Dig a Hole

It would be impossible to dig a tunnel through to the other side of the world, but it's fun to pretend!

If you attempted to dig a hole to the other side of the Earth, you would be digging through:

- more than 12 000 kilometres of solid rock and molten magma
- rock reaching temperatures up to 6000 ºC and
- extreme pressures up to 300 million times greater than the pressures we experience on the surface of the Earth!

Also, the Earth is not a perfect sphere. It is slightly flattened at the poles, and bulges a little at the equator due to the Earth's spin. So technically, if you dig a tunnel through to the other side of the globe, you would not come out at the place shown on a desk globe which is an almost perfect sphere.

If you did somehow manage to dig a hole to the other side of the Earth, would you fall through? Again, theoretically no! The Earth continues to spin as you fall, gravity changes as you fall to the Earth's centre and friction would slow you down. If you ignored all of these factors, scientists think it would take about 42 minutes to fall through the tunnel.

More Information

Scientific American Ask the Experts 21 April 2003
Would you fall all the way through a theoretical hole in the earth? Scientific American April 21,
http://www.sciam.com/print_version.cfm?articleID=0008230B-DE97-1E9E-A9B3809EC588EEDF

New Scientist The Last Word
If you could journey to the centre of the Earth, what would be the sensation of gravity at various points on the way down, and at the centre?
http://www.newscientist.com/lastword/article.jsp?id=lw388

Did you ever dream of digging a hole so deep it came out the other side of the Earth?
http://amos.indiana.edu/library/scripts/hole.html

If I dig a hole through the earth from here, where do I wind up?
http://www.jessamyn.com/dig/