

Establishing Your Priorities

# THE RULE OF 3'S

# Instructor Background

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- Member of Cal-ESAR for 6 years
- Director – Outdoor Skills training & Board member
- NASAR Certified Section Chief
- Medical training – Wilderness First Responder
- Ham Radio cert
- 200+ incident response hours in Northern California countries and Yosemite National Park
- Graduate of National Outdoor Leadership School (NOLS)





# California Explorer Search & Rescue

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- Active as Explorer Post since 1972
- Cal-OES Mutual Aid resource
- Search & Rescue Training
- Field and Management resources

## Cal-ESAR Mission

- Provide State wide SAR Resource
- Provide training to other SAR Organizations
- Participate in public and community events
- Preventive SAR (PSAR) activities



# Types of PSAR Activities

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## Training

- Emergency preparedness Training
- CPR and First Aid
- Wilderness Navigation
- Yosemite stand by





# WHAT DO YOU NEED TO SURVIVE?



Everybody has  
an opinion





# WHAT DO YOU NEED TO SURVIVE?



It is the basis of an entire industry...





# WHAT DO YOU NEED TO SURVIVE?





ΜΗΤΙ ΔΟ ΛΟΝ ΚΕΕΒ ΙΟ ΣΟΚΑΙΛΕΣ





# WHAT DO YOU NEED TO SURVIVE?





# WHAT DO YOU NEED TO SURVIVE?



## What is really important?





# NOT THE FIRST

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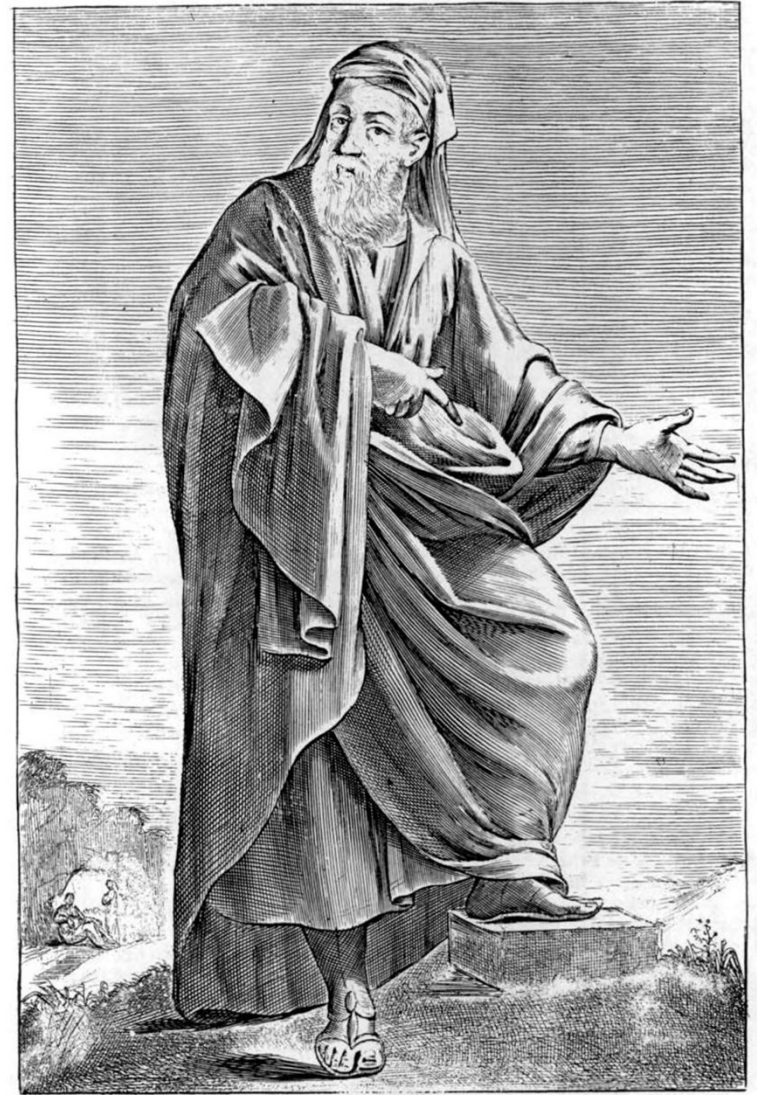
- ❖ What is important?
- ❖ What are the basic elements of survival?





# BACK TO THE GREEKS

Empedocles in the 5th Century BC came up with idea of the “the four roots of all things”



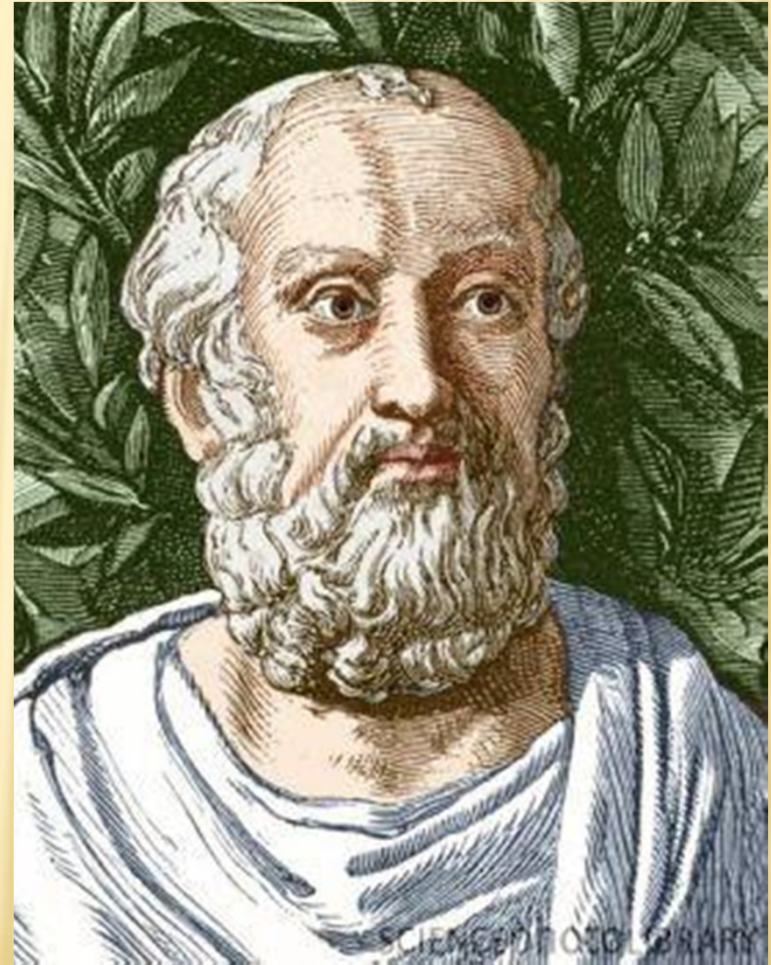
Empedocle's.



# BACK TO THE GREEKS

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Plato called  
them  
Elements





# THE FOUR ELEMENTS



● Earth



● Air



● Fire



● Water





# A USEFUL RE-ORDERING BY DENSITY

This ordering lets us tie the  
Elements into that other  
significant, all-important number





# THE RULE OF 3S

3 Minutes without **Air**

3 Hours without **Fire** (*Heat*)

3 Days without **Water**

3 Weeks without **Earth** (*Food*)





AIR: 3 MINUTE MARGIN



Only takes 3  
minutes to die  
from lack of Air





# AIR-RELATED QUESTIONS



Can you drive  
across that  
flooded road?





# AIR-RELATED QUESTIONS



Can you *really* swim that creek?





# AIR-RELATED QUESTIONS



## Avalanche

Is this slope  
safe to cross?





# AIR: 3 MINUTE MARGIN



If you make the  
wrong decision,  
can it be undone  
in 3 minutes or  
less?

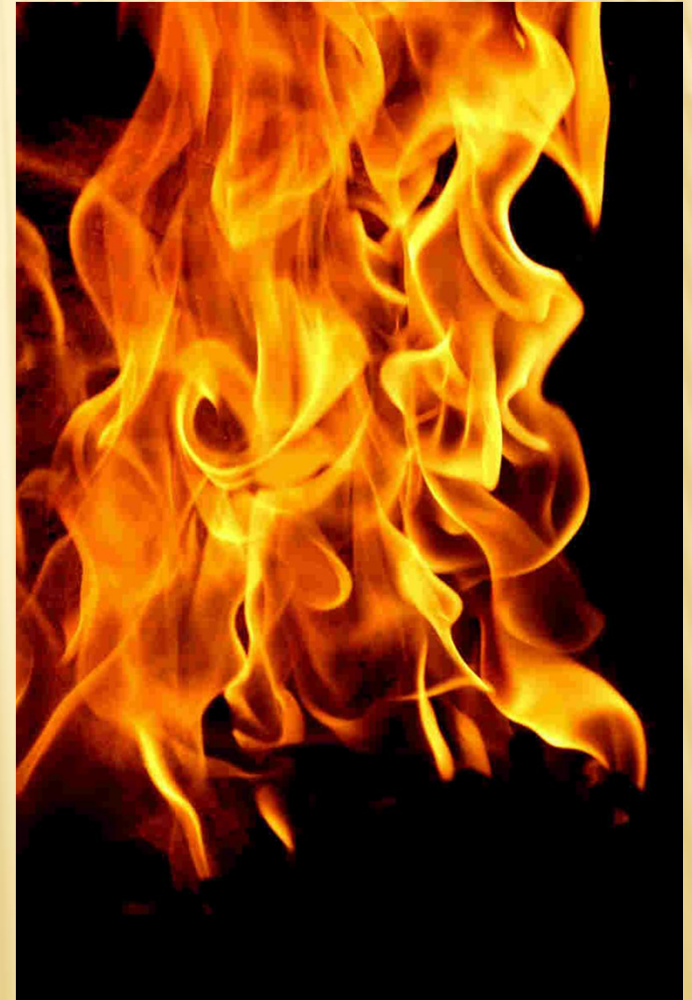




# FIRE: 3 HOURS OUTDOORS



In 3 *hours*, you can ***die*** from too much (or too little) Heat



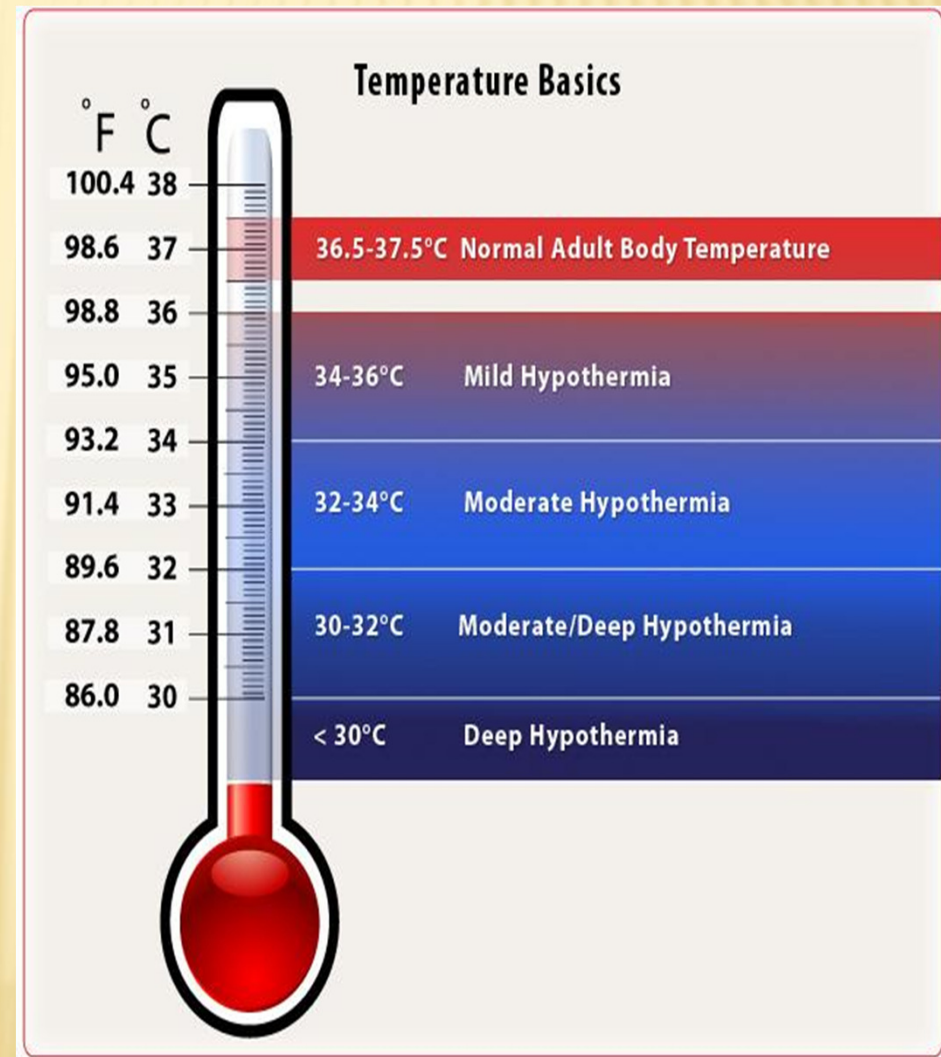


# FIRE: 3 HOURS OUTDOORS



## **Hypothermia: Exposure**

Hypothermia is where the body's core temperature drops below that required for normal metabolism and body functions. (This is generally considered to be less than 95.0 °F.)

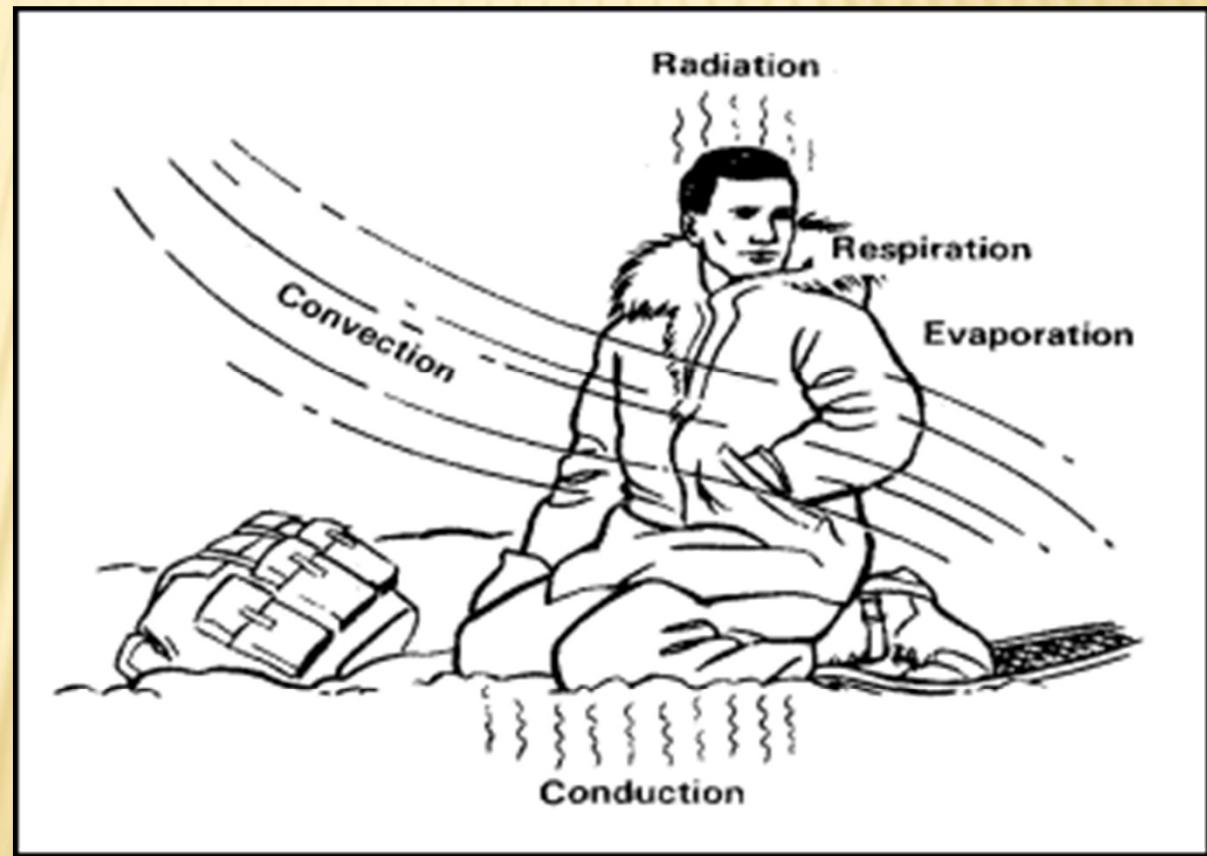






# FIRE: 3 HOURS OUTDOORS

## Ways you lose heat





# FIRE: 3 HOURS OUTDOORS



## ***Hyper*thermia: Heat Stroke**

Hyperthermia is elevated body temperature due to failed thermoregulation that occurs when a body produces or absorbs more heat than it dissipates. Extreme temperature elevation then becomes a medical emergency requiring immediate treatment to prevent disability or death.



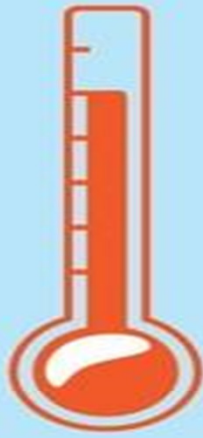




# FIRE: 3 HOURS OUTDOORS

CLIMATE CHANGE &

## EXTREME HEAT



### CAUSES MORE DEATHS

each year than hurricanes, lightning, tornadoes, earthquakes, and floods



**COMBINED!**

## WHO'S AT RISK?



Adults over 65, children under 4, people with existing medical problems such as heart disease, and people without access to air conditioning







# FIRE: 3 HOURS OUTDOORS

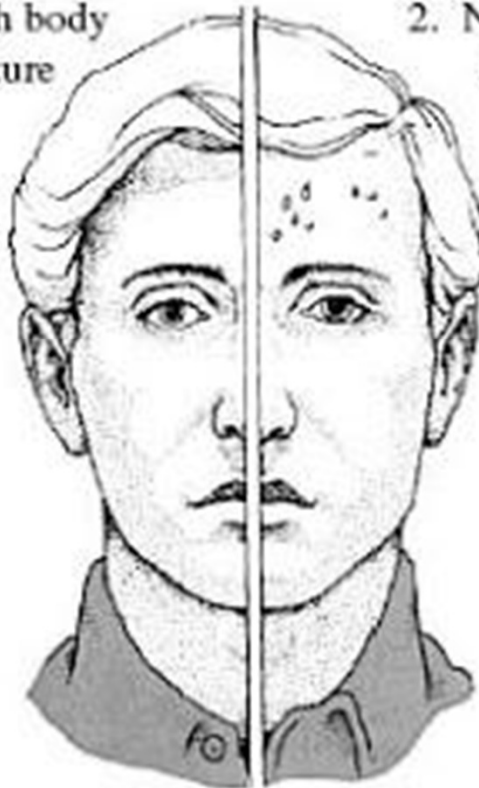
## *Signs and Symptoms*

### Heat Stroke

1. Dry, hot skin
2. Very high body temperature

### Heat Exhaustion

1. Moist clammy skin
2. Normal or subnormal temperature





# FIRE (HEAT)–RELATED LIES THAT KILL



“It’s only a day hike, I don’t need a jacket or matches or shelter”







# FIRE: 3 HOURS OUTDOORS

Good News:  
Shelter can save you!

Trash bag poncho





# WATER: 3 DAYS OF THIRST



Do you need to find water NOW?





# WATER: 3 DAYS OF THIRST



Do you *really* need to find water *now*?

- Lack of water can trigger heat emergencies
- Drink it if you have it





# WATER: 3 DAYS OF THIRST



Include water in  
your home  
emergency  
preparedness kit





# WATER: 3 DAYS OF THIRST



## Emergency Water

- Expect your home water supply to fail
  - Unavailable
  - Contaminated





# WATER: 3 DAYS OF THIRST



## Emergency Water

- Plan for *at least* 72 hours
- At *least* 1 gallon (4 liters) per person per day



[www.ready.gov/water](http://www.ready.gov/water)



# WATER: 3 DAYS OF THIRST



## Emergency Water

- Easy solution: bottled water
- Always have a full crate or two on hand
- Save bottles for later purification for needs past 72 hours





# WATER: 3 DAYS OF THIRST



## SODIS (Solar Disinfection)





# WATER: 3 DAYS OF THIRST



## SODIS (Solar Disinfection)

**1** Wash the bottle well the first time you use it



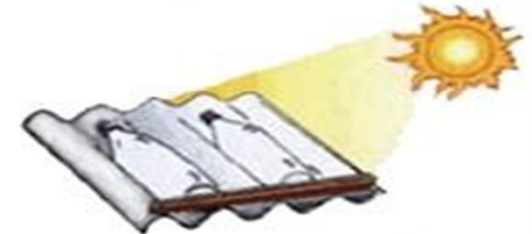
**2**



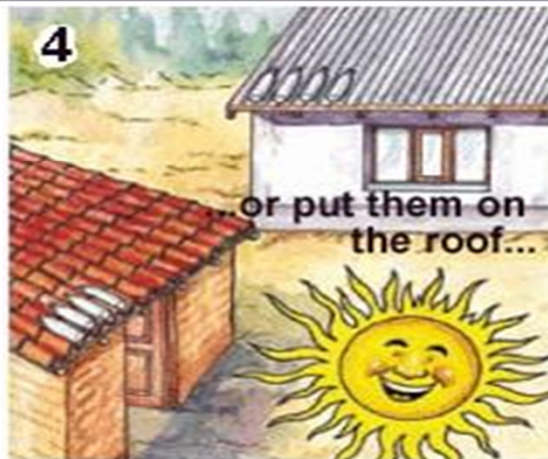
Now fill up the bottle fully and close the lid

**3**

Place the bottles on a corrugated iron sheet



**4**



...or put them on the roof...

**5**



Expose the bottle to the sun from morning until evening for at least six hours

**6**

The water is now ready for consumption





**3 WEEKS WITHOUT THE FRUITS OF THE EARTH**



**3 Weeks of Fasting  
or**

**The “Starvation Diet Plan”**





# 3 WEEKS WITHOUT THE FRUITS OF THE EARTH



Survival time depends on many factors

Time of year

(Temperature)





# 3 WEEKS WITHOUT THE FRUITS OF THE EARTH



Survival time depends on many factors

Personal  
body “stores”





# 3 WEEKS WITHOUT THE FRUITS OF THE EARTH



Survival time depends on many factors

Activity Level





# 3 WEEKS WITHOUT THE FRUITS OF THE EARTH



Don't eat it unless you know it





# DECISIONS



- Know your priorities and know what to do *now*
- What is the plan if something goes wrong?
- What is the window of safety?





# WHAT'S IMPORTANT ON EVERY TRIP



- Water
- Shelter/Matches
- Insight
- Common Sense





# THE FIFTH ELEMENT



The Fifth Element, *Quintessence*  
(*Quint=fifth; Essence=element*)

- Aether
- Void
- Space
- Spirit





# THE 3 SECOND RULE



Without the right Spirit  
(Positive Mental Attitude)  
*You are a Goner*





# THE 3 SECOND RULE



Hunter missing for 18 days in California forest found alive after surviving off lizards, squirrels and berries.



Gene Penaflor





# WHAT DO YOU NEED TO SURVIVE?



Spirit



Air



Fire



Water



Earth





WHAT DO YOU NEED TO SURVIVE?



Stop  
Think  
Observe  
Plan





# Questions?

