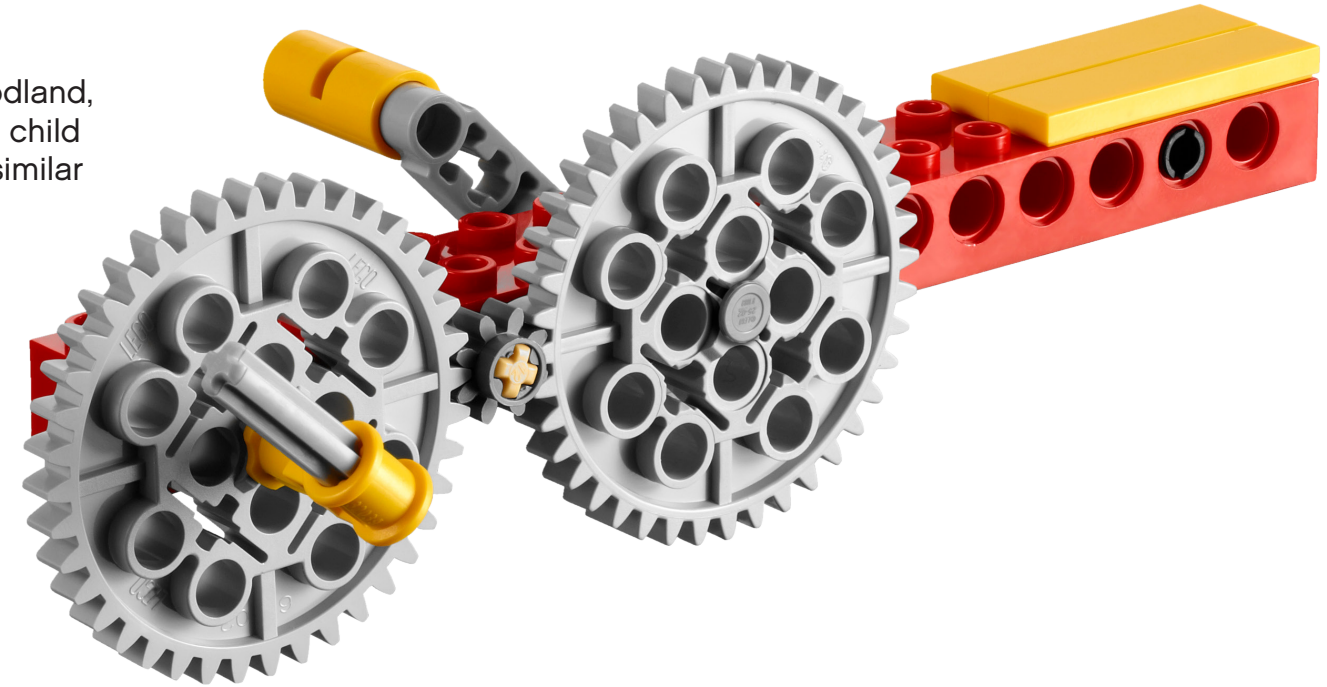
Grades 3 - 5 Activity Starters
Science Activities

Spinning Machine
Gears mesh together. Meshed gears turn in opposite directions. Build a machine that can spin all the gears when you turn one gear. Use LEGO gear elements or create your own gears from other types of materials. How do the gears work? After you build your machine, write a story about it. Name your machine. What can it do? Who would use it?

Building Boats
Challenge your child to build their own boat out of bricks and other materials. After building, put the boat to the test in a tub of water. Add pennies or similar sized objects a few at a time to see how many each boat can hold without sinking. Which boat design can hold the most pennies? Why?

Extension: For an added challenge, only give them a certain number of bricks and other items to build their boat. Can it still hold as many pennies or similar sized objects?

Animal Habitats
Investigate a variety of habitats (woodland, arctic, savannah, etc.) and have your child compare each to see how they are similar (all have water, all have animals) and how they are different (trees, temperatures, etc.). Challenge your child to build using bricks and other materials different types of habitats to show the similarities and differences.



Get Moving
Can your child create a car that includes 4 wheels, axles, and something to hold them together? Build a car using bricks and other material to see how far it will travel with a push on the floor. Try 3 times. Measure how far the car goes each time. Write down your measurements to see if you can find the average of the trials.

Extension: Change one thing about your design and run it again. How did that change affect how far your car went? Did it go further or not? Why?

Friction
Have your child Build a car using bricks and other materials. Test how the car moves on different surfaces like carpet or wood or concrete. Write down how the car moves in order to determine which surfaces have more friction (doesn't move as well) or less friction (moves easier). Which surface is easier to move the car and why?

Ramps and Gravity
Have your child build a car using brick and other materials and a ramp that the car can go down. Explore gravity by running the car down the ramp several times to see how far the car will go. Measure how far past the end of the ramp the car goes each time. Try changing the height of the ramp to be higher and lower to find out which makes the car go further. How does the height of the ramp affect the distance the car can travel?

Extension: Add more bricks or other weight to the car to see how that changes how far the car goes after it goes down the ramp. Does it go further or not? Why?