**Outdoor Education – *Emergencies and Priorities* Name:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Where will this knowledge lead us?* **Gear Selection, Trip Planning, Risk Assessment, Team Building**

**Rule of 3’s**

1. 3 minutes without \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*What happens?*

1. Pass out / go unconscious
2. Go into shock
3. available oxygen goes to brain and extremities. Tissues & organs fail and die to preserve brain
4. brain begins to die at 6 minutes
5. 3 minutes in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*What happens?*

1. Vasoconstriction (cold shock)
2. Hyperventilation
3. Loss of motor skills
4. *acute acidosis*
5. hypothermia if rescued from water

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| *Water conducts heat 25 times faster than air…* |

1. 3 hours without \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*What happens?*

|  |  |
| --- | --- |
| 1. Cold dieresis
2. Hypothermia
3. Frostbite

Is your Hypothermia moderate or severe?* Mild Hypothermia = 35-32C (95-90F)
	+ Shivering
* Severe Hypothermia = <32C (90F).
	+ Shivering stops, mental state declines rapidly
	+ Dead at 85F.
 | 1. Heat exhaustion = moderately elevated temps
* Weakness, headache, nausea, faintness, loss of appetite, rapid pulse; some sweating
1. Hyperthermia (Heat stroke) = >40.5C (105F)
* Stop sweating; dry, red skin
* Bizarre behaviour, nervous system damage
* Hypovolemic shock (Cardiovascular)
* **Rapid cooling needed**
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1. 3 days without \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*What happens?*

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| --- | --- | --- | --- |
| **loss of 3% water leads to:** * Electrolyte imbalance
* decreased athletic performance
* headaches, irritability
 | **5-10% loss leads to:*** severe headaches
* Grogginess
* nausea
 | **10-15% loss leads to:*** loss of motor function
* loss of judgement or memory (impacts brain)
* skin shrivels
* loss of vision or blurry
* painful pee
 | **Greater than 15% = death*** decreased blood pressure (thicker blood)
* organ failure (Liver & Kidneys)
* hypovolemic shock
 |

1. 3 weeks without \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*What happens?*

1. Glycogen loss
2. fat loss
3. muscle loss
4. severe lethargy
5. depression; mental faculties decline
6. cardiopulmonary issues or hypovolemic shock.

**Describe the 5 ways your body loses heat:**

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| --- | --- | --- |
| Radiation:Respiration:Conduction:Evaporation:Convection: |

|  |
| --- |
| *“Of all the potential dangers that you will face in a survival situation, none is more formidable than the weather. It’s the greatest foe you’ll face.”* Les Stroud |

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