

Measurement

Compacted DesCartes

Length

Measures to...

Below 151	inch mark
151 -160	inch mark
161-170	compares objects as wider/narrower, taller/shorter nearest inch and cm
171-180	compares objects as shorter/longer nearest inch and cm
181-190	½ in nearest cm nonstandard units
191-210	same as above
211-220	½, ¼, 1/8 in nearest cm
221-240	nearest mm

Weight & Size

Knows approximate...

171-180	Weight of familiar objects
181-190	Size of an in. Length of familiar objects
191-200	Size of a foot, mile, oz, pint
201-210	Size of a cm, yd, gram, lb
211-220	Size of a mm, km, oz, gallon
221-230	Size of a m

Capacity

181-190	Determines more or less capacity
191-200	Uses balance scale

Conversion

Converts...

191-200	cups/pints/quarts
201-210	cups/pints/quarts in/ft, mg/g
211-220	cups/pints/quarts/gallons in/ft/yds/miles mg/g
221-230	cups/pints/quarts/gallons in/ft/yds/miles mm/cm/m/km oz/lbs/tons

Converts...

231-240 ft/yds/miles
mm/cm/m/km
g/kg

Computation & Problem Solving

201-210 Solves simple problems involving measurement of length
211-220 Solves simple problems involving measurement of length, weight, capacity
Computes basic addition with units of length
221-230 Solves problems involving length in customary system and converts to larger or smaller units
Computes basic addition, subtraction, multiplication of lengths and weight/mass
231-240 Solves problems involving length in customary and metric system and converts to larger or smaller units
Computes basic subtraction and multiplication with units of length and capacity
241-250 Solves problems involving length in the metric system and converts to larger or smaller units

Time & Temperature**Clock**

151-160 Identifies time of day (morning, afternoon)
161-170 Tells time to nearest hour, half hour
171-180 Tells time to nearest hour, half hour, 5 min
181-190 Tells time to nearest 5 min
Identifies correct time given words and vice versa
Elapsed time to the hour, whole days, under 1 hour, years
191-200 Tells time to the nearest min. and quarter hour
Identifies correct time given words and vice versa
Determines elapsed time involving hours/days/years

Calendar

161-170 Reads a calendar
Orders days of the week
171-180 Orders months, seasons
181-190 Interprets a calendar
191-200 Orders years
201-210 Solves problems using calendar

Conversions**Converts...**

171-180 Converts minutes in hour/half hour/quarter hour
181-190 Converts days/weeks
191-200 Converts minutes/hours, hours/days

Temperature

171-190	Reads Fahrenheit thermometer to nearest degree
191-200	Reads Celsius thermometers to nearest degree
201-210	Reads Fahrenheit and Celsius thermometers to nearest degree Knows common referents (boiling, freezing, room temperature)
211-220	Reads Fahrenheit and Celsius thermometers to 0.1

Computation & Problem Solving

191-200	Solves simple problems involving elapsed time, with conversion of hours Determines elapsed time involving hours/days/years Solves problems involving measurement of temperature
201-210	Solves problems involving measurement of time Solves simple problems involving elapsed time with conversion of hours Computes more difficult conversions solves difficult problems involving measurement of time
211-230	Solves difficult problems involving elapsed time with conversion of hours Computes basic operations with units of time

Angles, Perimeter, & Circumference

181-190	Determines perimeter of figure where all sides are labeled
191-200	Determines perimeter of figure where some sides are labeled Solves simple problems involving perimeter of square, rectangle, triangle
201-210	Determines perimeter of figure where some sides are labeled Estimates measures of acute, right, obtuse angles using 45 and 90 degree referents
211-220	Determines perimeter of figure using nonstandard units Determines process for calculating perimeter Solves problems involving perimeter of square, rectangle, triangle Finds perimeter of polygon using formula Estimates the measure of acute, right, obtuse angles using 45 and 90 degree as referents
221-230	Determines the diameter, given radius and vice versa Solves problems using perimeter of square, rectangle, triangle Finds perimeter using formula with a variable Determines diameter given radius, and vice versa
231-240	Identifies formula for perimeter with a variable Describes the change in perimeter when dimensions of an object are altered

Area & Volume

171-180	Determine area of figure by counting square units
181-190	Compares objects as smaller or larger Determine area of a figure by counting square units
191-200	Estimates the area of shapes using square units
201-220	Identifies situations where it's appropriate to calculate area Determines area of shapes with partial square units Estimates the area of shapes using square units Solves simple problems comparing area and perimeter Estimates and finds volume of a figure using cubic units

Area & Volume (Continued)

- 221-230 Uses models to develop the relationship between the total number of square units contained in a rectangle and length and width of the figure
Determines area of a square or rectangle
Solves simple problems involving area of square or rectangle
- 231-240 Determines area of square or rectangle
Solves simple problems involving area of square, rectangle, triangle

Appropriate Units, Tools, Precision Strategies

- 181-200 Identifies appropriate instruments to measure length, weight, time, temperature
Selects and uses appropriate type and size of unit in customary system
- 201-210 Selects and uses balances for measuring weight or mass
Selects and uses the appropriate type and size of unit in metric system
Uses basic indirect methods to estimate measurement (grids for area of irregular figures)
- 211-220 Selects and use protractors for measuring angles
Selects and uses the appropriate type and size of unit in metric system
- 221-230 Uses the appropriate unit of measure for length, area, volume
- 231-240 Uses the appropriate unit of measure for volume
Uses basic indirect methods to estimate measurements