

## Worksheet

1. Class : **Grade 8** Subject: **Science** Relevant week : **2<sup>nd</sup> week of September**

2. Unit : **11 Main biological processes in plants**

3. The learning outcomes that should be gain from the lessons relevant to this week :

- I. Perform simple activities to demonstrate the osmosis
- II. Identify diffusion and osmosis as major modes of transportation in plants
- III. Accept the importance of transportation of materials in plants for existence and survival of them.

### 4.Tasks to be done by the student

- I. Read and understand the contents in page numbers 53 and 54 in your science text book.  
(11- Main biological processes in plants)
- II. Wash the soil in roots of an uprooted balsam plant carefully without breaking roots and then dip that plant in water which red ink was dissolved. Keep the system nearly for an hour and note down the observations
- III. Take a stalk of a papaya leaf (open ended) and dip in a container which is filled with a solution of salt. Keep this for few hours and note down the observations.

5. The books, websites, LMS lessons and other quality inputs (online, offline, printed) that can be refer for above activities are:

I. e -nenapiyasa

- <https://www.enenapiyasa.lk/lms/mod/page/view.php?id=26399>

II. e -thaksalawa:

- <https://www.e-thaksalawa.moe.gov.lk/moodle/mod/hvp/view.php?id=42744>
- <https://www.e-thaksalawa.moe.gov.lk/moodle/mod/hvp/view.php?id=42745>
- [https://www.e-thaksalawa.moe.gov.lk/moodle/pluginfile.php/243790/mod\\_resource/content/1/8%20%E0%B7%81%E0%B7%8A%E0%B6%BB%E0%B7%9A%E0%B6%AB%E0%B7%92%E0%B6%BA%20%E0%B6%B4%E0%B7%8F%E0%B6%A9%E0%B6%B8%2011.pdf](https://www.e-thaksalawa.moe.gov.lk/moodle/pluginfile.php/243790/mod_resource/content/1/8%20%E0%B7%81%E0%B7%8A%E0%B6%BB%E0%B7%9A%E0%B6%AB%E0%B7%92%E0%B6%BA%20%E0%B6%B4%E0%B7%8F%E0%B6%A9%E0%B6%B8%2011.pdf)

### III. Websites:

- <https://drive.google.com/file/d/1nXSIXspAUmXM0I5x5juwwYfDpMBdYXpH/view>

### IV. Youtube:

- <https://www.youtube.com/watch?v=2zOE1SplUHw&t=1193s>

## 6. Evaluation / Assessment Methodology:

**Diffusion of water molecules through a semipermeable membrane from an area of higher water concentration to an area of lower water concentration is known as osmosis.**

1)



Uproot three plants without breaking roots, wash the soil in roots carefully and dip them in separate water containers which red, yellow and blue ink are dissolved. (As shown in the figure) Take them out from solutions after few hours.

- a. What are the observations that you can have when these plants were took out from the solutions?
  - b. Explain reasons for your observations.
- 2) Explain the mechanisms which water enters the plants (Refer page numbers 53 and 54 in your text book)
  - 3) What are the methods of transportation in plants?

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