Field of Reeds by John Douglas Powers
ArtPrize 2009: 7th Place Public Vote Winner

Field of Reeds is a kinetic sculpture that uses simple machines to make interlocking wooden pieces move to mimic a field of wheat, swaying in the breeze. Artist John Douglas Powers utilizes various simple machines to create motion in his sculptures. In physics, the kinetic energy of an object is the energy that it possesses due to its motion. In artwork, a kinetic sculpture is a 3-dimensional work of art that has the added dimensions of movement and time.

Gears are important simple machines. Gears are wheels with teeth that interlock to work together. Two or more connected gears are called a gear train, and when you turn one gear, the other one turns too. Gears work to change the speed and direction of motion; they are inside of everything from clocks to roller coasters.

Creative Challenge: Gear Train Sculpture

Many artists use engineering skills and learn the inner workings of machinery to bring their artistic visions to life.
- Use the compass to draw two circles of different sizes, cut them out, and tape a strip of corrugated cardboard around the edge, facing outward to make the teeth.
- Stick your gears onto the larger cardboard rectangle with a toothpick through the center of the gear, interlock the teeth to connect gears. Twist one gear to see how it makes the other one move—does the direction or speed change?
- Use foam stickers, markers, and toothpicks to build on to and decorate the gears, creating your own kinetic sculpture. What does movement add to your artwork?
- Take your sculpture home, share what you learned with a friend, and see where you can find gears working in the world.

Bring this card home with you. COLLECT ALL 12 cards by completing ArtPrize 10 Creative Challenges!

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Card #1
Image provided by John Douglas Powers

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