

Year 6: Science, Mathematics and Technologies

Reference: The Beaufort scale

The Beaufort scale

Winds can range from the lightest of breeze to a severe hurricane. In 1806, Admiral Sir Francie Beaufort devised a scale for measuring winds at sea by observing what they did to sailing ships and waves. His scale was changed for use on land and is still used today by weather stations, sailors, pilots and fishermen.

Students can apply the Beaufort Scale to their local weather over a period of two weeks or longer and then graph the data.

| Description | Km/h | Sea | Land |
|---------------------|--------|--|--|
| Calm | 0-1 | Water like a mirror | Smoke rises vertically |
| Light air | 15 | Ripples form | Smoke drifts |
| Light breeze | 5-10 | Small waves form | Leaves move slightly |
| Gentle breeze | 10-20 | Crests of waves curl over | Flags flap, leaves and twigs move |
| Moderate breeze | 20-30 | White caps on waves | Dust raised, branches sway. |
| Fresh breeze | 30-40 | White caps on waves, sea spray | Small trees sway |
| Strong breeze | 40-50 | Large waves, lots of white caps and spray | Branches sway |
| Moderate/Fresh gale | 50-70 | Foam on sea blown into streaks by wind | Trees sway, walking difficult |
| Gale | 70-90 | High waves, dense foam, lots of spray | Branches break, leaves pulled off, difficult to stand up |
| Whole gale | 90-120 | Surface of sea white with poor visibility | Trees uprooted, some buildings damaged. |
| Cyclone | 120+ | Air filed with spray and foam, sea white with foam | Houses destroyed, forests uprooted. |

Note: Hydro Tasmania has prepared a Wind Turbine Performance compared to Beaufort Scale for further reference.

