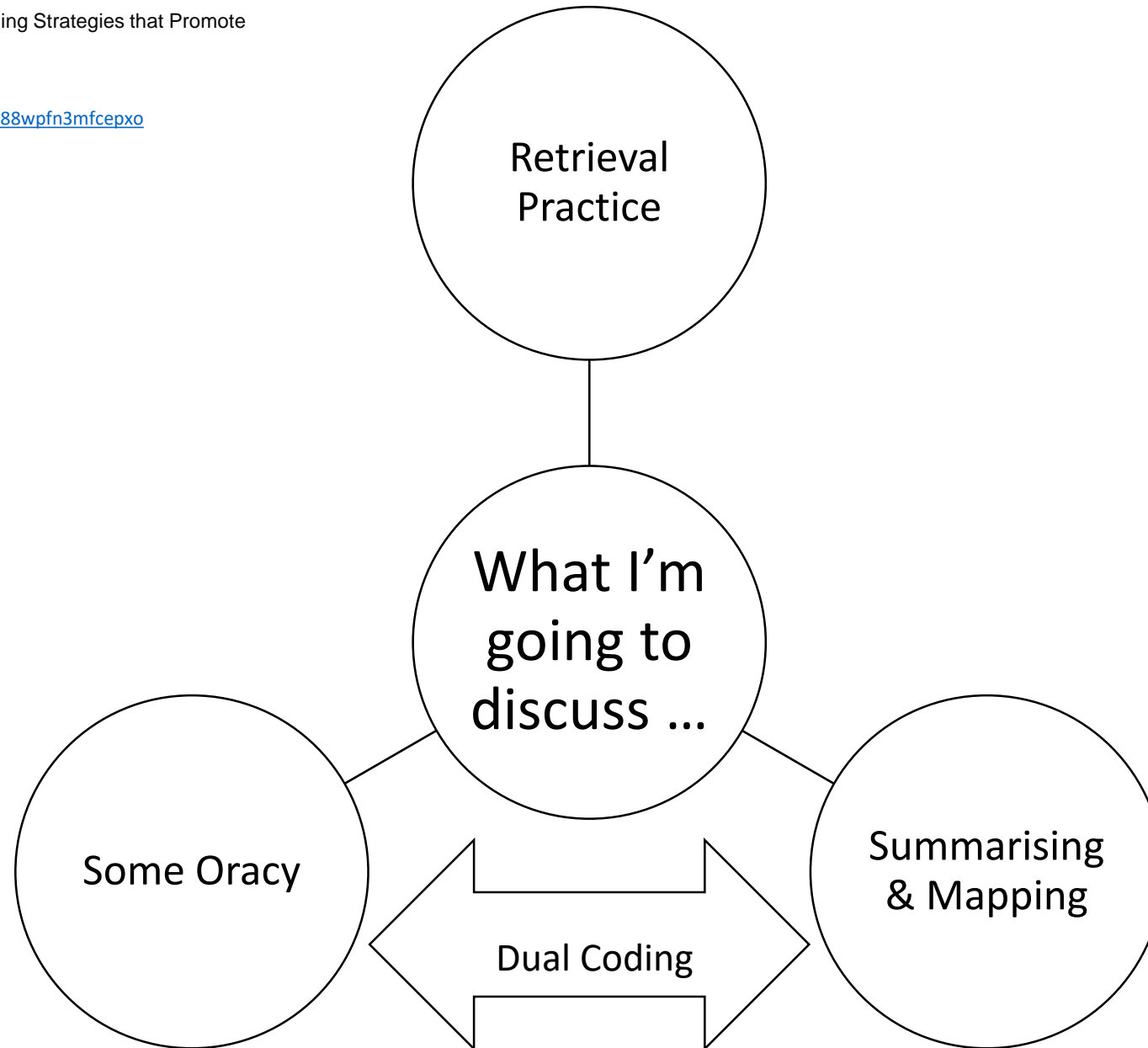


Learning as a Generative Activity

Providing students stepping stones to build understanding

Summary Available at :

<https://www.olicav.com/posters/wqrgprrivffltco788wpfn3mfcepxo>



Retrieval Practices

- Low stakes questions in a “spaced” way
- 10 questions
 - ✓ Last lesson
 - ✓ Last week
 - ✓ Last month

Retrieval Roulettes

Quiz ID: 200

Player 1 ○

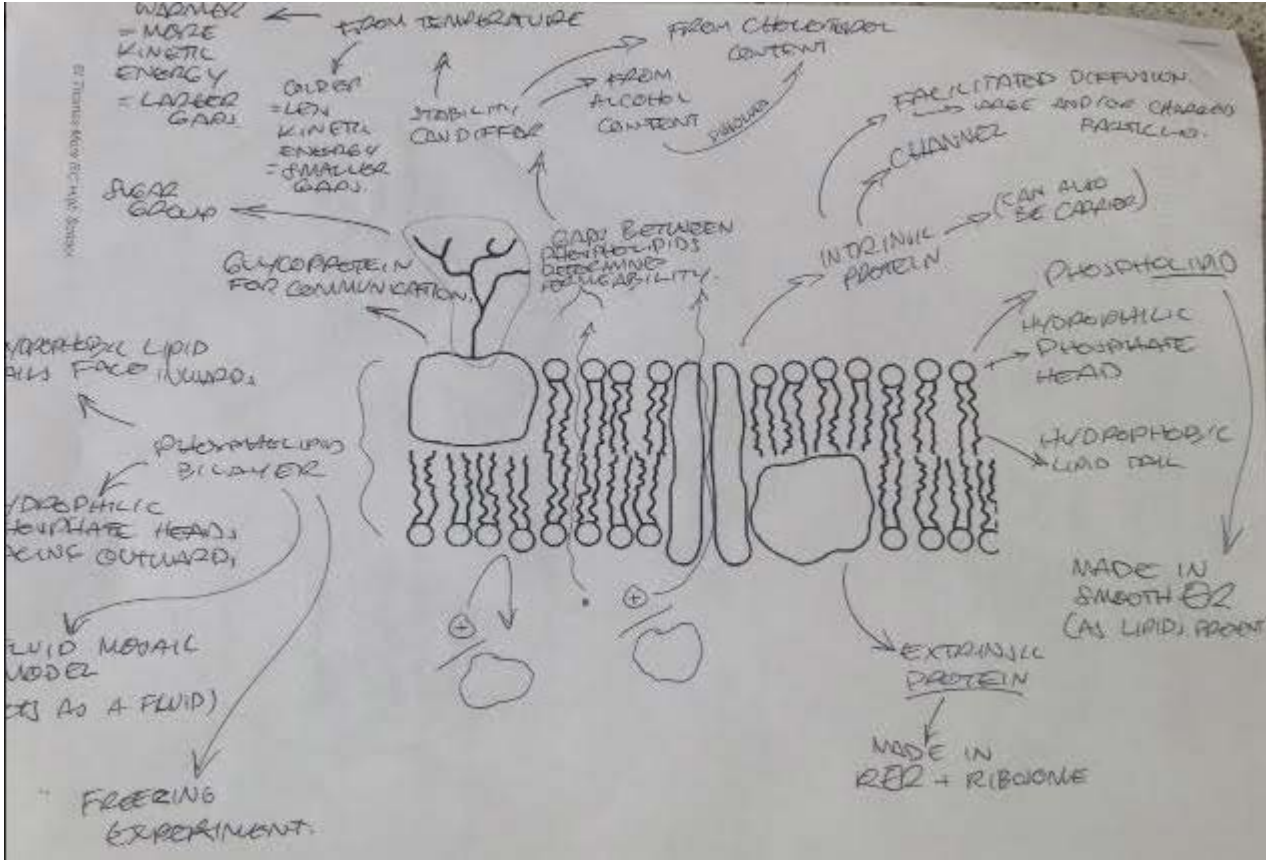
Player 2 ○

How are kingdoms further subdivided?	What is a faecal culture?	Why is the secondary response quicker?	How is immune response calculated?	Why does a graph of enzyme activity and substrate concentration level off?	What is a non communicable disease?	What is the downside of selective breeding?
Describe the chromosome number of gametes.	How is immune response calculated?	What is a non communicable disease?	Which bacteria have flagella?	What is the role of restriction enzymes?	What is selective breeding?	When is mitosis used?
Name 2 cardiovascular diseases.	Why do sperm cells need many mitochondria?	What is active transport?	What is selective breeding?	What process has to happen before mitosis?	What would you see in artificial dialysis on a dialysis machine?	What is the role of the lens in the eye?
What are the components of a virus?	How is mitosis different to meiosis?	Name 3 barrier defenses of plants.	What is a non communicable disease?	Why is the secondary response quicker?	What does the term hormone/gland mean?	What are the 2 parts of the CNS?
What does a colorimeter do?	Why can blood group be described as co-dominant?	How would you get a gene into a bacterium?	What is the test for fats?	What does ST stand for?	How is mitosis different to meiosis?	How does a message cross a synapse?
Which 2 processes are involved in protein synthesis?	What is the lock and key hypothesis?	What is a phenotypic?	What is the role of the testis?	What is the function of the nucleus?	What is a steroid?	How does the pentose phosphate cycle give us evidence of evolution?

Answer ID: 200

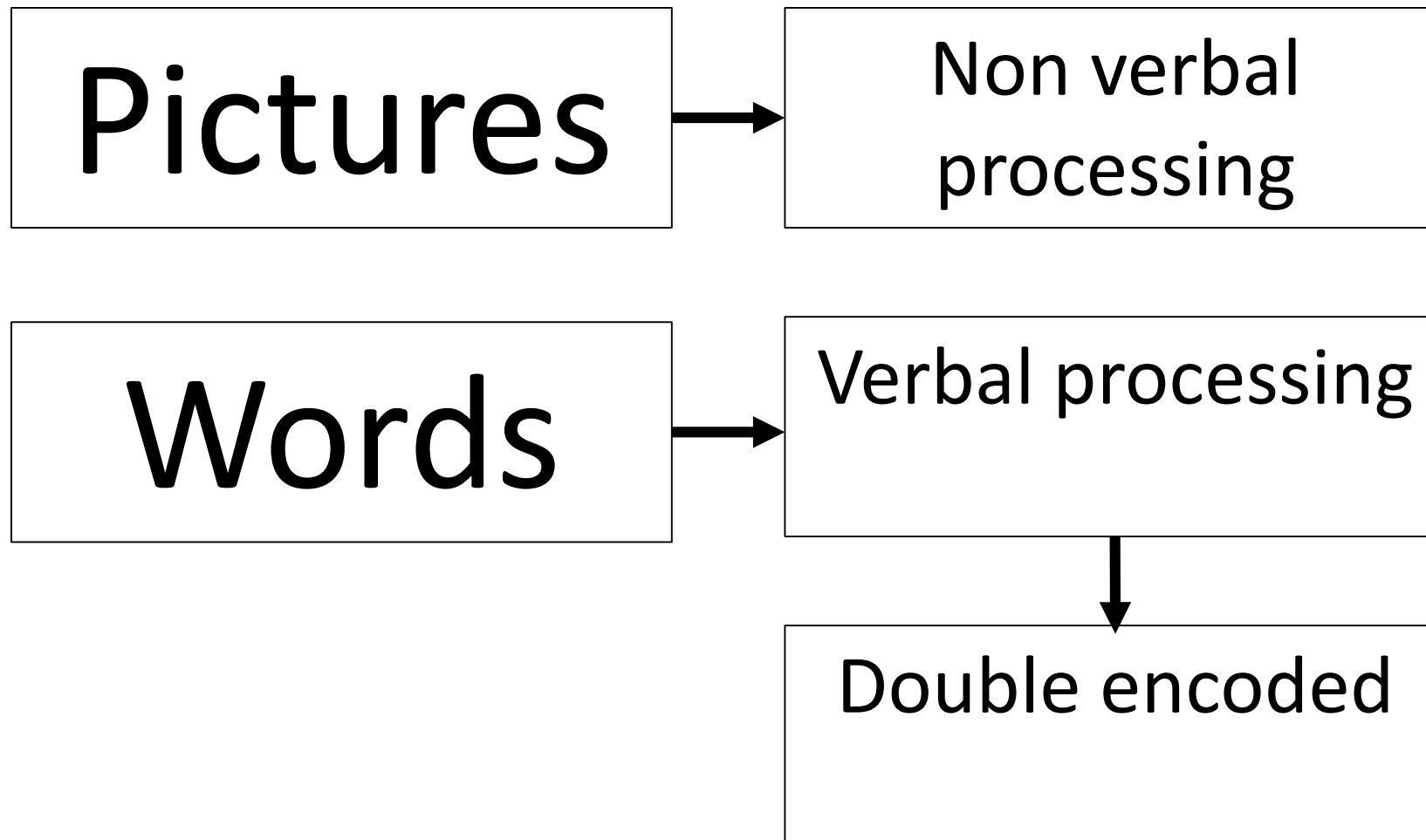
Phylum, class, order, family, genus, species	Growing cells on an artificial growth medium	Memory cells	I = M x A	Enzymes become saturated, all active sites are full	A disease that cannot be spread between people	Loss of variation
Haploid	I = M x A	A disease that cannot be spread between people	Bacteria that live in liquid environments	Cut DNA and leave sticky ends	Humans artificially select the plant or animals that they are going to breed	Growth and repair. Asexual reproduction
Heart attacks and strokes	Energy for movement	The movement of materials against the concentration gradient. This requires energy	Humans artificially select the plant or animals that they are going to breed	Interphase	Zone of elongation	Focuses light
Protein coat around genetic material	There is a second round of division	Cell wall, capsule, flagella	A disease that cannot be spread between people	Memory cells	3 different alleles	Spinal cord and brain
Measure the energy in food	Both A and B are dominant over C	Insert it into a plasmid	Emulsify with ethanol	Sexually transmitted infection	There is a second round of division	Neurotransmitters
Transcription and translation	Substrate fits into the active site to form enzyme-substrate complex → Reaction occurs → Enzyme releases products	The characteristic displayed	Controls how much light enters the pupil	The nucleus contains the genetic material that controls the activity of the cell	A tube placed in an artery to keep them open	Look for similarities in the bone structure

No Goal Recall

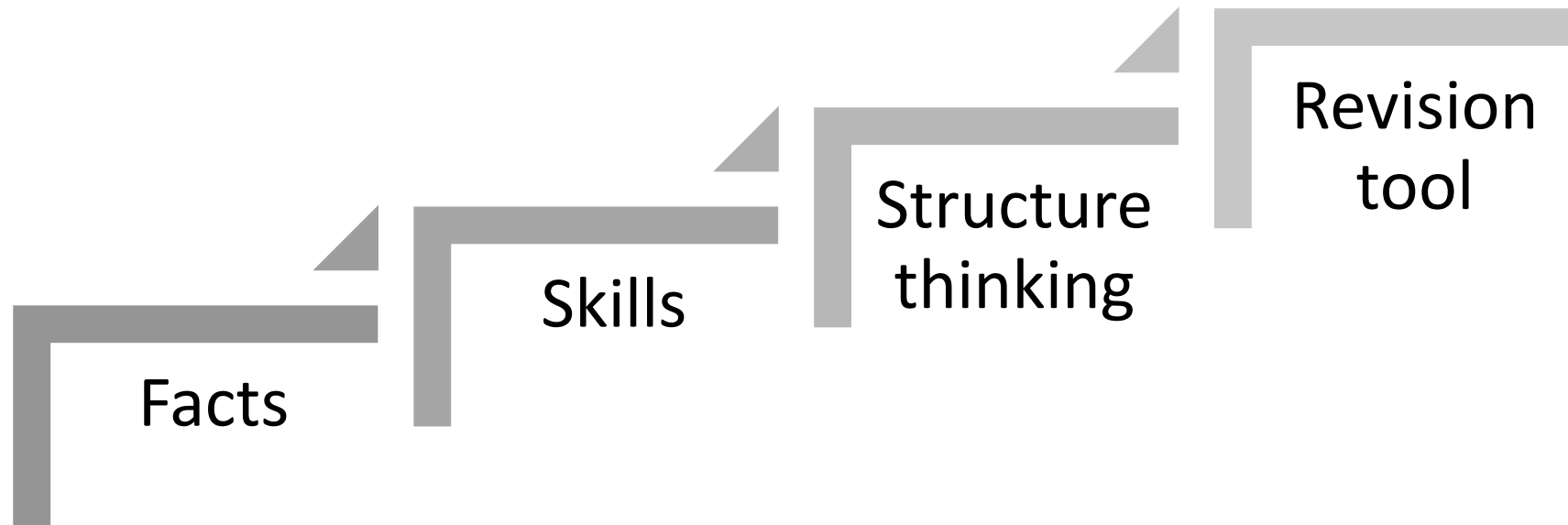


<https://reflectionsinscience.wordpress.com/2019/06/01/the-goal-free-approach-my-talk-from-cogscisci-2019/>

Dual Coding: The brain has 2 channels for learning: auditory and visual



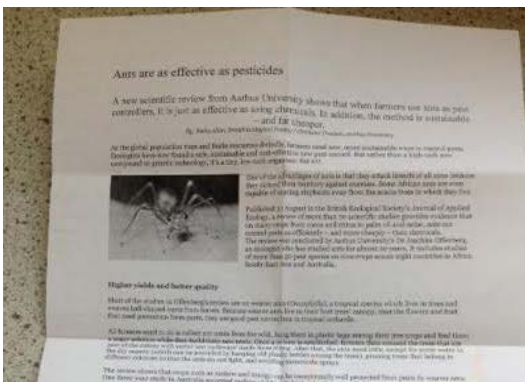
I Love Summaries



Condensation Summaries



Condensation Summaries



Biological Control

This is where an organism is introduced to crops and act as effectively as chemicals to control pests.

e.g

Using ants instead of pesticides, means that chemicals are not used to protect the fruit from the pests from eating the fruit.

Why?

It is more useful because it is less expensive of fruit is better. As there is more goods is sold and the profit is better. Biodiversity is as the pests are there but the ants are disrupt the food chain as birds can still eat

- Keywords
- pesticides
 - biodiversity
 - food chain
 - quality
 - profit
 - habitat
 - crops
 - organism

BIOLOGICAL CONTROL

organisms instead of chemicals at crops

What is Biological control?

It is where a low-tech ^{predator or organism} organism is used as a pesticide instead of chemicals to protect the plants from ^{and control pests} the prey - pests.

An example of this would be the ants that are put on fruit to ^{eat away at} stop pests from getting on the plants.

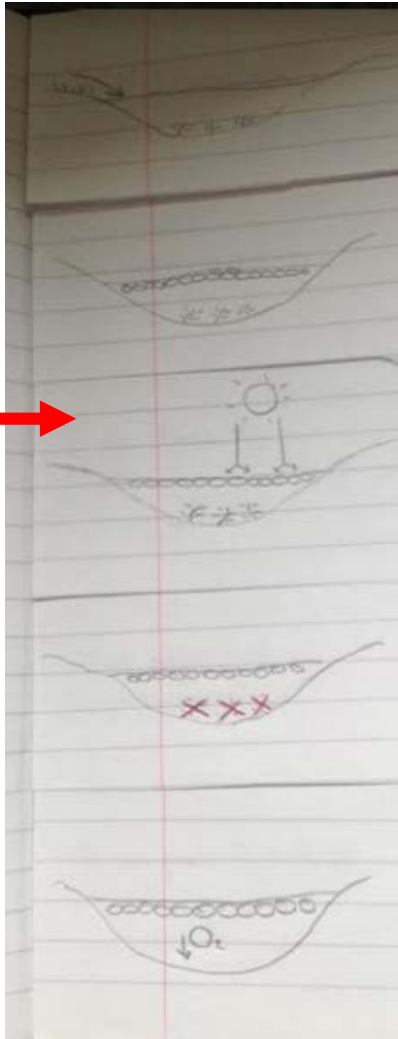
This is useful because it is cheaper and more effective. This is because this does not disrupt the food chain as the ants are there instead of pesticides and birds can eat them. The chemicals don't harm the plant and are better quality. Profit is higher as ^{socially acceptable} more is sold because of the quality and no chemicals that may be a worry.

Some more FUN with Foldables

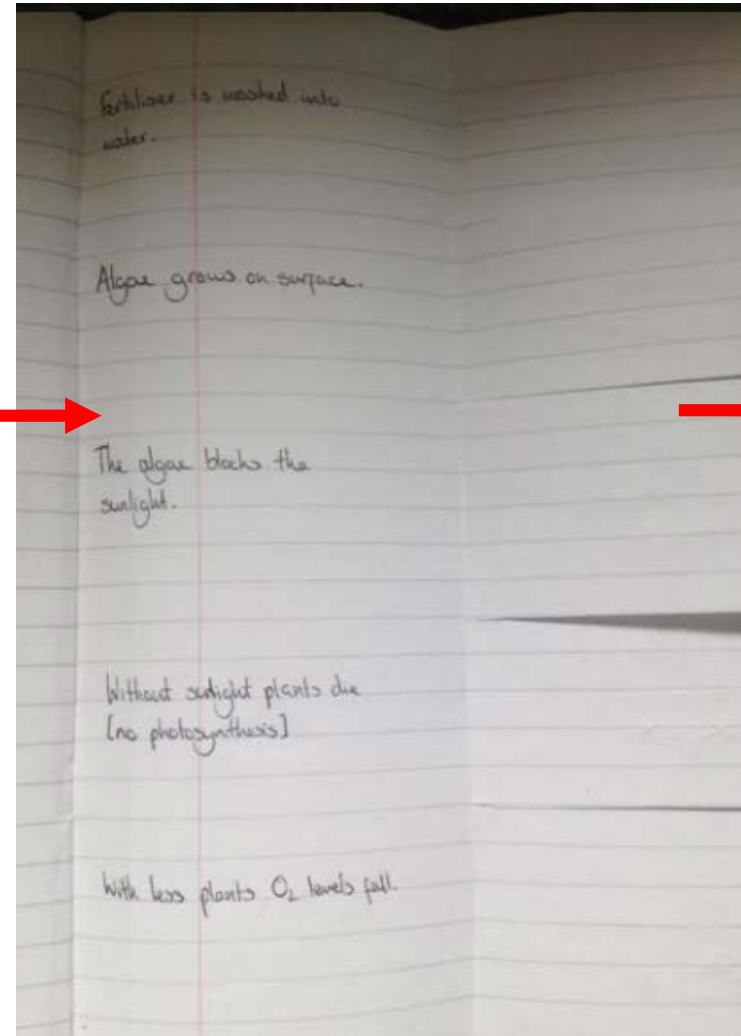
- Storyboards

Some more FUN with Foldables

Fold page in half: Student represent teacher explanation as pictures



Underneath: Pupils write their own explanation of the pictures

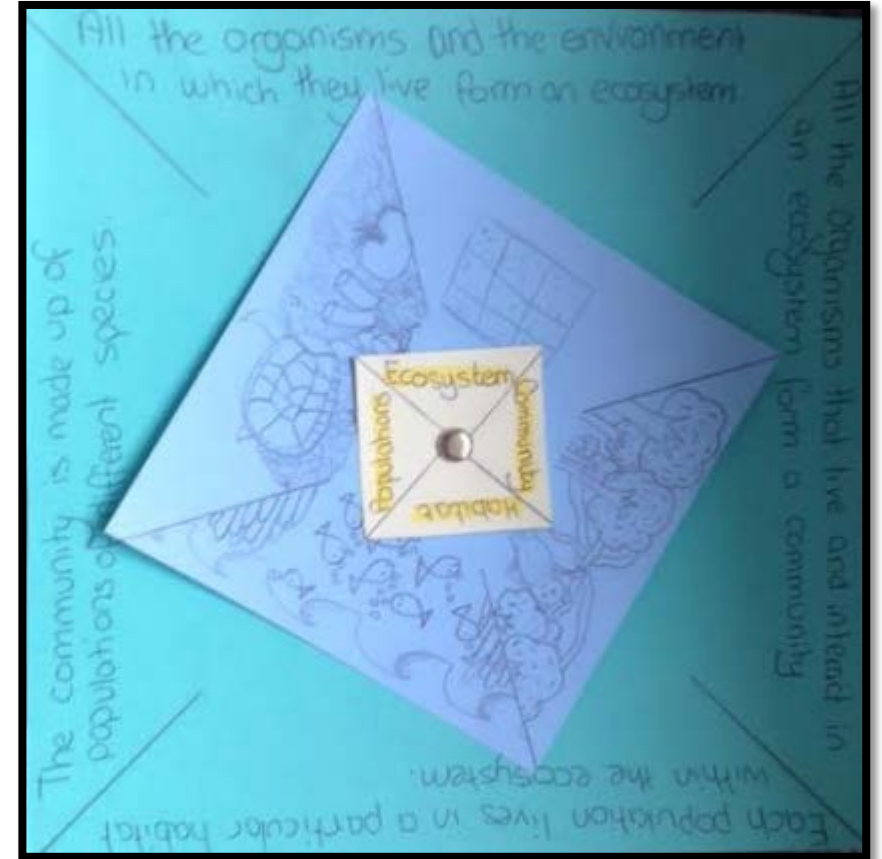
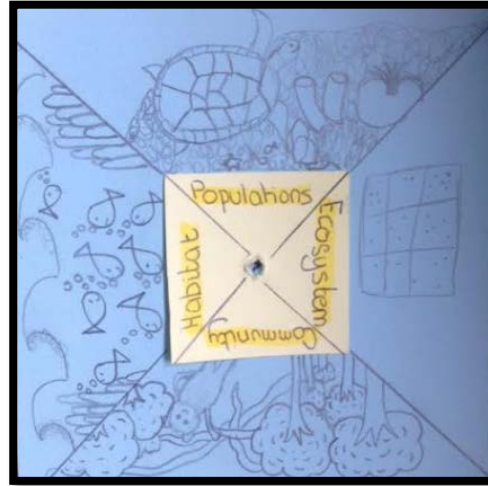
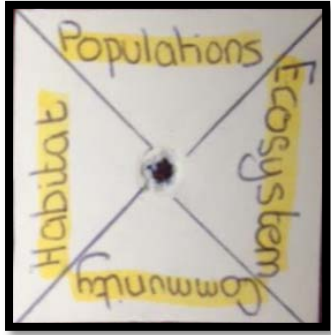


LATER – pupils use the pictures as prompt to “quiz” understanding and the explanations as a mark scheme

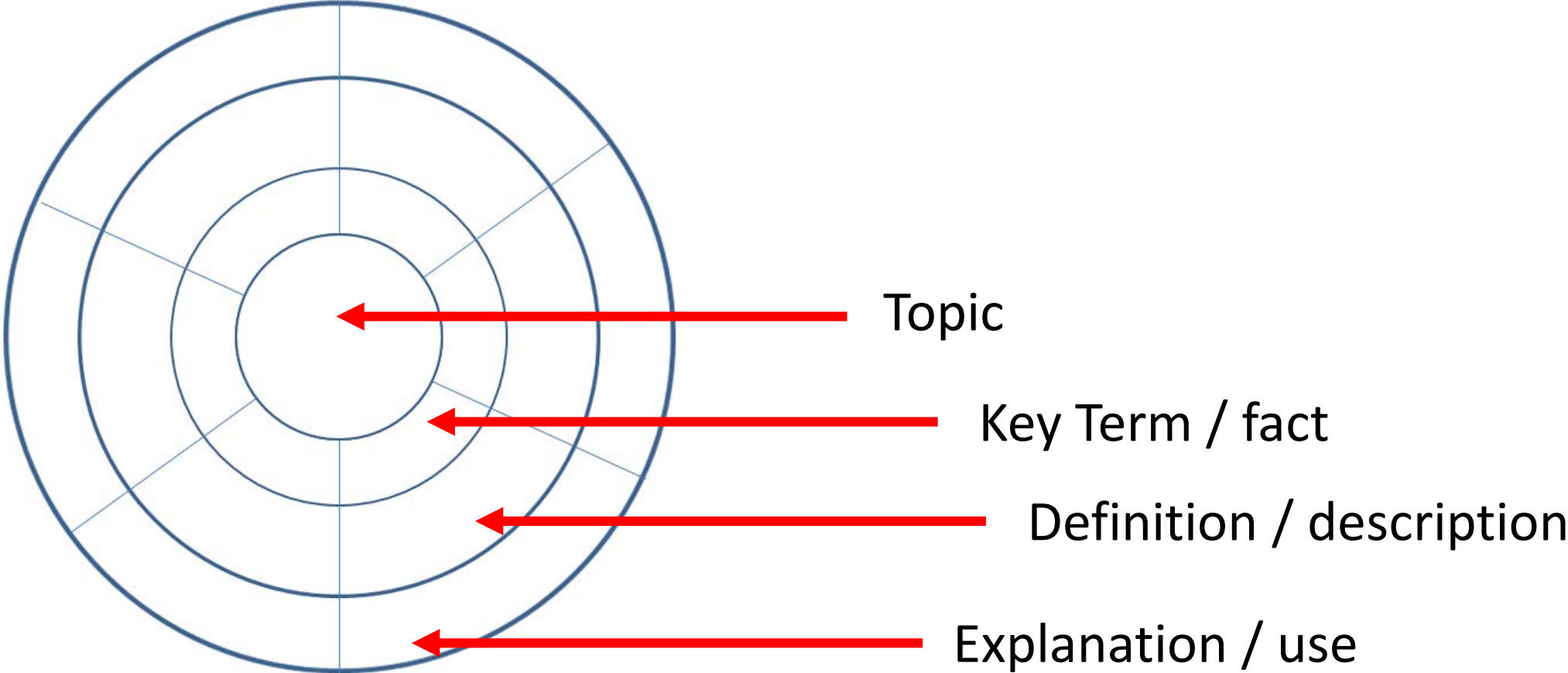
Some more FUN with Foldables

- Quizzing wheels

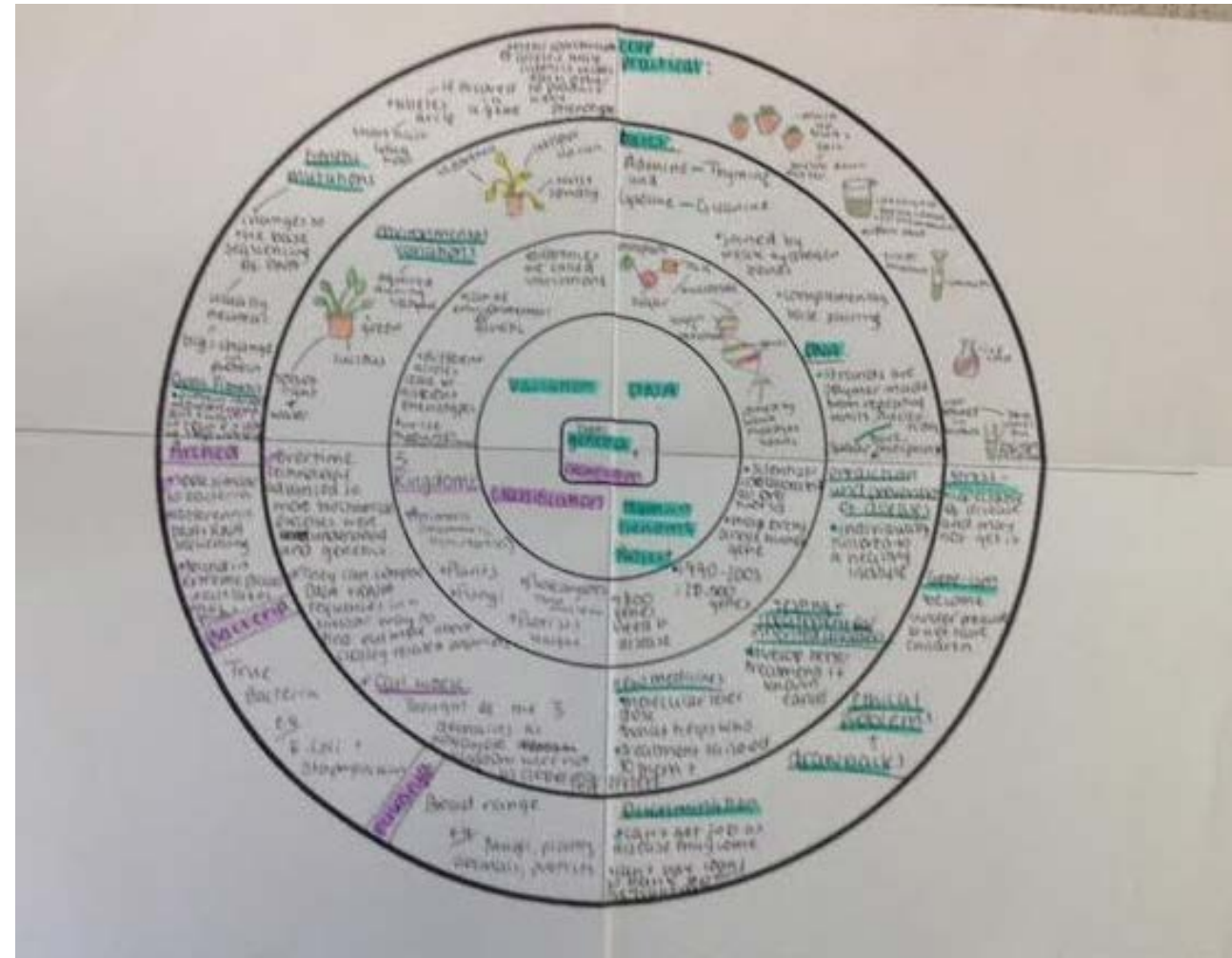
Some more FUN with Foldables



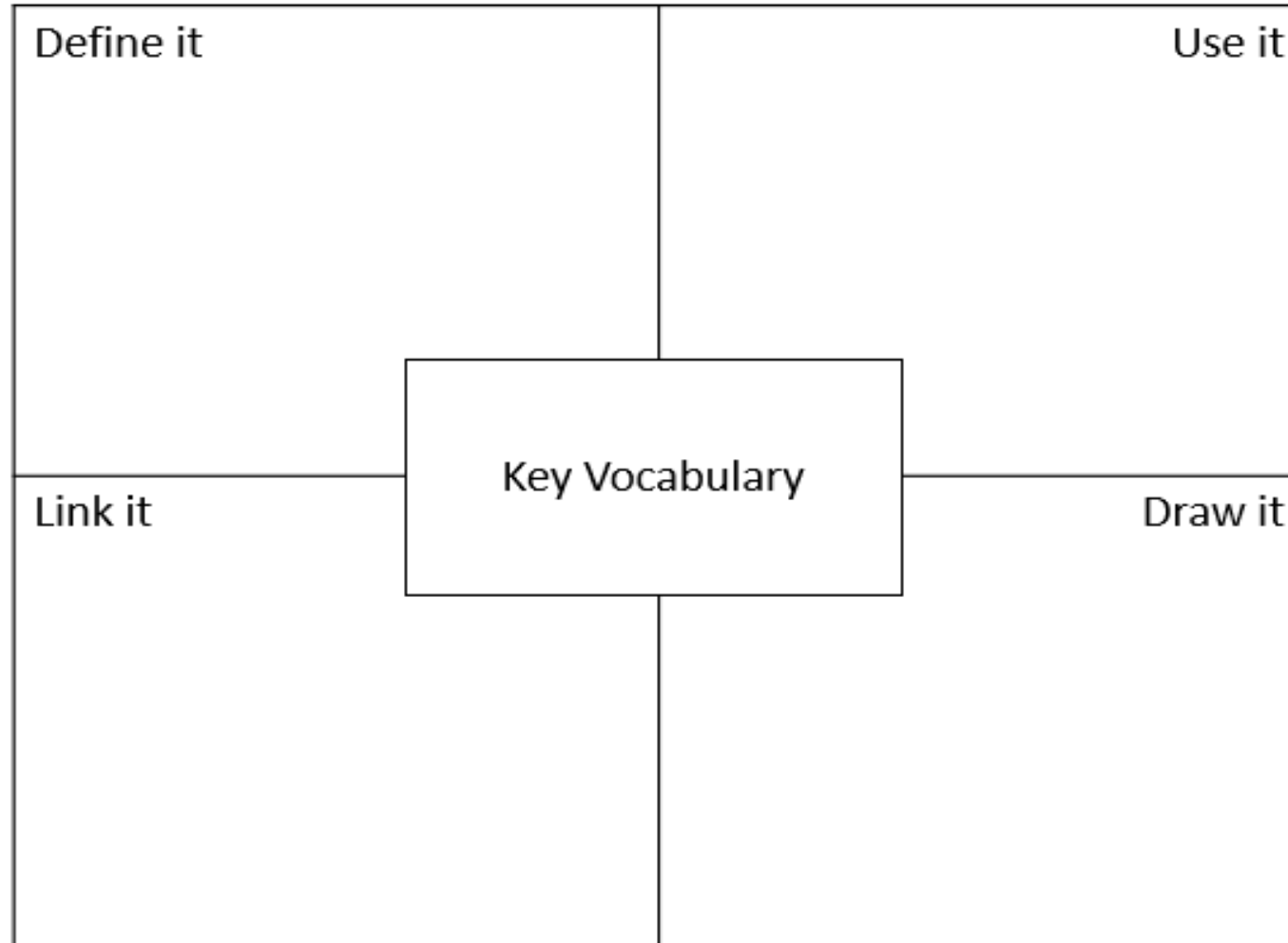
Dart Boards



Dart Boards



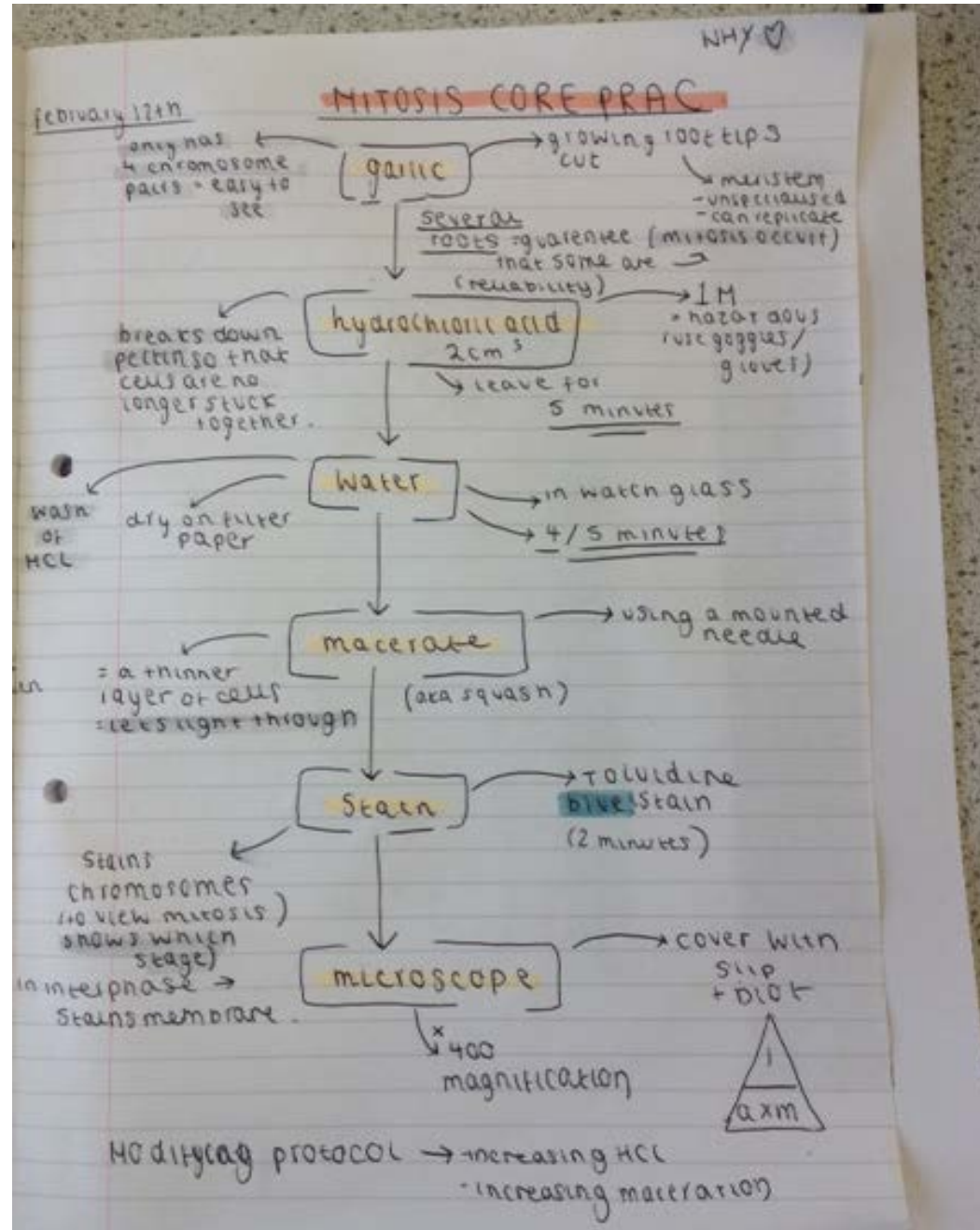
“Frayer” Models



Mapping – Try to organise thoughts into logical sequences

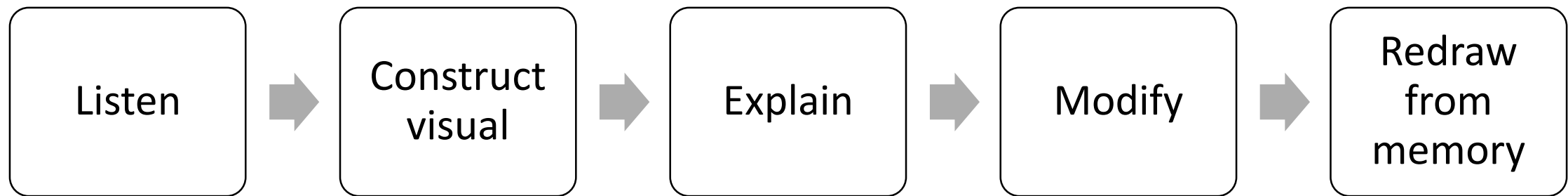
- Flow charts
- Spider diagrams
- Mind maps

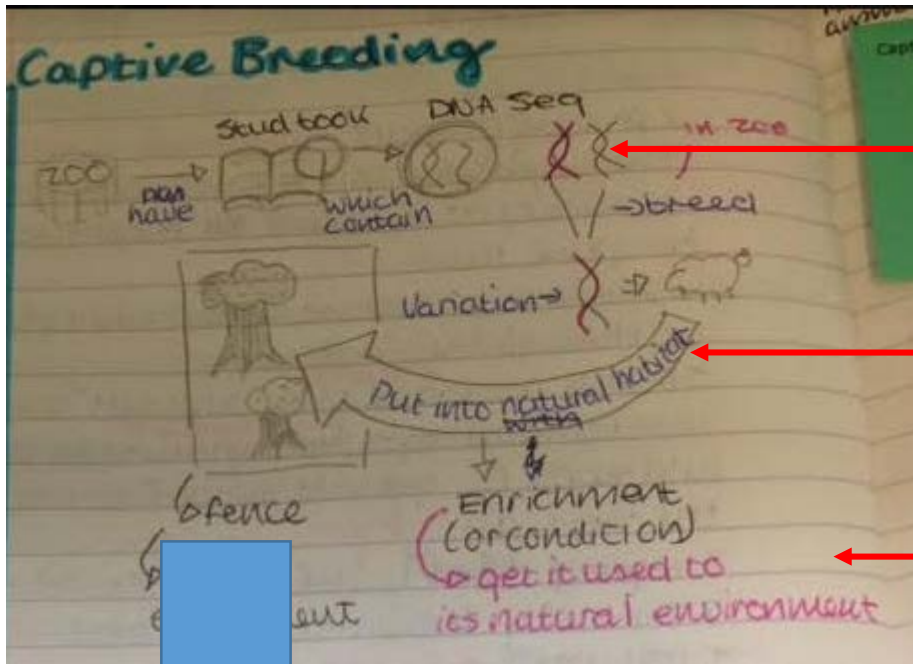
Flow Bubbles



Use our work to get kids talking ...

Recount and Redraw

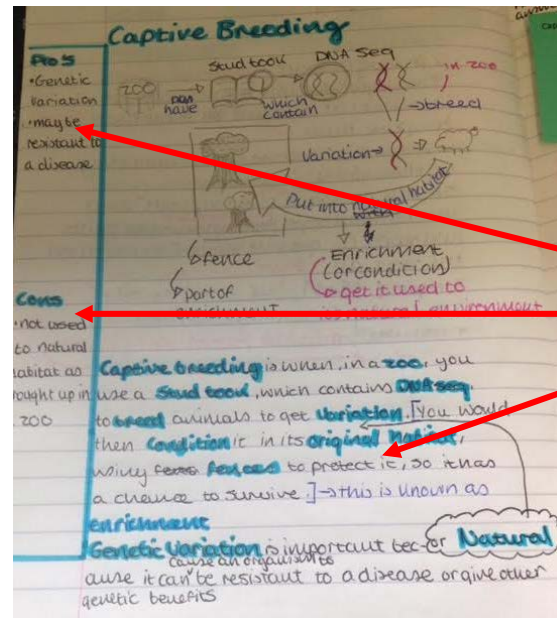
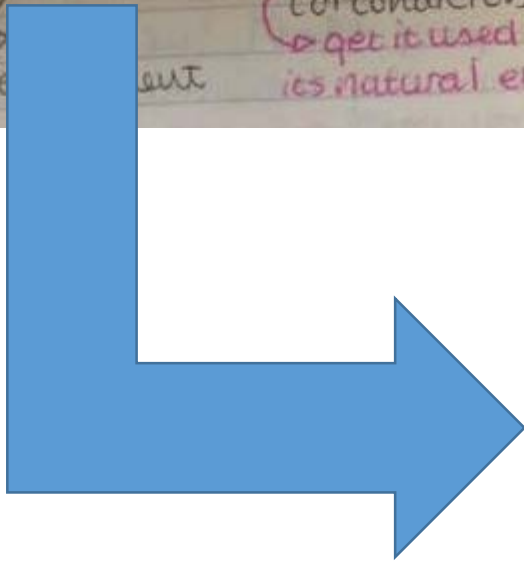




Visual

Text added during explanation

Modification after listening to others



Applied later from memory

The WHY is more important than the WHAT

