

## MICROSCOPY MARBLING

Ever skinned your knee only to find the wound healed just a few days later? How does that happen? Cells! Your body is made up of trillions of them. Cells divide all the time in order to make new body cells, which replace the old ones. The process is called mitosis.

Cells are so small that they can only be seen with help from a microscope. In this activity, we'll use a marbling technique with oil, water, and food coloring to recreate what you might see when you peek at cells under a microscope.



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### YOU WILL NEED :

- 1 tbsp Cooking Oil
- 5 Drops of Food Coloring
- Glass Baking Dish
- White Cardstock
- Glue
- Pencil
- Lid for tracing
- 12x12 Scrapbook Paper
- Scissors



1 Add an inch of water to a baking dish. Pour oil then food coloring into water. Swirl gently with a fork to mix.



2 Lay your paper on top of the water. Remove immediately. Let excess drip into baking dish.



3 Place artwork on covered surface to dry. Repeat with more paper. Or mix up a fresh dish of water, oil, and a new color.

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4



Blot artwork dry with paper towel. Once dry, trace around the lid of a jar. Repeat 5 more times.

5



Cut out circles.

6



Glue circles onto a piece of paper. Display your cellular masterpiece!

## THINK ABOUT IT!

A human begins with just one cell. But that cell divides, then those cells divide, and so on. That's how humans (and animals) grow in size! Our body cells don't get bigger--they just increase in number. That's why cells are called the building blocks of life.

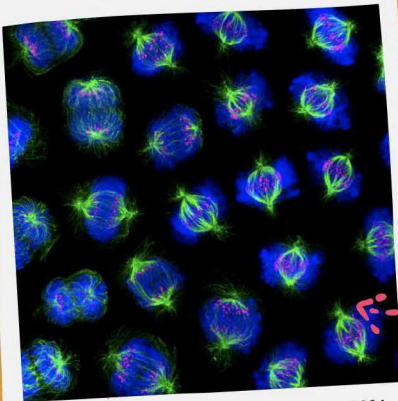
The average adult human has about 37 trillion cells. To give you an idea of how big that number is, think of it this way: one trillion is one thousand times bigger than one billion. It's the number one followed by 12 zeros. Now multiply that by 37. Wow! Can you estimate how many cells make up your body right now?

### LEARN MORE

*Cells: An Owner's Handbook* by Carolyn Fisher  
Beach Lane Books, 2019

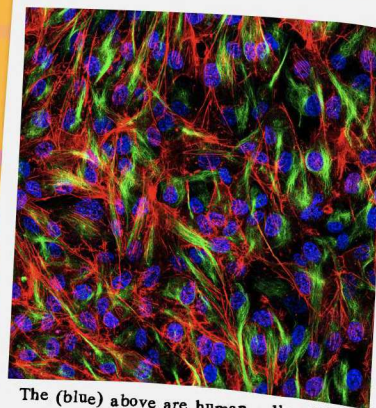
*Animal Cells* by Mason Anders  
Capstone Press, 2017

*The DNA Book* by DK  
DK Children, 2020

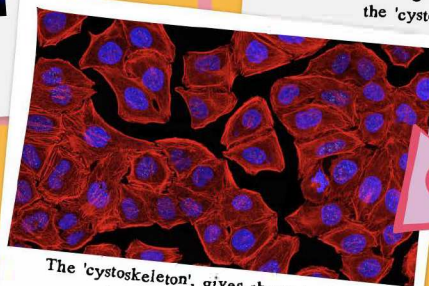


The 'mitotic spindle' (green) pulls the DNA (blue) apart so that each new cell receives the correct set of genetic information.

These are human cells dividing!



The (blue) above are human cells while the other colors highlight different parts of the 'cytoskeleton'.



The 'cytoskeleton', gives shape to the cells and allows them to move around.

COOL!



### FUN FACT!

Your entire body is made up of cells. There are more than 30 trillion cells inside of you!