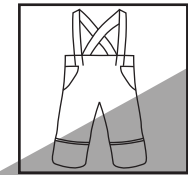
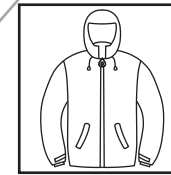


## Layer 3: Outer layer

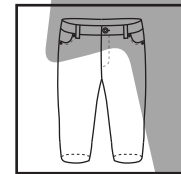
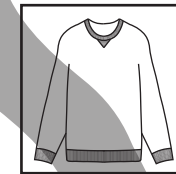
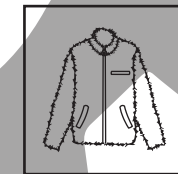
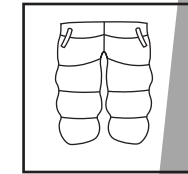
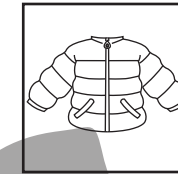
- Outer layers are designed to keep you dry and the wind at bay
- Typically made from synthetic fibres like nylon or polyester and finished with a durable waterproof coating.
- Varieties include waterproof, water-resistant, breathable, and non-breathable
  - Waterproof will keep you dry in the harshest conditions
  - Water-resistant can repel wind and light rain
  - Breathability is key for venting excess sweat and retaining heat

# mounts



## Layer 2: Mid layer

- Mid layers are designed to trap radiated warm heat and insulate the body
- Typically made from Synthetic fibres like polyester fleece and synthetic loft or from cotton and natural down. They can be wind resistant but are typically not.
- Efficiency of heat retention is key.
  - Insulating loft / down have high heat retention
  - Synthetic fabrics performs best when wet (fleece / loft)
  - High wind absorption provides breathability but reduces heat retention



## Layer 1: Base layer

- Base layers are designed to trap warm body heat and release cold sweat
- Thicker base layers retain more heat. Doubling base layers increases heat retention.
- Typically made from Merino wool and Polyester.
  - Merino wool is porous, absorbing some water but will release it through heat evaporation
  - Polyester fibre has extremely low water absorbant properties. Wicking water away for evaporation
  - Cotton is highly water absorbant but more breathable.

