



# № 4 Microscopic swimmers

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Presentation quality

Theory pros & cons

demonstration

**Introduction**



**Theory**



**Demonstration**



**Conclusion**



**Solution**



**Experiment**

Change colour depending on quality of each part. Colours used - Green, Yellow and Red.



## Presentation pros & cons

### Pros

- Own pictures and proofs
- Theoretical explanation
- Photos proving theory
- Deep understanding of the problem
- comparing prokaryotic and eukaryotic flagella

### Cons

- Flagella were not visible
- There wasn't the experiment with bacteria
- wasn't enough time
- Unclarity of own position



# Presentation pros & cons

## Pros

- Goals

The theory. Theory was good she could explain how the bacterium moves, the structure of the flagellum, the mechanism of movement; the energy etc. have investigated what causes the bacterial flagella to move

There were many photos. good experiment, good microscope.

She added different chemicals

## Cons

Couldn't explain why he chose to make an experiment with eukaryotic cells

She couldn't find new information about the locomotion during the experiment. Investigate the problem experimentally. Practice was inaccurate because she didn't make different experiments with different water, didn't pay attention to the temperature, magnification. Reporter couldn't show the theory on practice


There was introduction to experiment- magnification microscope

Couldn't answer to questions, no conclusion



Thank you for your  
attention !





# Explanation of each part

Introduction - Цели задачи, озвучивание проблемы, план презентации.

Theory - Объяснение проблемы и явления, формулы.

Demonstration - графики, диаграммы, материалы использованные в эксперименте

Experiment - фотографии, вычисления(использование формул), эксперимент соответствует задаче.

Solution - выводы эксперимента(соответствует задаче)

Conclusion - подведение общих итогов

## Questions

Why did you decide to study eukaryotic cells specifically and not prokaryotic? where there difficulties in our experiment?

How did you conduct your experiment? Was it hard with magnification?

Which type of microscope did you use? How did you see the flagellum if they are tiny?

what problems were, remained unresolved?

Which liquid did you use. Why didn't you study more types for accuracy?

How did you raised the bacterium?

How did you understand that this object is a bacterium?

What is the difference between known results and yours? Between theory and practice

What did you learn about the locomotion during the experiment?

what is the main idea of your work?

.have you investigated what causes the bacterial flagella to move the tempreture