



# Title: HOW DO WE GROW?

## Goal:

Increasing awareness of adaptations and appreciation for plants and building insights about personal strengths

## Intro:

Think of how plants grow in all kinds of soil. What are some of the things that help them? Kids will talk about and draw adaptations for plants in different conditions and consider their own "soil" where they grow.

## Instructions:

Talk about different types of soil plants can live in (Sandy , Loam, Clay) (use Soil Types sheet for reference) SANDY: Sandy soil is around 80 percent sand and about 10 percent each of silt and clay. With high sand content, sandy soil feels gritty to touch but it is free draining in nature and dries very quickly. That may sound good, but sandy soil is not the first choice for agricultural practices or gardening because it lacks nutrients (organic content).

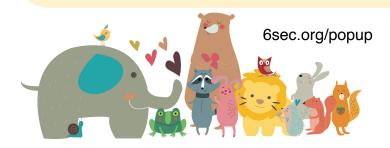
LOAM: Loam is a mixture of things, about only 20 – 50 percent sand and around 50 – 80 percent clay and silt (powdery clay). It's heavy compared to sandy soil, but it's ability to drain water is great. Loamy soil is considered the best bet when it comes to agriculture and gardening because it's amazing at staying moist and lots of nutrients (organic content) mixed in.

CLAY: This type of soil is named because of clay content ranging between 50 – 100 percent, with a little sand and silt content between 0-50 percent. Even though it is fine-grained soil, clay is notorious for its poor drainage ability and absence of air space, so it's not easy for plants. PAGE 1/2

### **Discussion:**

What is it about plants that helps them adapt to their environment? What are some things you admire about them and the way they've adapted?

How can you do well in different environments? What adaptations have you made before? What are some of your feelings about change and adapting to meet the challenges ahead of you? Thinking about the plants - is there a way that they've adapted that inspires you? What is one of the strengths of these plants that you'd like to have in order for you to adapt to change? How could you use this strength?







#### **Resources:**

Pens/Pencils/Crayons for coloring and writing How Do We Grow coloring sheet How Do We Grow soil types sheet





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### Instructions:

Using How do We Grow coloring sheet draw or color the three different soils in each of the pots

Next, think about plants that have adapted to grow in different types of soil. If you're not sure, you can use your imagination, and also do some online research. What kinds of roots, stems, leaves, flowers, seeds and other parts will work in each soil? Draw them.

Consider: What are the ways plants adapted to meet the challenges and opportunities of the soil and environment they live in? Add and color or words to each of your plants. You can name your plants if you like. PAGE 2/2

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