

Scope and Sequence

Unit	Topic	Reading context	Vocabulary	Function
1	The Mechanical Engineer	Article	assess, broad, design, hardware, improve, manufacture, mechanical engineer, power transmission, specialize in, test	Describing experience
2	Bearings	Poster	axial, ball bearing, bearing, inner race, journal bearing, outer race, radial, rolling contact bearing, sleeve, straight roller bearing, tapered roller bearing, thrust roller bearing	Making a polite request
3	Couplings	Textbook Excerpt	align, beam coupling, coupling, flexible, input shaft, offset, output shaft, rigid, sleeve-style coupling, transmit	Making a suggestion
4	Gears	Encyclopedia Entry	bevel gear, gear, helical gear, mesh, pinion, rack, spur gear, tooth, worm, worm gear	Stating a preference
5	Drives	Advice Column	belt drive, chain drive, groove, link, sheave, slippage, synchronous rotation, timing belt, v-belt, wedge angle	Making an estimate
6	Hand Tools	Email	ball peen hammer, box wrench, calipers, hacksaw, Phillips screwdriver, pliers, sledge hammer, slotted screwdriver, socket wrench, vice	Reacting to good news
7	Machine Tools	Webpage	band saw, broach, CNC mill, drill press, gear shaper, honing machine, lathe, lead screw, machine tool, mill	Talking about necessity
8	Numbers and Basic Math	Poster	add, divide by, equal, hundred, minus, multiply by, over, plus, subtract, times	Making an apology
9	Measurements 1	Conversion Chart	foot, gram, imperial, kilogram, length, meter, metric, ounce, pound, weight	Asking for clarification
10	Measurements 2	Email	Celsius, convert, cubic centimeter, Fahrenheit, fluid ounce, gallon, liter, milliliter, temperature, volume	Checking for certainty
11	SI Units	Poster	base unit, cubic meter, derived unit, force, joule, kelvin, mass, newton, pascal, SI	Expressing confusion
12	Large Numbers	Email	cubed, exponent, hundredth, rounding error, scientific notation, significant figure, squared, tenth, thousandth, to the nth power, trailing zero	Giving a warning
13	Analyzing Quantities	Textbook Excerpt	decimal number, fraction, improper fraction, mixed number, out of, percent, point, quantity, reduce, whole number	Making a prediction
14	Tables and Graphs	Note	bar graph, column, legend, line graph, pie chart, row, scatter plot, table, x-axis, y-axis	Discussing progress
15	Simple Machines	Textbook Excerpt	axle, fulcrum, inclined plane, lever, leverage, load, pulley, simple machine, wedge, wheel	Providing an example