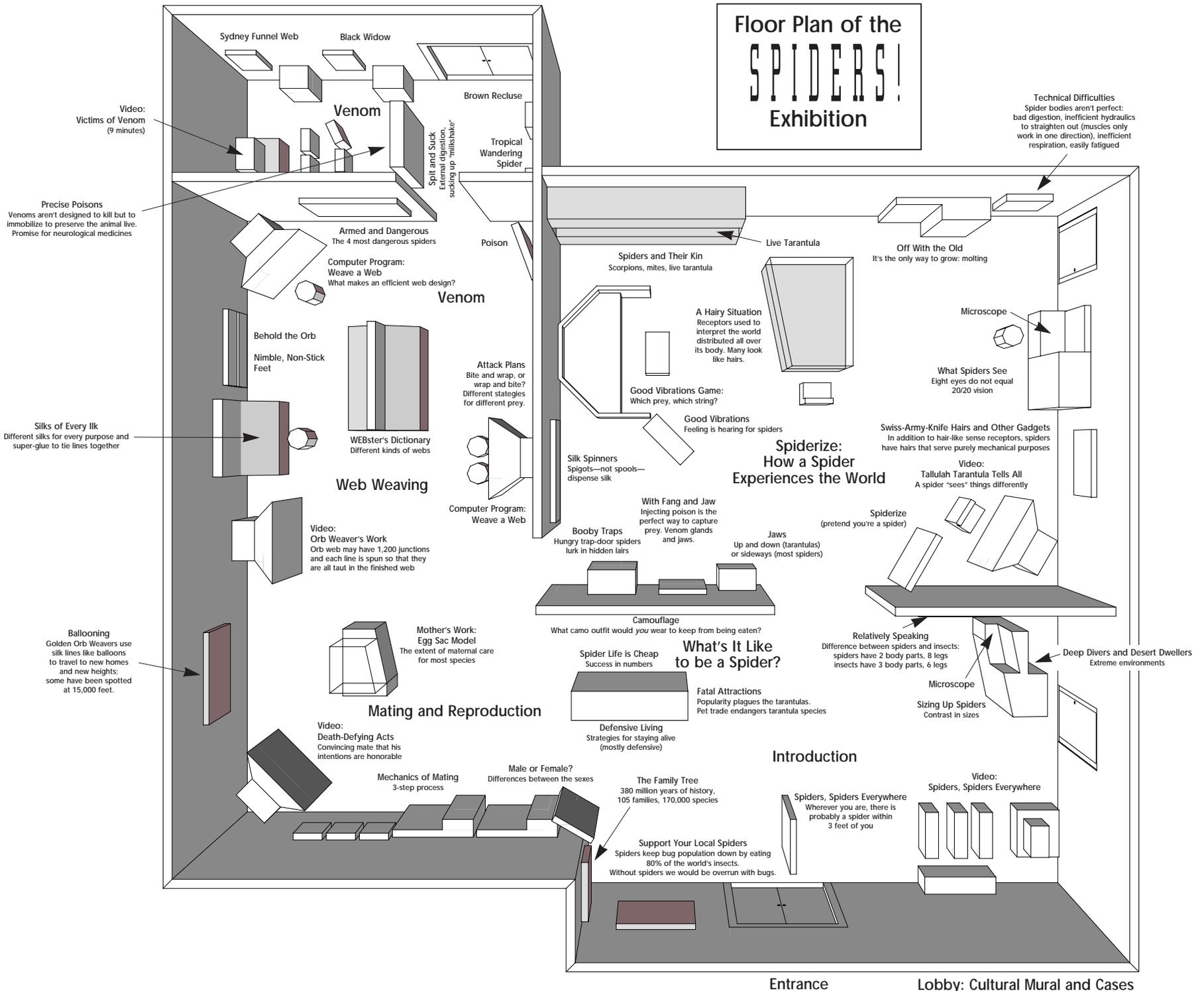


Floor Plan of the SPIDERS! Exhibition



Video: Victims of Venom (9 minutes)

Precise Poisons
Venoms aren't designed to kill but to immobilize to preserve the animal live. Promise for neurological medicines

Venom
Split and Suck
External digestion, sucking up "milkshake"

Armed and Dangerous
The 4 most dangerous spiders

Computer Program: Weave a Web
What makes an efficient web design?

Venom

Behold the Orb
Nimble, Non-Stick Feet

WEBster's Dictionary
Different kinds of webs

Web Weaving

Video: Orb Weaver's Work
Orb web may have 1,200 junctions and each line is spun so that they are all taut in the finished web

Silks of Every ilk
Different silks for every purpose and super-gel to tie lines together

Attack Plans
Bite and wrap, or wrap and bite? Different strategies for different prey.

Computer Program: Weave a Web

Silk Spinners
Spigots—not spoons—dispense silk

With Fang and Jaw
Injecting poison is the perfect way to capture prey. Venom glands and jaws.

Booby Traps
Hungry trap-door spiders lurk in hidden lairs

Jaws
Up and down (tarantulas) or sideways (most spiders)

Camouflage
What camo outfit would you wear to keep from being eaten?

Spider Life is Cheap
Success in numbers

What's It Like to be a Spider?

Fatal Attractions
Popularity plagues the tarantulas. Pet trade endangers tarantula species

Defensive Living
Strategies for staying alive (mostly defensive)

Mating and Reproduction

Video: Death-Defying Acts
Convincing mate that his intentions are honorable

Mechanics of Mating
3-step process

Male or Female?
Differences between the sexes

The Family Tree
380 million years of history, 105 families, 170,000 species

Support Your Local Spiders
Spiders keep bug population down by eating 80% of the world's insects. Without spiders we would be overrun with bugs.

Introduction

Spiders, Spiders Everywhere
Wherever you are, there is probably a spider within 3 feet of you

Video: Spiders, Spiders Everywhere

Sizing Up Spiders
Contrast in sizes

Relatively Speaking
Difference between spiders and insects: spiders have 2 body parts, 8 legs insects have 3 body parts, 6 legs

Microscope

Deep Divers and Desert Dwellers
Extreme environments

Spiderize: (pretend you're a spider)

Swiss-Army-Knife Hairs and Other Gadgets
In addition to hair-like sense receptors, spiders have hairs that serve purely mechanical purposes

Video: Tallulah Tarantula Tells All
A spider "sees" things differently

Microscope

What Spiders See
Eight eyes do not equal 20/20 vision

Off With the Old
It's the only way to grow: molting

A Hairy Situation
Receptors used to interpret the world distributed all over its body. Many look like hairs.

Good Vibrations Game:
Which prey, which string?

Good Vibrations
Feeling is hearing for spiders

Spiderize: How a Spider Experiences the World

Technical Difficulties
Spider bodies aren't perfect: bad digestion, inefficient hydraulics to straighten out (muscles only work in one direction), inefficient respiration, easily fatigued

Entrance

Lobby: Cultural Mural and Cases