Variations on a Leaf

Characters: Henry, Goldie Goldenrod, Chlorophyll (green circle with pipe cleaner arms)

Props: CO₂ (blob with CO₂ label), Water Drop (blue drop), Sun

Henry
[examining Goldenrod puppet] Nope, not here.
[examines Goldenrod from the other side] Not here either.

Goldie Goldenrod
Have you lost something?

Henry
Huh! Who said that?

Goldenrod
I did. You seem to be looking for something.

Henry
Well, I was, but I...I didn't lose anything. I was just...well, oh dear, I uh, I was just looking for your mouth.

Goldenrod
For my mouth! But why?

Henry
Well, I wanted to know how you eat. I mean, you're a living thing, right?

Goldenrod
Right.

Henry
Well, I know living things have to get energy from food to live and grow, but I just can't figure out how you eat your food.

Goldenrod
We plants don't eat food. We make food.

Henry
Producers? You make food? Well, what do you use to make it?

Goldenrod
Oh, it takes a little sunshine and a little water.
And I couldn't make food without the air around me and the chlorophyll inside me.

Henry
The what inside you?

Goldenrod
Chlorophyll. Why, chlorophyll is the most important thing we green plants have. It's what colors my leaves this gorgeous green. And, it's the secret to our food-making success.

Henry
Well, I wondered what your secret was. But I'm still not sure I understand.

Goldenrod
Well then, maybe this little song and dance I wrote with a friend of mine will help. You ready, Chlorophyll?

Chlorophyll
[offstage] I'm ready!

Goldenrod
A one, and a two, and hit it.
[Chlorophyll appears, Goldenrod exits]

Chlorophyll
Chlorophyll's the name, and making food's the game.
[To the tune of "Ob My Darling, Clementine"]
First I take some carbon dioxide which I get straight from the air.
[CO₂ pops up]
And I mix it with some water for the food I will prepare.
[Water pops up]
Then I capture me some sunshine
[Sun pops up]
and I mix the whole thing up.
And Presto, there is plant food good for breakfast, lunch, or sup.
So remember how important these three friends all are to me.
With their help I find I'm able to make plant food easily.
Henry
Bravo, bravo! I'd like to hear that again.

Chlorophyll
Sure. But this time I'd like to have everyone join in. How about it?

Henry
Great. I'll get us started. With a one and a two, and hit it. [Repeat song; display words on a large poster]

Chlorophyll
[following song] Now I'd better get back in Goldie's leaves where I belong.

Henry
Thanks for the show.

Chlorophyll
Anytime, anytime. Hollywood, here I come! [Chlorophyll exits; Goldenrod re-enters]

Henry
That was great, Goldie. But now that I know how you green plants make food, tell me where you make it. Where is this food factory?

Goldenrod
Food factory? I like that! I guess you could say my leaves are the food factories. I gather water through my roots and bring it to my leaves. My leaves are specially designed to gather the sunlight and air I need to make my food, and that's where most of my chlorophyll is, too. I couldn't do it without my leaves and my chlorophyll.

Henry
So, I guess if you have chlorophyll, you can get your "fill" without even eating.

Goldenrod
Right! And now I'd better get back to producing food before I get hungry.

Henry
And since I'm not a producer, I need to get home for lunch! Thanks for everything, Goldie. Bye. [both exit]