Lesson – Understanding Integers and Fairness in Education

Vocabulary Review Sheet

How to Use

- Read each word carefully before your quiz or journal activity.
- Review the math, real-life, and fairness examples to see how numbers describe progress, balance, and need.
- Focus on patterns—how positive, negative, and zero values connect to real-world fairness.
- Keep this page in your *Equity in Numbers Student Journal* for independent practice.

Integer

- **Definition:** A whole number that can be positive, negative, or zero.
- **Math Examples:**
  - (−3) + (+5) = +2
  - (+8) − (+10) = −2
  - |−4| = 4
- **Real-Life Example:** A school gains (+) or loses (−) teachers or funding.
- **Fairness Example:** Integers help compare progress and reveal which schools need more support.

Positive Integer (+)

- **Definition:** A number greater than zero; shows increase or gain.
- **Math Examples:**
  - +4 + (+3) = +7
  - (+5) − (+2) = +3
  - (+2) × (+6) = +12
- **Real-Life Example:** A school receives 12 new computers.

- **Fairness Example:** Positive values show growth and improvement in opportunity.

Negative Integer (−)

- **Definition:** A number less than zero; shows decrease or loss.
- **Math Examples:**
  - −2 + (−3) = −5
  - (−6) + (+2) = −4
  - (−8) − (−3) = −5
- **Real-Life Example:** A district loses five teachers after budget cuts.
- **Fairness Example:** Negative numbers reveal disadvantages and unmet needs.

Zero

- **Definition:** The balance point between positive and negative numbers.
- **Math Examples:**
  - +5 + (−5) = 0
  - (−2) + (+2) = 0
  - (+3) − (+3) = 0
- **Real-Life Example:** A school's gains and losses even out—no overall change.
- **Fairness Example:** Zero represents equality and balance among schools.

Gain

- **Definition:** A positive change or increase in value.
- **Math Examples:**
  - (−2) + (+6) = +4
  - (+3) + (+5) = +8
  - (+7) − (+2) = +5

- **Real-Life Example:** A school gains five new tutors this semester.
- **Fairness Example:** Gains signal progress toward equitable learning conditions.

Loss

- **Definition:** A negative change or decrease in value.
- **Math Examples:**
  - (+4) + (−9) = −5
  - (−3) + (−2) = −5
  - (+6) − (+8) = −2
- **Real-Life Example:** A community loses two after-school programs.
- **Fairness Example:** Losses highlight where extra support is needed for balance.

Balance

- **Definition:** When gains and losses are equal; total = 0.
- **Math Examples:**
  - (+5) + (−5) = 0
  - (+3) + (+2) + (−5) = 0
  - (−4) + (+4) = 0
- **Real-Life Example:** Two schools receive the same funding amount.
- **Fairness Example:** Balance represents stability—every student has an equal chance.

Equity

- **Definition:** Giving everyone what they need to succeed (not always the same).
- **Math Examples:**
  - (+6) + (−4) = +2 → needs +2 more to balance

  - (−5) + (+5) = 0
  - (+3) + (+1) + (−4) = 0
- **Real-Life Example:** One school receives extra resources so both reach equal goals.
- **Fairness Example:** Equity adjusts differences so every student can succeed.

Gap

- **Definition:** The difference or distance between two values or groups.
- **Math Examples:**
  - |+6 − (−2)| = 8
  - |−3 − (+4)| = 7
  - |+2 − 0| = 2
- **Real-Life Example:** The funding gap between two schools is $8,000.
- **Fairness Example:** The larger the gap, the more inequity exists.

Resource

- **Definition:** Anything measurable that supports learning or growth.
- **Math Examples:**
  - (+10) + (−7) = +3
  - (−4) + (+9) = +5
  - (+6) − (+3) = +3
- **Real-Life Example:** Teachers, books, and laptops that support students.
- **Fairness Example:** Fair distribution of resources creates equal opportunity.