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Plant cell coloring worksheet

Cells are the basic unit of life. Today we're going to dive into the world of plant cells. We are learning the parts of the cell and their different functions, and then put our knowledge to the test with a model of a plant cell worksheet! Our simple version of plant cell model printables is free and ready to be downloaded and printed and is a great learning resource for middle and high school students. Let's get started! Let's learn the parts of a plant cell! The Kids Activities Blog coloring pages have been downloaded over 100K times in just the last year! Download here -> Model of a Plant Cell Worksheets You probably already know the parts of a plant cell, but let's see what important role each part plays! Nucleus: It holds all the important genetic information. Large central vacuole: It holds water and other stuff the cell needs. Chloroplasts: They use light energy to make food for the plant through the process of photosynthesis. Cell wall: It gives the cell structure and support. You won't find this in animal cells! Mitochondria: They're the powerhouse of the cell, they turn food into chemical energy the cell can use. Cell Membrane: It allows the entry of nutrients and exit of harmful substances and helps maintain the shape of the cell Vacuole: It helps the plant stand tall by creating something called turgor pressure. Download and print our model of a plant cell worksheet. Our first model of a plant cell coloring page features a picture of a plant cell with blank spaces and a word bank to choose words from. After learning each part of the plant cell, fill in the blanks with the corresponding word. Once you're done, grab your crayons and make this coloring sheet bright and vibrant. MODEL OF A PLANT CELL COLORING PAGE WITH ANSWERS How many did parts you get right? Our second model of a plant cell coloring page serves as the key to your puzzle so you can check your answers and tally up your correct answers. We've learned the main parts of a plant cell, where they keep their genetic material, and how they're structured. But here are more interesting facts for you to learn! Plant cells have membrane-bound organelles which are like mini factories. Each organelle has a specific job, like the rough endoplasmic reticulum (ER) with ribosomes for protein synthesis, and the smooth ER that makes lipids and detoxifies the cell. The main difference between plant and animal cells is the presence of plant cell walls, which are like an extra protective layer. They offer structural support and help maintain the cell's shape, like the walls of a building. Plant cells often have a double membrane, consisting of an outer membrane and an inner membrane around certain organelles. This double layer adds extra security, ensuring that important things stay inside while keeping harmful substances out. DOWNLOAD PRINTABLE Model of a Plant Cell Coloring Pages PDF FILE Model of a Plant Cell Printables This article contains affiliate links. Did you know the answers to our model of a plant cell worksheet? Kids and plants have one thing in common: they both like dirt! Let's explore plant cells with this fantastic plant cell coloring worksheet. Learn all about plant cells and their parts up close in detail on this worksheet. And as you color the different parts, you can guide your student in matching up plant cell part with function. >> See more plant activities for kids This post may contain affiliate links meaning I get commissions for purchases made through links in this post. Read my disclosure policy here. Printer (I love my printer, I use this one!) Paper Pencil crayons I have the HP printer 8710 but it's not available anymore. It's still running well for years now. Look for another HP Instant Ink ready printer so that you can use their program to send you ink cartridges whenever your printer gets low on ink. There are tons more to learn about plants and plant cells, so check out these books! Christina Examines Plant Cells and Animal Cells (Science Alliance)From Seed to PlantDK Eyewitness Books: Plant. Discover the Fascinating World of Plants from Flowers and Fruit to Plants That StingUp in the Garden and Down in the DirtPlant the Tiny SeedThe Tiny Seed (The World of Eric Carle) And now that you know all about how plant cells work, try growing your own plants. You can grab some seeds from your local garden shop and find yourself a plot of dirt. Or maybe one of these fun kits will spark your child's green thumb. Mr. Sprout Sunflower Starter Kit - Plant Growing Kit for Kids, Adults Or Gift Idea - Flower Seed Starter Kit Includes Peat Pots, Nutrient Rich Soil Pellets, and Plant TagsDan&Darci Paint & Plant Flower Growing Kit - Grow Cosmos, Zinnia, Marigold Flowers - Includes Everything Needed to Paint and Grow - Great Gift for Children STEMSproutbrite Wildflower Seed Starter Kit - Sunflowers Daises & More - Grow Your Own Mini Flower Garden - Gardening Gift Kit for Growing Indoors or OutdoorsThames & Kosmos Kids First Botany - Experimental Greenhouse KitTickleMe Plant Deluxe Greenhouse Kit with 6 Color Paint Set for Kids with 10 Fun Activities. Grow The House Plant That Closes its Leaves & Lowers it Branches When Ticked! Great Science ActivityToysmith Deluxe Root Viewer (Packaging May Vary) All cells have similar structures. There's the cell walls, nuclei, cytoplasm, and mitochondria. These four parts offer the basic structure of a cell, whether plant, animal or microbial. A cell wall is an obvious structure that surrounds the cell. It performs the same functions for the cell that your skin does for your cell. It protects the cell from outside toxins while offering openings (vacuole) to let in nutrients and let out wastes. Plant cell walls have "cellulose" that helps them keep that rectangular structure. And that's why plant parts tend to be stiffer in general, rather than flexible like our skin. On the plant cell coloring worksheet, your child should color the cell wall brown, and the vacuole pink. Nuclei are the control centers for every cell - the "brain". A nucleus (singular of nuclei), contains the DNA (deoxyribonucleic acid - try saying that 5 times fast!), the "code" that tells the cell what to make when to make it and how to make it. On the plant cell coloring worksheet, color the nucleus red. And maybe encourage your student to trace out the DNA inside the nucleus. Cytoplasm is the goopy stuff in the middle of the cell that all the other organelles float around in. It's made up of water, salt, minerals, cell wastes, proteins and a whole host of other stuff (but mostly salt and water). Learn more about cytoplasm here. You can color it blue on the plant cell coloring worksheet. Mitochondria are the mini power plants of the cell. It's in the mitochondria that food gets turned into usable energy for cells. It actually has it's own form of DNA, and scientists aren't quite sure how the chemistry works inside the mitochondria yet. For more details, check out this video on mitochondrial functions. You can color the mitochondria purple on the plant cell coloring worksheet too. Unlike animal cells, plant cells have chloroplasts. They should be green on your plant cell coloring worksheet because they really are green. Inside a chloroplast is the chlorophyll that gives most plant parts their characteristic green color. Chlorophyll is the chemical that captures the sun's energy and combines it with carbon (from carbon dioxide) and hydrogen (from water) to make sugar, in the process known as photosynthesis. This process is unique to plants, and it's part of what makes plants so special. Don't worry if you don't remember which organelles are found inside the cell, these plant cell worksheets include a plant cell coloring answer key to correct your child's work. Go ahead and print out this plant cell coloring sheet to learn about all of the different organelles found inside the plant cell. This is the perfect way to learn all of the cell parts. Learn all about plant cells with these fun and free printable plant cell worksheets! This is such a fun activity to do in the spring. Color in and label the parts of a plant cell as you explore what makes plant cells different to animal cells. Pair it with these other plant experiments for more educational fun! Pin There are nine plant worksheets that come in this free printable pack... All About Plant Cells The role of plant cells in photosynthesis A blank plant cell diagram for kids to label Plant cell diagram answer key Plant cell crossword puzzle Plant cell crossword answer key Plant cell coloring sheets Plant cell activity instructions Use the worksheets from this pack (free download below) to learn, label, and apply the parts of a plant cell. Students can see the structure of the plant cell, and then color, cut out and paste the parts to the plant cell worksheet! Note: With this activity, you can get as creative as you want or as time allows. Use construction paper or other forms of media along with any mediums you like to create your cells! Plant cell coloring sheets Colored pencils Watercolors Scissors Glue stick STEP 1: Print out the parts of a plant cell worksheets. Pin STEP 2: Color each part with colored pencils or watercolor paints. Pin Pin STEP 3: Cut out the different parts of the cell. Pin STEP 4: Use a glue stick to attach each part of the cell inside the cell wall. Pin Can you identify what each part of the plant cell does? Pin Plant cells are fascinating structures that play an important role in the life of all plants. Plant cells have several unique features that allow them to carry out photosynthesis, produce and store energy, and keep the plant's shape in tact. Learn about the structure of plant cells with this printable 3D plant cell diorama. Plant cells are different to the cells of animals. That's because they include a few things that animals cells don't. Learn about the organelles of a plant cell below and why they are important for the plant to function. Cell wall. This is a tough, rigid structure that surrounds the cell membrane and provides support and protection for the cell. In plants, the cell wall is made of cellulose. Cell Membrane. This is a thin barrier that surrounds the cell and acts as a guard for the cell. It controls what molecules are allowed in and out of the cell. Chloroplasts. These are small, green structures found in the cytoplasm of plant cells that are responsible for photosynthesis. Vacuole. This is a large, central space filled with water and dissolved substances. In plant cells, vacuoles help maintain water balance. Nucleus. This organelle contains the cell's genetic material or DNA. Endoplasmic reticulum. A large folded membrane system that puts together lipids or fats and creates new membranes. Golgi apparatus. It changes and packages proteins and lipids for transport throughout the cell. Mitochondria. An energy molecule that provides power to almost every function throughout the cell. Compare plant cells to animal cells with this animal cell coloring sheet and animal cell diorama. Here are some more hands-on learning activities that would be wonderful additions to include with these plant cell coloring sheets! How Do Plants Breathe - This fun science experiment is a great way to teach kids about plant respiration. All you need are some green leaves and water to observe how plants breathe. This is a great activity to do outdoors too! Leaf Veins - Learn about how water travels through the veins in leaves with this easy to set up science activity. You will need a jar of water, various leaves and food coloring. Celery Experiment - Plants and trees couldn't survive without capillary action. Think about how large tall trees are able to move a lot of water up to their leaves without a pump of any kind. Set up a celery experiment with food coloring to show how water travels through a plant using capillary action, cohesion and surface tension. Want to explore plant cells even further? Try these hands-on activities! Looking to learn more about plant through hands-on experiments? Look through our Plant Experiments for Kids resource. Compare to an Animal Cell. Download our Animal Cell Coloring Printable and compare it to a plant cell. Discuss the key differences, like cell walls, chloroplasts, and vacuoles. Pin Pin Pin Pin Pin Kids and plants have one thing in common: they both like dirt! Let's explore plant cells with this fantastic plant cell coloring worksheet. Learn all about plant cells and their parts up close in detail on this worksheet. And as you color the different parts, you can guide your student in matching up plant cell part with function. >> See more plant activities for kids This post may contain affiliate links meaning I get commissions for purchases made through links in this post. Read my disclosure policy here. Printer (I love my printer, I use this one!) Paper Pencil crayons I have the HP printer 8710 but it's not available anymore. It's still running well for years now. Look for another HP Instant Ink ready printer so that you can use their program to send you ink cartridges whenever your printer gets low on ink. There are tons more to learn about plants and plant cells, so check out these books! Christina Examines Plant Cells and Animal Cells (Science Alliance)From Seed to PlantDK Eyewitness Books: Plant. Discover the Fascinating World of Plants from Flowers and Fruit to Plants That StingUp in the Garden and Down in the DirtPlant the Tiny Seed (The World of Eric Carle) And now that you know all about how plant cells work, try growing your own plants. You can grab some seeds from your local garden shop and find yourself a plot of dirt. Or maybe one of these fun kits will spark your child's green thumb. 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Chlorophyll is the chemical that captures the sun's energy and combines it with carbon (from carbon dioxide) and hydrogen (from water) to make sugar, in the process known as photosynthesis. This process is unique to plants, and it's part of what makes plants so special. Don't worry if you don't remember which organelles are found inside the cell, these plant cell worksheets include a plant cell coloring answer key to correct your child's work. Go ahead and print out this plant cell coloring sheet to learn about all of the different organelles found inside the plant cell. This is the perfect way to learn all of the cell parts. Cells are the fundamental units that make up all living things, including plants and animals. All plant and animal cells are eukaryotic, so they have several cellular processes and organelles in common. However, there are also key differences between plant and animal cells in terms of their size, their shape, and the cell structures they contain. What are the similarities and differences in plant vs. animal cells? Contain chloroplasts Do not contain chloroplasts Cell wall No cell wall Contain one large vacuole May contain several small vacuoles 10 - 30 µm 10 - 100 µm Round, irregular shape Rectangular or box-like shape Plant vs. Animal Cell Size Plant cells are often larger than animal cells. Whereas the size normal range for an animal cell is between 10 and 30 micrometers (µm), plant cells can measure anywhere between 10 and 100 µm. Plant vs. Animal Cell Shape Animal cells tend to be round with an irregular shape. This is different from plant cells, which have a fixed rectangular or box-like shape. Plant and animal cells are differently shaped Energy Storage in Plant vs. Animal Cells Both plant and animal cells store energy, but they use different molecules to do so. Animal cells store energy in the form of glycogen molecules, whereas plant cells store their energy in starch. Plant vs. Animal Cell Structures Plant and animal cells contain many of the same organelles, but some structures are only found in plant cells. Others are found in both plant and animal cells, but their functions are slightly different. Cell Wall Plant cells are surrounded by a tough, cellulose-based structure called the cell wall. The cell wall is found outside of the cell membrane of plant cells but is absent from animal cells. Chloroplasts Chloroplasts are the site of photosynthesis, which uses energy from the sun to convert carbon dioxide and water into glucose. This is how plants obtain food, so chloroplasts are a common feature of plant cells. Chloroplasts are never found in animal cells, however, as animals obtain their nutrition by eating rather than by photosynthesis. Chloroplasts are found in plant cells, but not animal cells Lysosomes Lysosomes are small, spherical organelles full of digestive enzymes that are used to break down and recycle unwanted materials. Lysosomes are also used to destroy invading pathogens. They are common in animal cells, but rare in plant cells as the tough, plant cell wall helps to keep unwanted invaders out. Vacuoles Both plant and animal cells contain vacuoles, but their structure is very different. An animal cell may contain several small vacuoles, which are usually used to store waste products. In contrast, the plant cell vacuole is very large and may occupy up to 90% of the volume of the cell. It is used to store a variety of substances (including water, sugars, proteins, salts, etc.), and helps to maintain the turgor pressure of the cell. Plasmodesmata Plasmodesmata are small channels or pores between plant cells that directly connect one cell to another. Plant cells can use the plasmodesmata to exchange molecules with one another. Plasmodesmata are only found in plant and algal cells; the animal cell equivalent is called the gap junction. Plasmodesmata are channels that connect one plant cell to another Similarities Between Plant and Animal Cells Both Are Eukaryotic Plant and animal cells are both types of eukaryotic cells, meaning they both contain a true nucleus as well as other membrane-bound organelles. Both Breathe All cells need energy to grow and function, and animal and plant cells both obtain this energy from cellular respiration. This metabolic process takes place in the mitochondria of plant and animal cells and involves the breakdown of glucose to release energy. Plant and animal cells both contain mitochondria for respiration Organelles Found in Both Plant and Animal Cells Plant and animal cells contain many of the same cellular structures, including the nucleus, mitochondria, ribosomes, endoplasmic reticulum, Golgi apparatus, peroxisomes, cytoplasm, and cell membrane.