

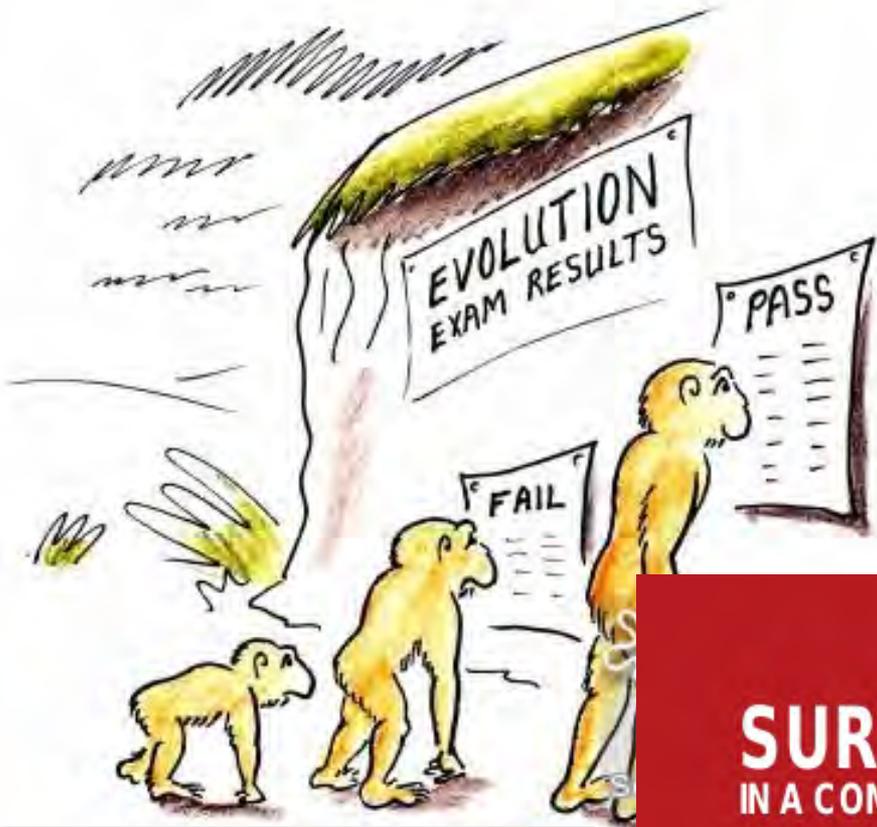
Cool Leaves! Exploring leaf adaptation in outreach

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

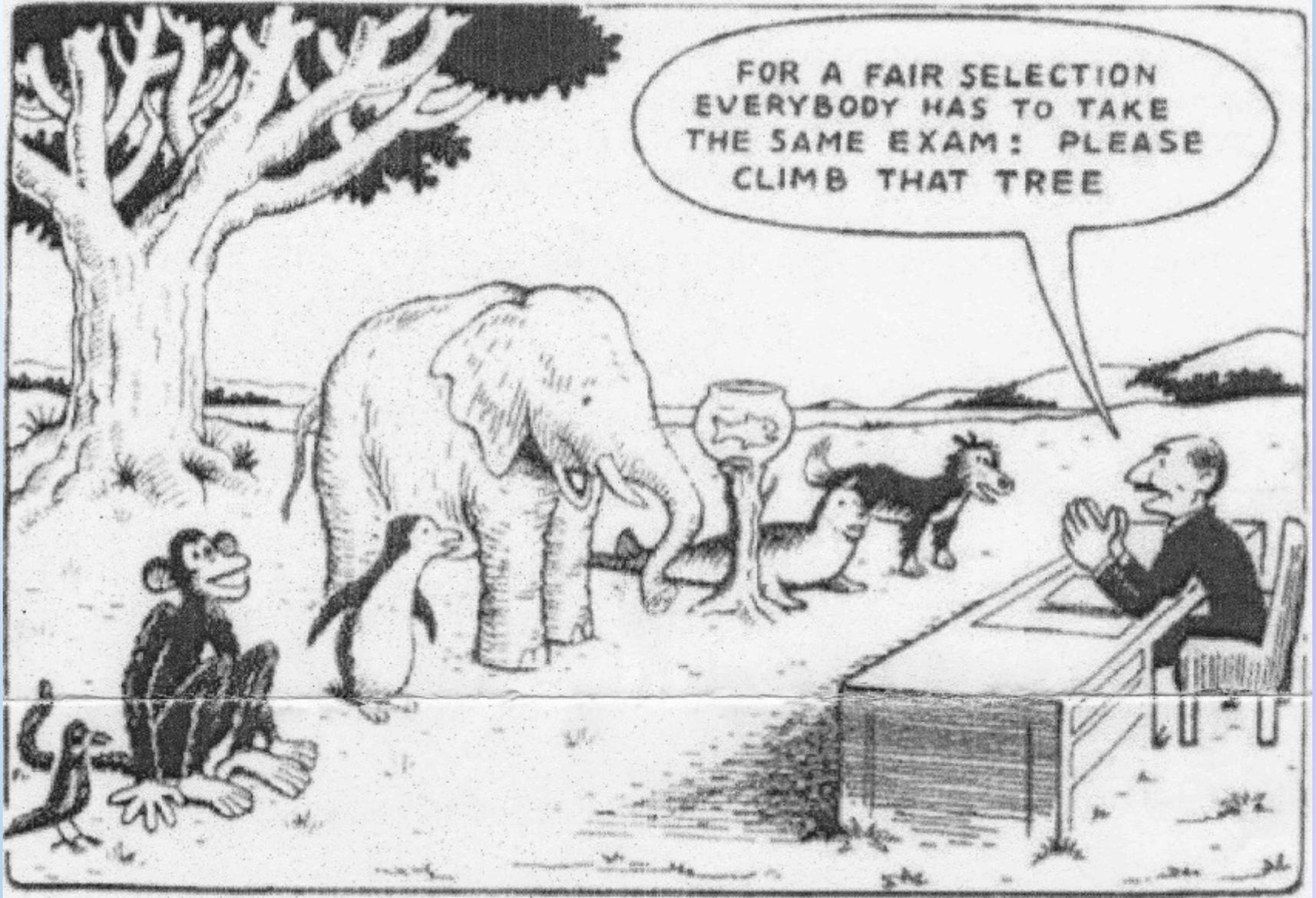
New Jersey

**only the
strong
survive.**



HEALTHCARE PERSPECTIVES

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



Selfie Station



Join The
Plant Movement



Plants Move
Plants Matte

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

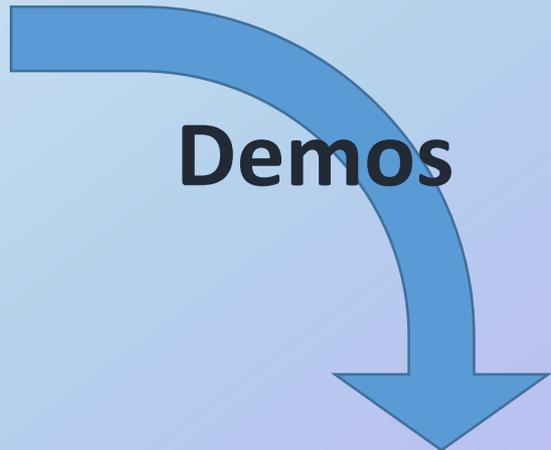


DONALD DANFORTH
PLANT SCIENCE CENTER
DISCOVERY | COMMUNITY | IMPACT



UNITED STATES BOTANIC GARDEN





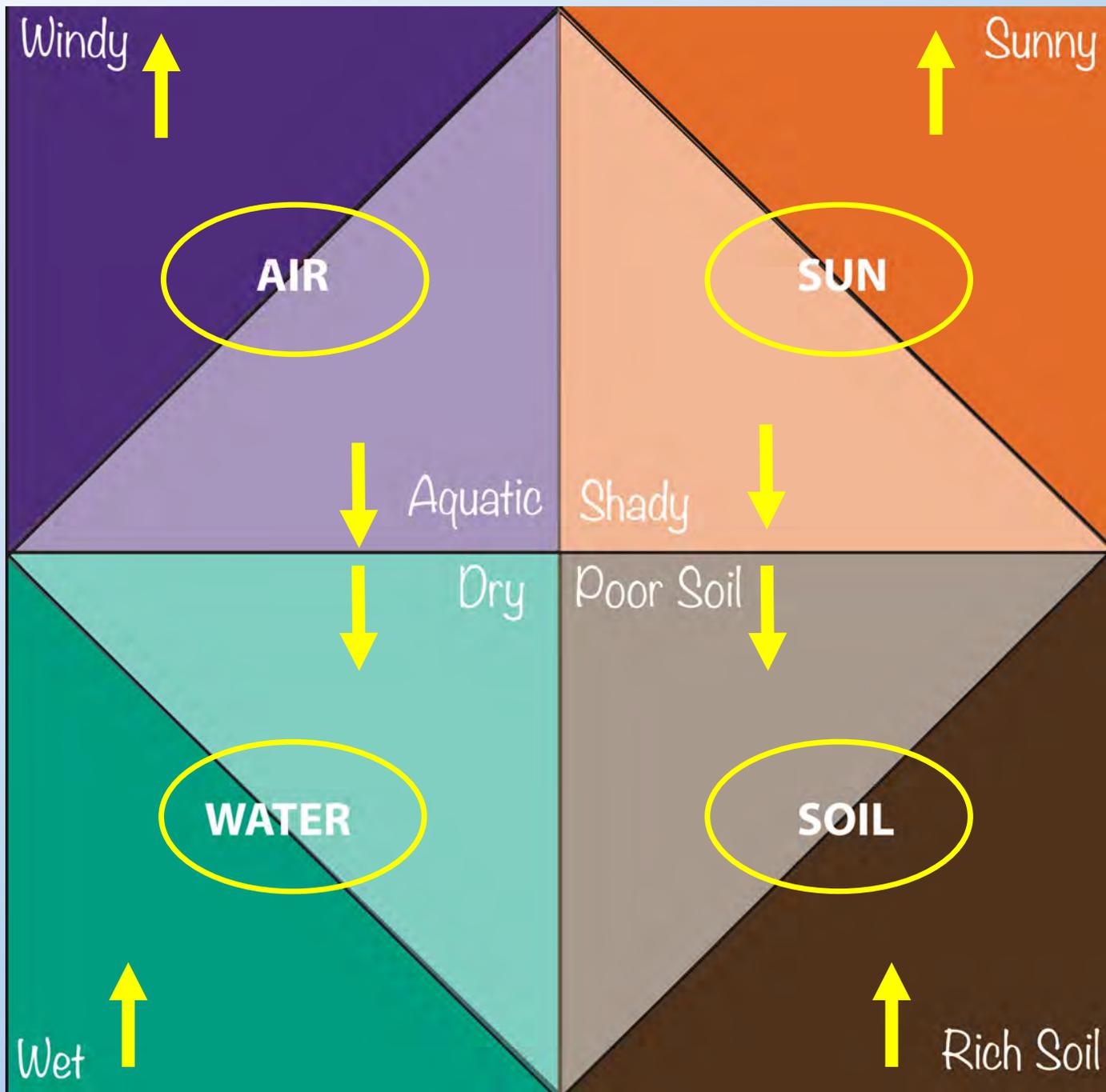


(cc) C. Matthews



(cc) C. Fisher





Windy

Sunny

AIR

SUN

Aquatic

Shady

Dry

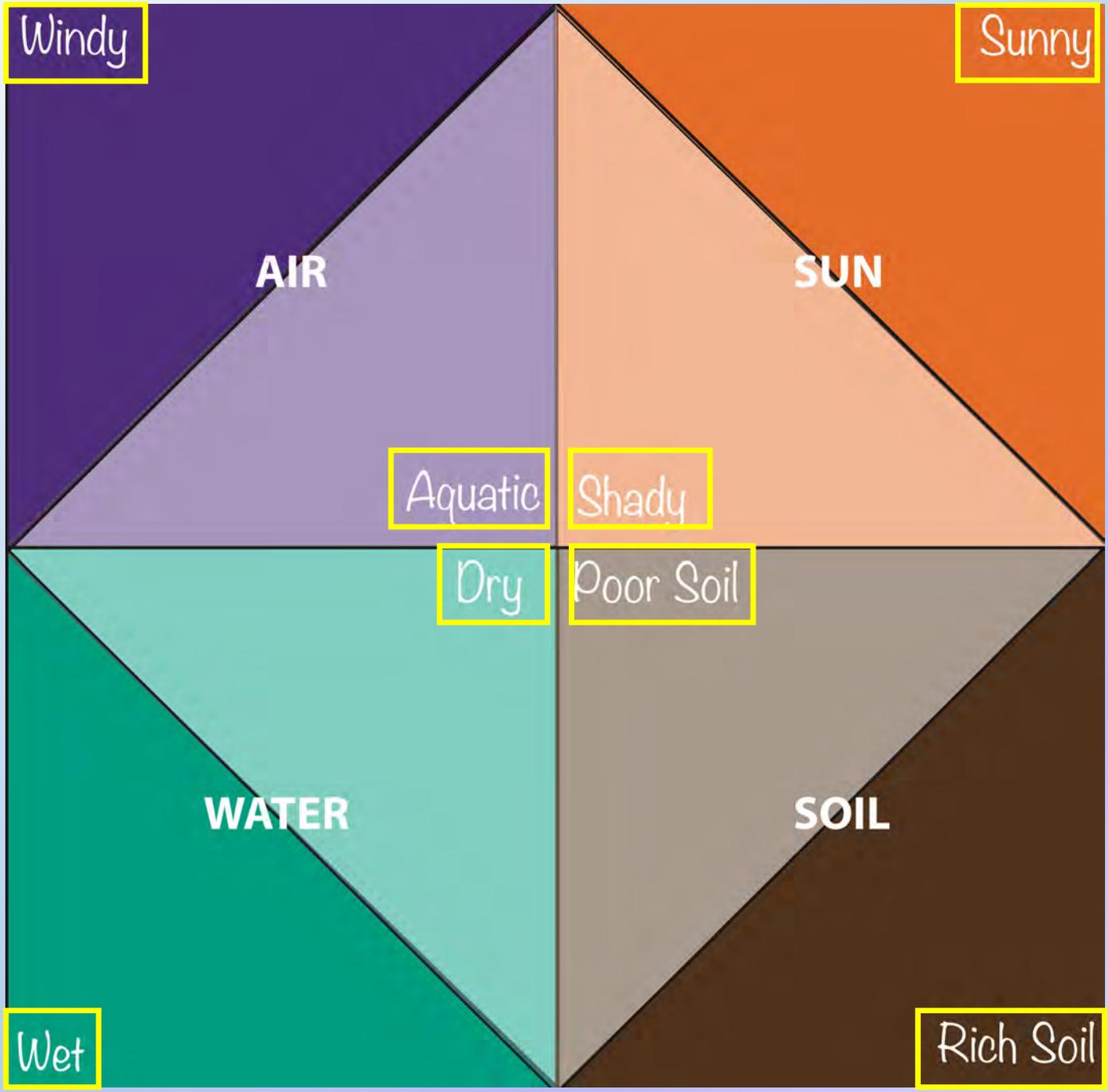
Poor Soil

WATER

SOIL

Wet

Rich Soil





WATER



LIGHT

(cc) C. Matthews



AIR



SOIL

(cc) C. Fisher



WATER

→ Handheld microscope
Stomata video clips



LIGHT

→ Leaf prints
Chloroplast response video clips



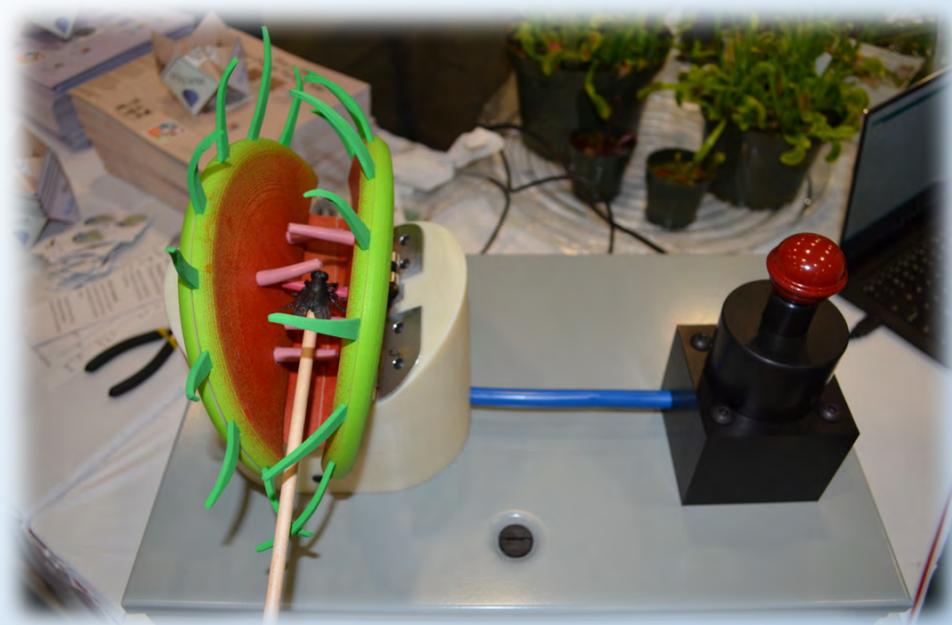
SOIL

→ Working model
Venus fly trap video clips



AIR

→ Aquarium
Handheld microscope





Leaf Prints







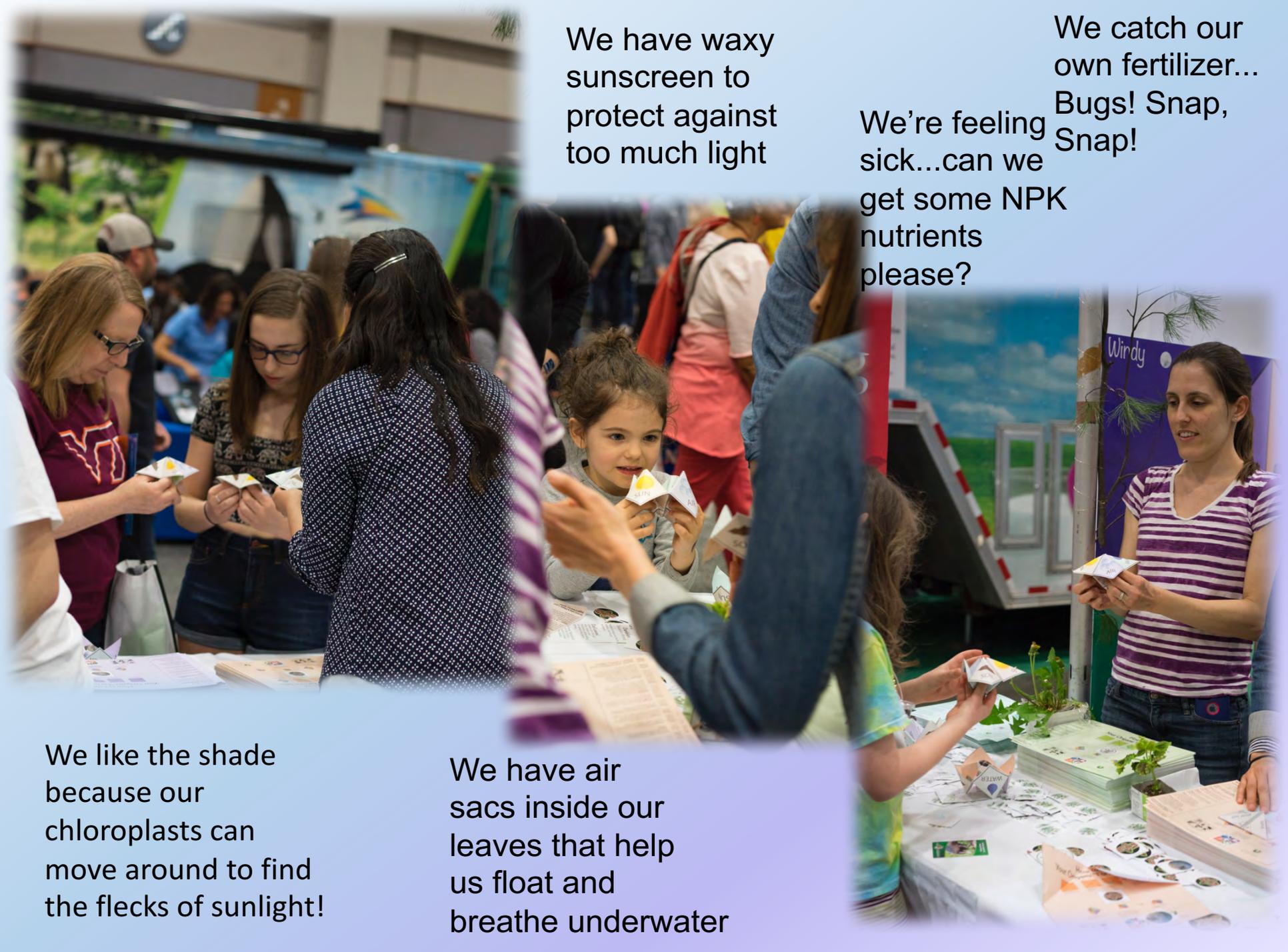
We have waxy sunscreen to protect against too much light

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

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

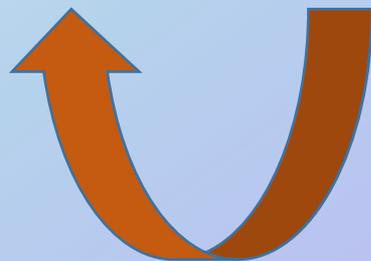
We like the shade because our chloroplasts can move around to find the flecks of sunlight!

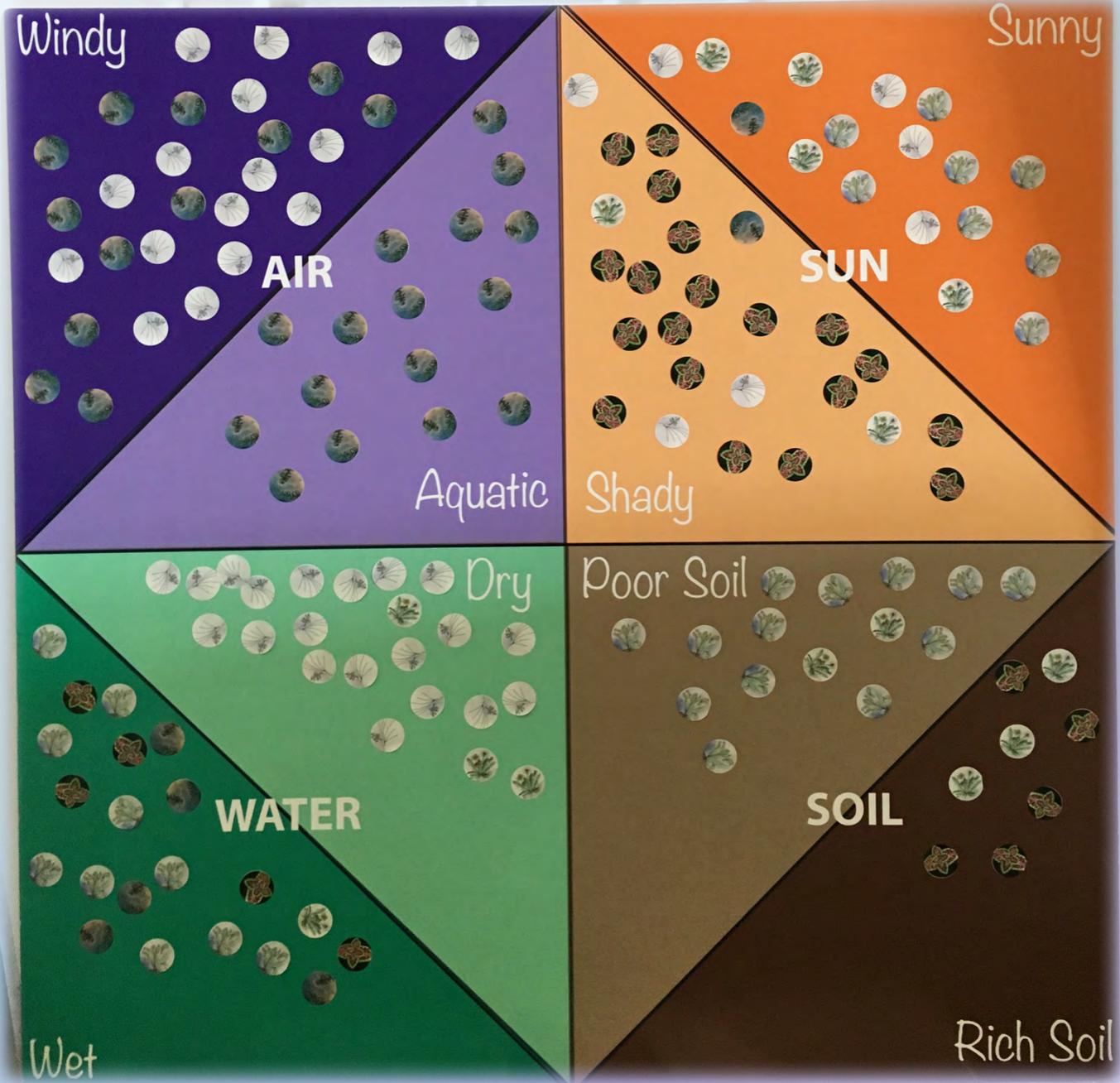
We have air sacs inside our leaves that help us float and breathe underwater





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



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