**Science Home learning**

**Lesson Title: Organisation 1 Year:**

Topic: Organisation Unit: **Biology**

Date Set:

Information to read / watch:

<https://www.bbc.co.uk/bitesize/guides/zgcxsbk/revision/1>

Application:

Please see the exam-style questions that accompany this sheet. You must complete the questions and then self-assess using the mark scheme that has been provided.

Additional Websites:

<https://www.youtube.com/watch?v=VO2QkpwAG9o>

<https://www.youtube.com/watch?v=3CFsOAybTO8>



***Objective: Students should be able to explain how the structures of plant tissues are related to their functions.***

Task 2:

Complete the table below to show each part of the leaf organ is adapted to its function

|  |  |  |
| --- | --- | --- |
| Leaf Structure / Cell | Function | Adaptation |
| Waxy Cuticle |  |  |
| Epidermis |  |  |
| Palisade Mesophyll |  |  |
| Spongy Mesophyll |  |  |
| Stomata |  |  |
| Guard Cell |  |  |

***Objective:*** ***Students should be able to explain how the structures of plant tissues are related to their functions.***

**Task 3:**

Leaves are made from layers of cells.

The diagram shows a section through part of a leaf.



Identify each layer and explain how that structure is adapted to its function.

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**Indicative Content:**

**Epidermis (upper)**

Waxy waterproof layer.

Reduce water loss.

Thin layer allows light to pass through

**Palisade Mesophyll**

Contains palisade cells. / lots of chloroplasts

Absorbs maximum amount of light possible.

**Spongy mesophyll**

Irregular shape / increased surface area.

Increased absorption / space creates area for diffusion of gases.

**Epidermis (Lower)**

Guard cells / Stomata

Open / close to reduce water loss / absorb carbon dioxide.

1-2

**Level 1**: some sections of the leaf are correctly identified

**or**

some of the structures have been described in terms of their adaptations

**or**

some of the structures have been described in terms of their role within the leaf.

3-4

**Level 2**: All four sections of the leaf are correctly identified

**and**

All four sections are described in terms of their adaptations with some explanation of how they relate to their functionary role.

5-6

**Level 3**: **All four** sections of the leaf are correctly identified

**and** All four sections are described in terms of their adaptations **and** how they relate to their functionary role.

