Each year has four seasons: winter, spring, summer and fall. Winter begins in December and is the coldest season. Spring always follows winter and begins in March. Summer follows spring, begins in June and is the warmest season. Fall==or autumn--follows summer, begins in September, and after fall it will be winter again.

Let's name the four seasons in order. Currently the season is fall.

What do you know about the different seasons of the year?

- How many seasons are there? What are they called?
- What season is it now? How can you tell?
- How can you tell when it is spring in our area?
- Do you think activity on a farm is the same or different during the different seasons?

Today's read aloud is about what happens on a farm during each of the four seasons. Listen carefully to learn about the different things that happen on a farm during each season.



There are four seasons in a year. Spring always follows winter. Summer always follows spring. And fall, or autumn, always follows summer. After autumn comes winter and the cycle begins anew.



What season comes after winter?

A farmer's work--the jobs he or she does each day--changes from season to season.



He or she does certain jobs in the spring, summer, fall, and winter.

When we talk about the way in which a farmer's jobs change according to the seasons, it makes sense to begin with spring.



Springtime is when plants awaken from the long winter. New buds, leaves, and blossoms appear on trees, and wildflowers bloom in the fields. Springtime also marks the beginning of the crop cycle, when seeds are planted and new crops begin to grow.



Crops are plants grown on a farm for food. Crop can also mean to cut short, like to crop someone's hair.



A farmer cannot plant if he does not prepare the ground first. Typically this is done with a plow. This plow has long sharp teeth that dig into the earth, shredding the dirt and plants to make room for new seeds.





In order to prepare, or cultivate, the soil, the farmer adds a little **fertilizer**, just to make sure that there are plenty of nutrients for his plants.

Fertilizer contains nutrients to help the plants grow well.



Different plants like different kinds of fertilizers. Some fertilizers are made from chemicals and others are made from animal manure, or animal waste.





To plant large crops, most farmers use tractor-driven seed spreaders like this one. It drops the seeds into the rows that the farmer has already plowed and fertilized. As it passes, dropping seeds evenly in the rows, the seed spreader brushes a layer of soil over the seeds.



If the seed spreader only dropped the seeds without covering them with soil, so you think the seeds would grow? Why or why not?





After planting, the farmer watches the weather and hopes for rain. The seeds need water in order to sprout into seedlings. In many places, spring is also a rainy season. Few things make a farmer happier than the sight of dark rain clouds overhead.



Why is the farmer happy when he sees dark clouds?



Eventually, the brown field will turn green as seedlings emerge from the soil. Once they have sprouted, the new plants will continue to need Water.



By the time spring makes way for summer, these corn plants will be about knee-high. Hopefully, they will continue to grow taller and taller throughout the hot summer.



Sometimes, problems arise and the plants do not grow as expected. Crops fail, or die, sometimes, no matter how hard a farmer works and no matter how much he knows about farming. **Drought** is one of the farmer's worst enemies.

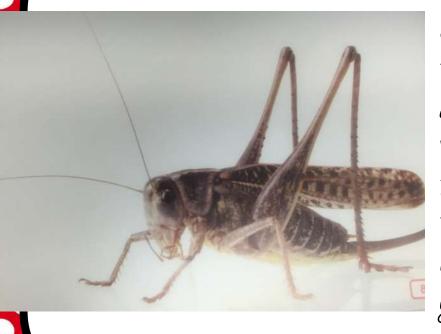


A drought occurs when it does not rain for a very long time.

Droughts occur most frequently during the summertime. The crop in this picture is supposed to be tall and green. Instead, because of a drought, the crop is brown and wilted.

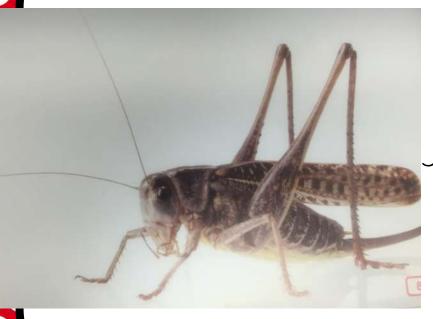


If he has a good source of water nearby, the farmer can irrigate his crops. Irrigate means to bring water to a place where crops are planted. However, a long drought can cause wells and rivers to dry up. Irrigation can work well but only if there is adequate rainfall.



Unfortunately, rain isn't the only thing a farmer needs to worry about. Pests can ruin a crop, as well, especially in the summer.

Pests are animals, such as insects that harm crops. This is a locust, which is a type of grasshopper.



Locusts are famous for destroying crops by eating them. Various types of worms, beetles, flies, and other insects can also eat a farmer's crops.



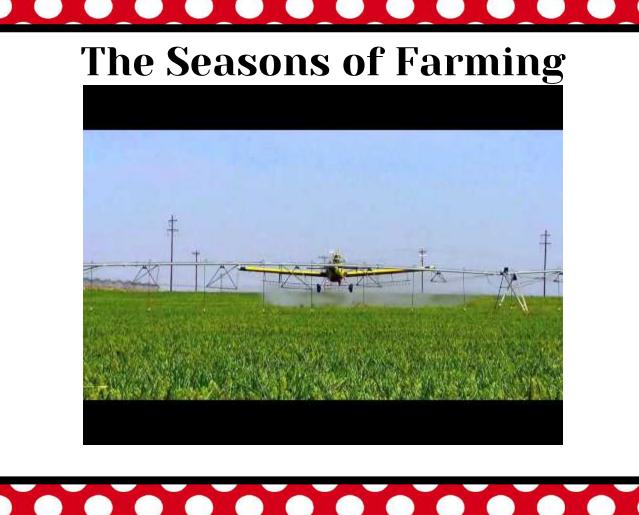
Fortunately, farmers have ways of protecting their crops.
Sometimes, farmers spray pesticides--or chemicals that repel bugs and insects--in order to ensure that the crop will survive and yield plenty of fruits or vegetables.



A farmer can apply pesticides using the same equipment he uses to fertilize his crops. Organic farms grow crops without chemical pesticides.



For very large crops, or fragile crops that could be damaged by tractor wheels, the farmer can hire a crop duster. A crop duster is a type of airplane. The pilot swoops down out of the sky, opens his hatch, and releases the pesticides over a large area, and the farmer doesn't have to worry about trampling his crops with tractor





On some farms, harvest time is the hardest time. Most crops need to be harvested at just the right time or they will spoil. Harvest time is different for different crops, and runs typically from early summer through the fall season. Some crops, like certain grapes, must be harvested by hand so they are not



During harvest time, farmers need all the help they can get. They often hire part-time helpers or farmhands to help bring in the harvest as quickly as possible.



Actually, not all farmers need to plant new crops every winter. Farmers that own orchards, or fruit tree farms, such as apples and peaches, only have to plant each tree one time. That may sound easier, but it also requires a lot of hard work and patience.



Once these apple trees are planted, the orchard owner must wait several years before they are able to produce big, red, juicy apples. After the trees are fully grown, they will follow the usual crop cycle--producing new leaves and flowers in the spring and young fruits in the summer.



The apples grow all summer long until fall, when it is apple picking time.



After harvest time, the farmer is finally able to take a rest. You might think that winter would be the easiest season for a farmer, and compared to other seasons it probably is. However, winter is the only time the farmer has to fix tools and machinery that has worn out or broken during the rest of the year.



It is also time to plan for the next planting season--to buy seeds and test the soil to decide how much fertilizer he will need next year.

No matter the season, there is always work to be done on the farm.

Comprehension Questions:

Literal

What are the four seasons of the year?

Comprehension Questions:

What can farmers do to protect their crops from drought?

Comprehension Questions:

What can farmers do to protect their crops from pests?

Comprehension Questions:

Evaluative

Pretend you are a farmer: What kinds of jobs do you need to do in the spring?

Comprehension Questions:

Evaluative

Pretend you are a farmer: What kinds of jobs do you need to do in the summer?

Comprehension Questions:

Evaluative

Pretend you are a farmer: What kinds of jobs do you need to do in the fall or autumn?

Comprehension Questions:

Evaluative

Pretend you are a farmer: What kinds of jobs do you need to do in the winter?



Explicit Vocabulary Instruction

In the read aloud you heard, "Pests can ruin a crop, as well."

Say the word **pests** with me. Whisper pests to the ceiling. Whisper pests to the floor. Clap out the word.

Pests may be large animals like deer or very small animals like locusts or other insects.

Pests such as flies, sometimes bother people.

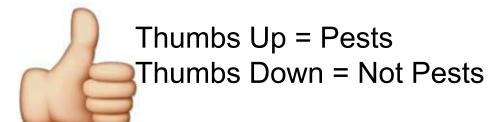
Have you ever seen plants that have been harmed by pests? Have you ever been harmed or bothered by pests?

Try to use the word pests when you tell about it.

"The mosquitos buzzing are real pests!"

What's the word we've been talking about?

I am going to read a sentence. If the sentence describes pests, you will show a thumbs up. If the sentence does not describe pests, thumbs down.





The leaves of the tomato plant had been eaten by bugs.



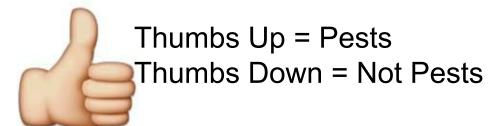


Thumbs Up = Pests
Thumbs Down = Not Pests



The farmer was very upset to see that the corn plants had been completely eaten by deer during the night.

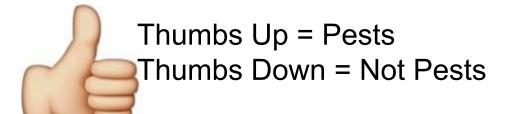






The apple trees have beautiful green apples.

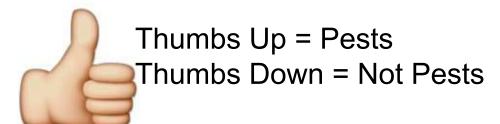






The farmer dug into the soil and found that worms had been eating the potatoes.







The fertilizer helped the plants to be green and healthy.

