Sample LINCS Instruction

STEP 1

List the parts

* With the class, decide which terms LINCS devices will be created to facilitate memory of the terms' definitions. Now let's go back and take a closer look at the new terms we examined today. We need to decide which of these to create memory devices for so they will be easier to remember. What were some of the new terms we examined today? Look at your notes if you need to (pauses to allow think-time). Aman? [Compromise] OK (writes "compromise" on the board). Other new terms? (students identify terms as teacher writes list on the board, producing the following list).

<table>
<thead>
<tr>
<th>compromise</th>
<th>constitution</th>
<th>impeach</th>
</tr>
</thead>
<tbody>
<tr>
<td>republic</td>
<td>rights</td>
<td>unconstitutional</td>
</tr>
<tr>
<td>amend</td>
<td>ratify</td>
<td>precedent</td>
</tr>
<tr>
<td>veto</td>
<td>law</td>
<td>bill</td>
</tr>
</tbody>
</table>

Write down these terms on a piece of paper. We've got 10 new terms we need to make a decision about. We need to see which of these terms to create memory devices for. **Here's a list of criteria to use to make this decision** (writes on the board):

**Need memory devices:**
Which terms have complicated definitions that will be hard to remember?
Which terms are brand new to you and you don't know much about what they mean?

**Won't need memory devices:**
Which terms do you already know pretty well?
Which terms have definitions that will easy to remember?

Look at the list of terms on your paper. Ask yourself these questions, and then mark off from your list any terms you do not need memory devices for. Watch me do it. Look at this term, "rights." Now I'm already familiar with what rights means, so I'll scratch it off because a memory device won't be needed for that term (draws a line through the word "rights" on the list of terms on the board).
Let’s figure out which terms to create memory devices for. We may not all agree on which terms are the hardest, but let’s see which terms most students think are the hardest (teacher facilitates discussion to identify students perceptions of the most difficult terms, crossing out those terms on the list that students did not think memory devices were necessary. The followed list resulted:)

<table>
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</table>

Great. It looks like we need to create memory devices for “compromise,” "amend," "impeach," "republic," and "precedent." Remember, it is ALWAYS important to analyze what you are learning and make decisions about which material will need something extra when studying it. Also remember you will be responsible for knowing both types of terms -- the ones we create memory devices for, AND the ones you indicated that memory devices were not needed.

- **With the class, determine essential to-be-learned information about the term.** Let’s take this first term, "compromise." We have to decide what we need to remember about this term. Remember the story about Aman and Sujata working together to write a bill about insurance? They compromised when they didn’t agree on what should be in the bill. Each of them had to give up something each of them wanted in order to reach an agreement. So what do we need to remember about what "compromise" means? It’s when each person. ...? [Gives up something]. Good. Giving up something is an important part of the definition, but its not everything we need to remember about the term. There is another essential part of the definition we have to include. Listen. "Compromise" is when each person gives up something in order to ...? [Reach an agreement] Good. "Compromise" means when each person gives
up something to reach an agreement. Remember there are two essential parts of this definition: "Each giving up something" and "in order to reach an agreement."

* Record the terms and their definitions on the LINCS Form (hands out blank LINCS Forms.) Record your term "compromise" in the spaces labeled "Term." Then write just the essential parts of the definition for compromise over here (pointing to the right side of the form). Here's an example (shows students the following on the overhead)

<table>
<thead>
<tr>
<th>Term</th>
<th>LINCing story</th>
<th>LINCing picture</th>
<th>Essential definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>compromise</td>
<td></td>
<td></td>
<td>agreement, but each gives up something</td>
</tr>
</tbody>
</table>

Reminding Word

STEP 2

Indicate a Reminding Word

We are going to develop a memory device that will help us remember the meaning of the new term, "compromise." First, we need to identify a common word that everybody knows it and that sounds sort of like the word "compromise." Remember, it needs to be a real word. It needs to be a common word whose meaning is very familiar. Listen as I identify some Reminding Words that we might use. Compromise...scares like "prize." Do you hear the word "prize" in "compromise"? [Yeah.] (teacher lists 'prize' on the board). Compromise sounds like...."compufake"... wait, "compufake" is not a real word; we can't use it. It has to be a real word. Compromise sounds like...does anybody hear any other sounds-like words in "compromise."? [What about 'promise.? I hear the word promise at the end of compromise. Compromise...promise]. Good (teacher lists 'promise on board). Anybody else hear a sounds-like word in "compromise"? Compromise sounds like...[Complaisant?] Complaisant does sound sort of like compromise, and it is a real word, but I'm not sure its a common enough word that everybody knows what it means. The Reminding Word needs to be a common word. Compromise...scares like ... ["Compost"] ... Good. "Compost" does sound sort of like "compromise". Does everybody know what "compost" means?" (students nod affirmative; teacher lists compost on board).

We've got several potential Reminding Word words we can use in our LINCing story: "prize," "promise" and, "compost." Which one shall we use?
Note: In this example, several optional Reminding Words were generated, but closure on determining which terms to use was not reached. The beginning of the next step illustrates how one can make judgments regarding which Reminding Word is best to use based on the nature of the LINCing Story.

STEP 3

Note a LINCing Story

Now we need to create a story that uses the Reminding Word. The story needs to help us remember what "compromise" means. Although we identified three potential Reminding Words, we only need to use one of them in the story. Let's explore each of these three potential Reminding Words to see which might be the best to use.

Let's see, "prize" means winning something, and "compromise" means giving up something to reach an agreement... the agreement could be the prize you win.

"Promise." How might "promise" be linked to "compromise" in some way? [Well, it might be connected to the meaning of 'compromise' because you promise to give up something]. Great. That's got some real potential.

"Compost"...What does "compost" mean? [It's like rotting leaves and garbage and stuff to, you know, to make new soil.] Good. Can anybody think of a link or some connection between compost and compromise? (pauses to allow think time, but no students respond). I can't think of a link between "compost" and "compromise", so let's focus on creating a story that uses "prize" or "promise" in it that will help us remember what "compromise" means.

So we could use either "promise" or "prize" in our LINCing Story. Remember, we need to remember both parts of the definition of compromise..."giving up something" ... and ... "in order to reach an agreement" What do you think about this LINCing Story..."Both promised to give up something." What could be added to the story to help us remember that its about reaching an agreement? John? [How does this sound? "Both promised to give up something to reach an agreement." ] That's great. Let's note "promise" on the LINCS Form as our Reminding Word and list "Both promised to give up something to reach an agreement" as our LINCing Story for the term "compromise" (teacher models).
STEP 4
Create a LINCing Picture

Now we need to design a simple picture that will help us remember what "compromise" means. I was thinking that the picture might show two people maybe giving something to the other. That would help us think of giving up something. (teacher briefly draws picture below on the board)

This could be our LINCing Picture, but something is not quite right about it. While this picture does help me think of giving up something, it does help me think of reaching an agreement. How could we change this picture so that it helps you think of both parts of the definition..."giving up something"... and ..."reaching an agreement" (pauses to allow think time)? Aman? [Well, what about making them shake hands too. That would signal reaching an agreement. Like you shake hands on it.] That’s a terrific idea. So let’s change the picture so it looks like this. (revises drawing to depict picture below)

Now the LINCing Picture shows both the idea of giving up something and reaching agreement. Plus the shaking hands part is related to our Reminding Word, "promise." They are shaking hands to indicate making a promise to give up something to reach an agreement. Great. Now draw your own version of this picture in the space in the LINCS Form labeled "LINCing Picture." Don’t worry if you are not a great artist. (teacher models)
STEP 5

Self-test

Now that we’ve created LINCS devices for each of these terms, let’s go back and rehearse how they are used to recall the definitions of each term. To begin, take a sheet of paper and cover up everything but the name of the term and the Reminding Word. It should look like this. (see example below).
We are going to practice recalling the definition using the LINCing clues we’ve created. First, say the name of the term. [Compromise]. Next, ask yourself, "compromise" sounds like ... [Promise]. So what was the story about a promise? [Let’s see, promise to do something ... no, promise to give up something.] Why did you promise to give up something? [Oh yeah. Promise to give up something to reach an agreement.] O.K. Slide your paper over so you can see the LINCing Story for "compromise". Check it to make sure the story you recalled matches the one you designed earlier.

Now, think of the image or picture you created. What does it show? [Two people giving each other something and shaking hands.] Good. What’s the connection between two people giving each other something and shaking hands? [They shake hands to signal reaching an agreement]. OK. But why are they giving each other something? [To reach the agreement, each has to give up something he wanted to be in the deal.] Great. Now slide the paper over and check your picture to see if you remembered it correctly. (pauses to allow students to check their pictures) So what’s the definition of "compromise"? [When you have to give in on something you want. ... and the other person is giving up something too so you can make a deal]. You know this term pretty well, by now, but slide the paper over one more time to check the definition to make sure you are correct. Make sure you identified all of the essential parts of the definition.

At this point, the teacher would then move to the next term and begin the process of cueing students to use the memory devices they created to recall the term’s definitions. Once all have been rehearsed in this fashion, the teacher might then move to the next stage of instruction, REVIEW.

**REVIEW**

| Note: This review should focus on the meanings of the new terms (both those in which memory devices were constructed and those which students indicated they did not need memory devices) in the context of the lesson about the US Constitution. The review should also involve a review of the LINCS strategy steps and a debriefing of students perceptions of the procedure. |

Review the lesson content. Let’s review what we’ve learned about the US Constitution and how a bill becomes a law. What happens first? [Well, you have a problem that needs solving, so somebody writes a law to solve it.] Do they write a law, or a bill? [A bill.] Right, a bill is what the law is called before it’s approved and becomes a law. Now, is it usually just one person who writes a bill? [There may be several people working on it.] So when several people are writing a bill, does everybody usually want the exact same thing to be in the bill? [No] So what do they do? [Bargain with each other.] Right, each has to make some sort of "compromise" in what they wanted. So what does compromise mean? [To give up something you want to make a deal] Right... to make a deal
or reach an agreement. So once they compromise on what should be in the bill, what happens next? ... (This review would continue, focusing on the meanings of the new terms in the context of the lesson about how a bill becomes a law.)

**Review the LINCing devices.** Let’s briefly review our LINCing devices. The first term was compromise. What was our Reminding Word for “compromise”? Compromise sounds like ... [Promise]. What was the story about promise? (this review would continue for all of the important terms).

**Review the LINCS Strategy.** Let’s briefly review some important information we need to remember about this new strategy we’ve been learning. (this review should highlight the critical features of the strategy; you can ask questions such as:

* What do each of the steps to LINCS tell us to do?
* What is the LINCS strategy? What does it help us do?
* When is the best time to use the LINCS strategy?
* What is a Reminding Word?... LINCing story? ... LINCing Picture?"