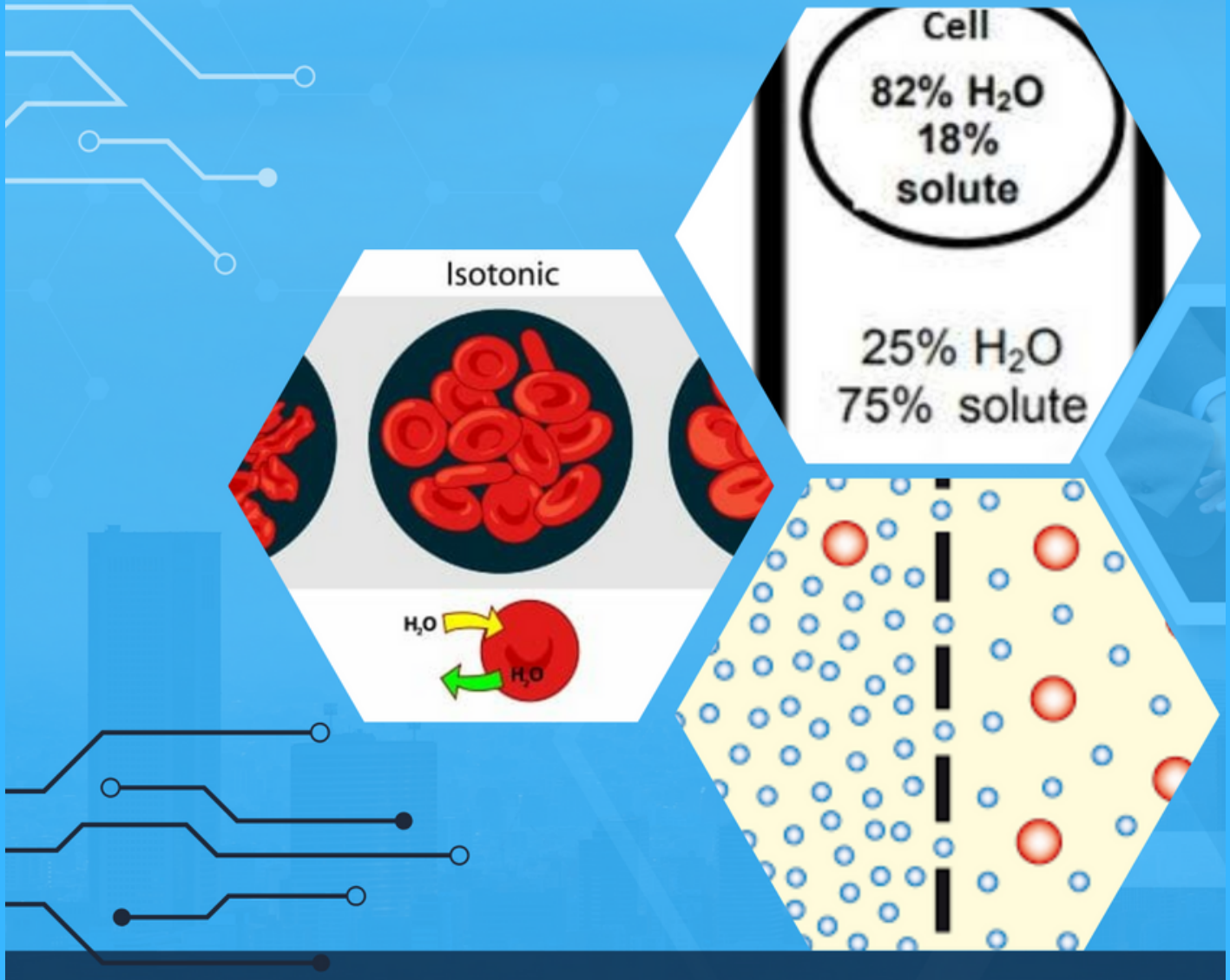
FSI Courses

Learning for Mastery Begins Here.



FSI BIOLOGY:

OSMOSIS MADE EASY

A SIMPLIFIED EBOOK AND STUDY GUIDE WITH A PRETEST, ENGAGING VIDEO, TOPIC REVIEW, INTERACTIVE ACTIVITIES, AND A POST TEST TO HELP YOU MASTER YOUR UNDERSTANDING OF HOW THE PROCESS OF OSMOSIS HELPS CELLS MAINTAIN HOMEOSTASIS.

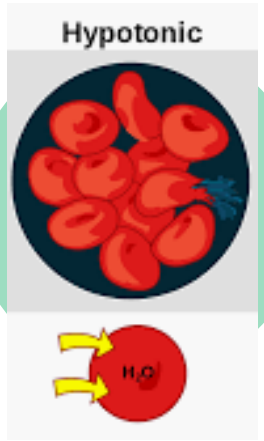
TABLE OF CONTENTS

OSMOSIS NOTES

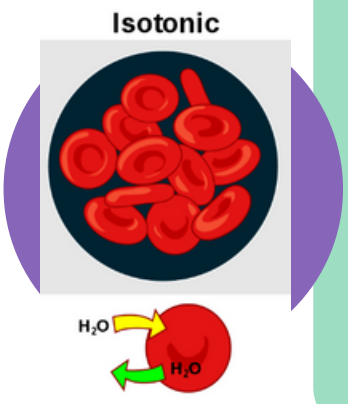
Follow along with your teacher to complete the notes and activities that follow.

TYPES OF SOLUTIONS

Water leaves from the inside of the cell to the outside of the cell. It moves from a high concentration of water to a low concentration of water to balance out the larger concentration of salt on the outside of the cell. This causes the cell to shrink and possibly die since most of the water has left the cell.



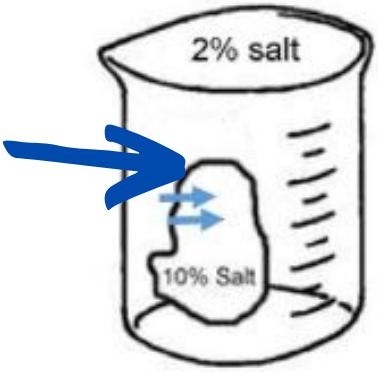
Water leaves from the inside of the cell to the outside of the cell. It moves from a high concentration of water to a low concentration of water to balance out the larger concentration of salt on the outside of the cell. This causes the cell to shrink and possibly die since most of the water has left the cell.



Water flows evenly in and out of the cell because there is a balanced amount of solute to water concentration in and out of the cell. This type of cell is in equilibrium or homeostasis.

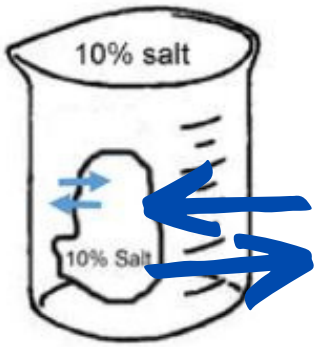
Osmosis Review Part 2

TYPES OF SOLUTIONS



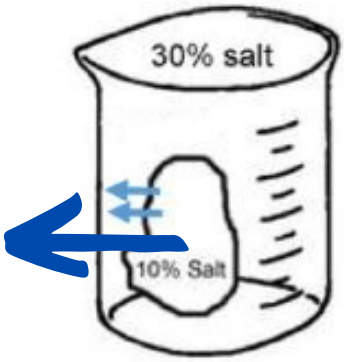
Hypotonic
Cell will swell

In hypotonic solutions there are more solutes on the inside of the cell than on the outside of the cell. Water moves into the cell to balance out the solutes inside of the cell. As a result, this causes the cell to swell and may burst.



Isotonic
Cell is in equilibrium

In isotonic solutions there is an even amounts of solutes inside and outside of the cell. As a result, water moves equally into and out of the cell. This type of cell is in equilibrium or homeostasis.



Hypertonic
Cell will shrink

In hypertonic solutions there are more solutes on the outside of the cell than on the inside of the cell. Water moves out of the cell to balance out the solutes outside of the cell. As a result, this causes the cell to shrink and may die.

OSMOSIS REVIEW GAMES

Play the following review games to help strengthen your knowledge of osmosis
Click the links below:

1.Osmosis Sorting Activity

2. Tonicity (osmosis) Labeling Activity

3. Osmosis Review Game

DIABETES & TONICITY (OSMOSIS)

You will be put into groups of three. Your group will use a trifold to research key vocabulary of diabetes and relate it to osmosis. You will put this information on your trifold by following the layout below.

Hyperglycemia	**Normal Levels**	**Hypoglycemia**
Definition	Definition	Definition
Signs & Symptoms	Signs & Symptoms	Signs & Symptoms
Glucose Blood Picture	Glucose Blood Picture	Glucose Blood Picture
Paper plate example	Paper plate example	Paper plate example
How it relates to osmosis	How it relates to osmosis	How it relates to osmosis

ABOUT THE AUTHORS

Chivas & Jordan Spivey

We are a father and son duo that began our journey of helping young men and women in their educational pursuit of greatness over 10 years ago. Since then we have made numerous educational activities. Everything from fun interactive labs, a resource website for teachers and students, over 200 Youtube science videos, and even an educational science cartoon video series. Our goal is to streamline and simplify science concepts to help the young minds of today apply their scientific knowledge and know how to bring greatness to their bright and promising future!

You can email us at fsicourses.net@yahoo.com
or scan the QR Code below.

Chivas Spivey