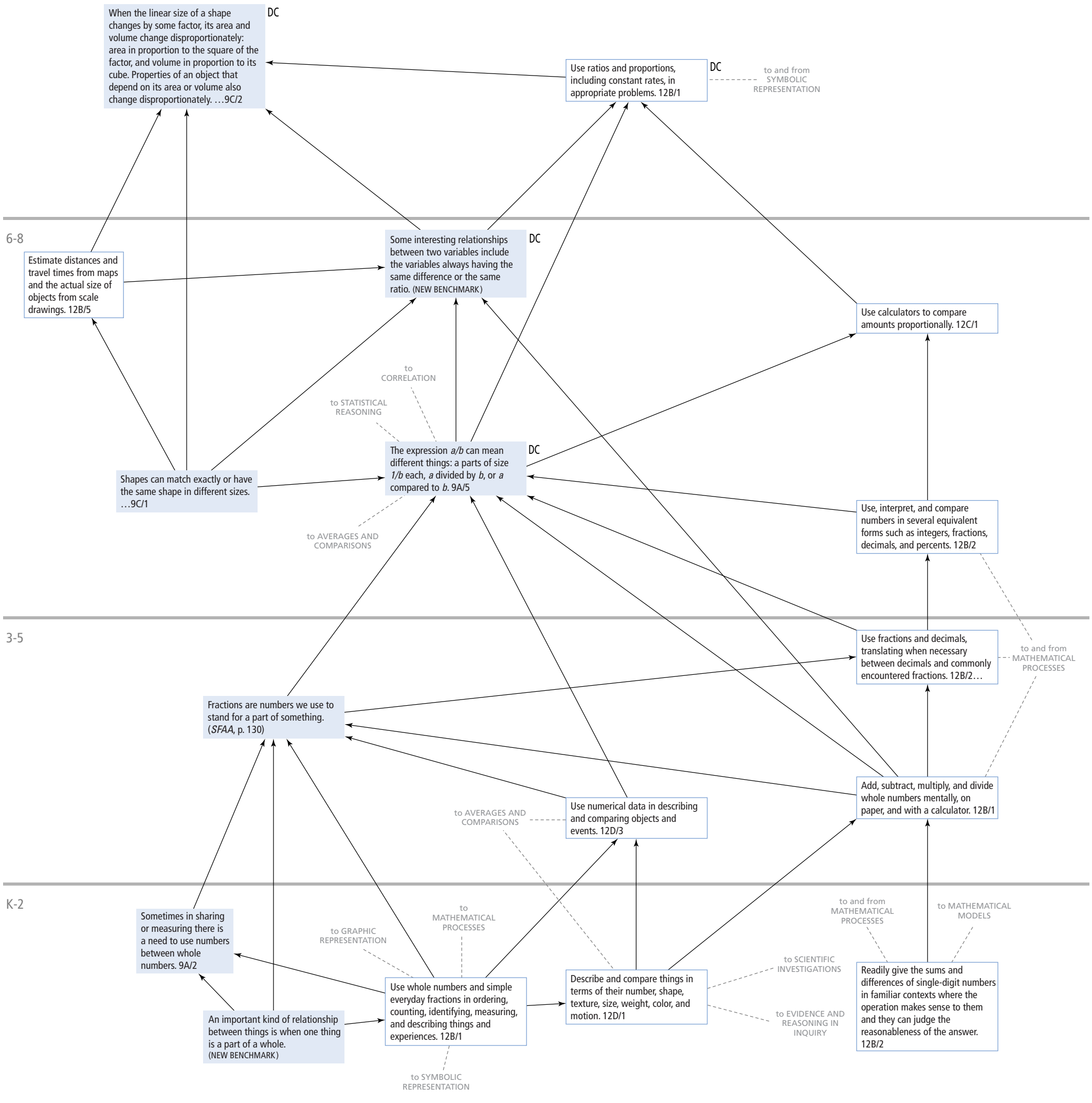
9-12
When the linear size of a shape changes by some factor, its area and volume change disproportionately: area in proportion to the square of the factor, and volume in proportion to its cube. Properties of an object that depend on its area or volume also change disproportionately. …9C/2
DC
Use ratios and proportions, including constant rates, in appropriate problems. 12B/1
DC
to and from SYMBOLIC REPRESENTATION
6-8
Estimate distances and travel times from maps and the actual size of objects from scale drawings. 12B/5
Some interesting relationships between two variables include the variables always having the same difference or the same ratio. (NEW BENCHMARK)
DC
Use calculators to compare amounts proportionally. 12C/1
to CORRELATION
to STATISTICAL REASONING
Shapes can match exactly or have the same shape in different sizes. …9C/1
The expression a/b can mean different things: a parts of size 1/b each, a divided by b, or a compared to b. 9A/5
DC
to AVERAGES AND COMPARISONS
Use, interpret, and compare numbers in several equivalent forms such as integers, fractions, decimals, and percents. 12B/2
3-5
Use fractions and decimals, translating when necessary between decimals and commonly encountered fractions. 12B/2…
to and from MATHEMATICAL PROCESSES
Fractions are numbers we use to stand for a part of something. (SFAA, p. 130)
Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator. 12B/1
to AVERAGES AND COMPARISONS
Use numerical data in describing and comparing objects and events. 12D/3
K-2
Sometimes in sharing or measuring there is a need to use numbers between whole numbers. 9A/2
to GRAPHIC REPRESENTATION
to MATHEMATICAL PROCESSES
to and from MATHEMATICAL PROCESSES
to MATHEMATICAL MODELS
to SCIENTIFIC INVESTIGATIONS
Use whole numbers and simple everyday fractions in ordering, counting, identifying, measuring, and describing things and experiences. 12B/1
Describe and compare things in terms of their number, shape, texture, size, weight, color, and motion. 12D/1
Readily give the sums and differences of single-digit numbers in familiar contexts where the operation makes sense to them and they can judge the reasonableness of the answer. 12B/2
to EVIDENCE AND REASONING IN INQUIRY
An important kind of relationship between things is when one thing is a part of a whole. (NEW BENCHMARK)
to SYMBOLIC REPRESENTATION
parts and wholes
description and comparison
computation