

5th Science Plants
Classroom

Teacher: Student, can you see? All right, good morning.

Class: Good morning Teacher.

Teacher: Before we start there's a couple things I want to go over and remind you of. Learning agreements, right? We need to have one conversation at a time. When you're in pairs, partner A is going to speak first, then partner B. While partner A is speaking is partner B going to talk?

Class: No.

Teacher: What's partner B going to do?

Class: Listen.

Teacher: Listen, and when partner B is speaking what's partner A going to do?

Class: Listen.

Teacher: Very good. Okay, stay focused on the topic. What's our topic for today?

Class: Plants. [crosstalk 00:00:43].

Teacher: Structures, plant structures. Wild ideas, encourage wild ideas. I like those, especially when you guys have wild questions and we need to research them. Defer judgment, so no judging people based on their wild crazy ideas. We are not judgmental. Build on the ideas of others. If somebody has an idea and maybe they don't have everything they need to finish their thought, we're going to be helpful and help them out and finish their thought. Fail often to succeed sooner. If we try something out and it doesn't work, am I going to get really really mad?

Class: No.

Teacher: No. The only time we ever get upset is when we don't try. Our learning target for today, so what we're going to be able to do by the end of today is, say this with me, "I can compare ... "

Class: I can compare ...

Teacher: "And contrast ... "

Class: And contrast ...

Teacher: "Plants ... "

Class: Plants ...

Teacher: "From two different environments."

Class: From two different environments.

[00:02:00]

Teacher: Okay. What do you think our environments are going to be that we're comparing?
Student?

Student: The forest and the Arctic.

Teacher: Yeah, the forest and the Arctic, good. Okay, so I've already picked your scouts, [inaudible 00:02:10] and [Student 00:02:11]. Your job as scouts is to look for behavior. You're going to look for behavior of the three, "Be's." Be safe, so you're going to look for people who are being safe with their materials, being safe when they need to stand up and go walk around the room, being safe when they need to get up and use the bathroom. Being responsible, so you're going to look for people who are using the materials correctly, who are staying on topic when we have partner discussion, who are doing their best work.

You are going to look for people who are being respectful. You are going to look for people who are raising their hand to talk and not shouting out answers. You're going to look for people who are listening to their partners, who are sharing their ideas with their partners. You're going to look for people who are speaking in the correct level of voice. You're going to look for people who are saying, "Please," and, "Thank you," and, "You're welcome." All right, and if you get picked by one of our scouts, we have some more Super Botanist awards. Student, do you remember, what is a botanist? It's a type of scientist, what does that scientist study?

Student: Plants.

Teacher: Yeah, plants. All right, let's get started. The first thing I have for you is, we did a review of the strangler fig, we're going to do a word review of the Arctic poppy because it's been a couple days since we thought about this. If you don't get a word, that's okay, because you're going to discuss it with your partner ...

[00:04:00]

Class: [crosstalk 00:04:24][inaudible 00:04:24] ...

Teacher: I have a couple extra words. I'm going to give you two minutes. Even if your partner has a word because I had extra words ... It's okay. Even if your partner has a word, I want you to turn to the person sitting next to you and discuss, "What is your word? What does it mean? Where can I find it on the chart? Is there a picture up here of your word?" Okay, go.

Class: [crosstalk 00:05:04][inaudible 00:05:05].

Teacher: What words do you have? Thick stem and adaptations, okay. Who remembers what the thick stem was?

Student: Thick stem was like ... Oh, it's covered in hair.

Teacher: Okay, what is the function of the thick stem for the Arctic poppy? What does it do?

Student: It follows the sun.

Teacher: Is that the thick stem, or is that the flower?

Student: The flower.

Teacher: The flower? Okay. Do you remember we said the thick stem was like a straw?

Student: Yeah, to suck up the water.

Teacher: Oh yeah, to suck up the water. What's something all plants need?

Student: Water and sunlight.

Teacher: Water and sunlight, and?

Student: Air.

Student: Air.

Teacher: Air. What word do you have, [Student 00:05:53]?

Student: Adaptations.

[00:06:00]

Teacher: Adaptations, oh! Who remembers what adaptations was? It was our keyword, it means to ...

Student: Fill in.

Teacher: Not fill in.

Student: Fit in.

Teacher: Fit in. Talk with Student and [Student 00:06:12] about, "How does the Arctic poppy fit in to the environment it lives in?" What was the environment it lived in? The jungle?

Student: The Arctic.

Teacher: The Arctic. How does it fit in to the Arctic? ... You guys have a good word? Oh, what does that mean? ... Very nice. Okay, let's start off with reviewing some words we need in order to complete our learning target. Two people have words from our learning target. Compare, who has compare? You two, okay. Come on up, one person. Stick compare up here ... If someone's in your way what do you say to them?

Class: Excuse me.

Teacher: Okay, and if you hear the word, "Excuse me," what do you do?

Class: Move.

Teacher: Thank you. [Student 00:07:46], what does it mean to compare something?

[00:08:00]

Student: Something to compare ... [inaudible 00:08:14].

Teacher: Okay, so those would be some words you would use in your writing. If I were to compare an apple and an orange, what is similar about them?

Student: They're both a fruit.

Teacher: Very good, yeah. They're both a fruit. That's one thing we're going to do in our writing today, is we're going to compare the stranger fig and the Arctic poppy. We're going to find things that are similar about them, okay? Good, you can have a seat. Thank you. Who has the opposite word, the antonym? Student, come on up. You are the next contestant on ... What word did you have?

Student: Contrast.

Teacher: Contrast, what does it mean to contrast something?

Student: It means finding something different.

Teacher: Okay, so we'll use [Student's 00:09:13] example of the apple and the orange. If you were to contrast the apple and the orange how are they different?

Student: They're different by color. An orange is orange, and an apple is red.

Teacher: Yeah, red, or green, or yellow, or not orange. Okay, very good. You can have a seat. On the other part of our writing today we're going to contrast how the strangler fig and the Arctic poppy are different. How their structures are different, how their functions might be different, adaptations. Which brings us to the next word, "Adaptation." Who has,

[00:10:00] "Adaptation?" Student, come on up. You can just put it under the other one. Okay,

adaptation. What does, "Adaptation," mean?

Student: Adaptation is something that ...

Teacher: It was our keyword, it means to ...

Student: Fit in.

Teacher: To fit in, okay. Do you see an adaptation in one of these pictures?

Student: That one.

Teacher: This one? Okay, what adaptation do you see?

Student: Hair.

Teacher: Hair, and where does it belong, on the strangler fig or the Arctic poppy?

Student: Arctic poppy.

Teacher: Okay, what do you think the adaptation of having hair is for?

Student: To keep it warm.

Teacher: To keep it warm, possibly. All right, good. Thank you, you can have a seat. Arctic poppy, who has Arctic poppy? [Student 00:11:04], come around ... Arctic poppy, what is the Arctic poppy?

Student: An Arctic poppy is a plant that follows the sun.

Teacher: Where does it live?

Student: In the Arctic.

Teacher: Very good. All right, let's learn ... Thank you, have a seat. Let's talk about some of its structures. One of the structures of the Arctic poppy is the solitary flower. Who has, "Solitary flower?" Student, come on up ... What's the, "Solitary flower?"

[00:12:00]

Student: The solitary flower is a plant that ...

Teacher: What's its function?

Student: It traps the heat in the petals.

Teacher: Okay, it traps the heat in the petals. Why does it trap heat in the petals? ... Did we talk

about that? Yeah, okay. Perfect time to use one of our learning agreements, who can help her out? Why does the Arctic poppy trap heat inside of its petals? Student?

Student: It traps heat inside of its petals because [inaudible 00:12:42] so it can survive [inaudible 00:12:45].

Teacher: Much sun.

Student: Much sun.

Teacher: Yeah. Okay, good. Put it up there. What's another adaptation that the solitary flower uses? Student?

Student: One adaptation is it follows the sun.

Teacher: Yeah, it follows the sun. The Arctic poppy has a very short growing season, we talked about that. The Arctic only has full days of sun in the summertime, so it only grows from like July until August, maybe a little bit in June. The whole time it's growing it needs to get as much sunlight as possible, so one of the things it does is it follows the sun, it follows the arc of the sun. Good.

Do you see the solitary flower anywhere in one of these pictures? ... Right there, yeah. Let's use this one because it's a little bit smaller. I'm sorry, I hid it behind this one. The solitary flower. Very nice, have a seat. Thank you. Another structure that the Arctic poppy has is the thick stem. Who has, "Thick stem?"

Student: Me.

[00:14:00]

Teacher: All right Student, come on up ... Stick it up there. What's a thick stem?

Student: A thick stem is covered with hair on it.

Teacher: What word did we say it was similar to? It's like a ...

Student: A straw.

Teacher: A straw. Why is it like a straw?

Student: Because I think it sucks the water like a straw. [Straws 00:14:39] ...

Teacher: It uses a straw to suck up water, or it's like a straw? ... The Arctic poppy has lips and a mouth?

Student: No.

Teacher: And a diaphragm to suck water up from the ground? No, okay. Then it's like a straw.

Student: Yeah.

Teacher: It's like a straw. Okay, very good. A thick stem. Water travels up through the thick stem to the solitary flower, but where does all that water come from? Who has, "Shallow roots?" [inaudible 00:15:15], come on up. Shallow roots ... What is the function of the shallow roots?

Student: The function of the shallow roots is it allows the Arctic poppy to grow on rocks.

Teacher: Okay, how do the shallow roots aid the Arctic poppy's growth?

Student: Well, it [inaudible 00:15:41].

Teacher: Good, okay. What's another job of the shallow roots? It helps the thick stem in sucking up ...

Student: Water.

[00:16:00]

Teacher: Water, yeah. It gets the water from, this ...

Student: The permafrost.

Teacher: Yeah, under the permafrost. Who has, "Permafrost?" Student, come on up. Thank you, [inaudible 00:16:06]. You can have a seat ... What's permafrost?

Student: Permafrost is [inaudible 00:16:21].

Teacher: Not quite. Okay, let's help her out. Who remembers what permafrost was? [inaudible 00:16:32], what's permafrost?

Student: Permafrost is water under all of the ice.

Teacher: Yeah, remember we talked about when you go to the beach and the wave has just receded back into the ocean? The sand looks dry and you kind of dig a little bit in the sand, and all of a sudden all this water starts bubbling up. The layer of sand that you need to dig through is like the permafrost. It's kind of a thick layer of ice. There's grass, dirt and rocks, and then there's ice. Underneath all of that permafrost is where all the water is that the Arctic poppy sucks up with its roots and its thick stem. All right, thank you very much.

Do we have anymore? Oh okay, two more. The last two things we're going to talk about are its environment. Who has, "Arctic," or, "Tundra?" [Student 00:17:31], come on up ... You can just stick it right there. Can you describe the Arctic or the Tundra environment

to us?

Student: It's very cold and snowy.

[00:18:00]

Teacher: Okay, do you see a picture of its environment up there? ... Can you show everybody? Yeah, very cold, very snowy. Do you see a lot of vegetation?

Student: No.

Teacher: No. Do we see a lot of animals?

Student: No.

Teacher: No, it doesn't have as many animals as other environments. Why do you think it doesn't have a lot of vegetation or a lot of animals? Turn and talk to your partner really quickly.

Class: [crosstalk 00:18:22][inaudible 00:18:22] ...

Teacher: Why do you think it doesn't have a lot of vegetation or animals? ...

Student: [inaudible 00:18:36] ...

Teacher: Thank you. Okay, why do you think the Arctic doesn't have a lot of vegetation? Student?

Student: It doesn't have a lot of sunlight.

Teacher: It doesn't have a lot of sunlight, right. We said the sun is usually only out a couple months out of the year. During the wintertime nothing grows. Why else, [Student 00:19:27]?

Student: Some plants can't grow in the cold.

Teacher: Yeah, some plants haven't adapted to the cold weather. There's a lot not a lot of water. There might be snow, but the plants can't drink snow, they can only drink unfrozen water. Why do you think then there wouldn't be a lot of animals in an environment like the Arctic or the Tundra? [Student 00:19:58]?

[00:20:00]

Student: The vegetation can't feed the animals.

Teacher: Good. Did you hear what he said, Student? No, okay. [Student 00:20:10], can you say it a little bit louder?

Student: The vegetation can't feed the animals.

Teacher: Yeah, if there's a limited supply of vegetation, then there's a very limited supply of food for other animals to eat. Vegetation, producer. Animals, consumer. Not enough producers, not enough consumers. Other animals that are carnivorous can't eat those herbivores. Okay, very good. Last one for today and then we'll start out writing. The other environment that we talked about is the what, [Student 00:20:48]?

Student: The rainforest.

Teacher: Rainforest, total opposite of the Arctic. Come on up, put it up ... Okay, the rainforest. Can you describe the rainforest to us a little bit?

Student: In the rainforest there's a lot of animals and [water 00:21:16].

Teacher: Okay, lots of animals, lots of plants. It's very ... Do you see a picture up here that shows the rainforest. Yeah, okay. I see a lot of green. I see a lot of trees. Why do you think the rainforest has so much vegetation? Student, why do you think the rainforest has so much vegetation? What does it get a lot of?

Student: Rain.

Teacher: Yeah, a lot of rain. A lot more rain, and then all those tall trees have adapted to reach the sunlight. Very good, all right. I'm going to stick that up here. Okay, thank you. Have a [00:22:00] seat. What we're going to do next is, we are going to work together to start your essay comparing and contrasting plants from different environments. I will leave the input chart up here, and we're going to use it to help start our essay. What I mean, "Start," I mean we're going to write the first three or four sentences, and then you are going to go off and write the last three or four sentences, okay? How does everybody feel about that?

Class: Good.

Teacher: Yeah? All right, good ... Here's our question we're answering for today. "How are plants from different environments similar? How are they different?" How do you think I should start off my paragraph? Turn and talk to your neighbor. "How should I start off my paragraph? Is there a specific sentence I could use to help me effectively start off my paragraph?"

[00:24:00]

Class: [crosstalk 00:23:28][inaudible 00:23:29]

Teacher: Okay, I'm very sorry. Before we start writing our introductory sentence, let's check in with our scouts. [inaudible 00:24:21], have you seen anybody exhibiting good behavior?

Student: I saw [Student 00:24:32] exhibiting good behavior, I think, when she was asked to come up and put her word up. She went around everyone instead of walking through.

Teacher: Oh, very nice. Can you pass that back to [Student 00:24:47], please? Awesome. Okay, did you see anybody else exhibiting good behavior?

Student: I saw Student, because Student was answering his questions with a complete sentence.

Teacher: Oh, very good. Okay, pass that to Student. Thank you. [Student 00:25:10], our other scout, did you see anybody exhibiting good behavior? ... No? How about your partner?

Student: Yeah.

Teacher: Yeah? Okay, why did Student exhibit good behavior? What example did he do?

Student: He used appropriate voice level.

Teacher: Okay, so he used appropriate voice level. I heard you when you two were talking in your group, you weren't being so loud none of the other groups could hear each other, but when I asked him a question he spoke loud enough that I could hear him and people in the back could hear him. Very nice, Student. Thank you. Scouts, keep looking for good behavior. Before I send you off to write your essay, we'll check in with you guys again and if I forget can you remind me? All right, our paragraph, how do we want to start it? Student, I saw your hand shoot up. How do you think we would start answering a question like that?

Student: We could start answering the question using the learning target.

Teacher: Okay, you can use the language of the learning target. "I can compare and contrast plants from two different environments." What transition word would you use? Would you use, "By? Because?" ... You can put it on this side. Right there, thank you ... "By, because, since," which transition word do you think sounds like it makes the most sense?

Class: "By."

Teacher: "By?" Okay, so let's make that, "By." ... Okay, "I can compare and contrast plants from two different environments by ... " What do we want to say about them? Student?

Student: By comparing that they both need water and sunlight.

Teacher: Okay, "I can compare and contrast plants from two different environments by comparing that they both need water and sunlight." Do we want to add anything else that's similar? How else can we compare the Arctic poppy and the strangler fig?

Student: Oh, they're both plants.

Teacher: Okay. Yes, they are both plants. Can we get a little bit deeper in our comparison? [Student 00:29:08]?

Student: They both have roots.

Teacher: Yup, they both have roots ... Anything else we want to add that's similar about the stranger fig and the Arctic poppy? [Student 00:29:44], I haven't heard from you yet. What else do they both have? ... Do they both have adaptations?

Student: They both have stems.

[00:30:00]

Teacher: Oh, they both have stems . Yeah, there's stems off of the foliage of the stranger fig. Okay, I'm going to stop it right there because I think we need to revise this a little bit. How about you? Yeah? Okay. "I can compare and contrast plants from two different environments by comparing that they both need water and sunlight." Does anybody know what we forgot? What did we forget? You forgot to talk about their ...

Class: [crosstalk 00:31:06][inaudible 00:31:06].

Teacher: Nope. What two plants are we comparing?

Class: Oh, their name.

Teacher: Yeah, we forgot to tell the names. If Ms. [Cutty's 00:31:21] class is reading this they would have no idea what two plants we were talking about, so we need to include their names. "I can compare and contrast plants from two different environments by comparing," right here. I'm going to [inaudible 00:31:48] it. What two plants are we comparing?

Class: Arctic poppy and the stranger fig.

[00:32:00]

Teacher: The strangler fig and the Arctic poppy. Oops, my spelling is horrible today ... All right, "A strangler fig and an Arctic poppy." ... Let's start over. "I can compare and contrast plants from two different environments by comparing the strangler fig and the Arctic poppy, that they both need water and sunlight." This still doesn't sound like a great 5th grade sentence, okay? We talked about the two different plants, did we mention their environments?

Class: No.

Teacher: No. Do you think we should write something about their environments first, before we get into comparing and contrasting? Okay, so do we want to put it in the same sentence or do you think we should stop the sentence right there and make a new sentence?

Class: Make a new sentence.

Teacher: Talk about it with your partner and then I want to know why ... What do you guys think, should we put a period right here and start a new sentence or do you think we should just keep it all in the same sentence?

Student: [inaudible 00:33:50] ...

[00:34:00]

Teacher: What do you think, Student? Should we put a period right here and make a new sentence?

Student: Yeah..

Teacher: Yeah, why?

Student: [inaudible 00:34:04] ...

Teacher: Hi, thank you ... Okay, who has a thought? What do you think we should do? [Student 00:34:35], what do you think we should do?

Student: We should make them a new sentence because [inaudible 00:34:45] a run on sentence.

Teacher: Oh, very good. I liked that you used that keyword that we've been discussing, "Run-on." Run-on sentences have more than one idea in them. We don't want to have run-on sentences in our writing. We talked about the two plants, we're going to put a period right here. Now, we just start a new sentence and talk about their environment. What can we say about their environment? Shall we say something like, "The environments are the Arctic and the rainforest?"

Class: [crosstalk 00:35:30] No. Yes.

Teacher: Maybe, but let's make it a little bit more specific. How about talking about where each plant lives? The Arctic poppy [crosstalk 00:35:39] lives in the ...

Class: Lives in the Arctic.

Teacher: Arctic, and the ...

Class: [crosstalk 00:35:44] Strangler fig lives in the rainforest.

Teacher: I heard, "The strangler fig lives in the rainforest." I'm going to try and put all of that on the board. ... "I can compare and contrast plants from two different environments by comparing by comparing the strangler fig and the Arctic poppy." Does that sound okay? Yeah, not bad. "The Arctic poppy lives in the Arctic, and the strangler fig lives in the rainforest." Okay, so now let's get into our comparisons. They both need water and ...

Class: Sunlight.

Teacher: Sunlight ... Let's fix this, take that word out. What grammatical thing do I need to do for this since it's the start of a new sentence?

Class: Oh, capitalize.

[00:38:00]

Teacher: Yeah, capitalize the T. "They both need water and sunlight. They both have roots. They both have stems." "They both," is starting to sound very repetitive. It sounds kind of choppy, so let's see if we can combine some of these thoughts and make it one long compound sentence. "They both need water and sunlight." I'm seeing a compound word, what compound word do you hear in, "They both need water and sunlight?"

Class: And.

Teacher: "And," okay. How do you think you can combine the next two sentences? "They both have roots. They both have stems."

Class: And.

Teacher: Talk to your partner and figure out, what would the sentence sound like?

Class: [crosstalk 00:39:08][inaudible 00:39:09] ...

Teacher: Student, I heard you having good conversations with your partners. What do you think that new compound sentence is going to sound like? "They both have roots ... "

Student: They both have roots and they both have stems.

Teacher: Yeah, "They both have roots and they both have stems." Do you think it would still sound okay if we took out another part of that sentence?
[00:40:00]

Student: Yes.

Teacher: Instead of saying, "They both have roots and they both have stems," what if we just wrote, "They both have roots and stems?"

Student: Yeah.

Teacher: Does that still sound okay? Okay, let's try that ... Yes, Student?

Student: You can take off the, "And," and use a transition word like, "Next."

Teacher: Okay, I think that would be a good idea. We'll use another transition word when we go to a new idea. We're still talking about, "How are they similar?" That's the same idea, so the compound word is just combining ideas in this bigger idea of comparing, but I like

our idea of using, "Next." When we switch the contrast we'll use that transition word. Is there anything else that they both have? Look back at its structures, look back at its functions. Think about its adaptations as well. Is there anything else they both have in common? [Student 00:41:25]?

Student: They both have leaves.

Teacher: Okay. They both have leaves, yeah. What are those leaves used for? Let's get one of the functions in here because we listed a whole bunch of structures, we haven't talked about what they do. Do the leaves in the strangler fig and the leaves in the Arctic poppy have the same function?

Class: No.

Teacher: No?

Class: Yes.

Teacher: Yes? You don't sound sure.

Class: [crosstalk 00:41:53][inaudible 00:41:53].

[00:42:00]

Teacher: Okay, who says, "No?" Who says, "Yes?" Okay, talk to ... Who doesn't know? Okay, talk to your partner, see if you can come up with definitive, "Yes," or, "No," and why ...

Class: [crosstalk 00:42:10][inaudible 00:42:11] ...

Teacher: [Student 00:42:15], so what do you think? Do the leaves have the same function in both plants? Do you know what the function of the leaves is?

Student: I think foliage.

Teacher: Foliage? Yes, foliage is leaves. Okay, you think they do? Why?

Student: I think [inaudible 00:42:37] the Arctic poppy flower follows the sunlight..

Teacher: But that's not a leaf, that's the flower. What's the leaf? Think about it, what is the function of a leaf in the plant? It's to make ...

Student: To make food.

Teacher: Okay, so do you think the leaf in the Arctic poppy makes food?

Student: No.

Teacher: If it doesn't make food how does it grow? What is that called, in order to make food?

Student: Photosynthesis.

Teacher: Okay, so do you think the leaves on the Arctic poppy performs photosynthesis?

Student: Yeah.

Teacher: Do you think the leaves on the strangler fig perform photosynthesis?

Student: Yeah.

Teacher: Then do they have the same function?

Student: Yeah.

Teacher: Okay ... I had a good conversation with that group. Let's share with everybody else what we talked about. Do the leaves in both plants have the same function?

Class: Yes.

Teacher: Yes? What is their function, Student?

Student: To make food.

Teacher: Yeah, what is that called?

Student: Photosynthesis.

Teacher: Yeah, to perform photosynthesis. That's the leaves function on almost every single plant. The only thing that's different about the leaves on the Arctic poppy and the leaves on the strangler fig is this one just has hair on it . Their functions are the same, so let's say that. How are we going to say that in a sentence? How about, "Both the leaves on the Arctic poppy and the strangler fig ... "

[00:44:00]

Class: "Are alike."

Teacher: " ... are alike because ... "

Class: "They both have the same function."

Teacher: Yeah, which is to ...

Class: To perform photosynthesis.

Teacher: Very good. All right, think about what it is that we've been doing because I'm going have

you write your three contrast sentences in about two minutes.

Class: May we write more than three?

Teacher: Yes, you may write more than three.

[00:46:00]

Class: Yes! [crosstalk 00:45:01][inaudible 00:45:01]

Teacher: Yes, I was [inaudible 00:46:27] ...

Class: [crosstalk 00:46:28][inaudible 00:46:28] ...

Teacher: All right, let's read through one last time and see, is this an acceptable introduction to our paragraph? "I can compare and contrast plants ... " Why aren't you guys reading with me? Can you read with me, please?

Class: "I can compare and contrast plants from two different environments by comparing the strangler fig and the Arctic poppy. The Arctic poppy lives in the Arctic, and the strangler fig lives in the rainforest. They both need water and sunlight. They both have roots and stems. The function of the leaves on the Arctic poppy and the strangler fig are similar because they both have the same function of performing photosynthesis."
[00:48:00]

Teacher: How was that? Was that a very good, strong, scientific introduction to our paragraph?

Class: Yeah.

Teacher: Yeah? Do you feel comfortable continuing this and talking about contrasting their structures, functions and adaptations?

Class: Yes.

Teacher: Yes? Okay. That's what you're going to do on the paper in front of you. I'm going to have you ... Actually, I change my mind. I want you to create a [inaudible 00:48:38] doc and type this out.

Class: Yay!

Teacher: Okay, so you're going to start it off by typing out what we've already started together and then you can finish it. You have until 9:30 because I want to read a couple peoples responses first. I will move this over there so that you can see the poster and this at the same time. Can I have from Student to Student, Student and [Student 00:49:14], can you head back to your seats, please? ... Okay, can I have this row head back to their seats? ... Can I have this row head back to your seats?

[00:50:00]

Class: [crosstalk 00:49:31][inaudible 00:49:31]

Teacher: Oh my goodness! Scouts, you forgot to remind me. That's fine, just stay where you are and I will give each person ... [inaudible 00:50:14].

Class: [crosstalk 00:50:22][inaudible 00:50:23].

Teacher: Yeah, so go to the [waffles 00:50:31] apps and click, "Doc."

Class: [crosstalk 00:50:36][inaudible 00:50:36].

Teacher: Yeah, I'll get it. I'll show you how to share [inaudible 00:50:43].

Class: [crosstalk 00:50:45][inaudible 00:50:46].

Teacher: Really quickly before you start, did you see anyone else that has not yet got an award today exhibiting good behavior?

Student: I saw Student exhibiting good behavior because when he was [inaudible 00:51:04].

Teacher: Oh, very good. Thank you, Student. Okay, [Student 00:51:12], did you see anybody else exhibiting good behavior? Who are you pointing to?

Student: This girl right here.

Teacher: What's her name?

Student: Student.

Teacher: Student, okay. How did Student exhibit good behavior? ... How is Student exhibiting good behavior?

Student: [inaudible 00:51:38].

Teacher: She was staying on topic when she talked with her partner?

Student: Yes.

Teacher: Good. All right, if you don't know how to make a doc, raise your hand I will come around and help you, or [inaudible 00:51:55] can come around and help you. Okay, who does [00:52:00] not know how to make their own doc? Okay, Student?

Student: [inaudible 00:52:08].

Teacher: Yes.

Class: [crosstalk 00:52:21][inaudible 00:52:21] ...

Teacher: Yes, this is the question you are answering right here.

Class: Do we have to type it up?

Teacher: No. You have to type out what we've written so far. When you get to the very last sentence that's when you ...

Class: Write your own.

Teacher: ... write how they're different. You're going to contrast them. "The Arctic poppy is this, however the strangler fig is this." ... Got your docs? Who does not have their doc [00:54:00] [inaudible 00:53:23]? Everybody have a doc? ... [inaudible 00:54:36] ... [inaudible 00:56:50] ...

[00:58:00] As a reminder, if you can't see something bring your [notebook 00:57:48] closer so you can see it, or you can walk up and look and then come back. ... For the people in the back it's a little bit harder to see. In about five minutes can I have [Student 00:58:14], Student, and Student [inaudible 00:58:21]. No, not right now, in five minutes, so 9:08 ...

[01:00:00] (Phone ringing) Hello? ... Yes. Oh, [inaudible 01:00:04] ... oh, okay. I will ask [inaudible 01:00:19]. Bye ...

[01:02:00] About twenty-five more minutes. Those three people, you have about two more minutes ... Okay, [Student 01:02:17], Student, and Student, bring your computers down to the floor over here ... Come closer ... [Student 01:03:05], can you sit like them, please? There's less chance that you'll drop your computer. Okay, I want to work with you three on your contrast sentences because we're still not familiar with how to use our [chart 01:03:28]. We talked about the comparing, what are some things that are different about the strangler fig and the Arctic poppy?

Student: The Arctic poppy has hair and the strangler fig doesn't.

[01:04:00] Teacher: Okay, so that may be one sentence we want to write. You can say, "Contrasting ... " "Contrasting the Arctic poppy and the strangler fig."

Student: "Contrasting the Arctic poppy and the strangler fig."

Teacher: Okay, "Contrasting the Arctic poppy and the strangler fig, the Arctic poppy has hair and the strangler fig doesn't." Okay, so can you type that up? Even if you're in the middle of that question, [inaudible 01:04:56] go back and fill that in, so just type that up, okay?

Student: Yes.

Teacher: So, "Contrasting the Arctic poppy and the strangler fig, the Arctic poppy has hair and the strangler fig doesn't." ... Pass ...

Student: Is this how you spell, "Poppy?"

Teacher: Okay, where can we look to find that word?

Student: It's on the board.

[01:06:00]

Teacher: Yeah, right there, "Arctic poppy." ... Don't forget the pass. "Arctic poppy." ... Okay, what else is different about these two flowers? These two plants, I'm sorry. One doesn't have a flower. [Student 01:06:28], what else is different?

Student: One is a tree and one is a flower?

Teacher: Okay, so let's use that in the sentence. "Another difference between the Arctic poppy and the strangler fig is ... "

Student: [inaudible 01:07:30].

Teacher: Yeah, "Another difference between the Arctic poppy and the strangler fig is the Arctic poppy is a flower and the strangler fig is a tree." What about some of the functions? How does a strangler tree ... I'm sorry, those aren't functions, adaptations. How does a stranger tree survive in the rainforest?

[01:08:00]

Student: Because it has a lot of water.

Teacher: It has a lot of water. Okay, the rainforest has a lot of water. What else does it do? Do you remember when we were learning about the-

Student: Oh, it sucks up all the water in the trees and the trees die.

Teacher: Okay, so the strangler fig ... One adaptation of the strangler fig is it sucks up all the water and it blocks all the sunlight from the host tree. Does the Arctic poppy do that?

Student: No.

Teacher: No, so what's an adaptation the Arctic poppy has?

Student: One adaptation of the Arctic poppy is the solitary flower follows the sun.

Teacher: Yeah, very good! "One adaptation of the strangler fig is ... " "One adaptation of the Arctic poppy is ... " Okay, so do they have similar adaptations? Killing the host tree, following the sunlight, do they have similar adaptations?

Student: No.

[01:10:00]

Teacher: No? Okay, yeah. That's why we're writing them in the contrast paragraph. ... Go blow your nose. Student, tissue ... You have about fifteen more minutes and then I'm going to have a couple people share. If you're done, raise your hand and I'll show you how to email your doc to me.

Class: What if we know how to?

Teacher: If you know how then fine, but some people don't.

Class: What if you don't finish it?

Teacher: Well, just send me what you have so far. It's a work in progress, we'll probably add some more to it tomorrow. You might hear some feedback from your classmates today that you want to incorporate in your doc.

Let's go back to that paragraph about comparing. Is there an adaptation that they both share that's the same? They only have one, one adaptation that is very, very similar. I'll give you a hint, it has to do with the roots.

Student: Oh, the stems.

Teacher: The roots.

Student: Oh, okay. The roots.

Teacher: The Arctic poppy, what do its shallow roots grow around, Student? What do the shallow roots grow around?

Student: Rocks.

[01:12:00]

Teacher: Okay. Student, the strangler figs roots, where does it grow around?

Student: The host tree.

Teacher: Okay, so they both have adapted their roots to grow around something, and it helps stabilize the plant.

Student: Does that mean like [inaudible 01:12:18]?

Teacher: To stabilize means that it doesn't move very easily. Remember the shallow roots on the Arctic poppy? They grab on to the rocks so that if there's a big gust of wind they're not going to fall over. Same with the strangler fig. How do the roots get so high up into the

host tree?

Student: The birds eats the seeds and keeps it on top of the tree.

Teacher: Yeah, the bird eats the fruit and when they eat the fruit they also eat the ...

Student: Seeds.

Student: Seeds.

Student: Seeds.

Teacher: The seeds, right. Sometimes the seeds land in a host tree.

Student: Then they grow.

Teacher: The seeds start growing around the host tree, just like this one. Eventually, this is why it gets its name, it strangles the host tree so that it can't grow anymore. It takes away all of its water and it blocks all of its sunlight and it kills it. That's one adaptation that's very similar. If you want to go up your compare part of your essay and write that in. I'll start it for you, so, "One adaptation both the Arctic poppy and the strangler fig share are their roots." Then you talk about how both plants have very strong, sturdy roots.

[01:14:00]

Student: What is [inaudible 01:14:13]?

Teacher: "Another difference between the Arctic poppy and the strangler fig is one is a tree," that's the one you said.

Student: No, the other one.

Teacher: This one? "One adaptation of the strangler fig is ... " I think it had to do with the hair. Oh, no. It had to do with how it gets its food. One adaptation of the strangler fig is the strangler fig will survive off the host tree and slowly kill it, but the Arctic poppy's adaptation is the poppy will follow the sun.

How are you guys doing back there? Anybody done, need help emailing their papers? Okay, keep writing I'll be right back.

Class: [crosstalk 01:15:26][inaudible 01:15:26] ...

[01:16:00]

Teacher: Make sure you title your document before you email it ...

Class: [crosstalk 01:16:03][inaudible 01:16:03].

Teacher: It will tell me who it's from and then [inaudible 01:16:08] ... Okay. I'm going to print it

out ... Okay Student, here you go.

Student: [inaudible 01:17:24].

Teacher: [01:18:00] When we get through [inaudible 01:17:29], and if not then [inaudible 01:17:33]. You guys have about eight more minutes ... How are you doing? Oh, who did not go to lunch monitors yet?

Student: Me.

Teacher: Student and Student. Student, you went already.

Student: No, I didn't.

Teacher: Student and [inaudible 01:18:10].

Class: No, he didn't.

Teacher: [inaudible 01:18:17], okay. You two will go after recess.

Student: [inaudible 01:18:19].

Teacher: You went already.

Student: [inaudible 01:18:24].

Teacher: Yeah, you went.

Class: [crosstalk 01:18:45][inaudible 01:18:46].

Teacher: Start finishing up your last couple thoughts and then email those to me so that you have it to read off of. It's going to be really hard to read off of your laptop ... Okay ... Okay, in about two minutes I'm going to ask that everyone finish their sentence. Even if you're not finished with your essay just finish your sentence and start emailing them to me so that I have time to print them out. Sorry, now you have one minute. If you're done, title it, email it to me ...

Student: [inaudible 01:20:40].

Teacher: Okay, just write it [inaudible 01:20:43] ... [inaudible 01:21:08], yours is coming right now.

Student: [inaudible 01:21:11]?

Teacher: Two? Is it the same one?

Student: Yeah. Well, one has a bigger font than the other one. [inaudible 01:21:23].

Teacher: Okay. Which one do you want, the one with the big font or the one with the small font?

Student: The bigger font.

Teacher: Okay ...

Student: Do we edit it?

Teacher: No, go to share.

Student: Share?

Teacher: In the top left hand corner.

Class: Right hand corner.

[01:22:00]

Teacher: Right hand corner, sorry. I'm backwards today. Top right hand corner, that blue button, "Share." Did you give it a title? Okay, type in my name, Teacher. Then my email will come up.

Class: Teacher, is the function the top?

Teacher: Yes. Here, I don't know which one you want. They look exactly the same to me ...

Class: [crosstalk 01:22:38][inaudible 01:22:38] ...

Teacher: Okay, you should have your sentence finished. Start emailing them to me, because I just want a couple of people to read what they have.

Class: What if you're not done?

Teacher: It doesn't matter, email it to me. Like I said, if your not done that's all right because we're probably going to make revisions tomorrow anyway, after you hear feedback from your classmates.

Class: Like this?

Teacher: Yup, so there's a blue button in the top right hand corner that says, "Share." If you didn't give your paper a name it's going to ask you to give it a name. Name it anything, Science paragraph, compare and contrast essay, science essay. Then type in my last name into the email slot, my email should come up.

Class: What, share?

Teacher: Share, yes.

Class: [inaudible 01:23:51].

[01:24:00]

Teacher: Oh, leave it as, "Can edit." Student, come grab yours off the printer ... Did you send it to me, Student?

Student: [inaudible 01:24:16] sended it.

Teacher: Send it.

Class: After we put our name we put Teacher?

Teacher: Your name? Why are you going to put your name?

Class: [inaudible 01:24:23].

Teacher: My name.

Class: Teacher, what do I ...

Teacher: Give it a title. Okay, [Student 01:24:37], yours is coming up ...

Student: What!

Teacher: [Student 01:24:48], yours is coming out of the printer, too.

Student: Teacher, it keeps on adding people.

Teacher: Why are you adding people? Just type in my name.

Student: Teacher, do you go on this one?

Teacher: Yeah, and then hit send.

Class: [crosstalk 01:25:13][inaudible 01:25:13] ...

Teacher: Do you have to what?

Student: Write your name.

Teacher: No. Did you send it to me? ... Did you send it to me? Bring it over here, Student. Student, [Student 01:25:39], yours is in the printer.

[01:26:00]

Class: [crosstalk 01:25:53][inaudible 01:25:53]

Teacher: [Student 01:26:00], yours is coming up ... Okay, if I didn't print yours yet ... Be careful with that.

Class: [crosstalk 01:26:18][inaudible 01:26:18].

Teacher: [Student 01:26:19], why are you sending it to me twice? If I didn't print yours yet, don't worry about it.

Class: Teacher?

Teacher: Yes, [inaudible 01:26:32]?

Class: [inaudible 01:26:34]. I was just asking.

Teacher: Oh, yeah ...

Class: [crosstalk 01:26:44][inaudible 01:26:44] ...

Teacher: Student, Student, Student, yours are all in the printer, go grab it. Last one, [Student 01:27:23]. There you go. Okay, can you bring ... Actually, you stay in your seats. We'll have ... First one? Oh, Student. Can you close your computer? All right, let's listen to Student's. We're going to listen to see ... Student's, here. We're going to listen to see, did she answer the question? did she give examples, sites information? Did she give an explanation for her citations.

[01:28:00]

Student: I've got two of them.

Teacher: Okay. We want constructive, positive feedback. All right.

Student: [inaudible 01:28:27] question: how are plants from different environments similar? How are they different?

I can compare and contrast plants from two different environments by comparing the strangler fig and the Arctic poppy. The Arctic poppy lives in the Arctic and the strangler fig lives in the rainforest. They both use sunlight and water. They both have roots and stems. The function of the leaves on the Arctic poppy and the strangler figs are similar because they both have the same function of performing photosynthesis.

Next, I can contrast the strangler fig and the Arctic poppy by the Arctic poppy is smaller than a strangler fig, and the strangler fig is bigger. The Arctic poppy does not live in the same environment. The Arctic poppy lives in the Arctic and the strangler fig lives in the rainforest. Lastly, the Arctic poppy and the strangler fig is different from its weather. In the rainforest the weather rains a lot, and in the Arctic it snows a lot.

Teacher: Okay. Raise your hand if you can give her something positive she had in her paper. [Student 01:29:41]?

Student: She didn't have any run-on sentences.

Teacher: Very good. Yeah, she didn't have any run-on sentences. Okay [Student 01:29:48], anything else?

Student: She stayed on topic.

Teacher: [01:30:00] Yeah, she stayed on topic. Nice. Can you give her some feedback for how to make her paper better? All of you are going to have the same thing for the compare, unless you went back in and you added another detail, so let's focus on the contrast. Is there anything she can do to make the contrast paragraph stronger? [Student 01:30:12]?

Student: She could write something about their functions.

Teacher: Yeah, you didn't have anything about ... Well, you had something about the functions, but we can make it a little bit more descriptive. Okay, so it's something to think about for tomorrow. All right, good. Thank you, Student. Have a seat. We're going to let fate decide who speaks. [Student 01:30:37]!

Class: [crosstalk 01:30:38][inaudible 01:30:38].

Student: I'm not a good speaker. I'm camera shy.

Teacher: Okay, let's be respectful. [inaudible 01:30:53].

Student: Oh, sorry.

Teacher: Okay [Student 01:30:58], can you say your paragraph, please? You can do it!

Student: I'm so shy.

Teacher: You can do it.

Class: Why are you scared of the camera?

Student: [inaudible 01:31:15].

Teacher: [Student 01:31:17], let's go! You can do it.

Student: I can compare and contrast plants from two different environments by comparing the strangler fig and the Arctic poppy. The Arctic poppy lives in the Arctic and the strangler fig lives in the rainforest. They both need water, sunlight and oxygen. They both have

roots and stems. The function of the leaves on the Arctic poppy and the strangler figs are similar because they both have the same function that is to do photosynthesis.

Teacher: Okay.

Student: That is all.

[01:32:00]

Teacher: That's all? Okay. Good, can we tell [Student 01:32:03] something positive about his paper? [Student 01:32:06], something positive about his paper?

Student: I don't know.

Teacher: No, you had your hand raised. Okay Student, something positive about his paper?

Student: Something positive about his paper is [inaudible 01:32:27]

Teacher: Okay, what was that called? [Student 01:32:32] used that before, we talked about it last ...

Student: Run-on sentence.

Teacher: Yeah, run-on sentences. You didn't have run-on sentences, very nice. Okay, anything else positive about his paper? I heard something, he added something extra. Did anybody hear? Student?

Student: He added, "Oxygen."

Teacher: Yeah, so he said, "They both need water, sunlight, and oxygen." He added that other basic life necessity to that sentence. How about something he can work on for tomorrow? [Student 01:33:05], what's something [Student 01:33:06] can work on for tomorrow to make his paper stronger?

Student: More paragraphs.

Teacher: More paragraphs, yeah. We didn't hear anything about how they're different. Tomorrow that's what you're going to focus on, is contrasting the Arctic poppy and the strangler fig, okay? Very nice! See, you did fine. Okay, we have time for one more. [Student 01:33:34].

Class: [crosstalk 01:33:34][inaudible 01:33:34].

Teacher: [Student 01:33:38], come on up. I like how loudly you all are talking, as well. That's been something you've been working on. You're getting better. [Student 01:33:53] and Student, [inaudible 01:33:53]. Okay [Student 01:33:56], whenever you're ready.

[01:34:00]

Student: I can compare plants from two different environments by comparing the strangler fig and the Arctic poppy. The Arctic poppy lives in the Arctic and the strangler fig lives in the rainforest. They both use water and sunlight. They both have roots and stems. The function of the leaves on the Arctic poppy and the strangler figs are similar because they both have the same function of performing photosynthesis.

Both are different because the Arctic poppy follows the sun, and the strangler fig wraps around a host tree and steals water from it. Both are different because the Arctic poppy has hair and the strangler fig doesn't. They both are different because the strangler fig is part of a tree, and the Arctic poppy is a plant. Both are similar because they both are producers.

Teacher: Oh, okay. Very nice. Thank you, [Student 01:35:04]. Something positive you heard in his paper, Student?

Student: It was on topic.

Teacher: Good. Yeah, he was on topic. How about the detail he put in his sentences, Student?

Student: He added photosynthesis.

Teacher: Okay, he added photosynthesis, yeah. What about the contrast sentences? I heard a few great things in there. [Student 01:35:30]?

Student: He said that the strangler fig stole water from the host tree.

Teacher: Yeah, he was very descriptive with his verbs. "It steals water," because that's what it does. It steals the water from the host tree. He also used that word, "They're both producers." They both produce energy for other organisms. Very nice. One piece of feedback that he can work on for tomorrow, Student?

[01:36:00]

Student: He can work on adding more contrast.

Teacher: Okay, so adding more sentences to his contrast. Yeah, I think one thing that I would advise you to do is move that compare sentence into the compare paragraph. If you were going to do it simultaneously, so "One thing that's similar about the Arctic poppy and the strangler fig is they both are plants. However, the Arctic poppy lives in a different environment than the strangler fig." Then you can kind of mix the compare and contrast together, but we didn't do that today. We just did one compare paragraph and one contrast paragraph. I would move that sentence, that very last sentence about they're both producers, move it into the compare paragraph. Otherwise, very good! All of your paragraphs were very good!

Can you put your paragraph in your mailbox and-

Student: [crosstalk 01:37:19][inaudible 01:37:19].

Teacher: Put it in your mailbox and line up quietly outside because the recess bell is going to ring in about one minute.