



Dual coding

- <https://www.learningscientists.org/videos>
- Can you create a picture equation for each of the paper 1 Physics equations you need to learn?

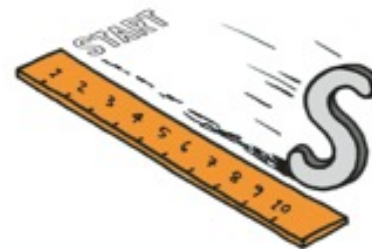
Example:



=



×



work done = force × distance



VISUALS



When you have the same information in two formats — words and visuals — it gives you two ways to remember the information later on.

Combining these visuals with words is an effective way to study.

Now make your own picture equation for each of these 11 paper 1 equations. If you are struggling for ideas of your own the noun generator website may be useful : <https://thenounproject.com/search/?q=energy>

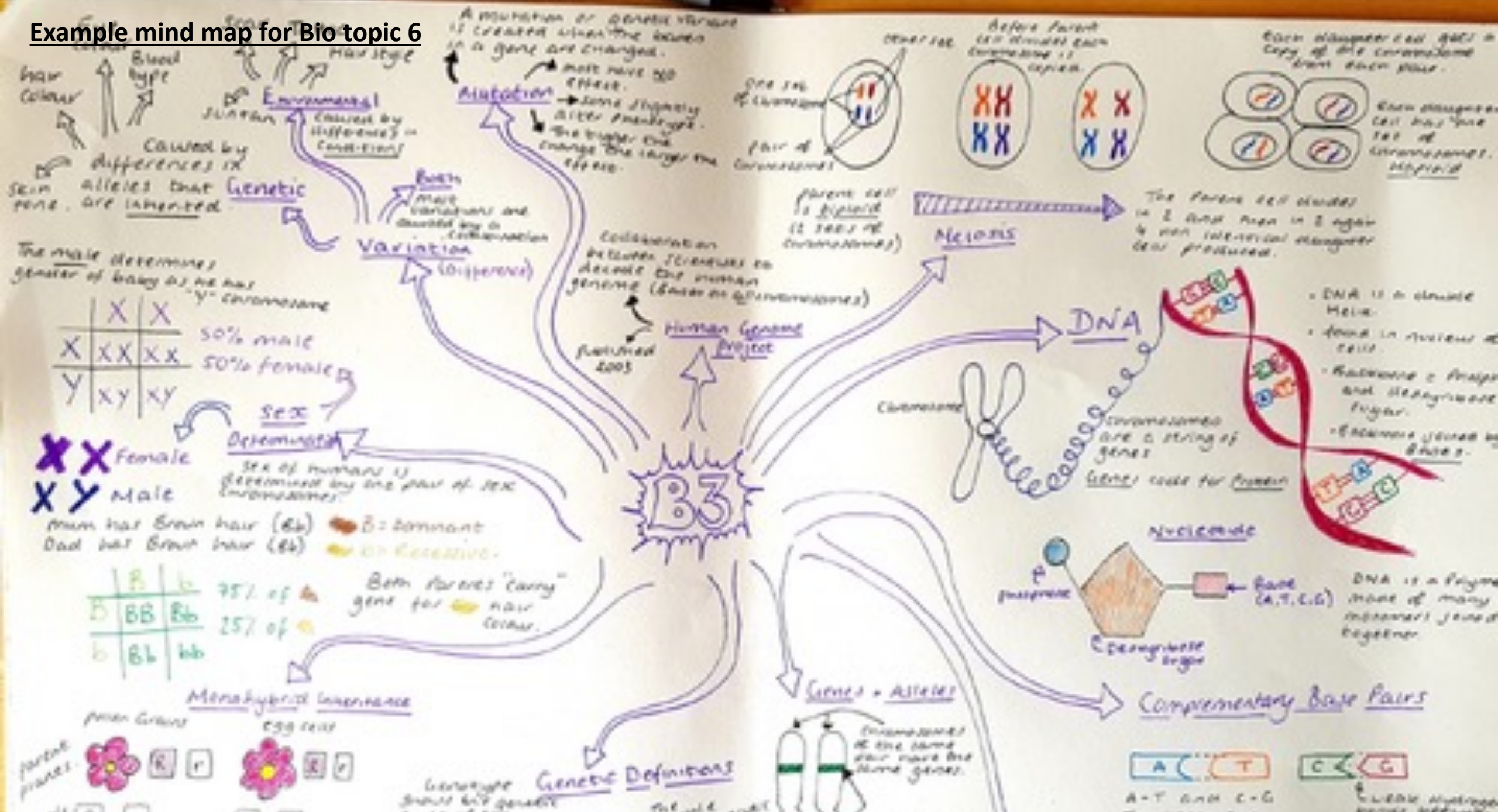
1	P1	work done = force x distance	$W = F s$
2	P1	kinetic energy = $0.5 \times \text{mass} \times (\text{speed})^2$	$E_k = \frac{1}{2} m v^2$
3	P1	gravitational potential energy = mass x gravity x height	$E_p = m g h$
4	P1	power = work done / time = energy / time	$P = W / t$
5	P1	efficiency = useful output / input	$\text{Eff} = \text{Out} / \text{In}$
6	P4	charge = current x time	$Q = I t$
7	P4	potential difference = current x resistance	$V = I R$
8	P5	power = potential difference x current	$P = V I$
9	P5	power = (current) ² x resistance	$P = I^2 R$
10	P5	energy transferred = charge flow x potential difference	$E = Q V$
11	P6	density = mass / volume	$\rho = m / V$

Dual coding biology

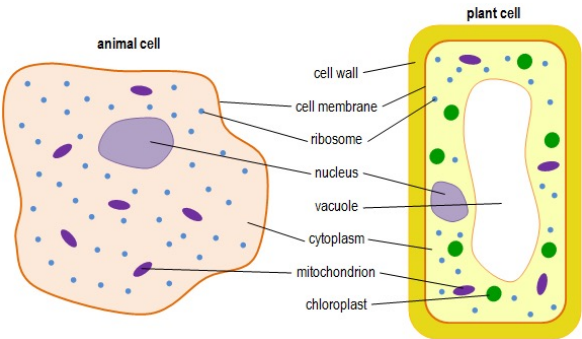
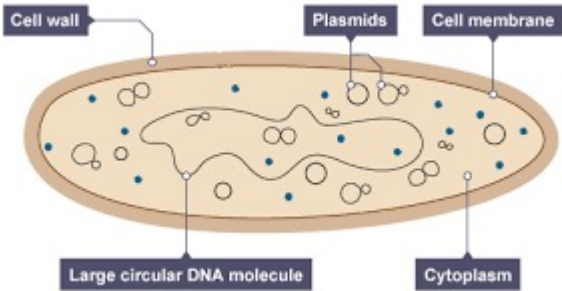
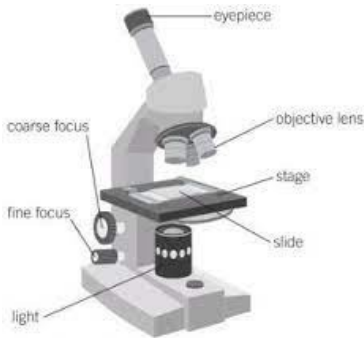
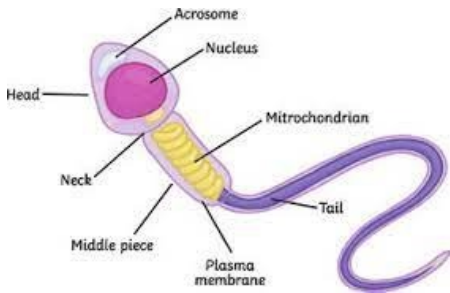
Now you know what dual coding is. Now create a revision poster for the Cells topic of Biology.

Here are some images you can use to help you with this topic

Example mind map for Bio topic 6



Biology Cells



DIFFUSION

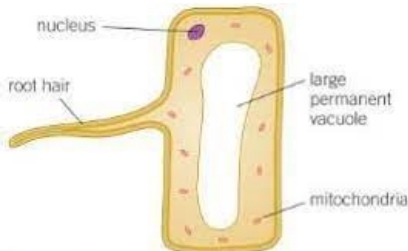
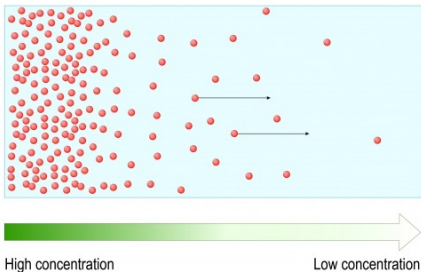
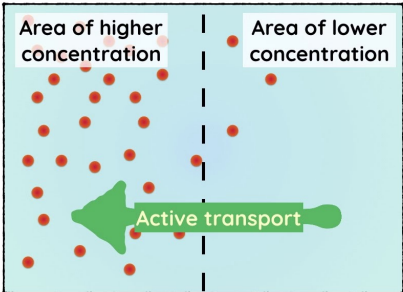
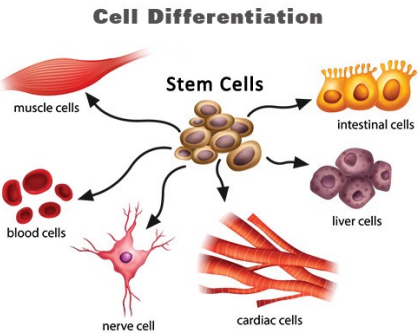
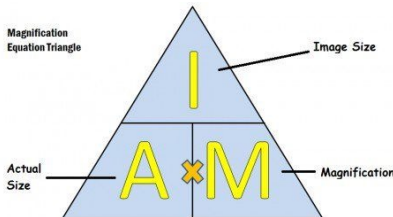
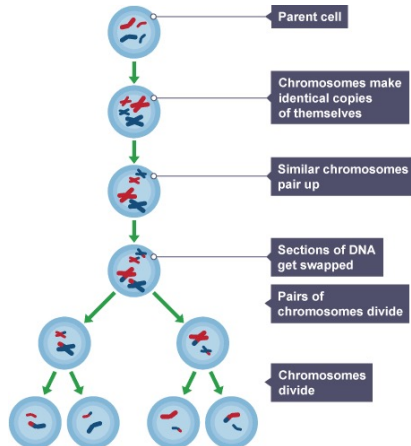
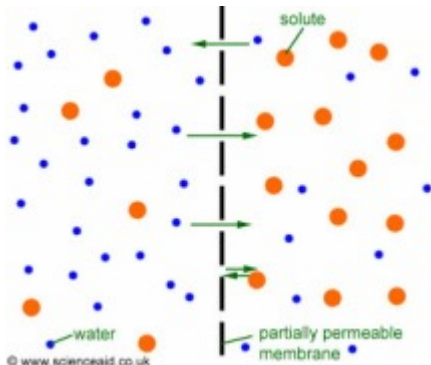


Figure 1 A root hair cell



Energy is required to go against the concentration gradient

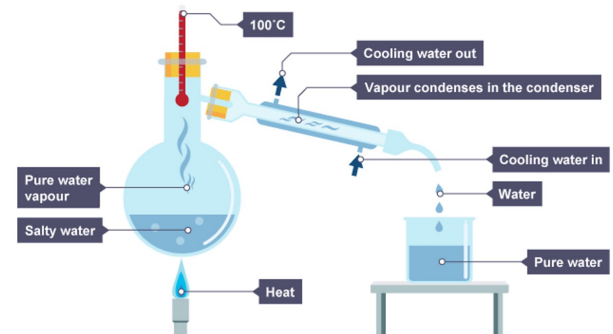
ATP
The energy currency of cells



Dual coding Chemistry

Now create a revision poster for the Atomic structure topic of Chemistry.

Here are some images you can use to help you with this topic



Groups												Period					
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