

Cell Biology

Being Alive

Name:

Period:

Use the terms from the word banks above the paragraphs to fill in the blanks. After you complete each section, follow the instructions you filled out and color the diagrams on the other page. Use colored pencils, and check off each box as you finish that part of the instructions. You can also use Chapter 2, Section 1 to help you.

alive characteristics dead

All living things share common _____. So, if something is not _____ (non-living), it is referred to as being alive. Color the title BEING ALIVE in black . We will be comparing two things that we know are _____ (a rabbit and a plant) with something we know is not alive (a rock). In the center of the diagram, color RABBIT and the rabbit brown , PLANT and the plant green , and ROCK and the rock gray .

fast flowers movement running

Color the title MOVEMENT in orange . If you see a rabbit _____ around, you know it is alive. Color the rabbit brown . We would not expect to see a rock moving at all, unless gravity is pulling it down a hill. Don't color the rock, because it has no _____. Plants can actually move (slowly) like when their _____ open or close. Plants don't move _____ at all, unless they are in a silly horror movie. Color the plant green .

functions identical organization roots

Color the title ORGANIZATION in orange . Things that are alive tend to be complex, organized, and have _____ (matching) smaller parts. For example, all rabbits have a heart in the same spot. Color HEART reddish brown, and color the heart in the rabbit the same way . Color ARTERIES and the arteries in red . Color VEINS and the veins in blue . Plants also have similar parts that serve similar _____ (jobs). For example, all plants have _____ to get nutrients from the soil. Color the plant green; the flower can be any color you want . When you look at a rock, you can see that it is made of smaller crystals, but these are all jumbled up in a random order. Because a rock has no _____, do not color it.

cold heat homeostasis water

Color the title HOMEOSTASIS in orange . Homeostasis is the ability for living things to keep conditions like body temperature the same. Rabbits do this by raising their ears up when it is hot, allowing the _____ from their body to escape. When they are _____, rabbits keep their ears close to their body to stay warm. Color both of the rabbit pictures brown . Plants can do something similar. When it is hot, they use things called guard cells to close tiny holes (stomata) in their leaves to keep from losing _____. Color both of the plant pictures (and the leaf close-ups) green . Rocks cannot control their temperature at all. Because a rock does not have the ability of _____, do not color it.

turn over for more

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alive energy plant Sun

Color the title ENERGY UTILIZATION in orange . This section describes how living things use energy. The source of light and heat energy for our planet is the Sun . Color SUN and the Sun yellow . Plants use the energy from the _____ to make food for themselves through a process called photosynthesis. This food helps to keep the plant alive, and helps the plant to make more leaves, flowers, roots, etc. Color the plant green; the flower can be any color you want . Any rabbit that wants to stay _____ will eat plants. The body of the rabbit turns the _____ into energy so it can run around, grow new fur, and other things. Color the hungry rabbit brown . When the sun shines on a rock, the rock does get warm, but the rock does nothing with this energy. It does not move around, grow new parts, or make food. Because a rock does not use _____, do not color it.

juvenile rabbits plants reproduction rocks

Color the title REPRODUCTION in orange . Anything that is alive reproduces to make more of its kind. A male and a female rabbit make baby _____. Color the two adult rabbits brown . For animals, young ones are called juveniles. Yup, you are a _____. Color JUVENILE and all those baby rabbits brown . When plants reproduce, more _____ are made. Color the two large plants green; the flowers can be any color you want . Plants produce seeds, which then grow into baby plants called seedlings. Color SEED, SEEDLING, and the baby plant parts green . Rocks, however, do not reproduce. There are not male and female rocks. If you put them together and play romantic music, you will not get baby _____. Because a rock does not go through _____, do not color it.

bigger plant rabbit small

Color the title GROWTH AND DEVELOPMENT in orange . Anything that is alive grows bigger at some point in its life. Even things that are made from only one cell had to start _____. Animals and plants that are made from multiple cells (like you are) grow from a single fertilized egg. In animals, this fertilized egg is called an ovum. Color OVUM and the ovum (A2) brown, as they will eventually become a full-sized _____ . The cells of the ovum divide and multiply, and change into different kinds of cells to form tissues and organs within the unborn rabbit. At this stage, the ovum has turned into an embryo. Color EMBRYO and the embryo (A3) brown, as they will grow to be a full-sized rabbit . Once the rabbit has all of its tissues and organs formed, it is born. Color the juvenile rabbit (A1) brown . Plants follow a similar process. The fertilized egg in plants is called an ovule. Color OVULE and the ovule (B3) green . The cells in the ovule divide and multiply, becoming larger and turning into a seed. The seed has enough specialized cells in it that, if planted, it can grow into a _____. Color the seed (B1) green . Under the right conditions, the seed will grow even more cells, turning into a seedling. On a seedling, you can find leaves, stem, and roots, just like for an adult plant. Color the seedlings (B2) green . Rocks do not grow, or contain cells that divide and multiply, or get _____ over time. Because a rock does not go through growth and development, do not color it.

BEING ALIVE.

MOVEMENT★

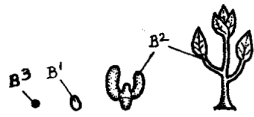


GROWTH AND DEVELOPMENT★

OVUM_{A2}
EMBRYO_{A3}

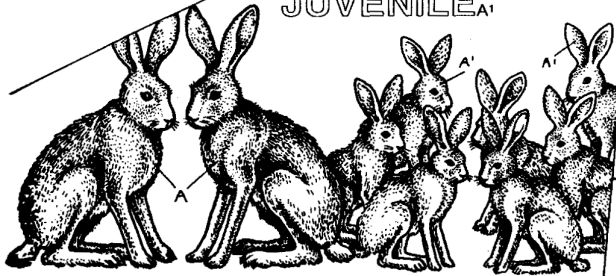


OVULE_{B3}

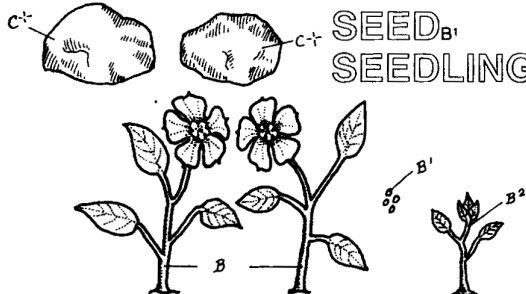


REPRODUCTION★

JUVENILE_{A1}

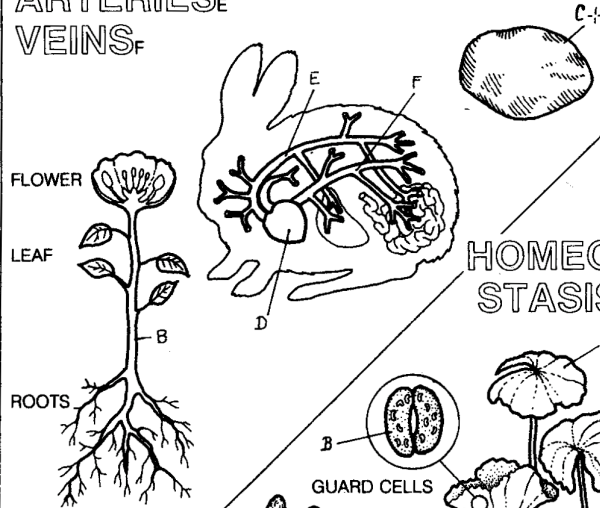


SEED_{B1}
SEEDLING_{B2}

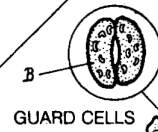


ORGANIZATION★

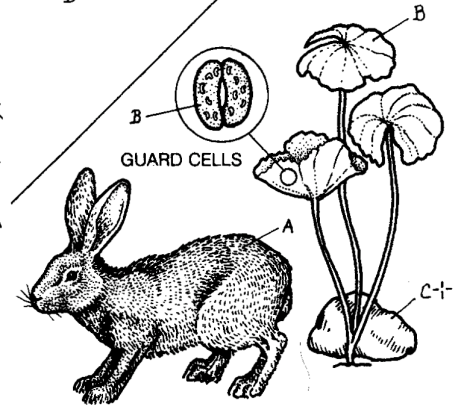
HEART_D
ARTERIES_E
VEINS_F



HOMEOSTASIS★



RABBIT_A
PLANT_B
ROCK_C



ENERGY UTILIZATION★

SUN_G

