

TEL Activity - Activity Plan

Topic: **Introduction to Cells**

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Grade / Course: *Science (Biology)10*

Length of Activity: *60 minutes*

Lesson Description:

A cell is the structural and functional unit of all living organisms. All Living beings are divided into two major categories: Prokaryotic cell (Bacteria and Archaea) and Eukaryotic cell (Animal and Plant) depending on their structural complexity. The activity plan of this lesson will give you an overview of the key features of Prokaryotic and Eukaryotic cells and also allows you to distinguish similarities and differences between prokaryotic and eukaryotic cells.

Intended Learning Outcomes

After performing the activity plan of this lesson, you will be able to:

- define internal structures of a prokaryotic cell and eukaryotic cell,
- indicate similarity and differences between the two types of cells,
- Identify components of Eukaryotic cell, and
- Compare the distinguishing characteristics of animal and plant cells.

Resources/Technology – Students

Use Laptop/Smart mobile, access to the Internet, printer
Diagram Worksheet (see Page 3)

STUDENT ACTIVITIES

Read, review, respond, explore and self-assessment activities are listed following link given below (Note: You are requested to please open links using the key Ctrl+Mouse).

READ

Prokaryotic Cells

<https://openstax.org/books/biology-ap-courses/pages/4-2-prokaryotic-cells>

Eukaryotic Cells

<https://www.oercommons.org/courseware/module/14952/overview>

Animal vs plant cells

<https://www.youtube.com/watch?v=E2VVXLQ78jA>

Open Cell Structure Resource

<https://www.youtube.com/watch?v=URUJD5NEXC8>

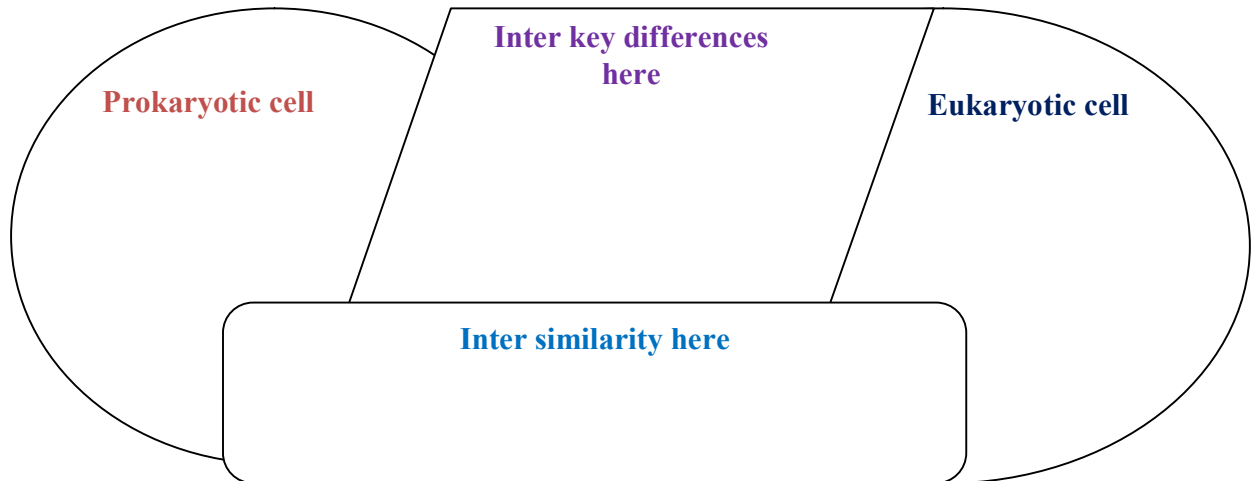
REVIEW

Prokaryotic vs. Eukaryotic Cells Video

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

RESPOND

(i) Mention the differences between Prokaryotic and Eukaryotic cells in given circle? .



EXPLORE

Use an online search engine (Google, openstax.org, Wikipedia) and find additional resources that could provide images of the two types of cells.

Here are a few: <https://openstax.org/books/microbiology/pages/3-3-unique-characteristics-of-prokaryotic-cells>

Cell Organelle Online Resources

“Eukaryotic Organelle Cell Model”

https://www.cellsalive.com/cells/cell_model_js.htm

“Bacterail Cell Model”

https://www.cellsalive.com/cells/bactcell_js.htm

ASSESS YOUR OWN LEARNING

Compleat the following worksheet online: Animal Cell model and Plant cell model-

<https://online.seterra.com/en-an/vgp/3810>

<https://online.seterra.com/en-an/vgp/3809>

While completing the worksheet, please be attentive to the key differences between the animal and plant cells.

Student Assessment

Now, you have the basic knowledge about prokaryotic and eukaryotic cells. Therefore, your last activity is to write key differences between animal and plant cells. After completing your diagram, take a photo to submit to your teacher via email.

Animal cell and Plant cell

Name: _____

Date: _____

