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Topic: Cell Membrane & Osmosis Worksheet

Summary: Students review the structures and functions of the cell membrane in regard to osmosis.

Time Length: 30 minutes

NGSS Standards: MS-LS1-2. Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.

Materials:

Class notes or textbook or online textbook

- <https://flexbooks.ck12.org/cbook/ck-12-biology-flexbook-2.0/section/2.3/primary/lesson/phospholipid-bilayers-bio/>
- <https://flexbooks.ck12.org/cbook/ck-12-biology-flexbook-2.0/section/2.12/primary/lesson/osmosis-bio/>

Prerequisite Knowledge: Students have already been taught the functions of the different cell organelles.

Procedures:

1. Give the students their lecture notes.
2. Tell the students which section they are to use in the textbook. Students are then going to read the section and answer the questions on the worksheet using their notes and the textbook.

Accommodations: Students with an IEP can take the handout home if they need extra time.

Editable DOCX File and Answer Key:

Available at www.ngsslifescience.com

Cell Membrane & Osmosis Worksheet

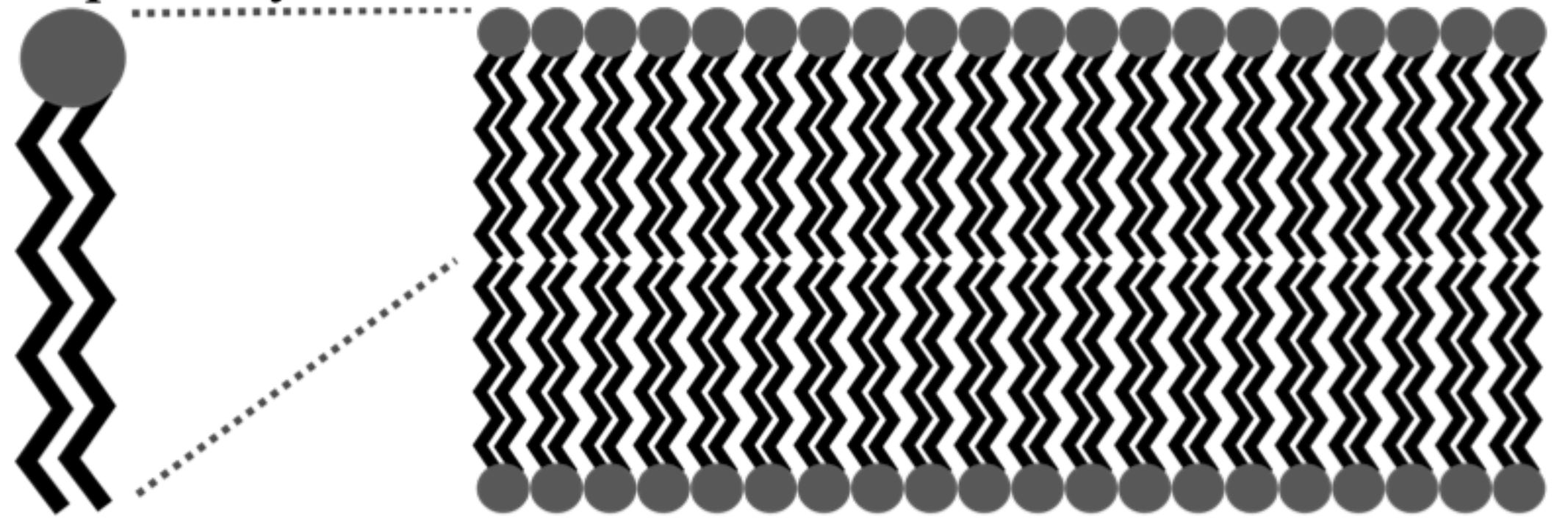
Fill in the blanks with answers that best completes the question.

1. Below is a model of a cell membrane. Draw arrows from the labels on the left to the structures in the model. Circle the lipid bilayer.

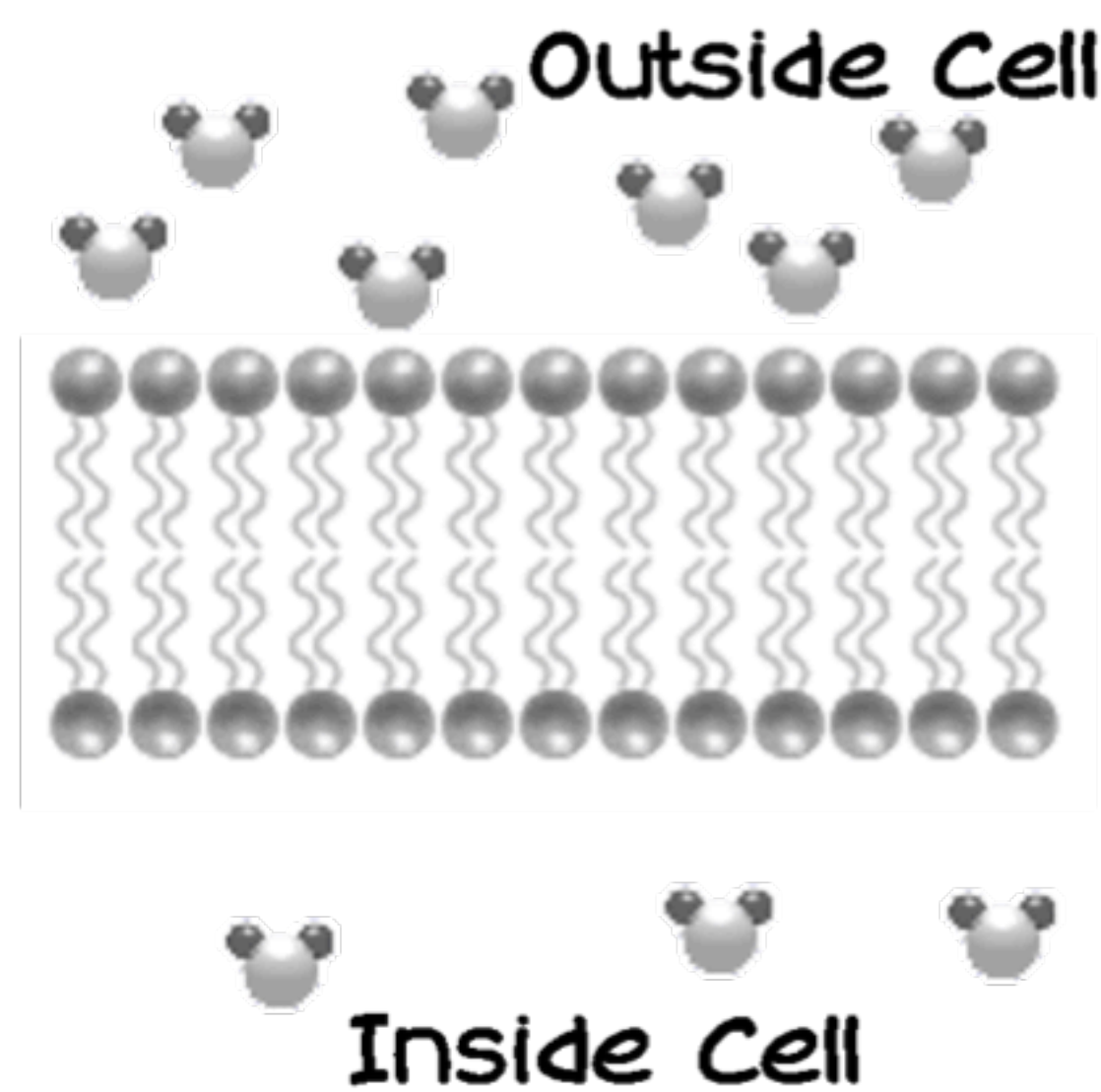
Phosphate Group Head

Fatty Acid Tail

Phospholipid



2. What is the lipid bilayer mostly made of? _____
3. The head portion of the structure in question 2 is called? _____
4. *Circle or Highlight One:* The head is *polar* OR *non polar*.
5. The tail portion of the structure in question 2 is called? _____
6. *Circle or Highlight One:* The head is *polar* OR *non polar*.
7. Below is a model of a cell membrane with water molecules on the outside and inside of a cell. Draw arrows from the labels on the right to the structures in the model.



Polar Water

Polar

Non Polar

8. What is it called when water to moves across a cell membrane? _____
9. *Circle or Highlight One:* Which direction will water move to in the model on question 7?
To the inside the of the cell OR *To the outside of the cell*
10. During osmosis, water will flow from areas of _____ concentration to areas of _____ concentration.