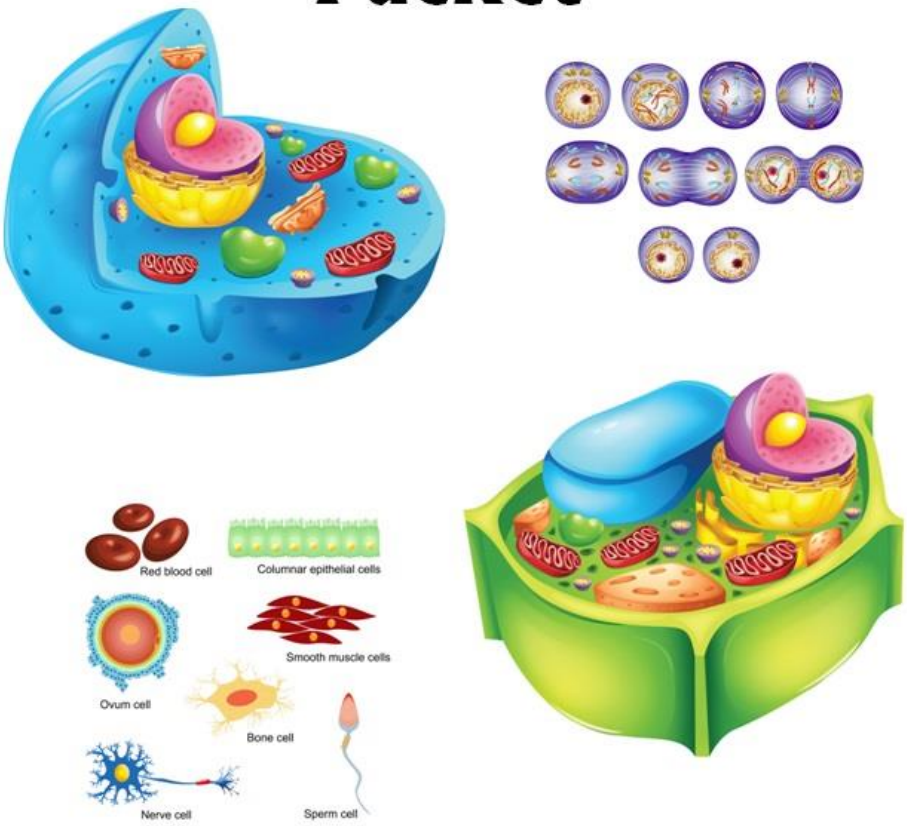
Here are some of the pages included in our Cell Packet:

Feel free to email me if you have any questions! ~Liesl Liesl@homeschoolden.com

A Study of Cells Packet



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Cell Theory Develops:

Cells are the basic unit of all living things. All living things are made up of cells. Most living things are made of many cells or are _____.
Some organisms are made of only one cell. These are _____. The invention of the light microscope around 1590 allowed scientists to see and learn about cells.

Robert Hooke: Was the first person to coin the term "cell" as used in biology, based on his observation of cork cell tissue. He thought these looked like the small rooms (or cells) used by monks in a monastery.

This illustration from a book published in 1665 shows the microscopic structure of cork:

Antonie van Leeuwenhoek observed and de
and bacteria.

It was he who discovered bacteria, free-livi
protists, sperm cells, blood cells, microscopi

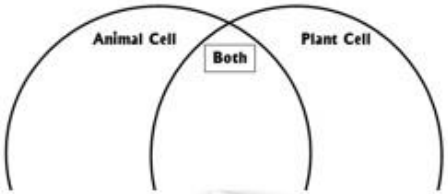
Cell Theory: In the 1800s three German scie
ideas are known as cell theory. Explain cell t

Pictured to the left is an _____
uses accelerated electrons as the so
much smaller objects than that of li

The first electron microscope was
the first practical electron microscope to be

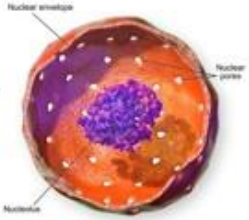
animal cell plant cell

Compare the Organelles in Plant and Animal Cells:



Organelles of an Animal Cell

1._____ 8._____



Nucleus

Classification

5 Living Kingdoms

Scientists have divided things into five main groups:

one-celled organism without an true nucleus	one-celled organism that HAS a true nucleus	mostly multicellular organisms that have nuclei and cell walls but lack chlorophyll	many-celled organisms that have cells with true nuclei, cell walls, and chlorophyll	many-celled organisms that have cells with true nuclei but lack cell walls and chlorophyll. They move about in order to eat other organisms

Draw a picture of...

a Monera (bacteria)	a Protista (like an ame paramecium)

Scientists have divided animals into invertebrates and
What are the five vertebrate groups?

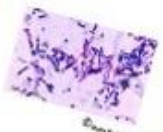
_____ _____ _____ _____

Types of Cells

There are two main types of cells:

A cell without a nucleus and most other organelles is classified as _____ cells.

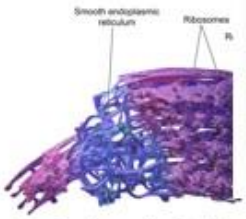
An example of this type of cell is _____



Other than bacteria, all living things in the environment are made up of _____ cells.

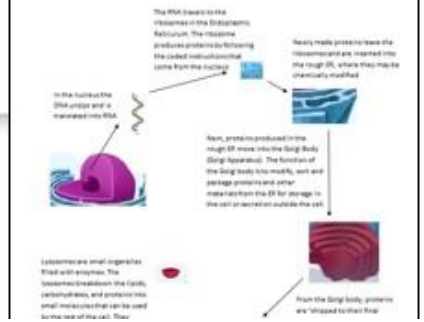
Anatomy of an Animal Cell

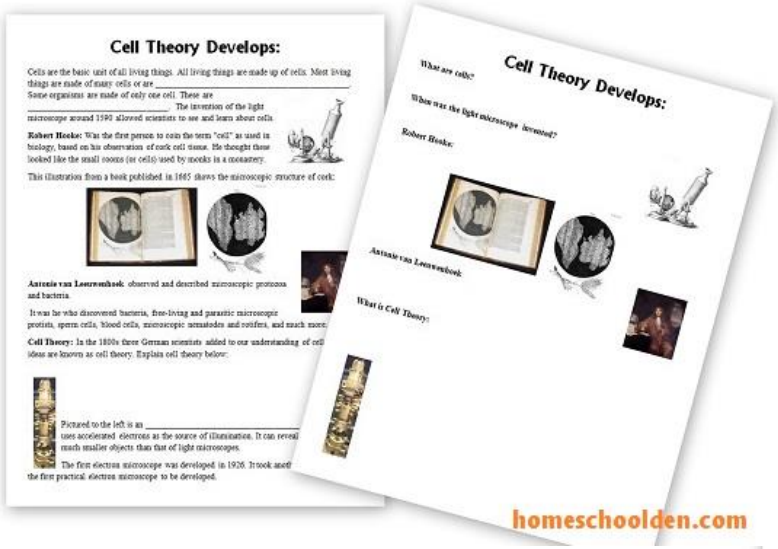
All eukaryotic cells contain _____, _____ and other organelles.

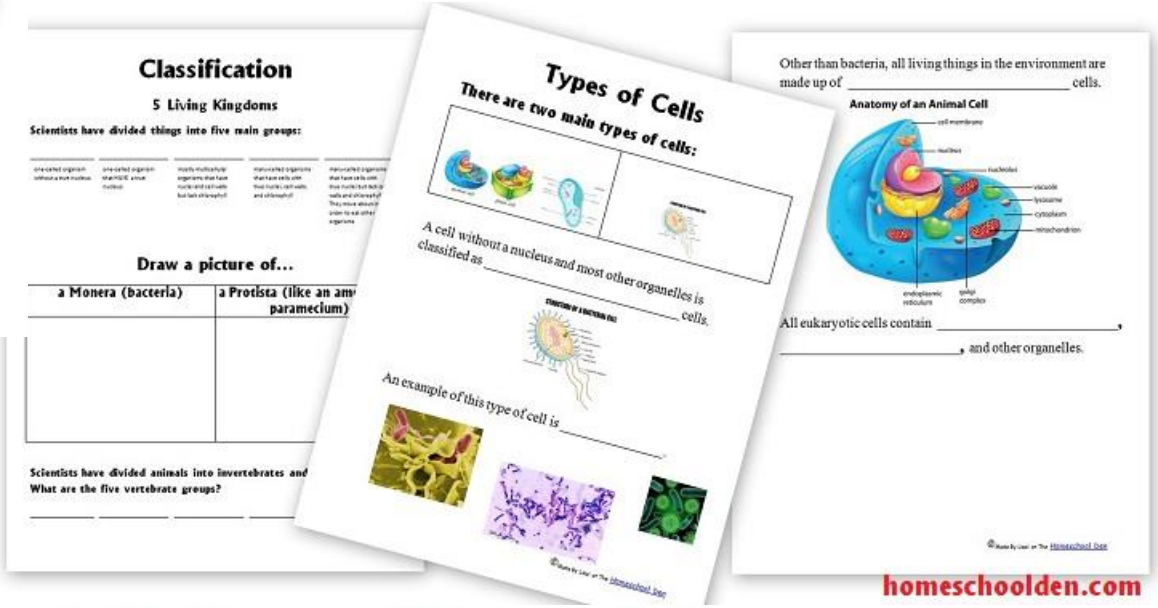


Endoplasmic Reticulum

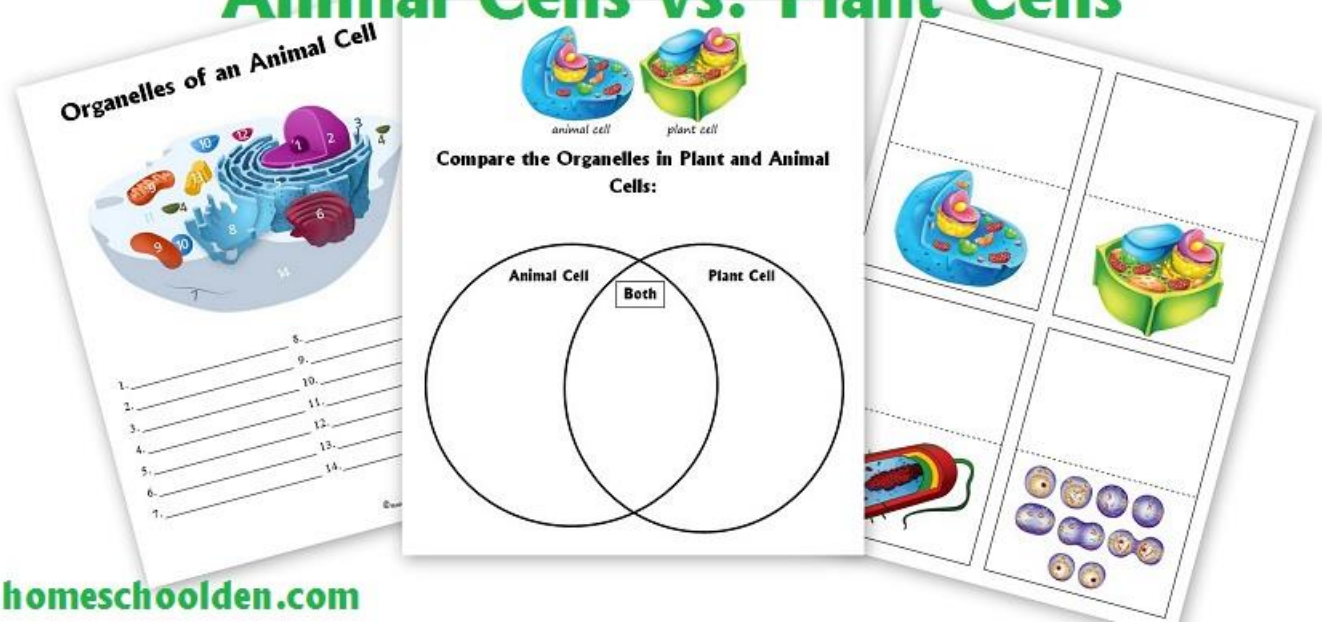
How do the organelles work together in a cell?



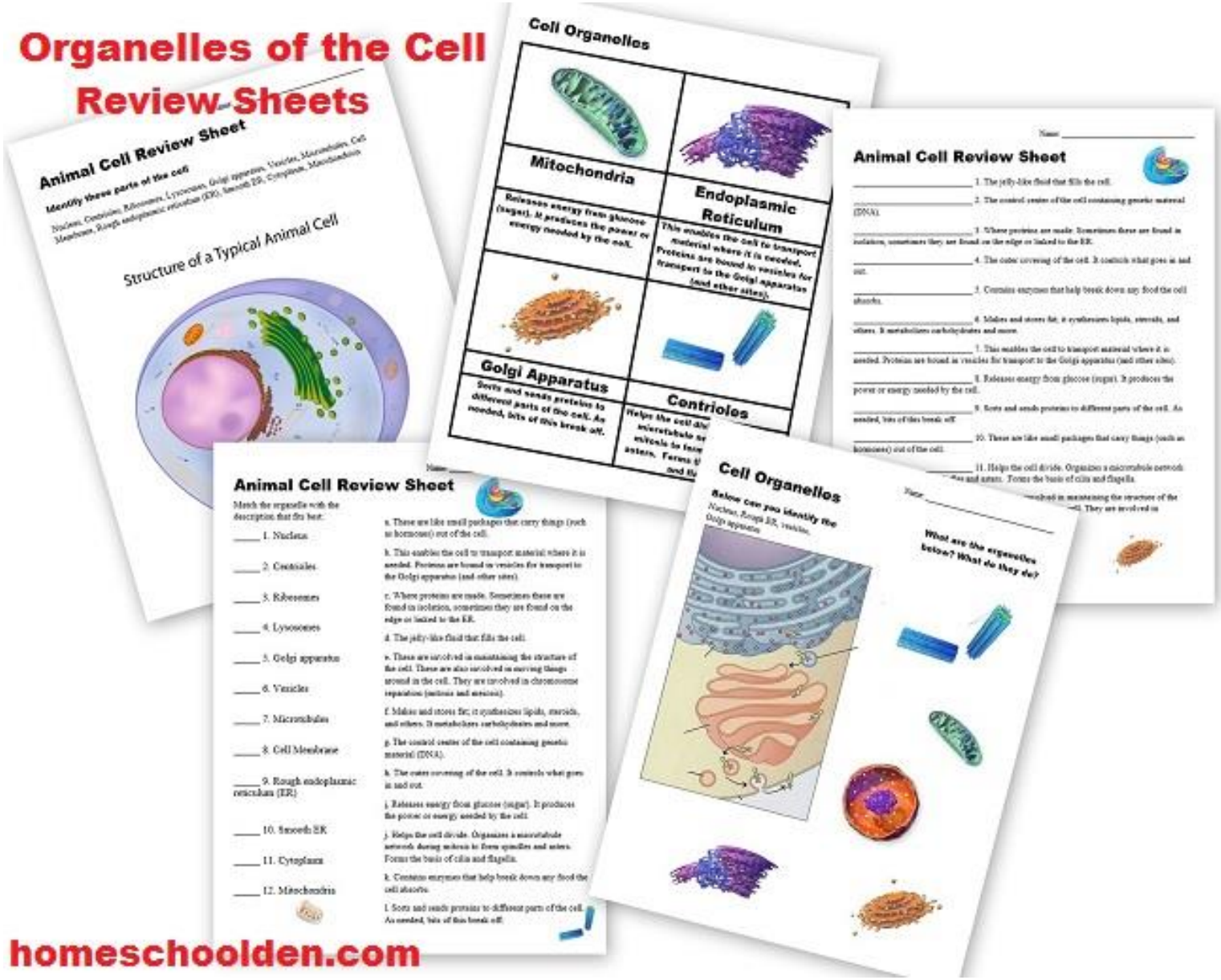




Animal Cells vs. Plant Cells



Organelles of the Cell Review Sheets



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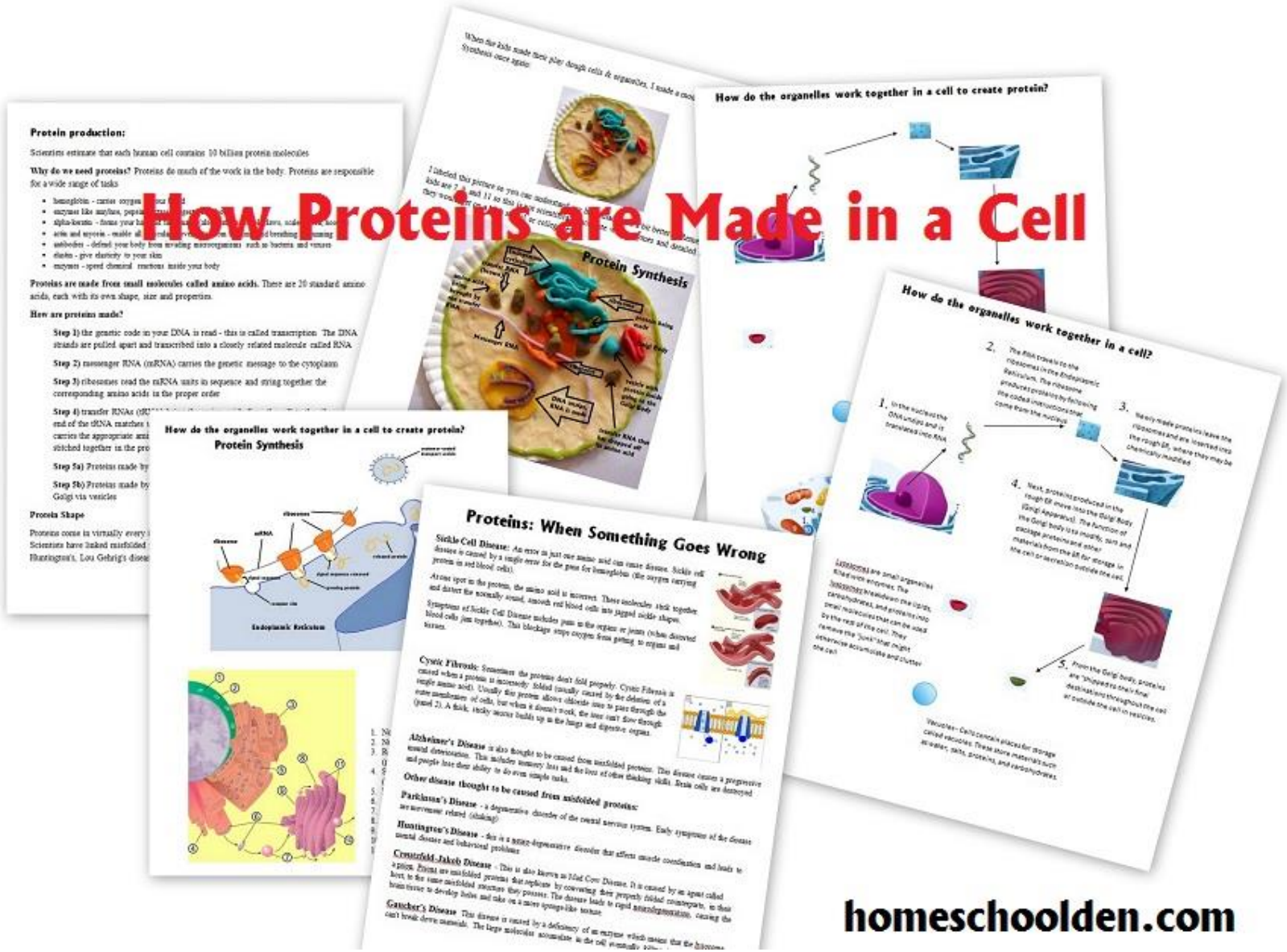
How Proteins are Made in a Cell



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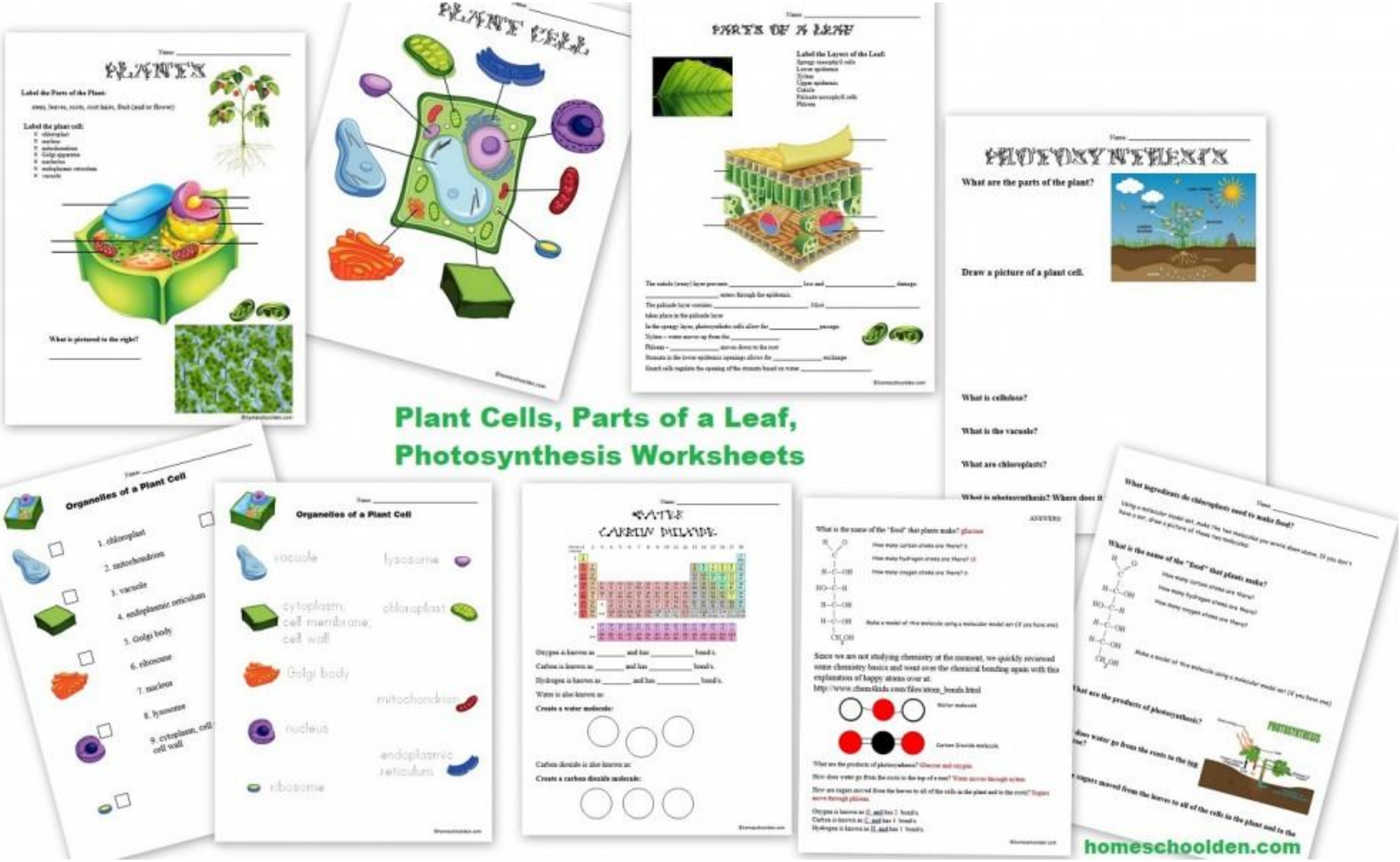
PLANTS
Label the Parts of the Plant:
Label the plant cell:
What is pictured to the right?
PLANT CELL
PARTS OF A LEAF
Label the Layers of the Leaf:
PHOTOSYNTHESIS
What are the parts of the plant?
Draw a picture of a plant cell.
What is cellulose?
What is the vacuole?
What are chloroplasts?
Plant Cells, Parts of a Leaf,
Photosynthesis Worksheets
Organelles of a Plant Cell
1. chloroplast
2. mitochondrion
3. vacuole
4. endoplasmic reticulum
5. Golgi body
6. ribosome
7. nucleus
8. lysosome
9. cytoplasm, cell membrane, cell wall
Organelles of a Plant Cell
vacuole
lysosome
cytoplasm, cell membrane, cell wall
chloroplast
Golgi body
mitochondrion
nucleus
endoplasmic reticulum
ribosome
WATER
CARBON DIOXIDE
Oxygen is known as _____ and has _____ bond/s.
Carbon is known as _____ and has _____ bond/s.
Hydrogen is known as _____ and has _____ bond/s.
Water is also known as:
Create a water molecule:
Carbon dioxide is also known as:
Create a carbon dioxide molecule:
ANSWERS
What is the name of the "food" that plants make? glucose
How many carbon atoms are there? 6
How many hydrogen atoms are there? 12
How many oxygen atoms are there? 6
Make a model of this molecule using a molecular model set (if you have one).
Since we are not studying chemistry at the moment, we quickly reviewed some chemistry basics and went over the chemical bonding again with this explanation of happy atoms over at:
http://www.chemfiesds.com/files/atoms_bonds.html
Water molecule
Carbon Dioxide molecule
What are the products of photosynthesis? Glucose and oxygen.
How does water go from the roots to the top of a tree? Water moves through xylem
How are sugars moved from the leaves to all of the cells in the plant and to the roots? Sugars move through phloem.
Oxygen is known as O, and has 2 bond/s.
Carbon is known as C, and has 4 bond/s.
Hydrogen is known as H, and has 1 bond/s.
What ingredients do chloroplasts need to make food?
What is the name of the "food" that plants make?
How many carbon atoms are there?
How many hydrogen atoms are there?
How many oxygen atoms are there?
What are the products of photosynthesis?
How does water go from the roots to the top of a tree?
How are sugars moved from the leaves to all of the cells in the plant and to the roots?
PHOTOSYNTHESIS
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Newly Added Pages (pages 82 to 122):