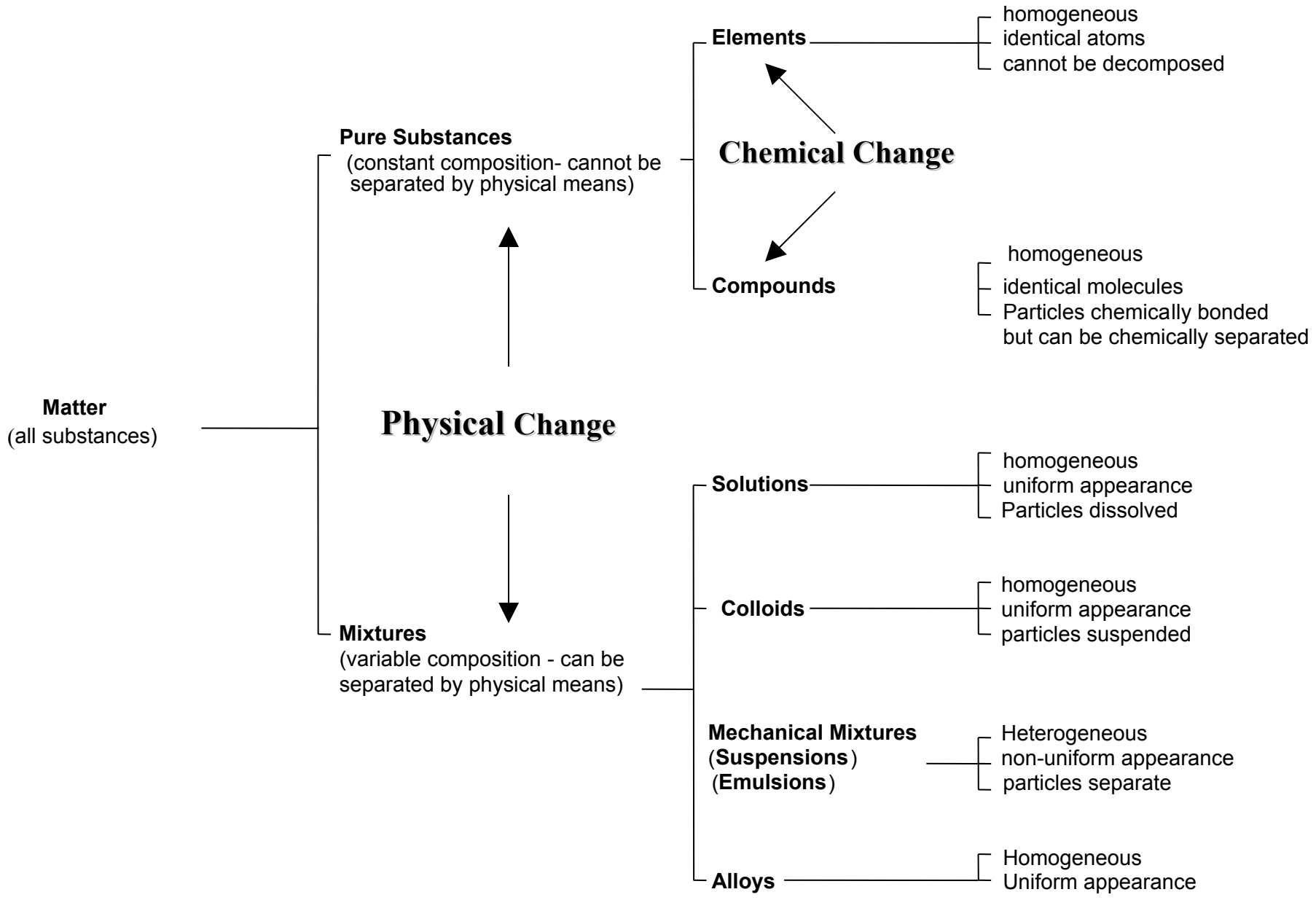5.2 The Classification of Matter