Demonstrate understanding of equilibrium principles in aqueous systems
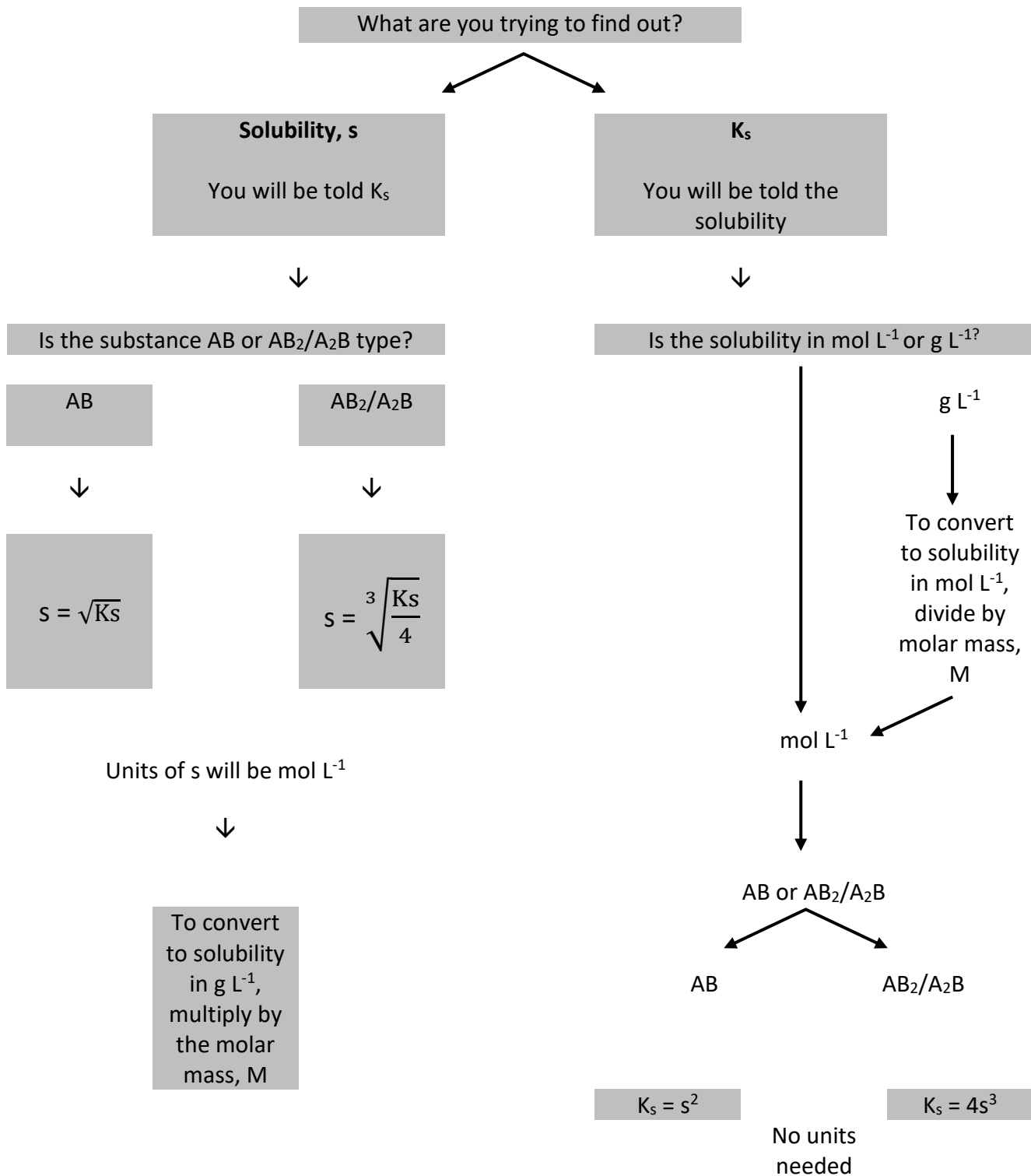
Sparingly soluble salts – calculations

What are you trying to find out?

Solubility, s

You will be told K_s

↓

Is the substance AB or AB_2/A_2B type?

AB	AB_2/A_2B
↓	↓
$s = \sqrt{K_s}$	$s = \sqrt[3]{\dfrac{K_s}{4}}$

Units of s will be mol L^{-1}

↓

To convert to solubility in g L^{-1}, multiply by the molar mass, M

K_s

You will be told the solubility

↓

Is the solubility in mol L^{-1} or g L^{-1}?

g L^{-1}

To convert to solubility in mol L^{-1}, divide by molar mass, M

mol L^{-1}

AB or AB_2/A_2B

AB	AB_2/A_2B
$K_s = s^2$	$K_s = 4s^3$

No units needed

In the resource booklet you will be given $K_s = s^2$ and $K_s = 4s^3$
(but not told for AB or AB_2 / A_2B type substances)