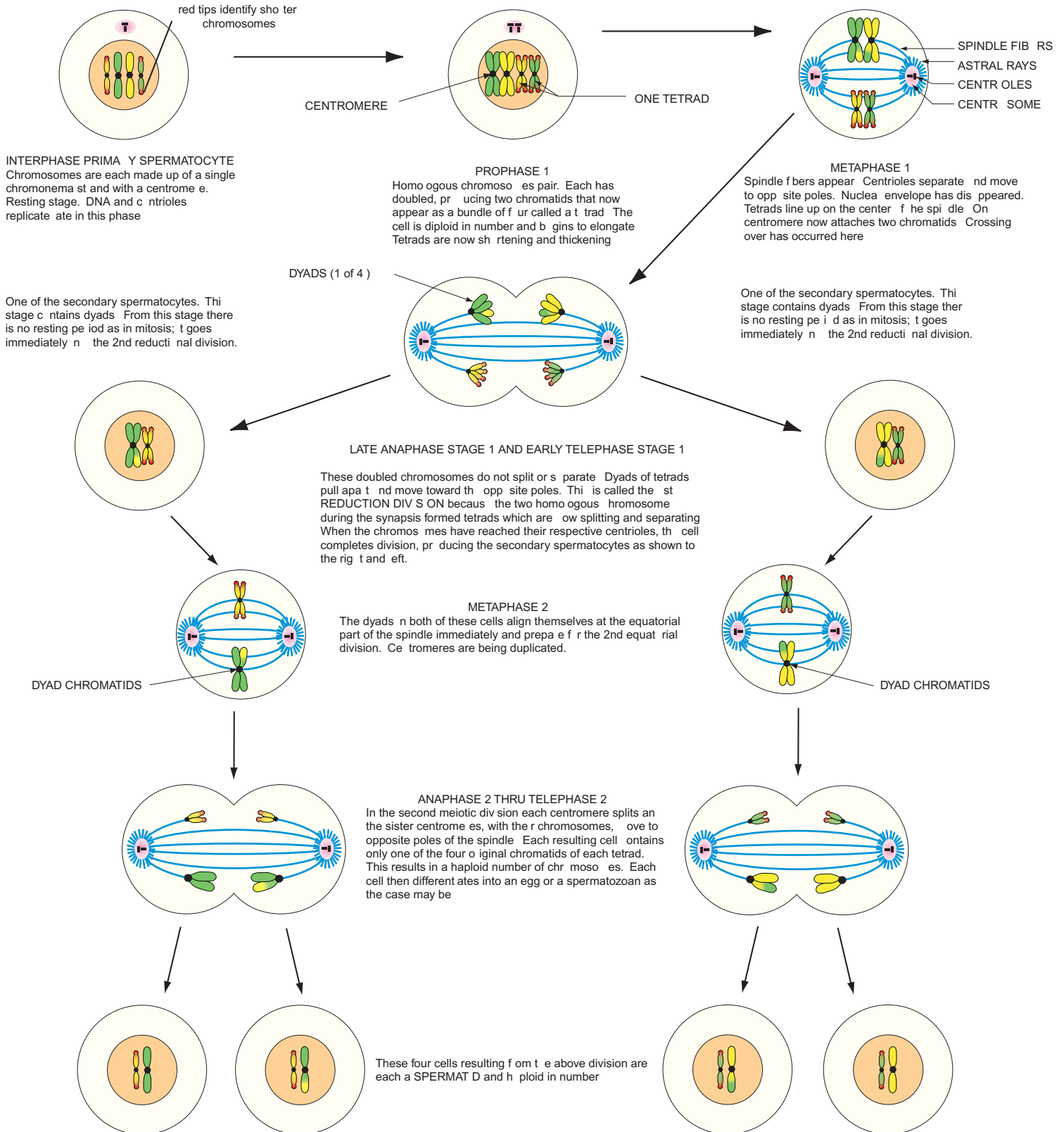




## 4 CHROMOSOMES, SPERMATOGENESIS OR OOGENESIS



Chromosomes from prior generations are sorted by laws of chance. Crossing over in early metaphase I, as has occurred here in the uppermost tetrad, would also increase genetic variability. From here on, each mature spermatid condenses the nucleus into a head, from a whip-like tail and attaches to a sertolli cell for nourishment and gradual transformation into a mature sperm. In the case of an oocyte, the 1st division would produce one polar body which would be smaller than the egg, and the 2nd division would have the 1st polar body divide at the time the cell nucleus divided unequally, thus producing 3 small polar bodies and one large cell - the mature egg, thru unequal division of the cytoplasm.