This slide is a reminder of what we learned in the Conservation lesson.

Make sure your students understand the difference between renewable and non-renewable resources.

Stress to your students that both soil and water are non-renewable resources.

Also stress that without both soil and water, we would not be able to grow food. The plants that we eat depend on soil to grow. The animals we eat depend on eating the plants that must have soil to grow.

Soil is very important!

Point out there are over six billion mouths to feed every day on this planet. Food has to be grown and lots of it!

Six billion people to be fed! If those six billion people were dollars, you could have spent $8,000 per day, every day, since the birth of Jesus and still have money!

We are going to do an exercise to illustrate just how much of the Earth is available for us to grow food to feed these six billion hungry mouths.
Now that we have our 1/4 of the Earth that is dry, ask if we can grow food on all of this. Then point out why we cannot. Things like too cold, too dry, to high an altitude, etc.

Now we have to take away half of our 1/4. Ask your students what you get when you divide 1/4 in half. Try to get them to think about it.

Point out that 1 divided in half is 1/2. Then 1/2 divided in half is 1/4. So... every time a fraction is halved, its denominator doubles... OH!

Now we have to divide our 1/8 into four pieces. Walk your students through this if you have to. You can have them divide the 1/8 in half (1/16) and then divide the 1/16 in half if needed.

Point out that all those six billion people take up a lot of room so we have to set aside 3/32 of our 1/8 for people to live, go to work, go to school, roads, etc.

We are now left with just 1/32 of the Earth’s surface on which to grow food. Ask your students what they think about this.

This slide finishes up what we were talking about above.
Now point out that our farmers do a great job to feed so many people from such a small percentage of land.

Contrary to what some folks may think, there is enough food grown every year for everyone on Earth. Point out that does not mean that everyone gets fed, but that is not the fault of our farmers!

Point out that builders of houses and shopping malls don’t want to build on steep or rough land. That costs too much. That is why good farmland gets turned into subdivisions!

This slide transitions into thinking about how we use and take care of our land.

There are several questions here. Ask them one at a time and let your students respond to them. Remember, this lesson is meant to get the students to think about a problem with few clear answers!

This slide asks the class to name some things that threat our land and soil. Then we present three threats to our land and soil.

Your students may name some others and you may also come up with some. Remember, this is a lesson plan, make it your lesson!

Here are some possible solutions for the threats mentioned in the previous slide.

The solutions to pollution are self-explanatory. For the erosion threat, these solutions are agricultural practices that keep as much vegetation on the soil as possible during all phases of crop and livestock production.

The solutions for land loss stem from government policy but should also include more and better education of the public about the problem.
Here is a little scenario I like to use to get the students to think about several sides of the problem.

Almost always, the students will answer with their emotions rather than thought.

On this slide, simply read the situation to the class and ask the question below. Give your students the opportunity to answer.

However, you should not venture an opinion, yet. More on the next slide.

Now we add a little more detail to the situation in the form of what the farm is worth. Let the students think about this for a minute.

Point out that Farmer Jake will make less money growing food than Developer Dan will selling houses.

After discussion, point out that there is no right or wrong answers in this situation. Very simply, it is Farmer John’s farm and he can do with it what he wants. The only person he has to make happy is his wife!

This is just a wrap-up slide of the things we have been talking about.

Please stress the last paragraph!

Thank You

This slide starts talking about the demonstration contest that we have in February.

The number of demonstrations you have will depend, for a large part, on how excited you get the class in telling them about it!

Please go through these four slides carefully. Most of your students do not know what a true demonstration is.
Again, go through each paragraph to ensure that your students understand what we are talking about.

When selecting a topic, it should be something that can be done in the classroom in about five minutes.

Give the class some ideas for demonstrations based on those you done or have seen others do.

Tell them about making an outline of what they are going to do and say during the demonstration. This is very similar to what you would do in preparing for a speech.

Stress that a demonstration should have the student actually doing or making something. Giving a speech while pointing to a poster does not make a good demonstration. Sometimes they get confused when they see 'visual aid.'

Go over the final checklist. Make sure they understand.

At this point, I like to walk them through the planning stages of a demonstration. Give them the topic of demonstrating how to make Kool-Aid.

- what do we need to make Kool-Aid?
- what steps do we go through to make Kool-Aid?
- make Kool-Aid at home to practice
- get your equipment ready and your ingredients measured out the day before the contest
- etc.