



LEARN
the real science behind
DEOXY'S
Pokémon
TRADING CARD GAME

MATERIALS
Graph Paper

What is DNA?

DEOXY'S
is a new Pokémon character
in the Trading Card Game,
and there is real world
science behind its story.
For more real science visit:
<http://ksnn.larc.nasa.gov/pokemon>

PURPOSE

To identify inherited traits and look for patterns

BACKGROUND

All deoxyribonucleic acid (DNA) is made of the same materials. Nearly 99.5% of DNA is identical in all human beings. The differences in your DNA are what make you unique.

Some differences can be seen easily. DNA controls your eye color, hair color, skin color, and height.

DNA, in snippets called genes, carries codes for your traits. These traits are inherited from your parents and passed from one generation to the next.

PROCEDURE

1. One inherited trait is seen when you interlock your fingers. Without thinking about it, put your hands together and interlock your fingers.
2. Which thumb is on top? Your left or your right thumb?
3. Survey your friends to see how they interlock their fingers.
4. Create a bar graph to show the class results.

CONCLUSION

1. Which thumb was on top more often?
2. How could you use your bar graph to help you predict the pattern of interlocking fingers for people you haven't surveyed?
3. Since this trait is inherited, predict the pattern of interlocking fingers for your family.

EXTENSIONS

1. There are many other physical traits that are inherited from one generation to the next. Identify these traits for yourself and your friends. Do you have
 - a) a widow's peak
 - b) an attached earlobe
 - c) a hitch-hiker's thumb
 - d) hair on the middle joint of your fingers
 - e) the ability to roll your tongue
 - f) the ability to flip your tongue
2. Some diseases are inherited: Muscular dystrophy and cystic fibrosis are two. Research others.

