

GOAL II

DURING READING: BREAKDOWN

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OVERVIEW AND EXAMPLES

OUTCOMES

- Students learn to identify words or ideas they do not understand.
- Students apply breakdown strategies to identify unknown words or ideas.

DESCRIPTION

Understanding breaks down when students do not know certain words or are confused by concepts or sentences. Breakdown is a set of strategies that students use to identify unknown words or ideas. Breakdown includes three steps.

1. Identify words and sentences that you do not understand.
2. Use fix-up strategies to find the meaning of unknown words.
3. Use the get the gist strategy to find the meaning of confusing sentences.

STEP 1: IDENTIFYING AND MARKING BREAKDOWNS

Step 1 occurs during reading. While students read, they are instructed to do the following:

1. Write words you cannot read in your learning log.
2. Write and underline words you can read but do not understand.
3. Put a sticky note or other removable marker after a sentence (or sentences) that is confusing.

In the teacher-modeled phase, introduce the breakdown strategies and read aloud a paragraph or short section of text, marking each type of breakdown as it occurs. In the teacher-supported phase, students read on their own or with a partner, using the marking procedures as they read.

TEACHER-MODELED PHASE

Teacher: Good readers notice when their understanding breaks down, or when they do not understand how to read a word or find a confusing sentence. When your understanding breaks down, it is similar to when a car breaks down. You need to know what is wrong with the car to figure out how to fix it. During reading, you will learn to notice when your understanding breaks down and to figure out what kind of strategy to use to fix things up and keep your reading going.

You will learn three strategies to use when your reading breaks down. The first strategy is to notice when you cannot read a word, the second is to notice when you can read a word but you do not know what it means, and the third is to notice when a sentence does not make sense or is confusing. We will also learn fix-up strategies to help you repair your understanding after a breakdown.

Post or give out copies of a short paragraph. It is helpful to provide the marking procedures on a card (such as the one pictured below and found in Appendix B) and/or on a poster.

MARK YOUR BREAKDOWNS

- Write in your learning log words you cannot read.
- Write and underline in your learning log words you can read but you do not understand.
- Put a sticky note or other removable marker after a sentence that is confusing.

As you read, think aloud to model how to identify and mark each type of breakdown in your learning log. For the following example paragraph, you might stop as you pretend to stumble over the word *congregating*.

FAIRY PENGUINS

Fairy penguins spend their days out at sea hunting for food in the shallow waters close to the shore. They can often be seen congregating in groups, referred to as “rafts.” At dusk, they return to their burrows or rock-crevice colonies. Fairy penguin colonies can be quite noisy, especially before their predawn departure back to sea to feed.

Teacher: I am having trouble reading this word: *cong...congrating*...so I will write it in my learning log. I'll come back to it after I finish reading this paragraph.

[After writing the word in your learning log, continue reading.]

“At dusk, they return to their burrows or rock-crev...creeve colonies.”

OK, now I've got two more words. *Dusk* is a word I can read, but I'm not sure what it means. So I'll write that one **and** underline it in my learning log. This *cre* word, I can't read. So I'll write that one, too.

[Write and underline “dusk” and write “crevice” in your learning log. Then continue reading:]

“Fairy penguin colonies can be quite noisy, especially before their predawn departure back to sea to feed.”

Wow, there is a lot of information in this sentence. I'm really confused here. I'll put a sticky note after this sentence.

TEACHER-SUPPORTED PHASE

You may need to support students in identifying words and sentences before and during reading.

- **Preview the passage for words or sentences that students might find difficult.**

If fix-up strategies will not help students figure out some words, be prepared to provide definitions during Step 2 (see next page). This situation could occur for passages that do not provide context clues or when breaking down a word does not help with figuring

out its meaning. For example, in the sentence, *At dusk, penguins return to their burrows or rock-crevice colonies*, if students do not know what *dusk* means, the fix-up strategies may provide little help, as the paragraph provides only vague context and *dusk* cannot be broken apart to find meaning.

- **Suggest words for students to find.** Sometimes, students are reluctant to say that they do not know what a word means. Encourage students to find words they do not understand. For example, you might say, “I have a few unknown words for you to find today. While you are reading, be sure you understand and can explain the following words: *crevice, departure, and congregating.*”
- **Provide a specific number of difficult or unknown words for students to find.** For example, you might say, “While you are reading today, try to find at least two unknown words or tricky sentences. If you don’t have any unknown words, I’ll check in with you to be sure you understand what you are reading.”
- **Use student responses as models.** Give students positive feedback, credit, and/or points for identifying unknown words or sentences.

STEP 2: USING WORD FIX-UP STRATEGIES

After reading a paragraph or short section of text, have students identify the meaning of their breakdowns, using fix-up strategies. The purpose of fix-up strategies is to teach students to monitor what they are reading, to recognize when they do not understand what they are reading, and to use strategies to find the meaning of difficult words.

It is helpful to provide the fix-up strategies on a card (such as the one pictured on the following page and found in Appendix B) and/or on a poster.

WORD FIX-UP STRATEGIES

1. Break apart the word and look for smaller words you know.
2. Circle the prefixes and suffixes. Say the parts of the word and then say the whole word.
3. Reread the sentence with the unknown word and look for key ideas to help you figure out the word. Think about what makes sense.
4. Reread the sentences before and after the unknown word, looking for clues.

In the teacher-modeled phase, introduce the fix-up strategies and provide examples. In the teacher-supported phase, students begin to take responsibility for working through the fix-up strategies on their own or with partners.

TEACHER-MODELED PHASE

Begin by explaining that fix-up strategies can be used to find the meaning of unknown words. For example, you might say something similar to the following.

Teacher: Imagine you are driving a car, rolling along just fine until you run over a nail. Then, all the air goes out of the tire and you can't keep driving until you fix the flat. Using a fix-up strategy is like fixing a flat tire when your car breaks down. Let me show you how to use fix-strategies to figure out how to read and understand difficult words.

Not all words need fix-up strategies. Proper nouns and other words that don't get in the way of understanding don't need fix-up strategies.

Sometimes, you can't figure out words by using fix-up strategies. In that case, it's OK to ask the teacher what a word means. Sometimes, when things go wrong with my car that are too hard for me to fix, I ask a mechanic for help. If you have tried all the fix-up strategies and still can't figure out the meaning of a word, it's OK to ask the teacher for help.

Model multiple examples of how to use fix-up strategies. One method is to introduce one fix-up strategy each day before moving on to the next strategy. Though this method may take several days, it will familiarize students with each strategy before using them in combination.

No matter the method, provide many clear examples of each strategy. To practice fix-up strategy 1, sample sentences should include words that can be easily broken apart into easily identifiable smaller words (e.g., *horseshoe, tablecloth, firefly, backward, fortunate*). Strategy 2 requires words containing recognizable prefixes and suffixes (e.g., *discharge, sustainable, imprudent*). Strategy 3 works best with sentences that contain only one difficult word. Strategy 4 requires surrounding sentences that are rich in context.

As students begin to understand a strategy, begin modeling less and supporting more—for example, by asking students to use the strategy in passages the group reads together.

Once students begin to understand all four strategies, you may model using them in tandem.

[Return to the “Fairy Penguins” passage, which is posted again below, for your reference.]

FAIRY PENGUINS

Fairy penguins spend their days out at sea hunting for food in the shallow waters close to the shore. They can often be seen congregating in groups, referred to as “rafts.” At dusk, they return to their burrows or rock-crevice colonies. Fairy penguin colonies can be quite noisy, especially before their predawn departure back to sea to feed.

[Point to the word “congregating” in your learning log.]

Teacher: I have written this word because I can’t read it. I’ll start with fix-up strategy 1: Break the word apart into smaller words you know. I don’t know any smaller words in this one, so I’ll move on to fix-up strategy 2: Circle the prefix and suffix and say the whole word.

OK, I see the prefix *con-* and the suffix *-ing*, so I circle them. Now I read the word parts: *con...gre...gat...ing*. But that doesn’t sound right, so I’ll try to make it a real

word by changing the short vowel in *gat* to a long vowel sound. *Congregating*. I think I've heard that word before.

I think the word is *congregating*, but I'm still not sure what it means. I'll try the next fix-up strategy: Reread the sentence and look for key ideas that make sense. *They can often be seen congregating in groups, referred to as "rafts."* Now that I know how to read the word *congregating*, the sentence makes more sense: The penguins congregate in groups. So *congregating* must mean "coming together." I'll write the definition in my learning log.

[Write the definition in your learning log.]

Let's try another word: *departure*. Fix-up strategy 1 is to break the word apart into smaller words you know. I see that the word *depart* is part of *departure*. A plane leaves—or departs—from the airport.

I'm still not sure whether I have it right, so I will go to fix-up strategy 2: Circle the prefix and suffix and say the whole word. But I'm not sure what the prefixes and suffixes are.

I'll go on to fix-up strategy 3: Reread the sentence and look for key ideas that make sense. *Fairy penguin colonies can be quite noisy, especially before their predawn departure back to sea to feed.* What makes sense? *Predawn* means "before dawn," and it looks like they are going back to sea to get more food. So leaving makes sense here. *Departure* must mean "leaving."

TEACHER-SUPPORTED PHASE

During this phase, students begin to take responsibility for using the fix-up strategies on their own or with partners. Continue to question students to be sure they understand the following:

- It is important to monitor when your understanding breaks down.
- Fix-up strategies help to repair breakdowns while you are reading.
- Proper nouns and other words that do not influence understanding do not need fix-up strategies.
- Sometimes, difficult words can't be figured out with fix-up strategies. In that case, it is OK to ask the teacher for help.

Once students understand what the fix-up strategies are, why they are used, and when to use them, students are ready to learn to apply the fix-up strategies on their own or with partners. Start by working through student-identified words as a group. Then move into having students work through the strategies with a partner. Continue to provide support and feedback. Have students continue to write difficult words, use fix-up strategies, and write definitions in their learning logs.

- Students who need more practice may benefit from worksheets that contain simple passages or sentences with words that are easily identified by using fix-up strategies.
- If students do not use fix-up strategies correctly, model, ask guiding questions, and provide guided practice until students are able to use the fix-up strategies on their own.
- Provide many opportunities for students to use the strategies and to explain how they figured out the words or sentences. For example, a student who figured out the meaning of *crevice* could say the following to the group: "I used fix-up strategy 3 to find out what *crevice* means. I know a burrow is a hidden place or hole where animals live, so I figured a crevice must be a hole or opening in rocks where the penguins can live."
- Be sure to check the reading level of passages when teaching fix-up strategies. At first, use passages in which your students will find only 1–2 difficult words (not more than 1 in 10). Once students are proficient with the fix-up strategies, you can increase the difficulty level of the passages, as needed, to meet grade-level standards.

STEP 3: USING GET THE GIST FOR SENTENCES

The get the gist strategy helps students to find the main idea of what they read; similarly, get the gist can help students figure out the meaning of a confusing sentence. Here, we will apply the strategy to confusing sentences. In the next chapter, we will use the strategy to help make sense of paragraphs or larger sections of text.

It is helpful to provide the get the gist strategy on a card (such as the one pictured on the following page and found in Appendix B) and/or on a poster.

GET THE GIST OF SENTENCES

1. What is the most important “who” or “what?”
2. What is the most important idea about the “who” or “what?”
3. Retell the sentence in your own words.

TEACHER-MODELED PHASE

Introduce students to the get the gist strategy, as applied to individual sentences.

Teacher: Get the gist helps you figure out the most important ideas of what you read. First you figure out the most important “who” or “what” in a sentence, and then you figure out the most important information about the “who” or “what.” This strategy can help you find the meaning of sentences that might seem difficult to understand.

Remember this sentence? *Fairy penguin colonies can be quite noisy, especially before their predawn departure back to sea to feed.* We put a sticky note on it because it was too confusing and we wanted to come back to it later.

Step 1 of the get the gist strategy is: What is the most important “who” or “what” in this sentence? The most important “who” or “what” is fairy penguin colonies.

Step 2: What is the most important idea about the “who” or “what?” Now, I will think about what the author is trying to tell us about fairy penguin colonies in this sentence. It says that they are noisy, especially before they go back to sea to eat.

So I can retell this sentence in my own words to get the gist, like Step 3 asks me to do: Fairy penguin colonies are noisy, especially before they leave to find food.

Continue modeling with additional examples from readings as needed.

TEACHER-SUPPORTED PHASE

Once students understand what the gist is, why it is important, and when to use it, they are ready to move on to the teacher-supported phase. In this phase, students begin to find the gist for difficult sentences or teacher-selected sentences on their own or with a partner.

Begin by asking guiding questions to scaffold the process. For example:

Teacher: The sentence is: *Fairy penguin colonies can be quite noisy, especially before their predawn departure back to sea to feed.* What is the most important “who” or “what” in the sentence?

Student: Fairy penguins.

Teacher: Well, it is about fairy penguin colonies, where fairy penguins live. What is the author trying to tell us about fairy penguin colonies?

Student: They are noisy.

Teacher: Yes, the fairy penguin colonies are noisy. When are they noisy?

Student: Before they leave to find food.

Teacher: Yes, the colonies are noisy just before the penguins leave to find food. Can you retell the sentence in your own words?

Student: Fairy penguins are noisy right before they leave to find food.

Teacher: Yes, the fairy penguin colonies, where the fairy penguins live, are noisy just before they leave to find food.

Make sure the “who” or “what” is easy to identify in the sentences you choose. Some examples:

- When the water on the surface of a lake becomes heated, it evaporates, or changes into water vapor.
- If the temperature of a cloud is less than 32 degrees Fahrenheit, snowflakes can form.
- Elephants are fond of water and enjoy showering by sucking water into their trunks and spraying it all over themselves.

- The diet of the Nile crocodile is mainly fish, but it will attack almost anything unfortunate enough to cross its path, including zebras, small hippos, porcupines, birds, and other crocodiles.

Scaffold further by asking students to work alone or in partners, using the Get the Gist (Sentences) card to guide them through the process. Go over each sentence, using guiding questions to support students when they are stuck. Depending on group size, students can retell to the group or to a partner. Listen to partners and provide scaffolding questions as needed.

TEACHER-MODELED BREAKDOWN PROCEDURE FOR WORDS

LESSON 3 OUTLINE

OUTCOME

Students learn how to identify words they do not understand by using the breakdown process.

PREPARATION

- Identify difficult words in a passage that students can figure out by using fix-up strategies.
 - Prepare the teacher model for steps 2 and 3.
 - Prepare the Mark Your Breakdown and Word Fix-up Strategies cards for students.
 - Prepare the text and learning logs for students.
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STEP 1: CONDUCT PREVIEW (OPTIONAL; SEE GOAL 1)

1. Present the “big ideas.”
2. Preteach important vocabulary.
3. Predict.

STEP 2: MODEL HOW TO IDENTIFY BREAKDOWNS

To model, think aloud as you read the selection, using the same cards or posters that students will use to guide the breakdown process and recording words on a learning log.

1. Tell students that good readers notice when they do not understand how to read a word or find a sentence confusing—in other words, when understanding breaks down.
2. Post or distribute copies of a short paragraph.
3. While you are reading, model by doing the following:
 - a. Write words you cannot read in your learning log.
 - b. Write and underline words you can read but do not understand.
 - c. Put a sticky note or other marker after sentences that are confusing.

STEP 3: MODEL WORD FIX-UP STRATEGIES

Introduce the following word fix-up strategies, one at a time. Provide students with Word Fix-Up Strategies cards for reference.

1. Break the word apart and look for smaller words you know.
2. Circle the prefixes and suffixes. Say the parts of the word and then say the whole word.
3. Reread the sentence with the unknown word and look for key ideas to help you figure out the word. Think about what makes sense.
4. Reread the sentences before and after the unknown word, looking for clues.

Once students become familiar with the strategies, begin modeling how to use more than one at a time. First, use the unknown words that were marked in the demonstration paragraph, talking through each of the strategies until you find the meaning. Then, continue modeling with additional examples as needed.

LESSON 3 CASE STUDY

OBJECTIVE

Students will be guided through the breakdown process to figure out words or phrases they do not understand.

MATERIALS

- Science text passage (see text insert on the following page)
- Learning logs
- Pencils
- Whisper phones (optional)
- Timers
- Word Fix-Up Strategies cue or poster

TIPS

- Allow 5 or 6 minutes for preview (see Goal I), unless the material requires less time.
- Have students write only vocabulary words (not definitions) after the definition is discussed.
- Have some possible breakdown words ready, in case students do not identify any.
- Posting the following information on the board will save preparation time before class.

PAGES:	DATE:
TITLE:	
BIG IDEA:	
VOCABULARY:	

EXAMPLE TEXT

Look at these bottles! Why are they falling apart? Actually, they are disintegrating, which is a good thing. They were designed to disintegrate so they don't stay forever in one of the piles of garbage that are produced every day.

The bottles are special because they are made of biodegradable plastic. "Biodegradable" means that the plastic can be broken down naturally by microorganisms like bacteria and molds into substances that do not harm the environment. The microorganisms literally eat the plastic so it becomes a substance like mush or powder.

Unfortunately, not all plastic is biodegradable. Plastics that aren't biodegradable can stay in landfills and dumps for hundreds, maybe even thousands of years.

The passage also has photographs showing the progression of a bottle disintegrating. The photographs start with day 1, showing a bottle in perfect condition. On day 30, the bottle is just starting to break apart. By day 50, the bottle has broken into pieces. On day 64, we see only the outline of a bottle made up of tiny particles.

OPENING

Teacher: Listen to our big idea for this passage: Some things are made to disintegrate when thrown away. When you hear our big idea, what does it make you think of? Isabella, what do you think of when you hear our big idea?

Isabella: I don't know. I can't think of anything.

Teacher: That's OK. You may not be familiar with what we are discussing—in other words, you might not have much background information about our topic. Does anyone else have any thoughts about our big idea? Yes, Cory, what do you think of?

Cory: Well, let's see, it's about, hold on, I've got it, uh, nope, just lost it.

Teacher: So you had an idea, but it just went away?

Cory: Yep.

Teacher: That can happen. Let's get started and find out what our big idea is actually about.

First, let's look over our vocabulary words. Our first word is *designed*. Repeat the word after me: *designed*.

Students: *Designed*.

Teacher: *Designed* means "planned or created." Has anyone heard of that word before? No? That's OK. Let me give you an example of how to use the word *designed*: Our class designed the picture for the school T-shirt.

Can someone tell me something else that has been designed?

Doyoung: Someone designed the cover of our textbook.

Teacher: That's right. Can anyone else think of a way to use the word *designed*? No? OK. Listen to this and tell me whether I'm using *designed* the correct way: I designed the sun that's in the sky.

Cory: That doesn't make sense. We can't plan or create the sun. It's always been there.

Teacher: Let's look at our next vocabulary word: *produced*. Now, you say it.

Students: *Produced*.

Teacher: *Produce* means "to make something." Here's an example sentence that uses the word *produced*: I produced the meal very quickly. Can you think of another way to use *produce*?

Isabella: The teacher produced a hard test.

Teacher: What about this sentence: I produced the ocean.

Doyoung: That doesn't make sense. You can't produce the ocean. That's something that nature does.

Teacher: Everyone, say our next vocabulary word: *literally*.

Students: *Literally*.

Teacher: *Literally* means “something actually happening the way it is described.” If I said, “My dog literally did not eat yesterday,” that means my dog did not eat at all—not one nibble of food! If my dog did eat, even just a little, that would **not** be an example of literally not eating. Let’s say you were at a sleep over and you stayed awake all night watching movies and playing video games. Would that be an example of literally staying up all night?

Hannah: Yes, because you didn’t sleep at all.

Teacher: How about your friend who fell asleep at 4 a.m. but then woke up at 5:30 a.m. when you told him you set a record on a video game? Did your friend literally stay up all night?

Students: No.

Teacher: Correct. How did you figure that out?

Isabella: Well, because he slept a little. He didn’t actually stay awake all night long.

Teacher: Very good. Let’s try our next vocabulary word: *landfill*. Now, you say it.

Students: *Landfill*.

Teacher: A landfill is a low spot in the ground that has been filled in with trash and then has soil put on top of the trash. Does this sentence sound right: The garbage man takes the trash to the landfill.

Students: Yes.

Teacher: That’s right. How did you figure that out?

Doyoung: Well, the definition says a landfill is a low spot in the ground that has been filled in with trash. And it would make sense that the garbage man would take our trash to a place like that.

Teacher: Good. Now what about this sentence: It takes a lot of time for trash to get to the landfill on the moon.

Isabella: There aren’t any landfills on the moon.

Hannah: But wait, a rocket could get trash to the moon and then cover it up!

Teacher: Well, that is a thought, but in our lifetime, I don't think we will ever see landfills on the moon.

OK, make sure you write these vocabulary words in your learning log before we get started with our reading.

INSTRUCTION

Teacher: Today, I will show you a procedure to figure out words you don't know. To understand what you are reading, it is important to recognize words you do not understand and then try to figure out what the words mean.

The name of the procedure we will discuss today is breakdown. Breakdown can help you figure out words that you don't understand.

Think about what happens when you are riding your bike. When you are reading and you understand everything, it's like riding your bike smoothly on the road. When you don't understand something you read, it's like riding your bike and then, all of a sudden, you hit a pothole. You can't move ahead because your bike just broke down. In the same way, when you don't understand what you are reading, your comprehension breaks down. You don't understand what the author is saying.

Sometimes, you'll come across a word that you're not familiar with but that is very important to understanding the topic. Not all hard words are important to understanding the topic. Today, we will focus on unknown words that prevent you from understanding what you are reading.

Think back to that bike that broke down when it hit a pothole. You have to fix the bike, so you can keep riding. In the same way, when you hit an important word you don't know, you have to fix your understanding by figuring out the word's meaning.

To help you fix your understanding, breakdown includes four fix-up strategies:

1. Break the word apart and look for smaller words you know.
2. Circle the prefixes and suffixes. Say the parts of the word and then say the whole word.
3. Reread the sentence with the unknown word and look for key ideas to help you figure out the word. Think about what makes sense.
4. Reread the sentences before and after the unknown word, looking for clues.

Let me show you how to use breakdown. I will read the first paragraph of our passage. As I read the paragraph, I will notice words that I don't understand.

[Read the first paragraph, stumbling on the word "disintegrating."]

I don't know what this sentence means: *Actually, they are disintegrating, which is a good thing.* I don't understand because I don't know the word *disintegrating*. I will use the fix-up strategies to help me figure out this word.

Let's try the fourth fix-up strategy: Reread the sentence before and after the unknown word, looking for clues. OK, the sentence before says: *Why are they falling apart?* And the sentence after the unknown word says: *They were designed to disintegrate so they don't stay forever in one of the piles of garbage that are produced every day.* I got a clue from the sentence before the unknown word. It talks about the bottle falling apart. Let me try the phrase *falling apart* in the sentence with the unknown word: *Actually, they are falling apart, which is a good thing.* Yes, that makes sense. OK, now I need to write this word and definition in my learning log: *Disintegrating: falling apart.*

As I read the rest of the passage, listen carefully for any words that you don't know. Write them down, and we will figure out what they mean when I finish reading.

[Read the rest of the passage.]

Teacher: OK, I asked you to write any words that you did not know. Please raise your hand and tell me one of the words you wrote. Hmm, I don't see any hands. Cory, can you tell me one of your words?

Cory: I don't have any.

Teacher: Cory, can you tell me what the word *landfill* means?

Cory: Uh, I don't know.

Teacher: Ah ha, so there is a word we don't know. OK, we can look at the fix-up strategies to see which one might help us figure out the word. Oh, I see one that might work. It's the strategy where we break apart the word into smaller parts. The word is *landfill*. I see the word *land* and the word *fill*. So it must mean something about filling the land.

[Doyoung raises her hand.]

Teacher: Yes, Doyoung?

Doyoung: The word *landfill* is one of our vocabulary words. It's right up there on the board.

Teacher: Very good. Now, that isn't a strategy we have discussed, but it is always good to review vocabulary words if you are not sure what a word means. It might be right up in the vocabulary list, just like it is today. I'm so glad you noticed that.

Let's go over the text we just read again and look for more words we don't know. Remember, sometimes an unknown word is a word you can't pronounce. If you can't pronounce it, you might not understand what it means. I will set the timer for 1 minute. Please look over the information again.

[After 1 minute:]

Alright, now that you have looked over our passage again, does anyone have a word they don't know?

Hannah: I have one. It is spelled: *b-i-o-d-e-g-r-a-d-a-b-l-e*.

Teacher: Ah, that word is *biodegradable*. Does that help you understand it after hearing how it is pronounced?

Hannah: No. I still don't know what it means.

Teacher: OK, let's look at our fix-up strategy card to see what strategies might help. I think I will use the strategy of rereading the sentence with the unknown word in it and looking for clues. Hmm, I see *biodegradable* in two sentences. The first says: *The bottles are special because they are made of biodegradable plastic*. That sentence doesn't help me. But this second sentence is promising. It says: *"Biodegradable" means that the plastic can be broken down naturally by microorganisms like bacteria and molds into substances that do not harm the environment*. OK, so *biodegradable* means "can be broken down by microorganisms." Let's write this word and definition in our learning logs.

[Model writing the word and definition on a learning log.]

Does anyone have any questions?

Isabella: Well, you didn't write exactly what was in the book.

Teacher: You're right. What I did was generalize. I made a more general definition in my own words that can work in many situations.

My definition for the word *biodegradable* works for our passage, but also might work in something else besides our passage. You will most likely see this word again. So I gave a general definition for the word. Does that make sense?

Doyoung: So you mean that it won't always be plastic that is biodegradable?

Teacher: Correct. Biodegradable things won't always be plastics. They might be newspaper, fabric, or something else.

Did anyone else have a word they didn't know?

Isabella: I do now. I'm not real sure about the word *microorganisms*. I think I know.

Teacher: So what do you think a microorganism is?

Isabella: A big thing?

Teacher: Well, that is a good guess, but let's look at our strategies again. I think I will use the strategy where I look for prefixes and suffixes.

I'm pretty sure that *micro-* is a prefix that means "really small." I know that a person looks at really small things with a microscope. Now, the part of the word that is left is *organism*, and I know that an organism is any living thing that can carry out life processes. That would make sense. The sentence with the unknown word says: *...microorganisms like bacteria and molds*. Those are really tiny things. So *microorganisms* must mean "tiny living things that carry out life processes." Let's write the word and definition in our learning logs. Let's see, I will write: *microorganisms: tiny things that carry out life processes*.

Now, read the passage silently or with the whisper phone. I will set the timer for 2 minutes. Read it at least two times, and if the timer has not gone off, reread the passage until the timer goes off. Be sure to write in your learning log whether you still have any unknown words. We will work them out later.

FIELD NOTES

This group has to multitask as soon as they arrive. Usually, at least one student has not finished his or her breakfast and has to bring it to the group. I try to go over the date, page number, title, and big idea while students finish their food. This plan seems to be working well.

On this day, as soon as the students arrived, they opened their food and started writing information in their learning logs—before I asked them to do so. I have started putting out napkins before the students arrive. I also prepare their learning logs; books, turned to the correct page; and pencils.

We have to contend with a lot of noise from other classes. On this day, third-graders were practicing songs for their program. My kids were great. Even with all the noise of the third-graders and a movie being played very loud, the kids got right to work.

My one student who likes to talk didn't interrupt too much today. He did, though, come up with the comment about taking trash to the moon in a rocket. He is so full of information and really likes to talk. I have had to ask him to please let others have a chance to talk and time to think. He is not a difficult student—in fact, he usually gets the hang of things quickly—but his talking can be quite a distraction.

Once I broke the ice by challenging the student who claimed he didn't find any words he didn't know, students were more willing to share words they were unfamiliar with.

TEACHER-SUPPORTED BREAKDOWN PROCEDURE FOR WORDS

LESSON 4 OUTLINE

OUTCOMES

- Students learn to identify words or ideas they do not understand.
- Students apply the breakdown procedure to discover the meaning of unknown words.

PREPARATION

- Identify difficult words in a passage that students can figure out by using fix-up strategies.
 - Prepare breakdown cards or posters (Mark Your Breakdowns, Word Fix-Up Strategies).
 - Prepare the text and learning logs for students.
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STEP 1: CONDUCT PREVIEW (OPTIONAL; SEE GOAL 1)

1. Present the “big ideas.”
2. Preteach important vocabulary.
3. Predict.

STEP 2: SUPPORT STUDENTS’ IDENTIFICATION OF BREAKDOWNS

1. In the teacher-supported phase, students read a section of text on their own or with a partner. Using the Mark Your Breakdowns card as a guide, students identify the following:
 - Words they cannot read

- Words they can read but do not know
 - Sentences that are confusing
2. Review the marked breakdowns with students and discuss why they chose each word.
 3. Once students know how to mark breakdowns, they are ready to learn fix-up strategies to repair their understanding. If students need more practice marking breakdowns, repeat this procedure with another reading selection.

STEP 3: SUPPORT STUDENTS' USE OF WORD FIX-UP STRATEGIES

Once students understand the fix-up strategies, why they are used, and when to use them, students are ready to apply the strategies on their own or with partners.

1. Remind students that good readers notice when they do not understand how to read a word or find a confusing sentence. Use the analogy of a car breaking down and going to the repair shop to get “fixed up,” or something similar, to connect the concept of repairing breakdowns with reading.
2. Start by working through teacher- or student-identified words as a group.
3. Provide multiple opportunities for students to use the fix-up strategies and to discuss what works and why.

NEXT STEPS

- Students need multiple opportunities to use fix-up strategies. Try using worksheets that provide controlled practice with short segments of reading.
- When students begin using the fix-up strategies independently or with a partner, continue to provide support and feedback. Have students write the difficult words and brief definitions in learning logs.
- Monitor progress by asking students to explain how they figured out the meaning of unknown words and by evaluating learning logs.
- Refer to the Overview and Examples section for additional ideas to support students as they learn to use fix-up strategies.

LESSON 4 CASE STUDY

OBJECTIVE

Students will identify words they do not understand, answer questions about the breakdown process, and use fix-up strategies, with teacher support, to figure out the meaning of unknown words.

MATERIALS

- Learning log
- Pencils
- Breakdown cards
- Whisper phone (optional)
- Timers
- Markers or chalk
- Eraser for board

TIPS

- Posting the following information on the board will save preparation time before class.

PAGES:	DATE:
TITLE:	
BIG IDEA:	
VOCABULARY:	
UNKNOWN WORDS:	

- Identify possible unknown words and applicable fix-up strategies before the lesson. Remember that some students struggle with even the most basic words.
- Keep a small dictionary within your reach.
- Have students write only the vocabulary words themselves (not their definitions).
- OPTIONAL: Students might enjoy using a whisper phone during text reading.
- Remember to set a timer as soon as you sit down with students.

OPENING

Teacher: Good afternoon. How are you all? Open your book to page 48 and take out your learning log. The title of our reading today is *Earth's Star*. Write that in your learning log next to where it says, "Title." The big idea is that the sun gives us the energy we need to live.

When you hear the big idea, what does it make you think about? Jacques, what do you think of when you hear that the sun gives us the energy we need to live?

Jacques: Well, we get energy from the sun.

Teacher: That's a good thought. Carmela, what do you think of when you hear our big idea?

Carmela: I don't know.

Teacher: Well, maybe you haven't learned about this topic yet. Want to give it a guess?

Carmela: OK, I think it means that we need the sun to live.

Teacher: That's a good guess. Fred, what do you think of when you hear that the sun gives us the energy we need to live?

Fred: Oh, I remember something I saw on TV. It has something do to with animals eating plants.

Teacher: You're on the right track. Deja, what do you think of when you hear that the sun gives us the energy we need to live?

Deja: What I think of when I hear that is that the sun keeps us warm.

Teacher: Well, you are right. The sun does keep us warm.

Let's go over our vocabulary words. After we talk about each word, write the word in your learning log. Our first word is: **energy**. Everybody say **energy**.

Students: *Energy.*

Teacher: Does anyone know what that means?

[Everyone shakes their head.]

Well **energy** means "the ability to cause change." When I get a lot of sleep, I wake up with a lot of energy. Does that sound right?

Students: Yes.

Fred: Is this right? I have lots of energy when I'm tired.

Teacher: Well let's think about it. **Energy** means "the ability to cause change." Do you think you could cause a lot of change when you are tired?

Fred: I can.

Teacher: Hmm, I know I couldn't cause a lot of change when I'm tired. All I want to do is sleep. Can anyone else think of a way to use the word **energy**?

Deja: I have a lot of energy when I drink soda.

Teacher: Yes, I can see how that would cause you to have a lot of energy. Why do you think that happens?

Deja: I don't know.

Teacher: Well, most sodas have caffeine in them. The caffeine gives you a rush of energy, but then the energy goes away. So having lots of sodas to give you energy is not really a good idea.

Let's go on to our next vocabulary word. The next word is **different**. Everyone say **different**.

Students: *Different.*

Teacher: **Different** means "not alike" or "not the same." Everyone in my family likes different foods to eat for breakfast. My husband likes breakfast tacos, and my son likes cereal. Can anyone give me an example of using the word **different**?

Jacques: What about this? I put on socks today that were different colors.

Teacher: Sounds good. You put on socks today that were not the same color. Very good. Now what about a sentence where *different* would not make sense?

Carmela: The cars are both red, so they are different colors.

Teacher: Very good.

Let's look at our next vocabulary word: *diameter*. Everyone say *diameter*.

Students: *Diameter*.

Teacher: Does anyone know what that means? No? OK, *diameter* means "the distance across the center of a circle." The diameter of the moon is 3,474 kilometers. Now, what do you think of this sentence? The diameter of a square is 6 inches.

Deja: That's not right because a diameter is the distance across a circle, and a square is not a circle.

Teacher: That's right. Very good. You are really paying attention. Thanks.

Now, make sure you have written these words in your learning log. If you need help spelling them, look up here on the board.

Let's go on and do our prediction. I'll give you 30 seconds to preview the passage. Remember to look at the title, subtitles, pictures, words under pictures, and any highlighted words. These will all give you a good idea of what you are going to learn today. Then you'll have 30 seconds to write a prediction of what you will learn today.

[Set the timer for 30 seconds. Continue after the 30 seconds.]

Teacher: OK, that was your preview time. Now I'll set the timer again for another 30 seconds. I want you to write a prediction of what you think you will learn today.

[Set the timer for 30 seconds. Continue after the 30 seconds.]

Carmela, what do you think we will learn today?

Carmela: I think we will learn about getting energy from the sun.

Teacher: Thank you. Jacques, will you please tell us your prediction?

Jacques: I think we will learn about the sun's effects on the earth.

Teacher: What makes you think you will learn that?

Jacques: When I was looking at the pictures during the preview, that was the title for several of the pictures.

Teacher: Looking at the pictures and what it says about them is a great idea.

OK, let's see what Deja has.

Deja: I predict we will learn how the sun gives us energy.

Teacher: That's a good prediction. I like the way you used a form of the word *prediction* in your sentence.

And now, Fred, what is your prediction?

Fred: I predict we will learn about the sun and the earth.

Teacher: Those are good predictions.

INSTRUCTION

Teacher: Let's get started. The first thing I want to do is review what a breakdown is. Please raise your hand if you can answer this question: What does a breakdown in comprehension mean?

Fred: It means to get to a word I don't understand.

Teacher: OK, what about this question: When do you use the breakdown procedure?

Carmela: Umm, is it during reading?

Teacher: That's right. Good remembering.

Let's answer this question: Why is it important to figure out unknown words?

Jacques: Is it because it makes it so we know what we are reading?

Teacher: Yes, it helps us understand what we are reading.

OK, here is the last review question: What are the fix-up strategies? You can look at the card if you want.

Deja: Break the word apart and look for smaller words you know. Look for prefixes and suffixes. Say each part of the word and then say the whole word.

Teacher: Who wants to help Deja? Carmela? Thank you for offering. What strategies can you think of?

Carmela: Reread the sentence with the unknown word and look for key ideas to help you figure out the word. Think about what makes sense. Reread the sentences before and after the unknown word, looking for clues.

Teacher: You got them. Good. Let's start reading our passage now. Be sure to make a mental note of words you do not know. Deja, would you please read the first paragraph?

Deja: *When you are outside on a sunny day, you can feel the warmth of the sun on your skin. The sun has energy. That energy warms you. The sun's energy also warms land and water on the earth.*

Teacher: Thanks for reading that. Now, does anyone have any words they didn't know?

Students: No.

Teacher: No? OK, this paragraph was pretty easy to understand. Jacques, would you read the next paragraph please?

Jacques: *Parts of the earth heat up at different rates. Land, such as soil and sand, warm up faster than water.*

Teacher: Did anyone have any unknown words? Yes, Fred?

Fred: I didn't understand what *rates* meant.

Teacher: OK, everyone, find the word *rates* in the paragraph we just read and put your finger on it. Now, try to use some fix-up strategies to figure it out.

[Students work silently.]

Teacher: Did anyone figure out what *rates* means?

Jacques: Yes.

- Teacher:** Great. Tell us what it means.
- Jacques:** I think it means speed, like how fast or slow something happens.
- Teacher:** Great. What did you do first to figure it out?
- Jacques:** Well, first I used the fix-up strategy where you reread the sentence and think about what makes sense. When I did that, I saw the word *different*. I know that *different* means “not the same.” So I read the sentence again and put in the words *not the same* for the word *different*.
- Teacher:** So you read it like this? *Parts of the earth heat up at not the same rates.*
- Jacques:** Yeah, but that didn’t help a whole lot, so I read the next sentence and looked for clues.
- Teacher:** Good thinking. You used another fix-up strategy. Did that help you?
- Jacques:** Yes. It talked about soil warming faster than water. That made me think of the speed, so I reread the sentence with *rates* in it, putting in the word *speeds* for *rates*.
- Teacher:** Would you read the sentence that way for the class?
- Jacques:** *Parts of the earth heat up at different speeds.*
- Teacher:** Everyone, does that make sense?
- Students:** Yes.
- Teacher:** Very good. That strategy really seemed to help you. Does anyone else have any unknown words for that paragraph?
- [Students shake their heads.]*
- No? OK, let’s go on. Sara, would you read the next paragraph?
- [Sara reads the next paragraph.]*
- Does anyone have any unknown words in this paragraph?
- Students:** No.
- Teacher:** Are you sure? Deja, can you tell me what *uneven* means?

Deja: Yes, it means “not the same” or “not equal.”

Teacher: Good explanation. How did you know that?

Deja: I just knew. I’ve heard that word before.

Teacher: Very good. Let’s have Carmela read the next paragraph.

[Carmela reads the next paragraph.]

Nice reading. Thank you. I did notice that you had some trouble reading the word *photosynthesis*, though.

How many of you know what *photosynthesis* means?

Fred: I do. It means “to take a picture.”

Teacher: What makes you say that?

Fred: Well, I see the word *photo* in the it.

Teacher: So you used the fix-up strategy to break apart the word and look for smaller words you know. That was a really good idea. But, in this case, *photo* does not mean “a picture.” The word *photo* has more than one meaning. In this case it means “light.” Let’s try another strategy to figure out what *photosynthesis* means. Carmela, what strategy should we try?

Fred: Wait, now I know what *photosynthesis* means. There’s a picture right here of plants getting food and energy.

Teacher: You’re on the right track, but let’s work this out together to get a clear picture of the word *photosynthesis*.

Fred: OK, but I know what it means.

Teacher: OK, Carmela, which fix-up strategy do you want to use?

Carmela: Let’s try rereading the sentence with the word in it and looking for clues.

Teacher: That’s a good choice. Fred, would you reread the sentence with the word in it?

Fred: *When plants that are green use the energy from the sun to make food, it is called photosynthesis.*

Teacher: Wow, that's quite a sentence. Let's look for key ideas to help us figure out *photosynthesis*.

Deja: It talks about the plant using energy from the sun.

Teacher: Good. Can anyone else see a key idea in that sentence?

Jacques: It says the energy from the sun makes food.

Teacher: OK, we're doing a good job here. So what I'm hearing is that plants use energy from the sun to make food? Do you agree?

Students: Yes.

Carmela: Uh, photosynthesis is when plants get energy from the sun to make their food.

Teacher: Very good. That was a hard one to figure out. I want everyone to write *photosynthesis* in your learning log and write what it means. Does anyone else have any unknown words?

[Pause.]

Teacher: Fred, I need you to write *photosynthesis*, too.

Fred: But I knew what it meant.

Teacher: Go ahead and write it down, and then you will really remember what it means. I know that when I write something, I remember it better.

Fred: Alright, but I did know what it meant.

Teacher: Thank you for writing the word. Does anyone else have any unknown words?

Students: No.

Teacher: I believe you are right. You all did a great job. Now that you have figured out these words, read the whole passage two times, using the whisper phones. As you read, I will come by to listen. Remember, if you come across another unknown word, don't just pass over it. Use the fix-up strategies to try to figure it out. If that doesn't work, ask me. It is important to understand what you are reading, and you can do that only if you know what the words mean.

FIELD NOTES

The students seemed interested in the text today. The students were able to figure out unknown words a little easier than previously, as the text offered more context clues. At this stage, it is important to select texts that allow students to be successful in figuring out unknown words.

One of the students was not feeling well, and it showed. This student did not participate much, and because he normally participates, I did not push him. He did read when asked.

One student that is always ready with an answer is becoming resistant to writing words in his learning log when he thinks he knows what they mean. He often has partial definitions that need to be tweaked to be accurate. After we figure out a definition as a class, he says he does not need to write it in his learning log because he already knew what it meant. I tell him to write the word and definition, regardless of whether he knew what it meant.

I noticed that one of the students is a little more willing to share unknown words, even if no one else volunteers.

TEACHER-MODELED GET THE GIST OF SENTENCES LESSON 5 OUTLINE

OUTCOME

To model the get the gist strategy at the sentence level

PREPARATION

- Prepare breakdown cards: Mark Your Breakdowns and Get the Gist (Sentences).
 - Prepare a model for Step 3.
 - Prepare the text and sentence examples for students.
 - Identify one or two difficult sentences in the reading.
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STEP 1: CONDUCT PREVIEW (OPTIONAL; SEE GOAL 1)

1. Present the “big ideas.”
2. Preteach important vocabulary.
3. Predict.

STEP 2: MODEL HOW TO IDENTIFY BREAKDOWNS

1. Read a paragraph or short section of text.
2. Show students how to mark sentences they do not understand. Students also can mark words, but this lesson focuses on sentences.

STEP 3: MODEL HOW TO USE THE GIST STRATEGY FOR SENTENCES

1. Explain the get the gist strategy, as applied to sentences:
 - a. Find the most important “who” or “what” of the sentence.
 - b. Say the most important idea about the “who” or “what.”
 - c. Retell the sentence in your own words.
2. Model by thinking aloud as you use the card to guide you through the steps of getting the gist of a sentence that could be difficult for students to understand.
3. Repeat the modeling procedure for several sentences in the passage.

NEXT STEPS

- If students need additional examples, post single sentences that might be confusing and repeat the modeling process.
- When students understand the strategy, they are ready to move into the teacher-supported phase, as shown in Lesson 6.

TEACHER-SUPPORTED GET THE GIST OF SENTENCES LESSON 6 OUTLINE

OUTCOME

Students apply the get the gist strategy at the sentence level.

PREPARATION

- Prepare breakdown cards: Mark Your Breakdowns, Get the Gist (Sentences).
 - Prepare text and example sentences for students.
 - Identify one or two difficult sentences in the reading.
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-

STEP 1: CONDUCT PREVIEW (OPTIONAL; SEE GOAL 1)

1. Present the “big ideas.”
2. Preteach important vocabulary.
3. Predict.

STEP 2: SUPPORT STUDENTS’ IDENTIFICATION OF BREAKDOWNS

1. Read a paragraph or short section of text aloud.
2. Have students use mark sentences they do not understand. Students can also mark words, but this lesson focuses on sentences.

STEP 3: SUPPORT STUDENTS' USE OF GET THE GIST FOR SENTENCES

1. Review the get the gist strategy, as applied to sentences:
 - a. Find the most important “who” or “what” of the sentence.
 - b. Say the most important information about the “who” or “what.”
 - c. Retell the sentence in your own words.
2. Use get the gist with students. Ask guiding questions, such as, “What is the most important ‘who’ or ‘what?’” Provide feedback to students.
3. Repeat this teacher-supported practice with several sentences.

NEXT STEPS

When students demonstrate proficiency with getting the gist of sentences while working in a group, allow students to work in pairs to get the gist of their own sentences. Students can retell the sentences to a partner or to the teacher, depending on their proficiency.

First, provide single sentences and stop after each one to check in with students. Later, use paragraphs or short sections of text where students can identify difficult sentences and then work through the get the gist strategy.

When they become comfortable getting the gist of sentences, students are ready to put the word and sentence breakdown strategies together, as shown in Lesson 7.

TEACHER-SUPPORTED BREAKDOWN PROCEDURE FOR WORDS AND SENTENCES

LESSON 7 OUTLINE

OUTCOME

Students use the breakdown procedure to figure out the meaning of unknown words and sentences.

PREPARATION

- Prepare breakdown cards: Mark Your Breakdowns, Word Fix-Up Strategies, and Get the Gist (Sentences).
 - Prepare the text and learning logs for students.
 - Identify words and sentences in the passage that students might find difficult.
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STEP 1: CONDUCT PREVIEW (OPTIONAL; SEE GOAL I)

1. Present the “big ideas.”
2. Preteach important vocabulary.
3. Predict.

STEP 2: SUPPORT STUDENTS’ USE OF THE BREAKDOWN PROCEDURE

Guide students through the entire breakdown procedure. Provide support and feedback as necessary.

1. Mark breakdowns:
 - a. Read a paragraph or short section of text.
 - b. Have students mark words and sentences they do not understand.
2. Use word fix-up strategies:
 - a. Have students work with a partner, using the Word Fix-up Strategies card to find the meaning of unknown words.
 - b. Have students write the words and brief definitions in their learning logs.
 - c. Ask students to share their words, definitions, and which fix-up strategies they used.
3. Have students work with a partner, using the Get the Gist (Sentences) card to get the gist of one or more confusing sentences.

NEXT STEPS

- Many students need several days to practice using fix-up strategies. Monitor carefully to be sure that students gain proficiency with the strategies. Provide corrective feedback.
- Continue to discuss the strategies (what they are, how they are used, when they are used, and why they are used).
- Once students have gained proficiency with the fix-up strategies for words and the get the gist strategy for sentences, they are ready to learn to get the gist for larger sections of text, as shown in Lesson 8.