

Glossary WHSDSC 2026

Team structure

- **Offensive lines:** Groups of three forwards deployed together to create offense. Teams typically have four lines, lines one through four balance skill, speed, size, chemistry, tailored to faceoffs, zone starts, and opponents.
 - **first_off & second_off:** Each team in the WHL has two offensive lines, a first offensive line (first_off) and a second offensive line (second_off). Typically the first_off is the stronger offensive line.
- **Defensive pairings:** Two defensemen assigned together to defend, retrieve pucks, and transition play. Coaches balance handedness, mobility, physicality, puck-moving ability, rotating pairs against opponent strengths and situations.
 - **first_def & second_def:** Each team in the WHL has two defensive pairings, a first defensive pairing (first_def) and a second defensive pairing (second_def). Typically the first_def is the stronger defensive pairing.
- **Power play line (PP_up):** power play special teams unit used during penalties with a man advantage: a set of skaters for power play, optimized for faceoffs, starts, matchups with the goal to score a goal during the power play time.
- **Penalty kill line (PP_kill_up):** power play special teams unit used during penalties with a man disadvantage. The intention is to “kill” the time of the power play without allowing a goal.
- **Goalie:** The last line of defense guarding the net. Uses positioning, angles, reflexes, tracking, and equipment to stop shots, manage rebounds, communicate, and handle the puck. In the data competition, this is the one position group that has individual players, these are recorded with a player ID.
- **Line shifts:** Each line (group of players) is on the ice (playing) for a short period of time, usually forty to sixty seconds. A shift is a short, intense burst on ice, before substituting. Frequent shifts sustain energy, exploit matchups, manage fatigue, and maintain structure and consistency.
- **Match ups:** Deployments deciding which lines or pairs face opponents. Home teams leverage change to target weaknesses, neutralize stars, optimize faceoffs, control zone starts, and dictate play.

League structure

- **Schedule:** The calendar of games, travel, and rest days. Balances opponent frequency, home and road splits, back to backs, holidays, television windows, and arena availability constraints. In a simplification, for the WHL data set there is no temporal information. Each game has a home and away team, but there is no sequence of games or game dates.
- **World Hockey League (WHL):** a fictitious league that has similar play to the National Hockey League. The WHL has 32 teams from different countries.

Hockey Game Stats

- **xG (expected goals)**: determined on a per shot basis, xG estimates shot quality using scoring probabilities by location, angle, type, pre-shot movement, and rebounds, separating repeatable process from volatile finishing or goaltending results. In the dataset, the game summary xG represented the sum of the shots xG for that line-pair.
- **time on ice (TOI)**: measures time (in seconds) a unit is on ice across situations. Indicates trust, role, fatigue, usage context, and informs matchup planning and workload management.
- **OT (Overtime)** played when regulation ends tied. Leagues set format, commonly three-on-three sudden death with shootouts if necessary, emphasizing speed, possession, and ice creativity.
- **Penalties**: Counts and types of infractions assessed during games. Include minor, double minor, major, misconduct, match, bench, and penalty shots, shaping momentum, special teams, discipline, outcomes.