

Components of Number Sense Questioning

Quantity

- Benchmark fractions (0, $\frac{1}{2}$ and 1)
- Is $\frac{6}{14}$ closer to 0, $\frac{1}{2}$ or 1? What about $\frac{17}{18}$? $\frac{2}{11}$?
- Is $\frac{17}{33}$ more or less than $\frac{1}{2}$? How do you know?

Numeration

- What does $\frac{7}{14}$ mean?
- How is $\frac{3}{10}$ of a dollar different in our word problem than $\frac{3}{10}$ shots?
- Which Numeration system tells us what we want to know as the coach?
- Why do we sometimes need both?
- What does percent mean?

Equality

- Is $\frac{3}{10}$ of a dollar equal to $\frac{6}{20}$ of a dollar?
- How can you prove that?
- Are $\frac{3}{5}$ shots the same thing as $\frac{6}{10}$ shots?
- How are they the same and how are they different?
- In what way are they equal?

Base-ten

- Convert from decimal to percent with meaning.
- Utilize the decimal system and percentages in order to look at fractions all with the same denominator (1 or 100).
- If the decimal form is .52 what is the percent form?
- How many powers of ten did you multiply by? Why?

Different forms of a number

- What form of the number would the coach want and why?
- What information do you get from the fractional form?
- What information do you get from decimal form?
- Which one do you like better to make comparisons? Why? Or do you usually need both?

Proportional thinking

- If I make $\frac{12}{15}$ shots, what does it mean that I hit 75%?
- What if I took 30 shots, how many would I make at that rate?

Algebraic and Geometric Thinking

- Developing arguments and backing them up with logical facts
- Creating a flow chart
- Proportional reasoning that build into ideas of slope and function.