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| **Clarity for Learning** |
| **Standard KY.8.F.1** Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.  |
| **Concepts (Nouns)**functionruleinputoutputgraph of a functionordered pairs | **Skills (Verbs)**understandassigns |
| **Learning Progressions***Prerequisite Skills:** Reasoning about proportional relationships and representing them in different ways
* Use percent proportion and percent equation to solve problems
* Identify the constant of proportionality and compare two proportional relationships represented in different ways
* Use the formula y=mx+b as the linear equation where m represents slope and b represents the y-intercept

*Grade Level Skills:** Recognize a function is a relation in which each input, or x-value, has exactly one output, or y-value
* Use diagrams, tables, graphs, equations, and ordered pairs to identify and interpret functions
* Understand a relation is a set of ordered pairs, but not all relations are functions, a relation is function if each input value has exactly one output value
* Represent linear functions with an equation and a graph, represent a nonlinear function with a graph

*Clarifications:*Students understand the reasoning that not all relations are functions. Note: Function notation is not required in grade 8. KY.8.F.1→ KY.HS.F.1  |
| **Learning Intentions (I am learning to...)** | **Success Criteria (I know I’m successful when...)** |
| Understand relations and functions and connect representations of functions  | * I can tell whether a relation is a function.
* I can identify functions by their equations, tables, graphs and ordered pairs.
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