

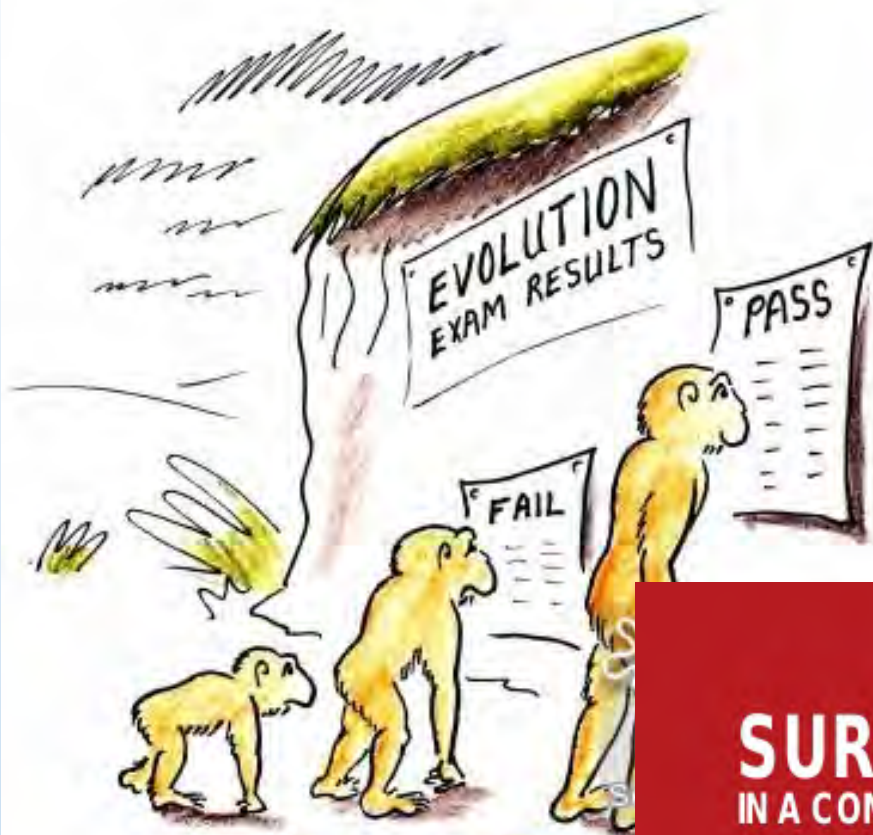
Cool Leaves! Exploring leaf adaptation in outreach

Jennifer Blake-Mahmud

Catrina Adams

Botany 2016

Savannah, GA



**HE JUST FOUND OUT WHAT
SURVIVAL OF THE FITTEST
REALLY MEANS.**

FACTMYTH.COM



SURVIVAL OF THE FITTEST:
IN A COMPLEX LANDSCAPE, ONLY THE STRONG SURVIVE

New Jersey
only the
strong
survive.

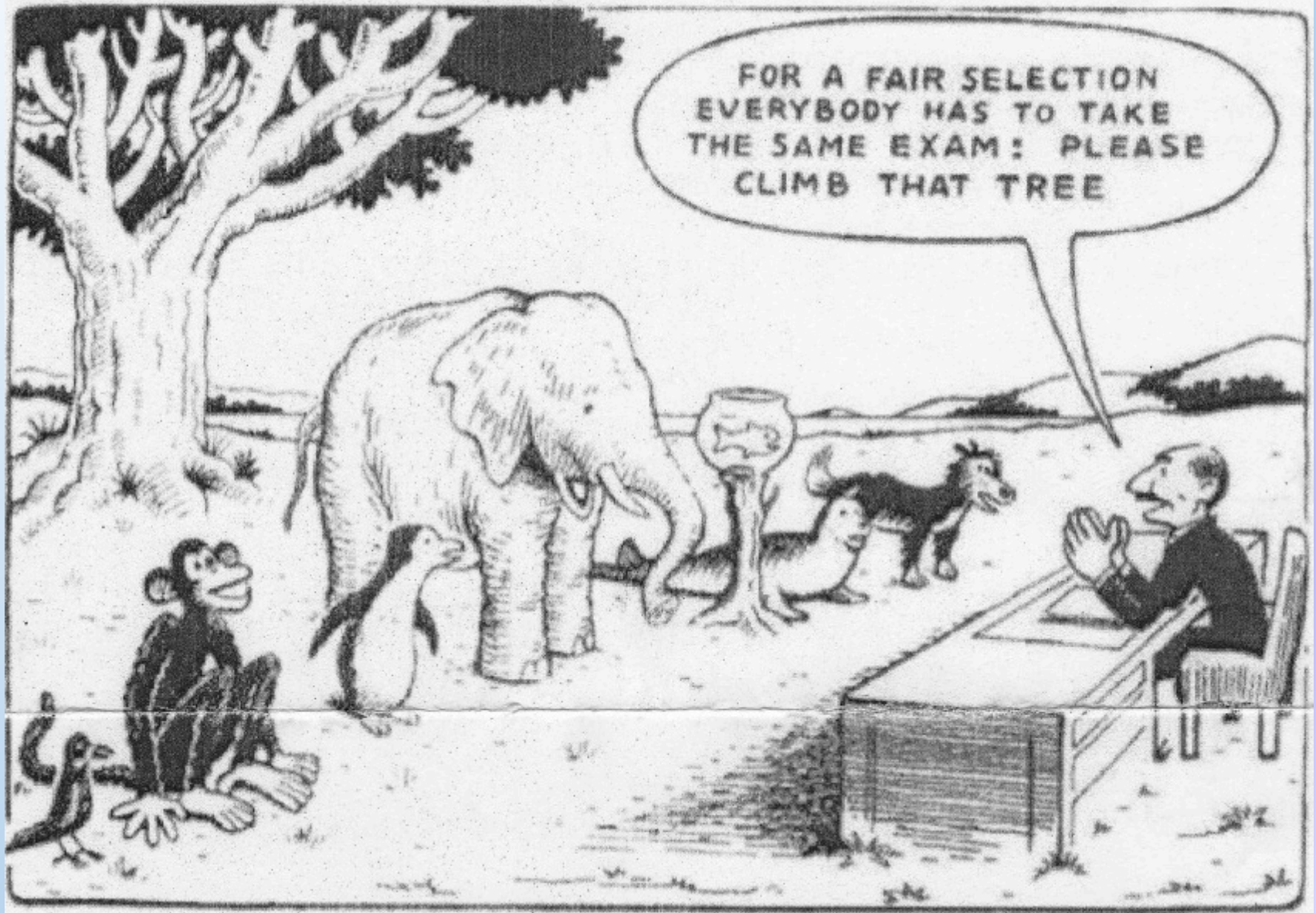


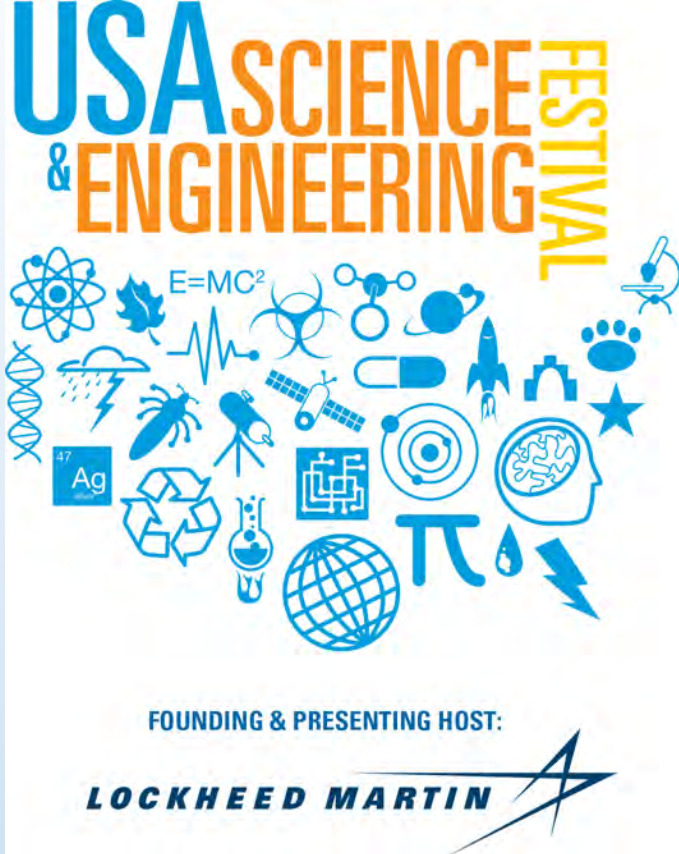
JONES LANG
LASALLE



HEALTHCARE PERSPECTIVES

FOR A FAIR SELECTION
EVERYBODY HAS TO TAKE
THE SAME EXAM: PLEASE
CLIMB THAT TREE





Washington D. C.
April 2016





Join The
Plant Movement



Plants Move
Plants Matter

Join the Plant Movement

Plants Move Plants Matter





Purpose:

To teach people about plants by highlighting plant movement.

Participating groups:

US Botanic Garden

Botanical Society of America

Rutgers University

American Society of Plant Biologists

Donald Danforth Plant Science Center

Society for Economic Botany

RUTGERS



DONALD DANFORTH
PLANT SCIENCE CENTER
DISCOVERY | COMMUNITY | IMPACT



UNITED STATES BOTANIC GARDEN







Demos

Demos

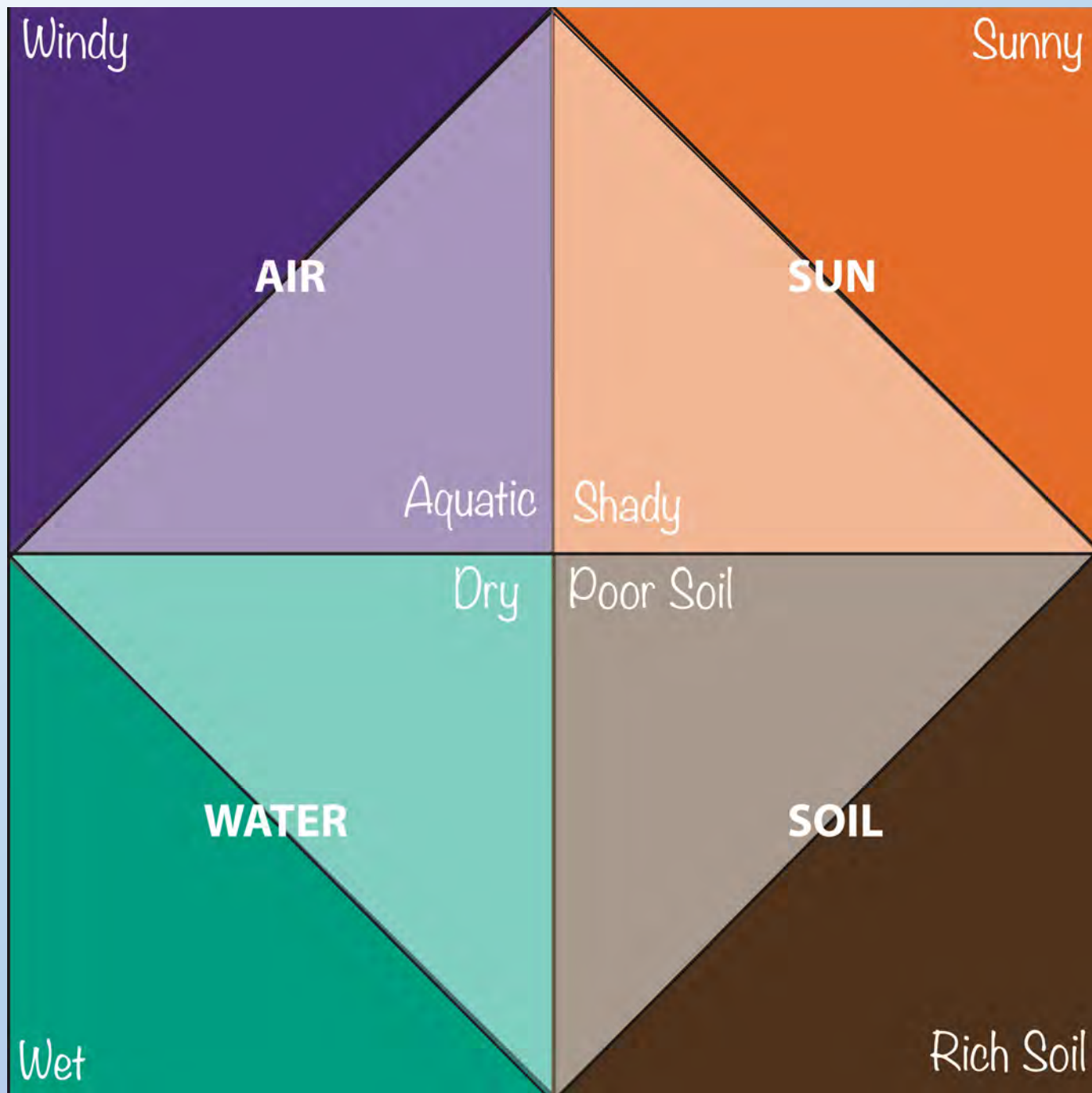


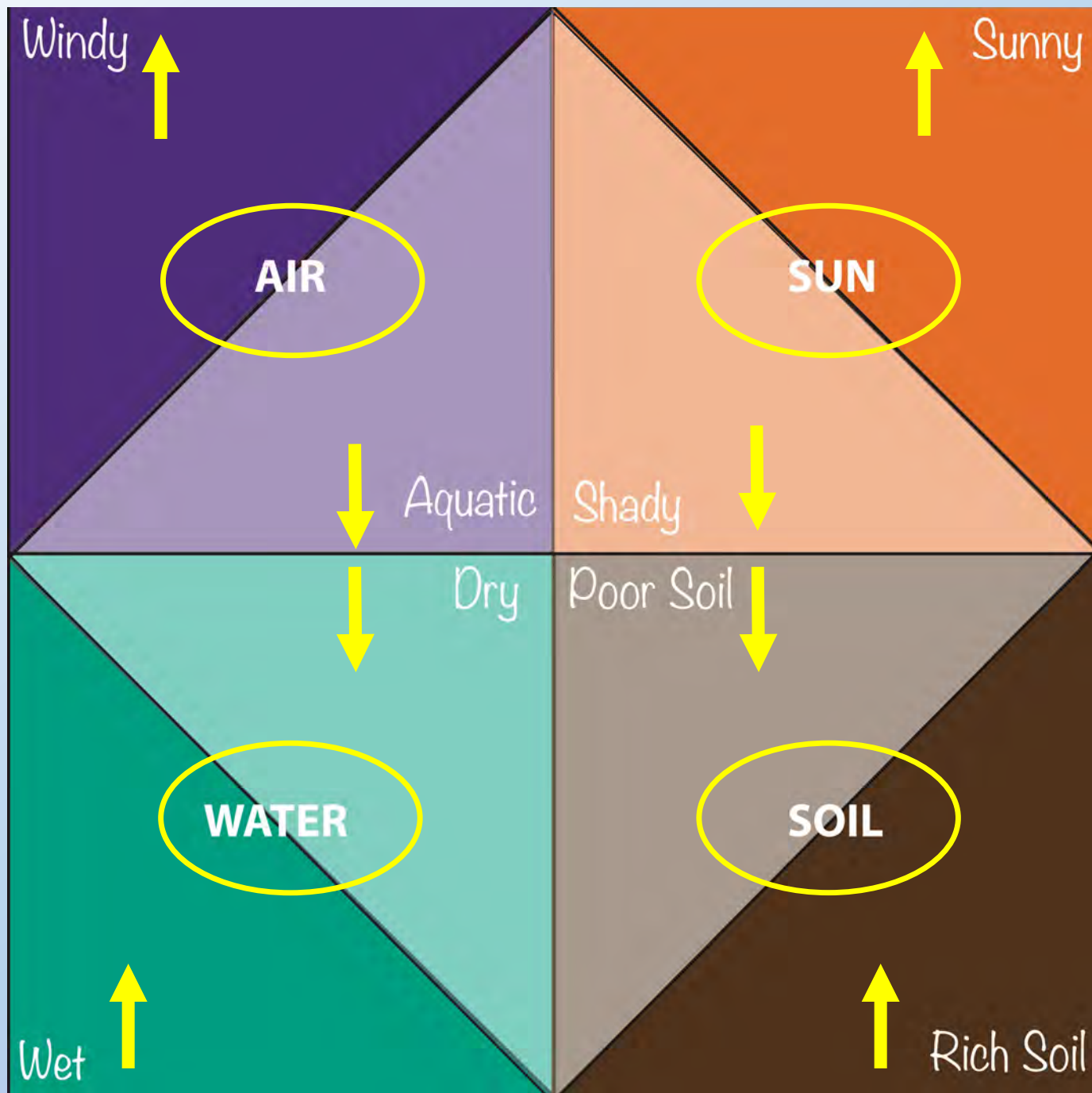


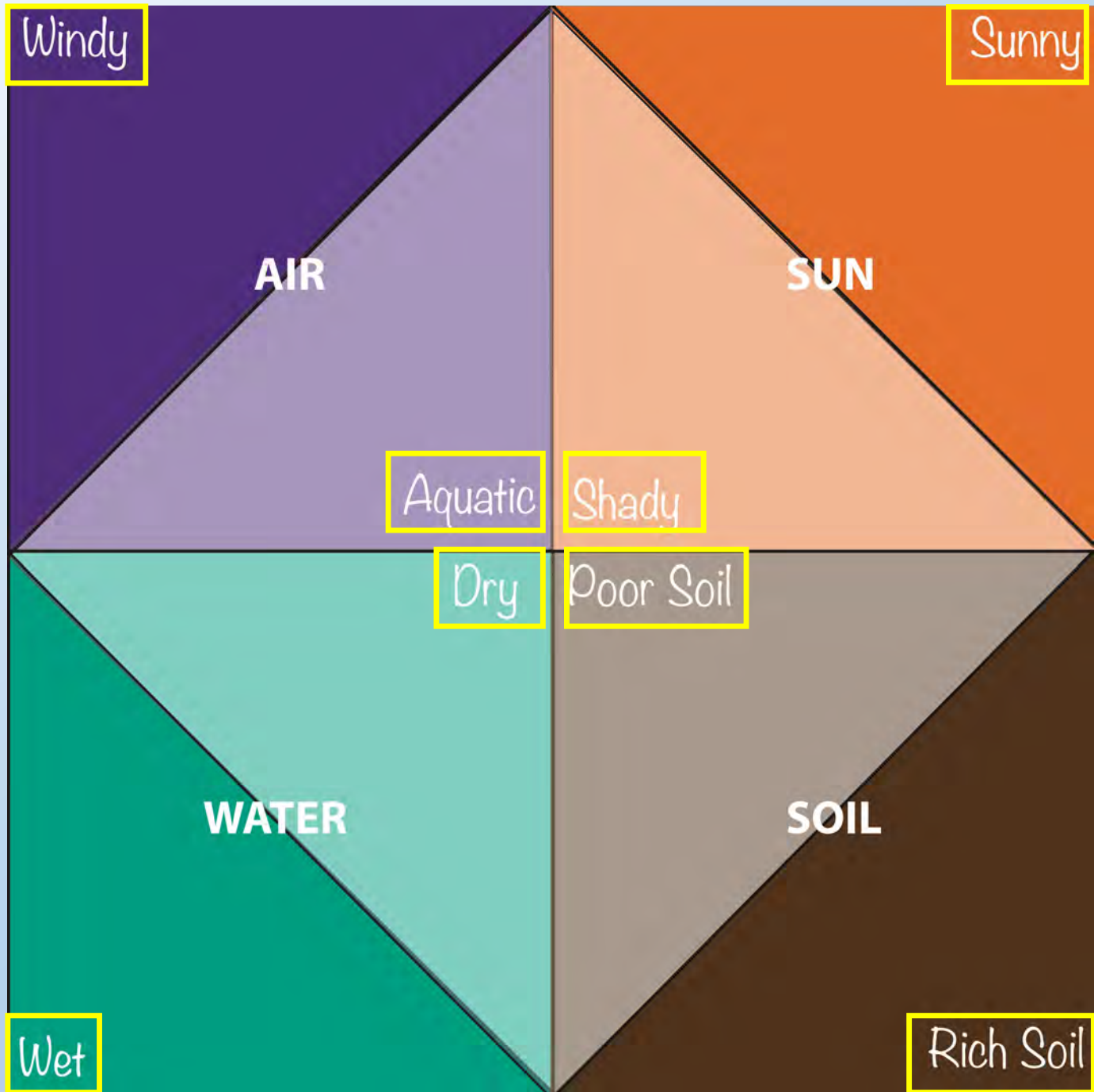
(cc) C. Matthews



(cc) C. Fisher







A close-up photograph of a pine needle cluster, showing the fine, needle-like leaves in sharp detail.

WATER

A close-up photograph of a coleus plant, featuring large, heart-shaped leaves with vibrant red and green variegated patterns.

LIGHT

(cc) C. Matthews

A close-up photograph of a climbing plant with small, curly, green leaves, possibly a species of Mimosa.

AIR

A close-up photograph of Venus flytraps (Dionaea muscipula) growing in a pot, showing their characteristic red, fleshy leaves and trigger hairs.

SOIL

(cc) C. Fisher



WATER

→ Handheld microscope
Stomata video clips



LIGHT

→ Leaf prints
Chloroplast response video clips



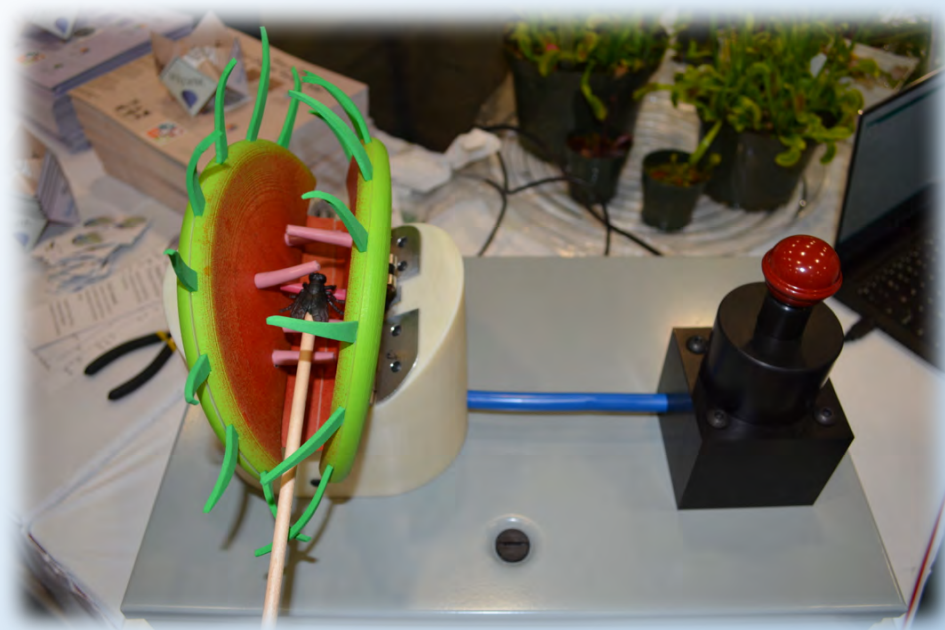
SOIL

→ Working model
Venus fly trap video clips



AIR

→ Aquarium
Handheld microscope





Leaf Prints







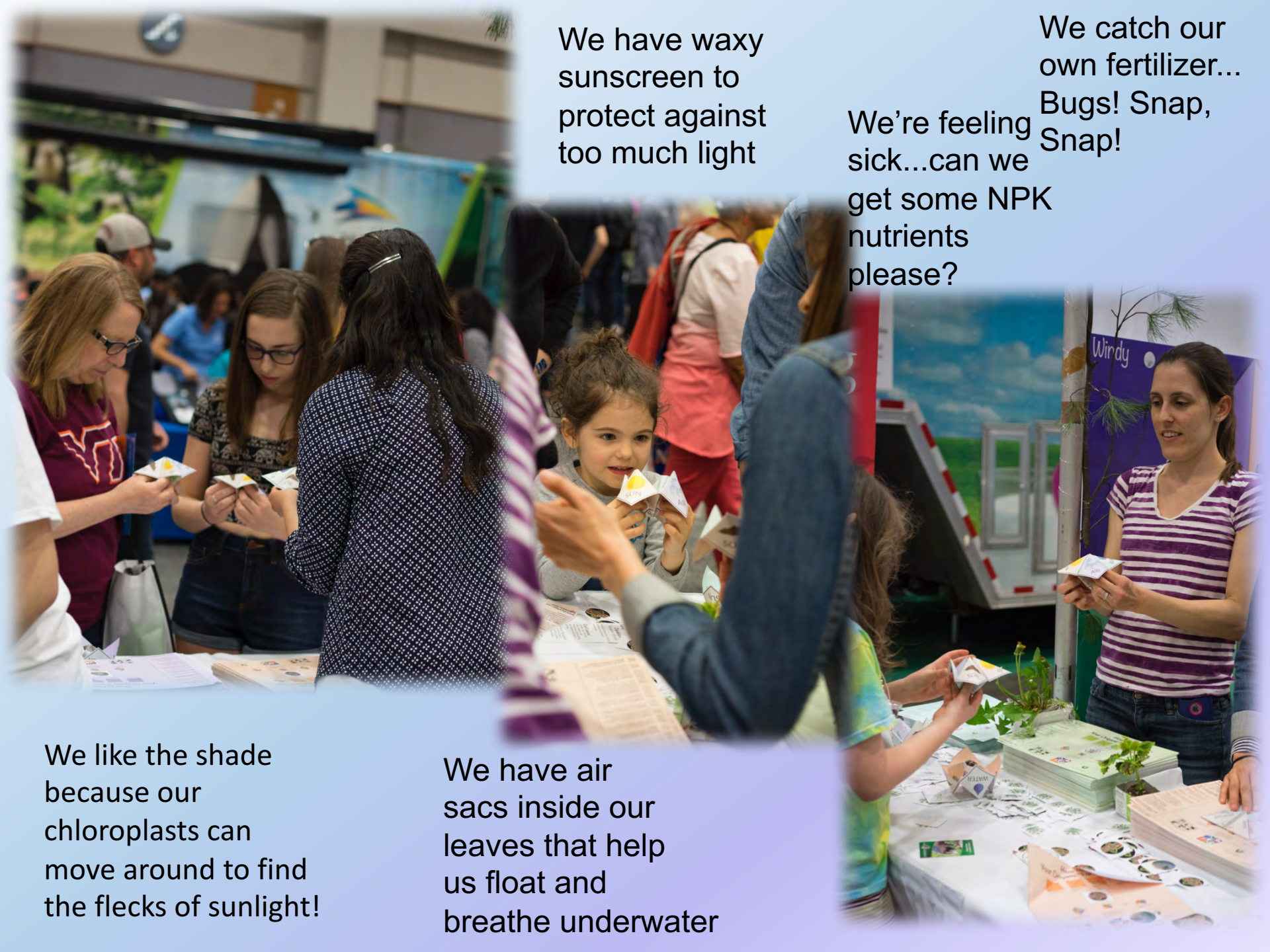
We have waxy
sunscreen to
protect against
too much light

We catch our
own fertilizer...
Bugs! Snap,
Snap!

We're feeling
sick...can we
get some NPK
nutrients
please?

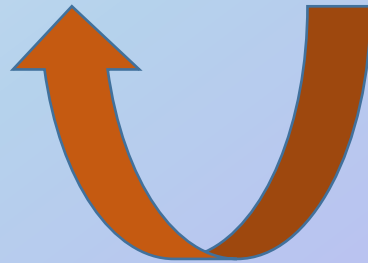
We like the shade
because our
chloroplasts can
move around to find
the flecks of sunlight!

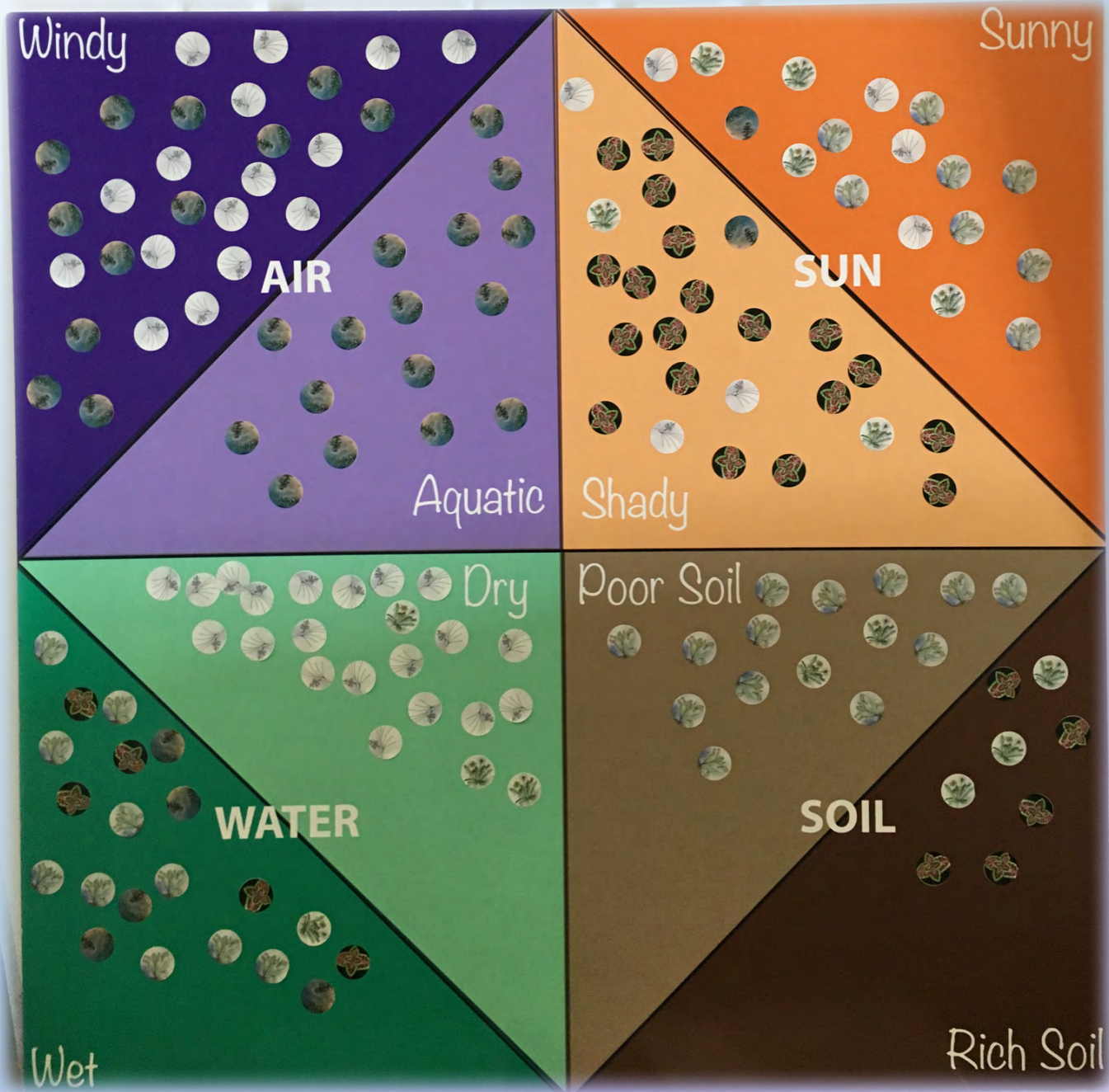
We have air
sacs inside our
leaves that help
us float and
breathe underwater





Re-teaching







“Survival of the fittest”
means **better adapted** for an
immediate, local environment
thereby allowing plants to have
more surviving baby plants,
NOT
“the strongest” “the biggest”
or “the smartest”.

Thank you!

Volunteers

Monica Carlsen
Betsy Collins
Greg Perrier
Caroline Puente
Jonathan Singer
Martha Weiss



Demonstration expertise

Holly Gorton
Terry Woodford
Adam Burrous Valeria
Valeria Saro-Cortes
Paul Pickard



RUTGERS



BOTANICAL SOCIETY OF AMERICA
leading scientists and educators
since 1803



UNITED STATES BOTANIC GARDEN