Year 8 – Task 1 – Communicating Research Task

Context:

Life has conquered every environment of the planet. The ecosystems that have formed on Earth are as diverse and intricate as the organisms that forms them. Each organism occupies a special role in its environment, and it is finely adapted to suit its role and survive whatever challenges nature can throw at them.

Task:
You need to select ONE of the following **Groups** and research all the *Sub-groups*:

Group	*Sub-groups*
Vertebrates	*Fish, Amphibians, Reptiles, Birds, Mammals*
Invertebrates	*Arthropods, Cnidaria, Echinoderms, Molluscs, Worms*
Plants	*Algae, Bryophytes, Pteridophytes, Gymnosperms, Angiosperms*

❑ You will display your information in the form of a poster, report or PowerPoint/Slides presentation. You should present your information in a way that someone who has not heard about this topic would understand. Final posters/reports may be published on the School's Facebook/Newsletter with your permission.

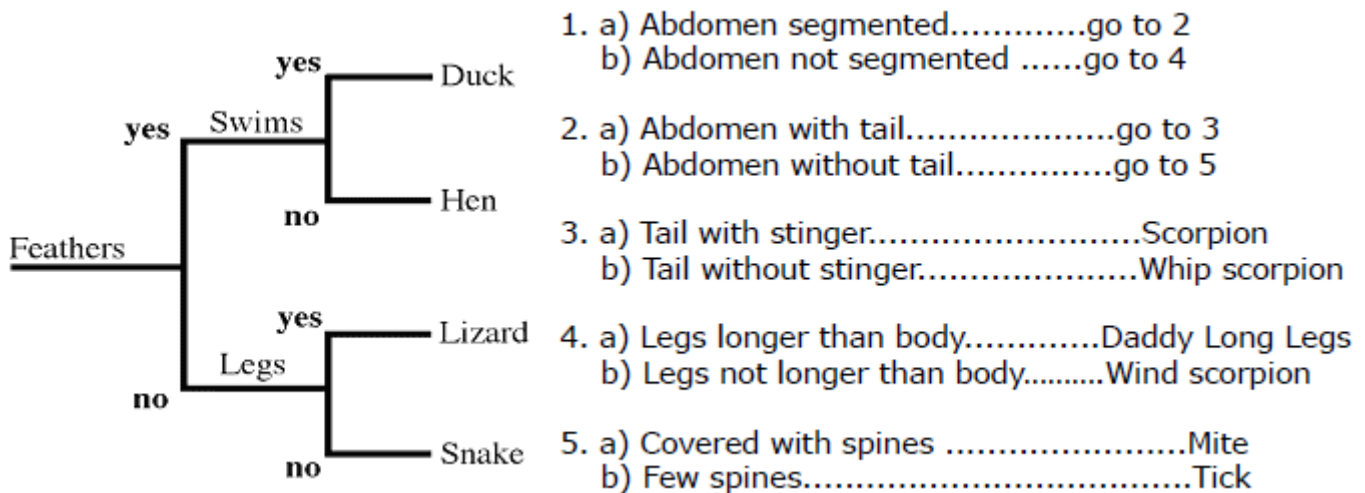❑ For your selected group and sub-groups, you need to provide the following:

Information	Sub-group 1 e.g. Algae	Sub-group 2 e.g. Bryophytes	Sub-group 3 e.g. Pteridophytes	Sub-group 4 e.g. Gymnosperms	Sub-group 5 e.g. Angiosperms
At least **two features** that characterise the organisms in each sub-group	e.g. Algae are able to photosynthesise to create their own energy.				
An example of an organism with a colour picture, diagram or drawing.					
An explanation of how at least one of the features listed above helps the organism survive in the environment.	e.g. Being able to photosynthesise means that algae are not reliant on other organisms for their continued survival. They only need to be able to obtain the materials needed for photosynthesis.				

❑ You should create one dichotomous key classifying all the sub-groups of your selected group based on similarities and differences in features.

❑ You should have at least 3 references showing where you found your information. This should be included in list form using an appropriate format. www.citethisforme.com is a helpful resource you can use. If you need help, speak with your teacher.

You will be provided up to 4 lessons at school to complete your research. Any work not completed in class will need to be completed at home or during your breaks in the library.

The task needs to be submitted as hardcopy to your teacher or via the assessment tab in your class Google Classroom. If you only submit the scaffold, you will not be eligible for the marks allocated for your presentation.

Examples of some types of dichotomous keys:

1. a) Abdomen segmented............go to 2
   b) Abdomen not segmented ......go to 4

2. a) Abdomen with tail...................go to 3
   b) Abdomen without tail..............go to 5

3. a) Tail with stinger.........................Scorpion
   b) Tail without stinger....................Whip scorpion

4. a) Legs longer than body.............Daddy Long Legs
   b) Legs not longer than body..........Wind scorpion

5. a) Covered with spines ....Mite
   b) Few spines....................................Tick

Vocabulary

Word	Meaning
Organism	An individual living thing
Environment	The area/condition where a living thing lives
Invertebrates	Living things that do not have a backbone or spinal column
Vertebrates	Living things that have a backbone or spinal column
Group	Things that can be classed together because they have similarities.
Sub-group	More specific categories within a group
Dichotomous Key	A key used to identify of organisms based on a series of choices between alternative characteristics.

Scaffold

GROUP:		
Sub-group:		
Features	Example	Picture
Explanation of a feature/s:		
Reference:		
Sub-group:		
Features	Example	Picture
Explanation of a feature/s:		
Reference:		

Sub-group:		
Features	Example	Picture

Explanation of a feature/s:

Reference:

Sub-group:		
Features	Example	Picture

Explanation of a feature/s:

Reference:

Sub-group:		
Features	Example	Picture

Explanation of a feature/s:

Reference:

Key:

Marking Criteria

Criteria	Mark
Content:	
Provides at least two key features for each sub-group (0.5 marks each)	$0 - 0.5 - 1 - 1.5 - 2 - 2.5 - 3 - 3.5 - 4 - 4.5 - 5$
	$0 - 1 - 2$
Provides an example organism for each sub-group *(0 – 1 = 0, 2 – 4 = 1, all 5 = 2)*	$0 - 1$
One dichotomous key is included	$0 - 1 - 2$
Key clearly and correctly classifies each sub-group of the selected group *()*	$0 - 1 - 2$
Appropriate and effective criteria are used in the key *()*	$0 - 1$
A picture/diagram is included for all sub-groups	$0 - 1 - 2$
Pictures/diagrams are clear and named	
Provides a detailed explanation relating features of organisms to survival in their environment for all sub groups (includes; What is it; what does it do; how does it do it?) (explanation = 1, description = 0.5, max. 1 mark for each sub-group)	$0 - 1 - 2 - 3 - 4 - 5$
Sub-Total (Processing and Analysing Data)	**/20**
Presentation:	
An appropriate medium was chosen to present information	$0 - 1$
Information is organised well and easy to read	$0 - 1 - 2$
The information is communicated coherently	$0 - 1$
Referencing:	
At least 3 sources are referenced (none = 0, 1 – 2 = 1, 3+ = 2)	$0 - 1 - 2$
All sources are correctly referenced (none = 0, 1 – 2 = 1, 3+ = 2)	$0 - 1 - 2$
Sub-Total (Communicating)	**/7**
TOTAL	**/27**

Limited	Basic	Sound	High	Outstanding
$0 - 6$	$7 - 12$	$13 - 20$	$21 - 24$	$25 - 27$