

**KNOWLEDGE APPLICATION  
LESSONS**

# Providing Resources and Guidance

THE **MARZANO COMPENDIUM** OF  
INSTRUCTIONAL STRATEGIES



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# CONTENTS

INTRODUCTION .....	1
PROVIDING RESOURCES AND GUIDANCE .....	2
STRATEGIES .....	5
Proficiency or Scoring Scales .....	6
Providing Resources .....	7
Informational Handouts .....	8
Teaching Research Skills .....	10
Interviews .....	12
Circulating Around the Room .....	14
Collecting Informal Assessment Information .....	15
Feedback .....	17
Creating Cognitive Dissonance .....	19
REPRODUCIBLES .....	21

# INTRODUCTION

In 2007, Dr. Robert J. Marzano published *The Art and Science of Teaching: A Comprehensive Framework for Effective Instruction*. The framework, composed of three lesson segments, ten design questions, and forty-one elements, was based on research showing that teacher quality is one of the strongest influences on student achievement—that is, an effective teacher can positively and significantly impact student learning. As such, *The Art and Science of Teaching* sought to identify specific action steps teachers could take to improve their effectiveness.

In 2015, Dr. Marzano updated *The Art and Science of Teaching* framework to reflect new insights and feedback. The Marzano Compendium of Instructional Strategies is based on this updated model, presenting forty-three elements of effective teaching in ten categories. Each folio in the series addresses one element and includes strategies, examples, and reproducible resources. The Compendium and its folios are designed to help teachers increase their effectiveness by focusing on professional growth. To that end, each folio includes a scoring scale teachers can use to determine their proficiency with the element, as well as numerous strategies that teachers can use to enact the element in their classrooms. Indeed, the bulk of each folio consists of these strategies and reproducibles for implementing and monitoring them, making the Compendium a practical, actionable resource for teachers, instructional coaches, teacher mentors, and administrators.

# PROVIDING RESOURCES AND GUIDANCE

The teacher acts as a resource provider and guide as students engage in cognitively complex tasks. This guidance can take the form of providing supporting materials and information as students engage in cognitively complex tasks, or it can involve presenting students with information that prompts them to revise their ideas or hypotheses. When challenging students with tasks that require knowledge application, guiding students to find information and resources that further their investigations is essential to helping them be successful. In addition, discussions regarding the basic nature and purpose of the tasks in which they are engaged are associated with increases in learning.

## Monitoring This Element

There are specific student responses that indicate this element is being effectively implemented. Before trying strategies for the element in the classroom, it is important that the teacher knows how to identify the types of student behaviors that indicate the strategy is producing the desired effects. General behaviors a teacher might look for include the following.

- Students seek out the teacher for advice and guidance regarding hypothesis generation and testing tasks.
- When asked, students can explain how the teacher provides assistance and guidance for hypothesis generation and testing tasks.
- Students provide grounds, backing, and qualifiers to support their claims.
- Students find and correct errors or limitations in their claims.

Desired behaviors such as these are listed for each strategy in this element.

Teachers often wonder how their mastery of specific strategies relates to their mastery of the element as a whole. Successful execution of an element does not depend on the use of every strategy within that element. Rather, multiple strategies are presented within each element to provide teachers with diverse options. Each strategy can be an effective means of implementing the goals of the element. If teachers attain success using a particular strategy, it is not always necessary to master the rest of the strategies within the same element. If a particular strategy proves difficult or ineffective, however, teachers are encouraged to experiment with various strategies to find the method that works best for them.

## Scoring Scale

The following scoring scale can help teachers assess and monitor their progress with this element. The scale has five levels, from Not Using (0) to Innovating (4). A teacher at the Not Using (0) level is unaware of the strategies and behaviors associated with the element or is simply not using any of the strategies. At the Beginning (1) level, a teacher attempts to address the element by trying specific strategies, but does so in an incomplete or incorrect way. When a teacher reaches the Developing (2) level, he or she implements strategies for the element correctly and completely, but does not monitor their effects. At the Applying (3) level, a teacher implements strategies for the element and monitors their effectiveness with his or her students. Finally, a teacher at the Innovating (4) level is fluent with strategies for the element and can adapt them to unique student needs and situations, creating new strategies for the element as necessary.

### Scale for Providing Resources and Guidance

4	3	2	1	0
Innovating	Applying	Developing	Beginning	Not Using
I adapt behaviors and create new strategies for unique student needs and situations.	I provide resources and guidance, and I monitor the extent to which my actions affect students' performance.	I provide resources and guidance, but I do not monitor the effect on students.	I use the strategies and behaviors associated with this element incorrectly or with parts missing.	I am unaware of strategies and behaviors associated with this element.

The following examples describe what each level of the scale might look like in the classroom.

**Not Using (0):** A teacher does not actively try to provide resources and guidance. He expects that students will volunteer questions if they have any. He typically stays at his desk while students work and uses assessments only to provide scores, not feedback or guidance.

**Beginning (1):** A teacher begins providing feedback to her students as a way to provide guidance when they are engaged in complex tasks. However, she does not provide feedback consistently and doesn't give specific, actionable feedback. Her feedback is often so general that students aren't sure exactly what they need to do differently or what they need to improve.

**Developing (2):** A teacher makes himself available to students who need help and moves around the room as they work, looking for students who appear to be struggling. He takes the time to work one-on-one with students and suggest resources the students can use. However, he doesn't check back in to make sure students are learning what they need to from that resource.

**Applying (3):** A teacher walks around the room asking students questions to measure how well they are understanding cognitively complex tasks. She uses this information to determine which parts of the task students need more support to complete. Based on the responses she receives, she provides extra digital resources, study sessions, and one-on-one meetings to help her students. She then reviews classroom artifacts, such as drafts, outlines, and worksheets, to make sure the resources she provided are having the desired effect.

## Providing Resources and Guidance

**Innovating (4):** A teacher sets up individual interviews with his students to learn about their progress on an experimental-inquiry task. After speaking with several students, he realizes that many are struggling with similar aspects of the project and decides to design an online resource the students can reference as they work. He also spends part of one class showing students how they can plan out their task and possible ways they can share their results with the class. He creates a checklist for students to use as they work, and he routinely checks in with students to see how much progress they have made and which parts of the checklist they have completed.

# STRATEGIES

Each of the following strategies describes specific actions that teachers can take to enact this element in their classrooms. Strategies can be used individually or in combination with each other. Each strategy includes a description, a list of teacher actions, a list of desired student responses, and suggestions for adapting the strategy to provide extra support or extensions. Extra support and extensions relate directly to the Innovating (4) level of the scale. Extra support involves steps teachers can take to ensure they are implementing the strategy effectively for all students, including English learners, special education students, students from low socioeconomic backgrounds, and reluctant learners. Extensions are ways that teachers can adapt the strategy for advanced students. In addition, some strategies include technology tips that detail ways teachers can use classroom technology to implement or enhance the strategy. Finally, each strategy includes further information, practical examples, or a reproducible designed to aid teachers' implementation of the strategy.



## Proficiency or Scoring Scales

The teacher asks students to use a proficiency or scoring scale to monitor their progress toward a learning goal over the course of a cognitively complex task. The scale should contain the target learning goal, a simpler learning goal, and a more complex learning goal.

### Teacher Actions

- Creating a scale to monitor students' progress toward the class learning goal during cognitively complex tasks
- Helping students track their progress on the learning goal during cognitively complex tasks

### Desired Student Responses

- Describing the progress they have made toward the class learning goal during the cognitively complex task using a teacher-generated scale

### Extra Support

- Showing examples of student artifacts (written work, recordings of performances, other products) from cognitively complex tasks that illustrate different levels of performance for a scale used to score a cognitively complex task

### Extension

- Asking students to identify what they will need to do to meet and exceed their goal score for a cognitively complex task

### Technology Tips

- Use interactive whiteboard or presentation software to display a scoring scale and have students use polling technology to indicate their position on the scale. Use this feedback to monitor and adjust the support you provide, to promote whole-class discussion, and organize students for cooperative learning groups.

### Example Scale for Student Progress on a Task

<b>Score 4.0</b>	I can list the steps of my task, say which step I'm on, and explain what I could do differently to improve my performance.
<b>Score 3.0</b>	I can list the steps of my task, say which step I'm on, and explain what I'm doing well.
<b>Score 2.0</b>	I can list the steps of my task and say which step I'm on, but I'm not sure how well I'm doing.
<b>Score 1.0</b>	I don't know the steps of my task or what I'm supposed to do next.

## Providing Resources

When asking students to complete a cognitively complex task, the teacher provides resources that students will need to succeed at that task. In many cases, these resources will be informational—books, website, videos, diagrams, and so on. In other cases, these resources might be more material—models or building materials. The teacher must also collect these resources in a place where students can access and use them as needed. This collection is often fairly broad, allowing students to select the information or materials they think they need from among numerous relevant options.

### Teacher Actions

- Identifying informational resources that students will need to complete cognitively complex tasks
- Providing material resources if necessary
- Collecting resources in an accessible location

### Desired Student Responses

- Accessing resources appropriately
- Using informational and material resources to complete cognitively complex tasks

### Extra Support

- Providing guidance about which information to seek out from the larger collection

### Extension

- Asking students to find informational resources (such as books or websites) about the relevant topic to include in the larger collection

### Tips for Providing Resources

- Collect books, articles, and other print resources on the topic at hand and use a designated bookshelf to store them all together. This shelf might be located in the classroom or in the school library if you plan to give students time to work there.
- If various students are working with different topics, use sticky notes or another temporary system to color-code resources by topic. If students are working at various reading levels or levels of a proficiency scale, a similar system can be used to denote the level of each resource.
- Collect online resources and share links with students. This might involve a playlist of videos on YouTube, a set of links on a social bookmarking site such as **diigo.com**, or simply a list of relevant websites.
- Provide nonlinguistic representations of important information. This might include pictures, videos, diagrams, or models. In addition, you could provide interactive representations of relevant content, such as a chemistry modelling set that allows students to build molecules.

## **Informational Handouts**

Provide students with informational handouts that they can keep and refer back to if they have questions about a long-term project or cognitively complex task. For example, a list of frequently asked questions and their answers can help students independently resolve some confusions. This allows the teacher to more efficiently provide resources and guidance to the whole class. A syllabus for a project or unit is another example of an informational handout—it provides students with a roadmap for what they will be doing and learning throughout the project or unit.

### **Teacher Actions**

- Creating handouts that list basic information about a project or task
- Distributing handouts to students at the outset of the project
- Instructing students to look for the answers to their questions on the handout
- Explaining what to do if the information they need is not on the handout

### **Desired Student Responses**

- Keeping informational handouts for the duration of a project
- Referring to informational handouts when they have a question

### **Extra Support**

- Posting a reminder in the classroom that students should first look for answers on the informational handout

### **Extension**

- Instructing students to ask each other questions that are not answered by handouts before asking the teacher

## Planning Guide for Informational Handouts

Use the following questions to consider information that might be helpful to include on an informational handout for a specific project or task.

- What is the topic of this project?
- What learning goal is associated with this project?
- What are the timelines or due dates associated with the task or project?
- When will students be working on the project? How much class time will be provided? How much work will they do on their own?
- At the end of this project or task, will students have created a product (essay, presentation, model, or other tangible result)? If so, what is the final product?
- What are the steps for completing this project?
- What does successful completion of this project look like?
- Is there a proficiency scale for this task or project?
- How will students be expected to track their progress or demonstrate completion of various steps?
- Where will students get the information and materials needed to complete the task or project?
- If students have further questions or need more information, what other resources are available?

## Teaching Research Skills

Teachers can and should consider instructing students in how to independently find resources and information that will help them complete cognitively complex tasks. Information and skills that can help students begin to develop their research abilities include the following.

- **Awareness of what types of resources are available:** Students are probably aware of books and the Internet, but may not know about other types of resources such as scholarly journals or newspaper archives.
- **Knowing where to access different types of resources:** Students need to know about databases and collections that can provide access to resources, such as school and local libraries and online databases of academic articles.
- **Effective search terms:** Because even many physical resource collections are electronically searchable, students need to be familiar with effective search practices and how to alter their search terms to return more or less specific results.
- **Assessing the reliability of a source:** Students must develop the habit of evaluating the validity of sources, especially on the Internet, by looking at who provided the information and how credible they are.
- **Verifying information:** Students should learn to seek out numerous sources on a topic. The more sources verify the information, the more accurate it is likely to be.
- **Looking for a range of perspectives:** Many topics that students research will have a variety of opinions and perspectives associated with them. Students should avoid collecting biased or one-sided information by intentionally looking for a range of perspectives.
- **Primary and secondary sources:** Students should understand the terms *primary source* and *secondary source* and be able to recognize situations in which one may be more useful than the other.
- **Recording information:** Students should use effective note-taking skills to record key information from various sources, which will help solidify the information in their memories and enable them to use the information later.
- **Citing sources:** Students must know how to credit the sources of information through paraphrasing, direct quotations, in-text citations, and reference lists.

### Teacher Actions

- Instructing students in effective research practices
- Providing guidance to help students become independent in these skills

### Desired Student Responses

- Practicing effective research techniques independently

### Extra Support

- Providing students with a checklist of effective research practices that they can use while looking for information

### Extension

- Asking students who exhibit effective research skills to demonstrate their processes to others

## Guidelines for Successful Research

- **Use multiple sources:** Look for information in different places, such as libraries (school, local, and so on), online research databases, specialized search engines like Google Scholar, and websites run by experts on your topic.
- **Try a range of possible keywords and search terms:** Broaden or narrow your results by adjusting search terms to be more or less specific. Search for keywords that are associated with your main topic, such as synonyms, causes and effects of the topic, categories that your topic fits into, or specific examples of general topics.
- **Check the relevance of information:** When you find information, double check that it is related to your main topic or research question. If you cannot explain the connection in two sentences or less, the information might be irrelevant.
- **Check the reliability of sources:** Make sure you know who is providing the information and consider whether that person or organization is credible and unbiased. Look for books published by reputable authors and publishers, peer-reviewed scholarly articles, and websites of expert organizations. Avoid sources that are issued with little or no certification process, such as blogs, wikis, and self-published books. If you are not sure about the reliability of a source, try to verify the information using another source.
- **Manage the amount of material you need to read:** If you find a lot of information on a topic, break it into manageable chunks to make it easier to read and process.
- **Think about the information you are gathering:** Be sure to think critically about the information that you find. Consider whether there are contradictions within the information, whether it answers your research question completely, and whether it accurately represents the complexity of the topic (including facts, opinions, varying perspectives, controversies, and so on).

## **Interviews**

The teacher conducts interviews with students to keep track of their progress as they work on cognitively complex tasks and projects. The teacher might use a checklist or scoring scale to guide each interview and to help the students plan their next steps.

### **Teacher Actions**

- Asking students about their progress on cognitively complex tasks
- Creating and using a checklist or scoring scale to guide interviews and help students plan next steps

### **Desired Student Responses**

- Describing what they have done and still need to do for their cognitively complex tasks
- Identifying and resolving potential problems related to their cognitively complex tasks
- Revising plans for their cognitively complex tasks when necessary

### **Extra Support**

- Anticipating parts of a student's cognitively complex task that will be particularly difficult and preparing the student to deal with the challenge during an interview

### **Extension**

- Asking the student which parts of his or her cognitively complex task will be most difficult and helping the student plan to deal with the challenge

### **Organizing Student Interviews**

- Dedicate one class period to student interviews and ask the rest of the class to work quietly on their projects if they are not in an interview. Create a sign-up sheet with blocks of time for each student or student group and have students sign up for slots in advance. If there is not enough time in the class period to meet with all students, set aside blocks of time after school or during lunch. Alternatively, interviews can be conducted over several class periods, with a portion of each class devoted to interviews. Participation in the interviews can either be voluntary or an expectation for all students.
- Before students attend their interview sessions, ask them to prepare any questions or concerns they have about the project. Instruct them to bring any research, planning documents, and notes that they would like to discuss with them.
- If many students appear to be struggling on the same step or process in their task, it may be worthwhile to conduct a classwide direct instruction lesson or provide additional resources.

## Sample Questions for Student Interviews

- How comfortable do you feel completing this task?
- What kind of questions do you have so far about your project?
- Do you have a plan for your project?
- What have you done so far? What will you do next?
- How are you keeping track of your progress?
- What parts of this task do you think will be difficult to complete or implement?
- Are you struggling with the completion or implementation of any tasks?
- Which element of this task do you need the most help with?
- What materials do you need in order to complete this project?
- How will you check to see if your ideas are correct?
- How will you represent your results?
- How long do you believe it will take you to complete this task?
- Do you think you have enough time to complete this task?
- What kind of resources or materials could I provide to help you with your project?
- Do you feel like you were well-prepared to do this task?
- How do you think this task relates to what you've been learning in class?



## **Circulating Around the Room**

The teacher walks around the room while students work, allowing them to easily request assistance.

### **Teacher Actions**

- Walking around the room while students work on cognitively complex tasks
- Offering assistance or resources to students who seem to be having trouble

### **Desired Student Responses**

- Describing the teacher as “available” to help with cognitively complex tasks
- Receiving assistance from the teacher quickly and easily

### **Extra Support**

- Creating an unobtrusive signal that students can use to alert the teacher that his or her attention is needed

### **Extension**

- Asking students questions that prompt them to consider their cognitively complex task from a new perspective
- Having students seek assistance from other students before asking the teacher

## **Making Sure Every Student Gets Help and Support**

While students might typically indicate that they need help by raising their hand, if multiple students need help at once, it can be difficult to make sure that every student’s needs are addressed. The following are several ways a teacher can make sure every student is able to utilize available resources and teacher support to the fullest extent.

- Create an interactive list that students can write or type their names on while waiting for the teacher’s assistance. The list can be on the whiteboard, or it can be a digital list that students access from iPads or their smartphones. The teacher should assist students in the order that their names appear on the list and remove or mark off their names after helping them.
- Create a visible signal that quickly and quietly indicates when a student needs help. For example, provide students with brightly colored index cards and have the students fold them in half into tent shapes so that the cards stand upright on their desk. When a student places a card on the desk, it means that he or she needs assistance.
- Encourage students to review their notes, check their textbooks, or look for information online while they wait for help. Students could also be allowed to ask their neighbor for assistance while they wait.
- If a student has stopped working for a long period of time, check in to make sure the student isn’t struggling. Ask them what they have done so far and what they plan to work on next. If they can’t specifically state what they have done or plan to do, provide them with a checklist to complete or remind them of their scale for the project, and then come back later to check on their progress.

## Collecting Informal Assessment Information

The teacher examines student assessments to anticipate student needs and make helpful resources immediately available. Students who are not comfortable asking for resources (or who are not able to determine what type of resources or help they need) can benefit from easily available or offered resources.

### Teacher Actions

- Using informal assessment information to anticipate student needs for cognitively complex tasks
- Obtaining and offering appropriate resources to students

### Desired Student Responses

- Describing the teacher as someone who anticipates their needs during cognitively complex tasks

### Extra Support

- Procuring and offering resources to specific students based on information from their assessments

### Extension

- Conferring with students about resources that will help them extend cognitively complex tasks and about how to access their resources

## Using Assessments to Determine Guidance

- **Class polls:** The teacher can take a quick informal poll to gauge students' understanding of a task or process. For example, a teacher can have students use smartphones to respond to a poll, or a teacher can take a simple "thumbs up, thumbs down" poll to measure understanding on a variety of topics. Aggregate results to see what most of the class is struggling with and which resources would be the most helpful.
- **Class discussions:** Have students discuss their tasks or projects in small groups or as a class. Circulate around the room and listen to students' responses and the concerns they share. The information gathered from these discussions can inform future support and can help you determine whether more instruction is needed, if students need clarification, or if additional resources could help them complete their work.
- **Multi-stage assignments:** Have students turn in parts of cognitively complex assignments before the whole assignment has been completed. Use these artifacts to help measure how well students are understanding the components, procedures, and purposes of their tasks. Rather than grading these early progress assignments, use them to provide new guidance and resources and then allow students to revise their thinking before they finish the project.

## Providing Resources and Guidance

- **Student self-assessment:** Ask students to describe how comfortable they feel with the task so far and if they feel like they have access to enough resources to complete their work. The self-assessment can be a few questions on a handout, a response paragraph students have to write before leaving the classroom, or a poll.
- **Preassessment:** Before assigning a cognitively complex task, give students a preassessment that measures how familiar they are with certain processes, concepts, and resources that are available to them. If students are unsure of what to do when they struggle with a problem, design a procedure that will provide multiple avenues of support. Preassessments can also be used to anticipate the needs of students and which content they will need the most support to understand.

## **Feedback**

The teacher offers feedback to students about their overall performance on cognitively complex tasks, and makes specific suggestions regarding how students can complete their tasks.

### **Teacher Actions**

- Telling students when they perform tasks well or give their best effort during cognitively complex tasks
- Telling students how they could strengthen or improve their approach to a cognitively complex task

### **Desired Student Responses**

- Describing the teacher as someone who recognizes and appreciates students who do their best
- Describing times when they have performed tasks well or given their best effort during cognitively complex tasks
- Describing situations when the teacher has provided feedback that help them improve

### **Extra Support**

- Focusing feedback on one aspect of the student's cognitively complex task at a time and helping the student make necessary changes

### **Extension**

- Asking students to respond to the teacher's feedback by explaining what they want to do differently as they progress with their cognitively complex task

### **Technology Tips**

- Use cloud-based word processing tools to enhance the use of feedback during cognitively complex tasks (such as generating and testing hypotheses). For example, students can use Google Drive or Evernote to keep a log or learning journal. Then, teachers can provide feedback and interactive comments on entries.
- Use the comments feature in word processing software to guide student writing activities and projects. Teachers can even embed hyperlinks within comments to external resources, information, or exemplary writing samples from past students.
- Compile the most common questions from students (using Google Drive or another web program) into a searchable online list of frequently asked questions (FAQs) about specific content (for example, How do I simplify an equation that contains multiple operations?) or about the class in general (for example, Why do I need to learn algebra if I do not plan to be a mathematician?). Advanced students can also create interactive FAQ support resources to correspond with the questions.

### Tips for Providing Effective Feedback

- Provide specific feedback that acknowledges both the strengths and weaknesses in a student’s work. The following table recommends which aspects of a student’s work and effort feedback should focus on, depending on whether the student was successful or unsuccessful in their completion of a task.

	<b>If the Student Was Successful</b>	<b>If the Student Was Unsuccessful</b>
<b>Aspects of the task</b>	Point out aspects of the task that were done well	Point out aspects of the task that were done well and aspects that were done poorly
<b>Student effort and preparation</b>	Comment on the student’s obvious effort and preparation	Comment positively on effort and preparation or question the student about the lack of effort and preparation

- Give feedback that indicates next steps or a course of action the student can take to improve. If possible, give the student an example of an action they haven’t done that you believe could help them.
- If students don’t appear to be engaging with the feedback, try wording it another way or being more specific. Students may not comprehend the language you’re using or may not understand exactly what you expect.
- Set clear expectations through the use of learning goals and established rules and procedures. Whenever possible, give students the opportunity to see and understand their progress, their mistakes, and their achievements. Track student progress using a classwide chart or charts specific to each student and acknowledge when students reach a certain level or achieve a goal relative to their cognitively complex tasks.
- Give feedback frequently and consistently. Feedback is an exceptional tool for monitoring and encouraging student growth and should be given regularly.

## **Creating Cognitive Dissonance**

The teacher seeks out information that does not align with students' hypotheses and presents that information to students to help them identify and correct errors in their thinking. For example, if a student's hypothesis is that the best solution to a problem involves building a model, the teacher might present the student with information showing that the components required to build the model are more expensive than the student's budget constraints will allow, prompting the student to rethink and revise his or her solution.

### **Teacher Actions**

- Knowing students' hypotheses
- Seeking out information that will prompt students to revise their hypotheses
- Presenting conflicting information to students

### **Desired Student Responses**

- Recognizing information that does not fit with their hypotheses
- Revising their hypotheses to accommodate new information

### **Extra Support**

- Explaining to students how the new information does not fit with their original hypotheses

### **Extension**

- Asking students to seek out information that will prompt other students to revise their hypotheses

## Revising Hypotheses

Name: \_\_\_\_\_ Date: \_\_\_\_\_

My original hypothesis:

New information that conflicts with my hypothesis:

How this new information affects what I previously thought:

Revised hypothesis:

## **REPRODUCIBLES**

Teachers can use the following reproducibles to monitor their implementation of this element. The reproducible titled Tracking Progress Over Time helps teachers set goals related to their proficiency with this element and track their progress toward these goals over the course of a unit, semester, or year. Tracking Teacher Actions and Tracking Student Responses allow observers in classrooms to monitor specific teacher and student behavior related to this element. Teachers themselves can also use the Tracking Student Responses reproducible to document instances of student behaviors during class. The Strategy Reflection Log provides teachers a space to write down their thoughts and reflect on the implementation process for specific strategies related to this element. Finally, this section provides both a student survey and a teacher survey, the results of which provide feedback about teachers' proficiency with this element.



## Tracking Progress Over Time

Use this worksheet to set a goal for your use of this element, make a plan for increasing your mastery, and chart your progress toward your goal.

Element: \_\_\_\_\_

Initial Score: \_\_\_\_\_

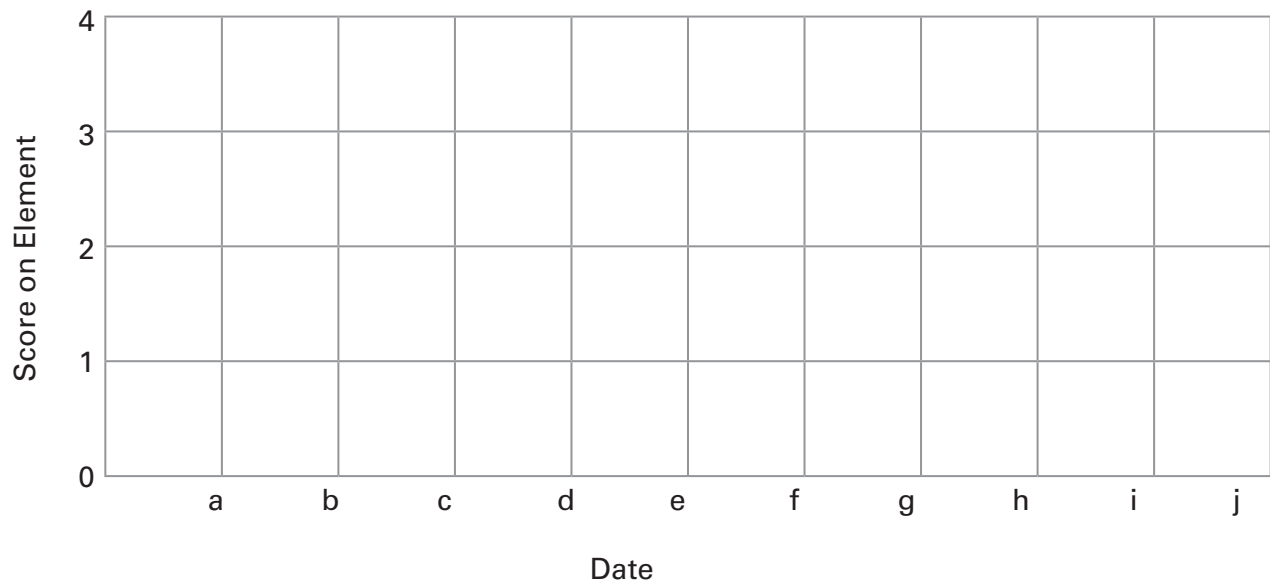
Goal Score: \_\_\_\_\_ by \_\_\_\_\_ (date)

Specific things I am going to do to improve: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



a. \_\_\_\_\_

f. \_\_\_\_\_

b. \_\_\_\_\_

g. \_\_\_\_\_

c. \_\_\_\_\_

h. \_\_\_\_\_

d. \_\_\_\_\_

i. \_\_\_\_\_

e. \_\_\_\_\_

j. \_\_\_\_\_

## Tracking Teacher Actions

During an observation, the observer can use this form to record the teacher's usage of strategies related to the element of providing resources and guidance.

Observation Date and Time: \_\_\_\_\_ Length of Observation: \_\_\_\_\_

Check Strategies You Intend to Use	Strategies	Description of What Was Observed
	Proficiency or Scoring Scales	
	Providing Resources	
	Informational Handouts	
	Teaching Research Skills	
	Interviews	
	Circulating Around the Room	
	Collecting Informal Assessment Information	
	Feedback	
	Creating Cognitive Dissonance	
	Other:	
	Other:	

## Tracking Student Responses

A teacher or observer can use this worksheet to record instances of student behavior to inform planning and implementation of strategies associated with providing resources and guidance. Any item followed by an asterisk is an example of undesirable behavior related to the element; the teacher should look for a decrease in the number of instances of these items.

Observation Date and Time: \_\_\_\_\_ Length of Observation: \_\_\_\_\_

Behavior	Number of Instances
Responding to feedback	
Explaining what they plan to do differently in the future	
Attempting to answer questions independently	
Following protocols for asking for help	
Demonstrating effective research practices	
Asking for help on a problem or task	
Using resources provided to them (computers, books, materials, and so on)	
Providing backing for claims	
Explaining the reasoning behind their claims	
Tracking their progress towards a goal	
Revising hypotheses in response to conflicting information	
Other:	
Other:	

## Strategy Reflection Log

Use this worksheet to select a strategy, set a goal, and reflect on your use of that strategy.

Element: \_\_\_\_\_

Strategy: \_\_\_\_\_

Goal: \_\_\_\_\_

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Date	How did it go?

## Student Survey for Providing Resources and Guidance

**1. My teacher is always willing to help me and provide guidance.**

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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**2. Even if the learning is difficult in this class, I know how to get help and learn something new.**

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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**3. My teacher has or will get the things I need to support my learning and work in class.**

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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**4. My teacher walks around the room while students are working and is always willing to help me when I need it.**

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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**5. My teacher asks me what I need to support my learning and offers resources that he or she thinks would be helpful.**

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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**6. I feel comfortable telling the teacher when I need help or resources.**

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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## Teacher Survey for Providing Resources and Guidance

**1. When students are working, I move around the room so they can ask me questions.**

Often                      Sometimes                      Rarely                      Never                      I don't know

**2. I ask students what resources or materials they need to complete their work and I provide them with those resources.**

Often                      Sometimes                      Rarely                      Never                      I don't know

**3. I provide students with the skills, information, and resources they need to work independently on cognitively complex tasks.**

Often                      Sometimes                      Rarely                      Never                      I don't know

**4. I ask students what I can do to help them.**

Often                      Sometimes                      Rarely                      Never                      I don't know

**5. I tell students about different ways they can get help when they are struggling with a task.**

Often                      Sometimes                      Rarely                      Never                      I don't know

**6. I provide information to students that helps them identify and correct errors in their thinking.**

Often                      Sometimes                      Rarely                      Never                      I don't know

**7. I provide feedback to students.**

Often                      Sometimes                      Rarely                      Never                      I don't know

**8. I ask students to support their claims and hypotheses.**

Often                      Sometimes                      Rarely                      Never                      I don't know