Our world's got way too, way too warm, way too, way too, way too warm, way too warm.
BASS: World's got way too warm, warm, warm, warm, warm.

SONG 20. WATER CYCLE
by Lauren Mayer

Chorus:

BASS: [First] you need some ‘cipitation,
Then will lead to ‘cumulation,
Evaporation, condensation,
Water cy- First you need some rain.
You need some ‘cipitation,
Then will lead to ‘cumulation,
Evaporation, condensation,
That’s the water cycle.

OTHERS: First you need some precipitation
Which will lead to accumulation,
Evaporation, condensation,
That’s the water cycle.
First you need some precipitation
Which will lead to accumulation,
Evaporation, condensation,
That’s the water cycle.

H=HIGH, M=MELODY, L=LOW, B=BASS

M/B: First the rain comes down
M/L/B: And the ground gets muddied,
M/H: But don’t you frown,
M: ‘Cause it’ll be all gone soon,
M/B: ‘Cause the sun and rain
M: Like we all have studied,
Are part of a cycle that’s in play
When water comes down then dries away.
The system is nature’s way
Of keeping things in tune.

H/L: Ooo,
H: And the ground gets...
L/B: But you must not frown
H/L/B: Be all gone soon.
H/L: Ooo,
H/L/B: Like you may have learned
Cycle that’s in play
Down then dries away
Nature’s way
Of keeping things in tune.

[Repeat Chorus]

M/B: If you see a cloud,
M/L/B: You don’t need to hate it.
M/H: You can be proud,
M: You know why that cloud is there.
M/B: Little water drops
M: That evaporated
Join up with their friends and start to fly
Into a big group up in the sky,
And after some time goes by,
A cloud forms in the air.

H/L: Ooo,
H: You don’t need to...
L/B: Yes, you can be proud,
H/L/B: Cloud is there.
H/L: Ooo,
H/L/B: That evaporate
Friends and start to fly
Group up in the sky,
Time goes by,
A cloud forms in the air.

Clouds! *(shouted, then wind sounds “whoo whoo”)*
Sprinkles! *(shouted, then finger snaps)*
Rain! *(shouted, then rub hands together)*
More rain! *(shouted, then 9“shh”s)*
Pouring! *(shouted, then hand claps)*
Puddles! *(shouted, then “splish splash splish splash”)*
Evaporation! *(shouted, then slurping glissando)*
Up to sky! *(shouted)*

BASS: First you need some rain,

[Repeat Chorus, singing last line of chorus three times]

SONG 21. WATER MARCH
by Andrea Gaudette

SOP/ALTO: Under the sunshine,
People are walking
Going for water,
ALL: Everyone talkin' 'bout the rising sea.

TEN/BASS: Climate gets hotter,
Volume increases,
Thermal expansion
ALL: Eroding the coastline right before our eyes.

SOP: O children,
SOP/ALTO: Precipitation is our salvation.
Water gives us life.

SOP: O children, children,
S/T/B: If we pollute it, we can't use it.
S/A/T: Water gives us life!
Water gives us life!

SOP/ALTO: Warm ocean water
Causes low pressure
Moisture gets sucked up
ALL: Tropical depression, then a tropical storm.

SOP/BASS: Hurricane season
June to November,
Winds create havoc,
ALL: Rain causes flooding, a calamity!

TEN: O children,
ALTO/TEN: Sometimes destruction,
But an essential function.
S/T/B: Water gives us life!

SOP: O children, children,
S/T/B: Sometimes destruction,
But an essential function.
S/A/T: Water gives us life!

ALTO: O children, children,
A/T/B: Precipitation is our salvation.
S/A/T: Water gives us life!
Water gives us life!
Water gives us life!

TEN/BASS: Tropical island
Next to the sea.
To the well,

SOP/ALTO: Heats up the water
Ocean levels rise
Causes many problems,

ALTO: Water,

BASS: Water, water is life!
Water, water is life!

TEN/BASS: Like swimming in a bathtub
Over the seas.
To the atmosphere

ALTO/TEN: Causes grieving
Wind and the rain.
The Big Bad Wolf!

ALTO: Water, water gives life!

ALTO: Water,

BASS: Water, water gives life!

SOP: Water,

BASS: Water, water gives life!
Water, water gives life!
Water, water gives life!

SONG 22. WEIRD WEATHER
by Lauren Mayer

Did you ever see weather you couldn't explain,
Like ice tsunamis or orange rain,
Fire tornadoes whirling way up high,
Or frogs and fish raining out of the sky?

Weird weather, *not the usual thing,*
Weird weather, *it's so puzzling.*
What a surprise from out of the skies
It's strange, you bet, when the weather gets...weird.

Hail in Hawaii, like snow on the shore,
Ice crystal flowers, and so much more,
Sea ice brinicles, volcanic lightning.
If you don't understand 'em, they can be fright'ning.

Weird weather, *it leaves you perplexed,*
Weird weather, *you wonder what's next.*
What a surprise from out of the skies
It's strange, you bet, when the weather gets...weird.

Ev'ry one of these has an easy explanation.
For example with amphibious precipitation
Tornadoes suck up water in a waterspout,
Plus whatever little creatures are swimmin' about.

It's raining frogs, comin' to ya,
It's raining frogs, oh yeah,
Even crabs, fish, eels, and snakes
Sucked up from oceans, rivers, and lakes.

These phenomena that seem so bizarre?
Science can explain exactly what they are,
But though we know how raining frogs appeared,
We can still agree, *weird weather is weird!*

Weird weather, *not the usual thing,*
Weird weather, *it's so puzzling.*
What a surprise from out of the skies
It's strange, you bet, when the weather gets...

Weird weather, *it leaves you perplexed,*
Weird weather, *and you wonder what's next.*
What a surprise from out of the skies
It's strange, you bet, when the weather gets...weird.
Weird weather!