Name: Key Block:

Balance these reactions using the beads provided, to represent a single atom of an element. Include a key to display which colour is which element. Add coefficients to balance the reactions.

2 K + Br2 → 2 KBr

2 Al + 3 Cl2 → 2 AlCl3

2 NH3 → N2 + 3 H2

2 S + 5 N2O → S2O5 + 5 N2

4 Al + 3 O2 → 2 Al2O3

2 RbI + MgCl2 → 2 RbCl + MgI2

3 Li + AlCl3 → Al + 3 LiCl

 Ni + 2 HCl → NiCl2 + H2

P4 + 6 F2 → 4 PF3

2 H2O → 2 H2 + O2

 2 Zn + SnF4  → Sn + 2 ZnF2

 2 Au(CN)3 + 3 Zn → 2 Au + 3 Zn(CN)2

2 NH4OH + H2CO3 → 2 H2O + (NH4)2CO3

 2 FeCl3 + 3 Na2SO3 → 6 NaCl + Fe2(SO3)3

 (NH4)2S + Mn(NO3)2 → 2 NH4NO3 + MnS