PRINTABLES
### Week One: WATER

**Item 1:** Water Fact Card  
**Item 2:** Water Coloring Sheet

#### WATER FACTS

- Water is essential to all human, plant and animal life.
- One billion people on earth do not have access to clean water within a 15-minute walk of their home.
- Since water is an essential element of human life, good health and recovery from extreme poverty is not possible without access to clean water.
- There is the same amount of water on Earth as there was when the Earth was formed. The water from your faucet could contain molecules that dinosaurs drank.
- Water is composed of two elements, Hydrogen and Oxygen. \(2 \text{ Hydrogen} + 1 \text{ Oxygen} = \text{H}_2\text{O}\).

- Nearly 97% of the world's water is salty or otherwise undrinkable. Another 2% is locked in ice caps and glaciers. That leaves just 1% for all of humanity's needs — all its agricultural, residential, manufacturing, community, and personal needs.
- Water regulates the Earth's temperature. It also regulates the temperature of the human body, carries nutrients and oxygen to cells, cushions joints, protects organs and tissues, and removes wastes.
- 75% of the human brain is water and 75% of a living tree is water.
- A person can live about a month without food, but only about a week without water. Source: [https://www3.epa.gov/safewater/kids/waterfactsoflife.html](https://www3.epa.gov/safewater/kids/waterfactsoflife.html)

### Week Two: SOIL

**Item 1:** Soil Fact Card  
**Item 2:** Soil Coloring Sheet

#### SOIL FACTS

- Over 80 percent of the human diet is provided by plants, but 52 percent of the land used for agriculture is affected by soil deterioration.
- Topsoil is the part of dirt that is needed to grow food. Once topsoil is washed away, it takes thousands of years to regenerate.
- Overgrazing of animals and cutting down too many trees are some of the way that topsoil erodes or disappears.
- Soil has its own ecosystem  
- Soil needs good bacteria and fungi to stay healthy.
- Soil needs to have air pockets.  
- Soil is home to lots of important insects and crawlers.
- A small patch of soil just 1 sq yd (1 sq m) in an area can hold a billion living things. These include insects, spiders, worms, centipedes, mites, fungi, and tens of thousands of bacteria.
- There are five layers to the earth beneath our feet. They are: Hummus, Topsoil, Subsoil, Weathered Rock Fragments, and Bedrock. Topsoil is where things grow.

### Week Three: SEEDS

**Item 1:** Seed Fact Card  
**Item 2:** Seed Coloring Sheet  
**Item 3:** Worksheet: What Shall We Do With Seeds?

#### SEED FACTS

- Seeds develop from the plant's egg once it is fertilized by pollen.
- Each seed contains the new plant in embryo form plus a store of food to feed it until it grows leaves.
- The seed is wrapped in a hard shell known as a testa.
- After maturing, seeds go into a state called dormancy. While they are dormant the seeds are scattered and dispersed.
- Some seeds are light enough to be blown by the wind. The feathery seed cases of some grasses are so light they can be blown several kilometers.
- Milkweeds have large seed pods which burst open to release their seeds. Seed dispersal.
- Sycamore seeds have wings to help them spin away on the wind.
- Dandelion seeds have feathery tufts that act like parachutes, whirling them away through the air as they drop to the ground.
- Seeds only develop when a plant is fertilized by pollen.
- The world's biggest tree, the giant redwood, grows from tiny seeds.
**ANIMAL FACTS**

- The Chinese were the first to raise wild pigs for food.
- There are three types of bees in the hive – Queen, Worker and Drone.
- Cows spend 8 hours per day eating, 8 hours chewing her cud (regurgitated, partially digested food), and 8 hours sleeping.
- Honey bees fly at 15 miles per hour.
- Honey bees’ wings stroke 11,400 times per minute, thus making their distinctive buzz.
- To make a dozen eggs, a hen has to have about four pounds of feed.
- Goat meat is the most consumed meat per capita worldwide.
- Cows have a single stomach, but four different digestive compartments.
- Pigs are extremely social animals. They form close bonds with other individuals and love close contact and lying down together.
- Goats, being mountain animals, are very good at climbing; they’ve been known to climb to the tops of trees, or even dams!
- Researchers have found that if you name a cow and treat her as an individual, she will produce almost 500 more pints of milk a year.
- With 25 billion chickens in the world, there are more of them than any other bird species.
- A freshly laid chicken egg is 105 degrees Fahrenheit.
- A pig’s snout is an important tool for finding food in the ground and sensing the world around them.
- Goats were one of the first animals to be tamed by humans and were being herded 9,000 years ago.

**HARVEST FACTS**

- Corn is called maize by most countries, this comes from the Spanish word ‘maiz’.
- Harvesting is the process of gathering a ripe crop from the fields.
- Corn is a cereal crop that is part of the grass family.
- Wheat covers more of the earth than any other crop.
- Rice is the thirstiest crop: according to the U.N., farmers need at least 2,000 liters of water to make one kilogram of rice.
- Peas are a good source of vitamin A, vitamin C, folate, thiamine (B1), iron and phosphorus.
- Corn is the most produced grain in the world.
- Reaping is the cutting of grain or pulse for harvest, typically using a scythe, sickle, or reaper.
- An ear or cob of corn is actually part of the flower and an individual kernel is a seed.
- Potatoes are the number one non-grain food product in the world.
- Soybeans produce twice as much protein per acre as any other major vegetable crop.
- On smaller farms with minimal mechanization, harvesting is the most labor-intensive activity of the growing season.
- On average an ear of corn has 800 kernels in 16 rows.
- Yams are the first harvested crop of the year, which marks the beginning of several Yams Festivals throughout Africa.
What Shall We Do With Seeds?

Working with your family or cooperative group, answer the following questions about the seeds you have been given:

1. What else will you need to support yourselves with these seeds?

2. What seeds will grow into food? Into shelter? Into clothing?

3. If you don’t have the right seeds to provide food, shelter or clothing, what could you do?

4. If some in the group do not have seeds, what will they do? What will you do?

5. What tools will you need?

6. What will you need to know?

7. How will you buy items you don’t have or sell items you have too much of?

8. How will all these things get to the people who need them?