**Codominance vs Incomplete Dominance**

**Cornell notes Turner style**

**Instructions**

* Cut out the notes on the right hand side and **paste** into the **right hand side** of your notebook page.
* **Include** the **vertical black line** **or redraw this line** – giving yourself a large left hand margin
* **Read** the notes several times
* **Ask** yourself **three** **questions**:

1. Can I recognise all the content (information) in the notes?
2. In the notes is there a process or procedure I need to know?
3. Do I understand the idea/meaning/argument outlined in the notes. That is: do I “get it”?

* **Do the following**

1. Within the notes themselves, **underline** all the **content** you should learn or memorise.
2. In the left margin **label** each section of the notes as either a **definition**, **example**, **explanation**, **process**, or **evidence** (and you could make up your own categories)
3. With each label in step b, write a key word or phrase which tells us what the label is referring to. An example would be…

(note – the example is

not for these notes

* The key words are highlighted)

1. At the end of the notes **write a summary underneath the notes**. The summary should be **short** – it is to **demonstrate your understanding** of the notes, not rehash the content. Often you should try to draw a diagram or mind map.

Definition of **chemical reaction**

**label**

**Key words**

Codominance and Incomplete dominance are two instances where the inheritance pattern of a single gene is a little more complex.

1. **INCOMPLETE DOMINANCE** - In this instance there are two dominant alleles (2 capitals) and when both are present in the genotype – the phenotype is a combination of both dominant phenotypes.

eg. snapdragons – flower colour is caused by 2 dominant alleles R and W

R causes Red flowers, W causes white flower

RR – red flowers

WW – white flowers

RW or WR – pink flowers - (combined dominant phenotypes)

\* Punnet squares are still used, but interpreted differently.

1. **CODOMINANCE** - In this instance there is also more than one dominant allele, BUT in codominance, if both dominant alleles are present, the phenotype is an expression of both dominant phenotype – NOT combined but expressed.

eg. chicken

B – dominant allele for black feathers

W – dominant allele for white feathers

BB – black feathers

WW – white feathers

BW – both black and white feathers)

\* Punnet squares are still used, but interpreted differently.

**Blood Types – An example of codominance**

3 alleles – A, B and O

4 blood types – A, B, AB and O

|  |  |
| --- | --- |
| **Blood Type** | **Possible Genotype** |
| A | AA, AO |
| B | BB, BO |
| AB | AB, BA |
| O | OO |

Your blood type is caused by one gene which has 3 possible alleles. Therefore your blood type (being a single gene site) can be predicted from your parents’ genotype using a simple monohybrid punnet square. Blood types are a little more complicated than a normal mono-hybrid cross because there are two dominant alleles (which are codominant) and one recessive allele.

So – Alleles are A, B, o

Blood Types are: A B AB O

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AA or Ao BB or Bo AB oo

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