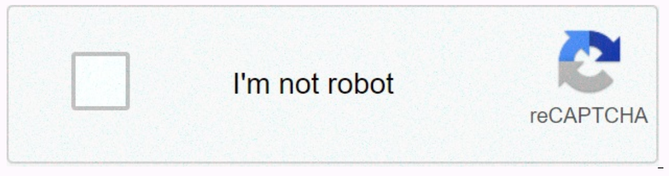

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Sheep brain dissection analysis worksheet

List and describe the main structures of the sheep brain Identify important parts of the sheep brain in a preserved sample Materials: Dissection tools, laboratory glasses, laboratory gloves, preserved specimen Sheep brains are quite similar to the human brain, except for the proportion. Sheep have a smaller brain. Also, the sheep's brain is oriented to the shadow on the posterior whereas the human brain is superior to the lower. The tough outer coating of the sheep's brain is a dura mater, one of three films (membranes) that apply to the brain. You will need to remove the dura mater from seeing most brain structures. Remove the dura mater, leaving other structures intact. The most prominent feature of the brain is the brain - which is divided into an almost symmetrical left and right hemispheres with a deep longitudinal gap. The surface of the brain is covered with large folds of tissue called gyri. Between gyri grooves is a sulci. A deeper sulci is often called fissures. Cracks are used as landmarks to divide the surface of the brain (cerebral cortex) into regions: the beacon lobe/parietal lobe/the harrow/time lobe* Find each of the lobes of the brain. The smaller, rounded structure at the back of the brain is in the cerebellum. The cerebellum has smaller gyri, which are approximately parallel to each other. Compare the gyri of the cerebelibell with that of the brain. Removing the dura mater from the cerebelibell can be a tough business. Look for areas on the side of the brain that you can cut the bark dura mater off. Turn the brain over so that the brain is down. The most prominent structure seen on the abdominal side of the brain is the visual chiasma, where two optic nerves cross each other and form an X form. Find the optical chiasma. The pituitary gland has a large round structure under the chiasma. If you have removed this area with a dura mater, you may need to replace it to see the chiasma of the pituitary gland. Against the front of the brain are two important round structures; Find olfactory bulbs. On the way to the brain, there are bulges that indicate the midbrain, pons, and spinal cord. Just behind the optic chiasma is a raised area or bump that indicates infundibulum (also known as pituitary stalk). This is where the pituitary gland was added (which was probably removed by the dura mater). The oculomotor nerves may be visible on both sides of the pituitary gland (or stalk). Or in some cases you may find them stuck on a dura mater that you removed by the pituitary gland. Carefully bend the cerebelibell to get inside a glimpse of the brain. The bumps you see (kind of resemble a butt) are superior colliculi. The smallest below them are worse colliculi. If you easily push these structures down, you can see the tiny nub pineal gland. Use a knife or scalpel to cut out the sample along the longitudinal tears. This will allow you to separate the brain in the left and right hemispheres. Lay one side of the brain on your tray to find the structures visible from the inside. You should also cut through the cerebelibell. The corpus callosum was connecting the two cerebral hemispheres and can now be clearly visible in the brain section. Tiny space in the corpus callosum (which holds the cerebrospinal fluid) is called the lateral ventricle. Underneath it, you can find the third ventricle. There are other ventricles in the brain, but they are easiest to find canned samples. The white area between these two ventricle is fornix. The fourth ventricle is the space under the cerebelly. The inferior corpus callosum has a round structure known as the thalidom. It seems almost completely centered. Just behind the thalidom is a pineal body (gland). The hypothalamus is also round in shape, but is lower and toward the front of the brain. Pons, spinal cord, cerebel 1 and spinal cord are also visible in the lateral view of the brain. Carefully separate the cerebelibell at the transverse cracks that separate it from the brain. Within the cerebelibell, locate the gazebo vitae, named after it, because the white lines resemble a tree. Use a scalpel to reduce the cross-section of the brain in the oar lobe area. You should be able to see color and texture differences in white matter and gray matter. Align the structure with the description. ___ Arbor Vitae ___Lateral Ventricle ___Optic Chiasma ___Superior Colliculi ___Dura Mater ___Cerebellum ___Pineal Dense ___Thalamus___ Pons ___ Olfactory Bulb looks like a butt for skin, covering the entire cerebral cauliflower, the area against the back of the brain behind the colliculi, looks a bit nub looks like a tree rounded part of the brain stem shaped like an X large area under the corpus callosum space fluid between the corpus callosum and fornix containing nerves, connecting to the far ahead brain LABEL brain (words above may be useful , but write them, and do not use letters. This will help you remember the structures.) Sheep brains are quite similar to the human brain, except for the proportion. Sheep have a smaller brain. Also, the sheep's brain is oriented towards the aeed in the back (more horizontally), but the human brain is oriented superior to the interior (more vertically).) Materials for dissection tools and trays, lab gloves, preserved sheep brains. Figure 10.11: Figure 10.11: The main structures of the sheep's brain cut along the longitudinal gap. Examining the external sheep brain. The tough outer coating of the sheep's brain is the dura mater, the outer film membrane that covers the brain. Remove dura mater to see most of the brain structure, but remove it carefully to leave other structures underneath it intact. Removing the dura mater from the cerebelibell at the back of the brain can be complicated. Look for areas on the side of the brain that you can cut the bark dura mater off. Note the second film membrane, arachnoid mater, under the dura mater. The cerebrum side lacks a longitudinal gap - which divides the brain almost symmetrical left and right hemispheres. But the transverse gap is clearly visible. The surface of the brain is covered with large folds of tissue called gyri. Between gyri grooves is a sulci. A deeper sulci is often called fissures. Fissures are used as landmarks to divide the surface of the brain into four loops. Find each lobe from the brain: at the frontal lobe, the parietal lobe, the back of the lobe, and the time lobe. The smaller, rounded structure at the back of the brain is in the cerebellum. The cerebellum has smaller gyri, which are approximately parallel to each other. Compare gyri of the cerebelibell with those of the brain. Carefully bend the cerebelibell to get inside a glimpse of the brain. The bumps you see are super colliculi. Smaller bumps below are worse colliculi. If you easily push colliculi down, you can see the tiny nub pineal gland. Find the pineal gland. Turn the brain over so that the brain is down. With half the brain you may need to prop it up with pins. The most prominent structure seen on the abdominal side of the sheep's brain is half the visual chiasma, which is where the two optic nerves cross each other and form the X form. You will see only half the structure. Find visual chiasma in half of your brain. You may have removed the optics to remove the chiasma with the dura mater. If you can't find it, replace the dura mater to see it's there. The pituitary gland has a large round structure under the visual chiasma, attached to the infundibulum (also known as the pituitary stalk.) Find the pituitary gland. If you have removed this area with dura mater, you may need to replace the dura mater to see it. Against the front of the brain are two important round structures, olfactory bulbs. Find them. Toward the posterior brain, so far away from the visual chiasma are three bulges that indicate three components of the brain stem, midbrain, pons, and spinal cord oblongata. Find all three. Oculomotor nerves can be seen on each side of the pituitary gland and stalk. This is another part that has been removed by the dura mater. Find oculomotor nerves. Lab Exercises 10-2 Materials For dissection tools and trays, lab gloves, canned sheep brains with dura mater removed. Figure 10.11: Figure 10.11: The main structures of the sheep's brain cut along the longitudinal gap. Examining the inner sheep brain. Use a knife or scalpel to cut the sample longitudinal crack. This will allow you to separate the brain in the left and right hemispheres. Lay one side of the brain on your tray to find the structures visible from the inside. You should also cut through the cerebelibell. The corpus callosum was connecting the two cerebral hemispheres and can now be clearly visible in the brain section. Find the corpus callosum. Tiny space in the corpus callosum (which holds the cerebrospinal fluid) is called the lateral ventricle. Underneath it, you can find another room called the third ventricle. There are other ventricles in the brain, but they are the easiest located canned specimen. Find the lateral ventricle and the third ventricle. The white area between the lateral ventricle and the third ventricle is called formix. The fourth ventricle is the space under the cerebelly. The worse corpus callosum is the thalidom. It is round and almost completely centered. Find the thalidom. Just behind the thalidom is a pineal gland. Find it. The hypothalamus is against the abdominal side of the brain. It is round but lower than the pineal gland. Find it. Find pons, spinal oblongata, and spinal cord. If you haven't already done so, use a knife or scalpel to sagittal part of the cerebeli cerebelia and find the gazebo vitae, so named because its white substance forms a pattern resembling a tree. Use a scalpel to reduce the cross-section of the brain in the oar lobe area. You should be able to see color and texture differences in gray matter (near the cerebral cortex forming the outer edge of the cross-section) and white matter (interior portions of the brain.) Get rid of your brain as per your instructor's directions. Compare sheep brains to the human brain. What will you notice about the size difference in each structure? Identify clublike olfactory bulbs on the lower surface of the water lobes of the brain hemisphere. Why are these lobes bigger in sheep than humans? Where should the longitudinal cracks lie in the sheep's brain? Check the cerebelibells. Note that the cerebelibell of the sheep is not divided lengthwise and that its cracks are directed differently. What are the anatomical terms? Rules?