1. Print double-sided in color with long edge binding.

2. Cut along along bottom horizontal lines just below each pair of pictures.

Big, fast carbon surge:
Ice melts, oceans heat and rise.
Air warms by decades.

HISTORY, EARTH

Warming land, sour sea,
melting frozen Earth may spew carbon back to air.

FUTURE, FIRE

3. Orient the 6 strips so instructions 1-6 are on their top sides, facing up.

Abyss warms, coasts flood.
Air moistens – salt patterns shift.
Carbon sours oceans.

HISTORY, WATER

Glaciers, snow recede.
No Arctic summer ice soon?
Frozen earth melts too.

FUTURE, ICE
Climate Change Science 2013: Haiku

This work is my attempt to distill into Haiku: “The Summary for Policymakers of the Working Group 1 Contribution to the Intergovernmental Panel on Climate Change Fifth Assessment Report”. The result is solely my own creation, so any views or opinions expressed herein are my own, and do not necessarily reflect the views of the U. S. Government, the IPCC, or any other entity.

Gregory C. Johnson

Fast, strong action will reduce future warming, but ... rising seas certain.

FUTURE, REPRISE

Glaciers melt, seas warm, giant polar ice sheets stir: Seas may rise faster.

WATER MEETS EARTH 2

Carbon increases; Air warms through century past. More heavy rains fall.

HISTORY, AIR
4. Stack the 6 strips in order with 1 on the bottom, and 6 on the top.

Seas rise as they warm.
Rates quicken last century.
Melting ice joins in.

WET WATER MEETS EARTH

Wet will get wetter
and dry drier, since warm air . . .
carries more water.

WATER MEETS AIR

5. Staple strips together with 2 vertical staples between center vertical lines.

CO2, methane
warm despite sun-spots, dust, soot,
clouds, and volcanoes.

CHANGE DRIVERS

CO2, methane
warm despite sun-spots, dust, soot,
clouds, and volcanoes.

THE FUTURE

Forty years from now
children will live in a world
shaped by our choices.

6. Trim resulting booklet at top horizontal and outside vertical lines.

We burn
more carbon
air warms
for decades –
but seas . . .
for millennia.

RESPONSE

Our industry has
warmed oceans, air, lands – changed rains –
melted ice – raised seas.

ATTRIBUTION
Oceans will warm, yes, deep and wide, changing currents that flow ‘round the world.

Glaciers and ice sheets melt worldwide, speed increasing. Sea ice, snow retreat.

Arctic will warm most and land more than sea - too hot. Still, choices matter.

Burning fuel, farming trap heat and sour the oceans beyond human ken.

Recent air warming slowed by volcanoes and sun? Seas sequester heat.

Models of climate improve with time and details . . . capture big patterns.