



# MONTHLY CHALLENGE

## CHEMISTRY - HIGH SCHOOL



### APPLIED CHEMISTRY

Humans take in food mainly as a source of energy because we cannot generate our own energy. Respiration and photosynthesis are energy conversion reactions that take place in the natural world. Photosynthesis takes place very close to the surface of green leaves and chloroplasts are the organelles in which photosynthesis takes place.

### QUESTION:

If humans could be able to photosynthesise, would this mean that they would no longer need to take in energy rich foods?

Explain your answer by firstly describing photosynthesis as a chemical reaction and secondly by estimating how much energy photosynthesis would provide for a humans and thirdly by answering the question.

[Note: Reminder a minimum of 5 sentences is needed for a High School answer.]

### INSTRUCTIONS:

- Due date for you to submit your answer on the Google form is by latest 17 April 2023.
- We will announce the Provincial winner for each challenge later in April.
- Solutions will be published on our website at this link - [www.ctsc.org.za/stem-clubs/](http://www.ctsc.org.za/stem-clubs/)

Please type this link into your Google search bar to answer

**<https://forms.gle/2fFYdCTtEFLNqjy27>**

(You will be asked for your name and surname, your grade and your school name.)