**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** |

1. 3 days without \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*What happens?*

|  |  |  |  |
| --- | --- | --- | --- |
| **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:**

|  |  |  |
| --- | --- | --- |
| 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 | |