LIFT AND LEARN OPPOSITES pdf

1: May the Force Be with You: Lift - Lesson - TeachEngineering

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Coloured paper, child-safe scissors, glue-stick, damp cloth for sticky fingers, Optional: Have your child pick out the colours for the paper to use. Help your child cut the hands out using scissors. Have your child glue the hand prints onto another sheet of coloured paper. Black paper and white paper, child safe scissors, glue stick, damp cloth for sticky fingers. Fold a piece of black paper in half have the longer sides of the paper horizontal and the shorter sides vertical and cut a number of slits from the middle fold to just before the outer edge without cutting all the way through. Unfold the paper and lay it horizontally so the longest side of the rectangular paper is horizontal and the shortest sides are laying vertical. Cut a number of white strips of paper out of the white paper make sure the paper is the same length as the black paper so they will be the same size. Show your child how to weave the white strips of paper over and under the horizontal slits cut onto the black paper. Start with one strip of white paper and weave it over first and then under continuing the pattern. With the next strip of white paper start by weaving it under first and then over continuing the pattern until the end. With each strip of paper, once it is woven to the end, gently slide it over to the left and then glue the loose flaps of paper to the black paper. Continue to do this weaving, sliding and gluing until there is no more room in the red slits for a piece of white paper to fit. Optional You can now take this to an Office Supply Store to have it laminated, giving you a place mat than can be used over and over and wiped clean when dirty with food. Paper, a bowl to trace around, a pencil, markers or crayons, child-safe scissors, glue-stick, damp cloth for sticky fingers. Have your child trace around a bowl two times to make two circles. Help your child cut out the two circles. Fold one circle in half and then apply glue to one half. Stick the half circle over the second circle so that when the folded half is unfolded to reveal the circle it covers the circle. This is the lift the flap part of the craft. Glue the circles to a piece of coloured paper. Have your child draw a simple happy face on the top circle. Ask your child what the opposite of happy is and then flip the circle up to reveal a second surface. Have your child draw a sad face on this one. Review that happy is the opposite of sad and then display or glue the craft in your Family Theme Day Scrapbook. Piece of hard construction paper, X-acto knife or craft knife adult use only , cutting board, sponge or paint brush, paints, waxed paper, art smock or old clothes to wear, newspaper or plastic to cover the table. Parent step Using a craft knife, carefully cut out an arrow shape on a piece of hard construction paper. Show your child how to paint inside the stencil shape of an arrow. We used the inside stencil facing downwards to represent down. Let your child make paint stencils of the down arrow on a piece of paper. It helps if you the parent hold the stencil in place while your child paints inside the shape. You can either turn the stencil so that the arrow faces up or do as we did and use the cut out piece as an opposite stencil and have your child paint around the shape this time to outline the up arrow. Again it helps if you the parent hold the shape while your child paints around it as this can be tricky for little fingers. Let the picture dry and then display it our glue into your Family Theme Day Scrapbook. Wet and Dry Banana: Dip a banana in melted chocolate or yogurt for the wet and then dip it in shredded coconut or crushed graham crackers or nuts for the dry. In and Out Eggs: Carefully cut the hard boiled eggs in half and remove the yolk. Mash the yolk and add a little mayonnaise and paprika to taste. If you happen to have any pureed veggies around I have cubes of these in the freezer to add to all sorts of things add some to the yolk and mash together.

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2: Lifted | Definition of Lifted by Merriam-Webster

Lift Learn Opposites - www.enganchecubano.com Lift Learn Opposites - www.enganchecubano.com Lift learn opposites - www.enganchecubano.com Lift and Learn Opposites Board book - www.enganchecubano.com Lift and Learn is an exciting new series of lift-the-flap books that explore first concepts.

Make sure they understand that air is around them all the time and that the air has pressure. Ask if they remember how much air pressure is pushing on them. The faster air moves, the lower its pressure. Get them to realize if is high pressure exists below the airplane and low pressure exists above the airplane, it will move up, which is where the lift force comes from. Draw a simple airplane diagram on the board. In this lesson we will learn about lift force. Lift and weight are opposing forces, which means they act in opposite directions. Likewise, thrust and drag are opposing forces. All airplanes are subject to these four forces see Figure 1. Thrust is what moves the aircraft forward and also creates air speed, which we will see later is part of what creates lift. Lift is what pushes the airplane up, while gravity is the force that pulls the airplane down. Drag is a force that acts against thrust and slows the airplane down. When the thrust is greater than the drag, the plane moves forward. When weight is greater than lift, the plane descends. The four forces of flight: The wings are the parts of an airplane that create lift. If we look at a wing from the side, as in Figure 2, we can see that it is shaped somewhat like a teardrop, with a thick, rounded front end and a thin, pointed back end. The curve on the top of the wing is longer than the bottom, which means air traveling across the top of the wing has to move faster to keep up with the air moving under the wing. Since there is more force under the wing than above it, the net result is that the wing rises up; hence, lift. This principle forms the basis of winged flight. How a wing produces lift. During takeoff and landing, pilots extend the flaps on the back edge of the wing. The flaps increase the camber curve of the wing, which maintains the lift at slower speeds. After takeoff, the pilot retracts the flaps for normal flight. Engineers use wind tunnels and computers to continuously test wing designs to determine their lift. The angle between the wing and direction of flight is called the angle of attack. The camber is the curve in the wing. The higher the camber curve , the higher the lift created by the wing. Flaps fold down during takeoff and landing to increase the camber so that the airplane can still fly even though it is moving very slow. When the air pressure below a wing is greater than the air pressure above the wing, there is a net upward force called the lift. Associated Activities Windy Tunnel - Student pairs use computers and an online virtual wind tunnel to test wing designs and see the influence of camber and airfoil angle of attack on lift. Activity and math worksheets are provided. Can you remember how much air pressure is pushing on you at all times? The faster air moves the lower its pressure. Get them to realize if high pressure exists below the airplane and low pressure exists above the airplane, it will move up, which is where the lift force comes from. Tally the number of true and false, and write the number on the board. Give the right answer. All airplanes are subject to three forces during flight. False, four forces of flight exist: False, lift is the correct force. When weight is greater than lift, an airplane descends? Have students on each team pick numbers or number off so each member has a different number. Ask the students a question give them a time frame for solving it, if desired. Have the members of each team work together on the answer. Everyone on the team must know the answer. Call a number at random. Students with that number raise their hands to answer the question. If not all students with that number raise their hands, allow the teams to work a little longer. What are the four forces of flight? Lift, weight, thrust and drag. Because the top of a wing is longer than the bottom, and air traveling across the top of the wing moves faster and exerts less pressure than air beneath the wing. The result is a net force up; hence, lift. Wings in a Wind Tunnel II, adapted from: Here, students may try out a wider variety of wing shapes that could influence lift. Lift is recorded in pounds. Students should record the greatest lift from a study of a combination of wing shape and attack angle. Have students write short newspaper articles or create a persuasion flyers on which airfoils would be best suited for different purposes. They can discuss which airfoil they thought was best during this computer simulation. FoilSim is an interactive simulation software that determines the airflow around various shapes of airfoils. The Society of Women Engineers. The associated activity is adapted from this activity that tests wing design in a wind tunnel.

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3: Lift and Learn | Scala Digital Signage

Lift and Learn Opposites Board book - www.enganchecubano.com Lift and Learn is an exciting new series of lift-the-flap books that explore first concepts. Children will love lifting the flaps and discovering what is underneath and will be entertained by the contrasts and surprises.

What, exactly, are these two forces, and why are they so important? In this interactive, learn about the basics of lift and drag, and find out how critical they are to the operation of all sorts of devices. What are lift and drag? And how do they work? Transcript Lift and Drag What are lift and drag? Explore how these two aerodynamic forces are created, and learn how engineers factor them in when designing all kinds of machines. Lift and Drag Explained In order for an object to fly in a stable manner, it needs to balance four forces: Weight, of course, comes from gravity pulling down on the object. Thrust is a force that pushes the object forward. It can be generated by a propeller, a rocket, a catapult--anything that makes the object move. But lift and drag can only arise as air moves past an object. Lift pushes the object upward, and drag, a type of air resistance, slows it down. What exactly causes these forces? Because of this curve, the air above the foil moves farther and faster than air flowing underneath. As the speed of air increases, its pressure drops. This is called the Bernoulli Effect, after Daniel Bernoulli, the Swiss mathematician who first described the phenomenon in fluids and air is a kind of fluid. The curved airflow generates more pressure below the airfoil than above, and the airfoil is pushed upward. Oncoming air follows the curved shape of the foil, shifting downward as it moves past. This downward motion causes an opposing force that pushes the airfoil up. Every action has an equal and opposite reaction. Drag As an object moves through air, it encounters a form of resistance called drag. A rough surface causes more drag than a smooth, polished one. Compare four commonly used airfoils to see how their shape and angle affect the relationship between lift and drag. High Lift, High Drag Crop Duster The concave lower surface of this airfoil helps produce extra lift, making it useful for planes like crop dusters, which often need to take off and land on short runways. But its thickness also causes a lot of drag as it plows through the air. That means planes using this wing shape are often limited to flying slowly, and they cover relatively short distances. Low Lift, Low Drag Jet Fighter The thin shape of this airfoil means that it generates very little drag, cutting through the air extremely efficiently. To compensate, planes that make use of this airfoil shape must move through the air at high speeds in order to stay aloft. This characteristic makes the airfoil well-suited for fighter jets and other fast-moving aircraft. Its flat bottom also makes it relatively easy and inexpensive to build, which helps drive down production costs. Moderate Lift, Low Drag Aerobatic Plane This airfoil is symmetrical, meaning the curve of the upper surface is the same as that of the lower surface. This results in little drag. This airfoil comes in handy for aerobatic planes, however. Angle of Attack This is the angle of an airfoil in relation to the oncoming air. If the airfoil is moving at a constant speed, a larger angle will generate more lift. As the angle increases, though, it also causes more drag. Angle the airfoil too high, and its ability to create lift is greatly reduced. This is called a "stall". When this happens, the airfoil loses a lot of its lift, causing more drag in the process. In an aircraft, it can mean partial or total loss of control unless the pilot lowers the angle of attack. Practical Uses of Airfoils Engineers use lift-generating shapes called airfoils in wind turbines, race cars, and other machines. In this section, take a brief look at five different structures and vehicles that rely on airfoils to operate. Airplane Wing The cross section of an airplane wing one of the most classic examples of an airfoil at work. Its characteristic shape helps generate lift efficiently as it moves through the air, keeping the plane aloft. Without this type of shape in their wings, most airplanes would be unable to fly. Helicopter Rotors The spinning blades above a helicopter are actually long, thin wings that make use of a classic airfoil shape. As they rotate, air moves over each one, causing lift. By increasing the angle of the blades, the pilot can increase the total amount of lift they create, pulling the helicopter vertically off the ground. Hydrofoil These specialized boats have airfoil-shaped "wings" attached to their bellies. As they travel through the water, the foils produce lift just as they would in air, which raises the hull off the surface. This lets the vessel "fly" just above the waves, avoiding the drag that the water normally creates on its hull. With this configuration, the boat can cruise at much higher speeds than would

otherwise be possible. Wind Turbine The cross-section of a wind turbine blade is actually shaped like an airfoil. As wind blows past each blade, it generates enough lift to start the turbine spinning. The faster the wind blows, the more lift each blade produces, so the turbines spin faster. In some parts of the world, these turbines provide electricity for thousands of homes and businesses.

4: LIFT AND FLAP OPPOSITE:LUTHRINGER, MELISANDE | www.enganchecubano.com

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5: Opposite words-English

*Opposites (Lift and Learn Series) [Mike Gordon] on www.enganchecubano.com *FREE* shipping on qualifying offers. Uses a lift-the-flap, fold-out format to teach the basic concept of opposites.*

6: Lift Synonyms, Lift Antonyms | Merriam-Webster Thesaurus

Opposites PDF doc, you can first open the Lift Learn Opposites PDF doc and buyer on on the black binoculars icon. This makes it possible for you to good out the fundamental search.

7: Opposite Theme Day

The book has been read but remains in clean condition. All pages are intact and the cover is intact. Some minor wear to the spine.

8: NOVA - Official Website | Lift and Drag

Opposite Things (Lift The Flap) - Count to ten and learn your opposites with Little Mouse! These cute board books feature a large lift-flap on every spread. Essential first concept learning for stylish families to share.

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