Module 6

Effective Inquiry in the Content Areas

Estimated Time: 1 hour

The goal of this module is to introduce participants to the types of questions that lead to effective inquiry. Participants will examine four stances students can adopt as they develop questions: a lawyer's stance, focusing on digging more deeply; a reporter's stance, finding experts to interview in an effort to more fully understand the topic; a detective's stance, working to solve a mystery; and/or a skeptic's stances, questioning the validity of the information and finding sources to support or refute it. Participants will come to understand how the background knowledge they have built previously with reading and writing activities feeds into the development of questions for effective inquiry.

Materials You Will Need:
- Chart paper
- Markers
- PowerPoint Slides **6.1-6.16**
- A piece of chart paper divided in half vertically (T-chart) with the left column labeled *Possibilities* and the right column labeled *Challenges*
- A piece of chart paper headed *Good questions…*
- A piece of chart paper headed *Skepticism is important because….*
- **Handout 1:** Good questions…
- **Handout 2:** Steps in Conducting an Interview

- **Handout 3:** The Skeptic Ponders a Text
- Computer and projector for projecting images
- Paper and pens/pencils for participants (optional)
- Highlighters for participants (optional)

Overview of the Session: All times are approximate.

- SEGMENT 1: Reflecting on the Bring It Back Activity (Approximately 10 minutes)
- SEGMENT 2: Establishing the Purpose of the Session (Approximately 5 minutes)
- SEGMENT 3: The Role of Inquiry in Building Complex Knowledge (Approximately 5 minutes)
- SEGMENT 4: Good Questions as the Springboard to Effective Inquiry(Approximately 35 minutes)
- BRING IT BACK ASSIGNMENT (Approximately 5 minutes)

➢ SEGMENT 1: Approximately 10 minutes
## Reflecting on the Bring It Back Activity

A. Project **PowerPoint Slide 6.2** about 5 minutes before the scheduled start time.
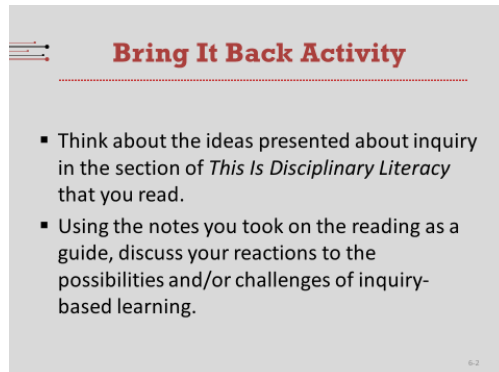
B. Prompt participants to begin their conversations at the scheduled start time.
C. As participants begin their discussions, post the **chart paper headed *Possibilities/Concerns.***
D. As participants continue to discuss, walk through the room taking questions and coaching as needed.
E. Allow **5 minutes** for the discussions.
F. At the end of 5 minutes, ask participants to bring their conversations to a close.
G. Ask volunteers to share what they see as exciting possibilities or possible challenges of inquiry-based learning.
H. Offer possible solutions to the challenges and invite participants to offer solutions as well.

➢ SEGMENT 2: Approximately 5 minutes
Establishing the Purpose of the Session

**A.** Project **PowerPoint Slide 6.3.**
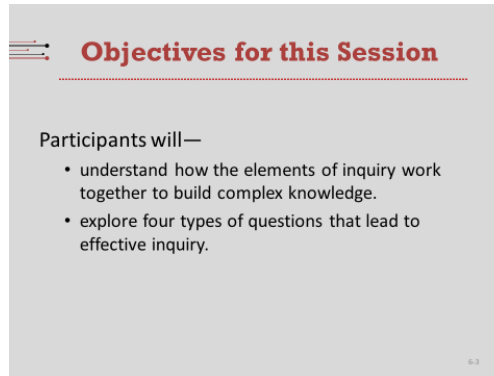
B. Go over the objectives for the session.
C. Stress that this session will provide an overview of the types of practices described in Chapter 4 of *This Is Disciplinary Literacy….*The practices themselves will be explained in detail in the portion of the chapter they will read following the session.

➢ SEGMENT 3: Approximately 5 minutes
The Role of Inquiry in Building Complex Knowledge

A. Project animated **PowerPoint Slide 6.4.**
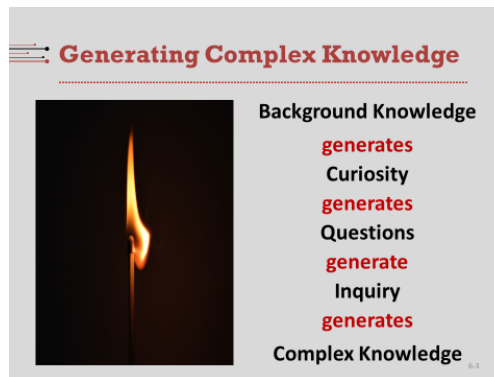
Initially, only the title will appear. Explain that the goal of disciplinary literacy is to generate complex knowledge.

First mouse click: Explain that there is a progression in the building of this complex knowledge. First, we must build students' background knowledge. **Click the mouse.** The reading and writing activities done in the classroom work together to build this initial knowledge.

Second and third mouse clicks: Explain that this background knowledge **(Click the mouse)** generates **(Click the mouse)** curiosity. The reading and writing activities work together to build this curiosity. Students begin to have an *authentic* need to know more.

Fourth and fifth mouse clicks: Explain that this curiosity **(Click the mouse)** generates **(Click the mouse)** questions. Students begin to ask themselves, their peers, and the teacher questions whose answers they really want to know. The power of these questions drives the learning.

Sixth and seventh mouse clicks: Explain that the questions the students construct **(Click the mouse)** generate **(Click the mouse)** inquiry. Functioning in ways similar to those of experts in the field, students begin to investigate their areas of interest.

Eighth and ninth mouse clicks: Stress that the inquiry **(Click the mouse)** generates **(Click the mouse)** complex knowledge, which is, after all, our goal in education.

➢ SEGMENT 4: Approximately 35 minutes
Good Questions as the Springboard to Effective Inquiry

A. Project **PowerPoint Slide 6.5**.
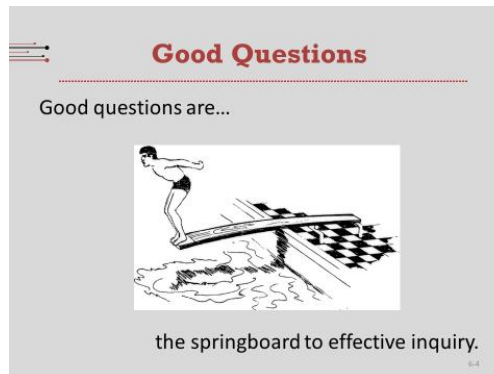
B. Clearly make the point that any inquiry done in the classroom is only as effective as the questions that drive the inquiry. Therefore, it is important to teach students to ask questions that will power their learning.

C. Explain that we are now going to take a deeper look at four types of questions that drive effective inquiry.

D. Project **PowerPoint Slide 6.6.**
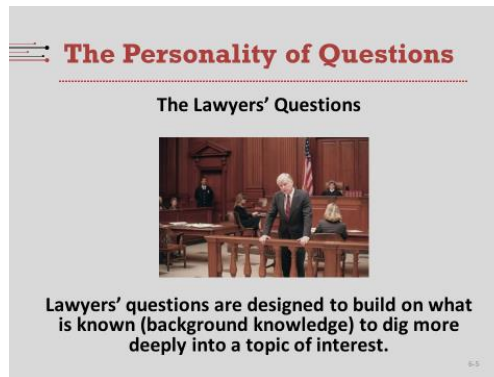
E. When adopting the personality of a lawyer, student inquirers use what they already know as a platform from which to launch new questions which will deepen their understanding of a topic.

F. **Project a short, interesting text** to model this type of thinking. Here are some possibilities:

- 15-year-old Discovers New Planet
http://www.huffingtonpost.com/2015/06/11/15-year-old-new-planet-tom-wagg-hot-jupiter_n_7559158.html?utm_hp_ref=teen&ir=Teen

- Autonomous Vehicles Will Replace Taxi Drivers
http://www.huffingtonpost.com/sam-tracy/autonomous-vehicles-will-_b_7556660.html?utm_hp_ref=technology&ir=Technology
The Digital Revolution Meets the Human Brain

- http://www.huffingtonpost.com/alvaro-fernandez/the-digital-revolution-me_b_7556038.html?utm_hp_ref=technology&ir=Technology

G. Tell participants that their job as you read the text aloud is to jot down questions they have related to the text, things they would like to know to more deeply understand the topic.

H. Ask volunteers to share their questions, continually pointing out what would make that particular question a good one for further inquiry.

I. Distribute **Handout 1: Good questions…**

J. As participants to read over the handout. While they read, post the **chart paper headed** *Good questions...*

K. Have participants share out other ideas they have for questions that would drive effective inquiry.

L. Project **PowerPoint Slide 6.7.**

The Personality of Questions

Reporters' Questions

Reporters interview people with deep knowledge of a subject, asking questions which help them see things from an expert's point of view.

M. Stress that the reason a reporter interviews someone is because that person is an *expert* on the topic the reporter is covering.

N. Project **PowerPoint Slide 6.8.**

21st Century Interviews

"No longer do students call for an appointment and then sit across the desk from an expert, notebook in lap. They can now reach out to just about anyone through communication tools such as Skype or email, making it easier to focus on the interview itself. "

--ReLeah Lent

O. Stress the fact that interviews can now be conducted with experts anywhere in the world, but that before conducting an interview, reporters *always* read up on the topic they will discuss and on the experts themselves so that they approach the interview as an intelligent participant in the conversation.
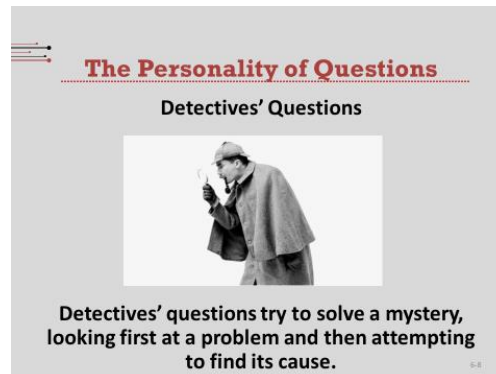
Quickly **project some examples of interviews available online**. This is just to help the teachers understand that there are sites available that students can visit to see how experts handle interviews. You will not need to take the time to read through these.

Here are some possibilities:

- NPR site for interviews
  http://www.npr.org/sections/interviews/
- Charlie Rose with Tim Cook
  http://www.businessinsider.com/tim-cook-full-interview-with-charlie-rose-with-transcript-2014-9
- Charlie Rose with Warren Buffet
- http://www.cnbc.com/id/44174056
- Eva Kor: It Is for You to Know You Forgive (Holocaust survivor)
  http://www.npr.org/templates/transcript/transcript.php?storyId=409286734
- Delivering Tragic News and Becoming Part of the Family
  http://www.npr.org/templates/transcript/transcript.php?storyId=408760059
- Tom Brokaw's interview with Warren Buffet
 http://www.cnbc.com/id/28725856

P. Distribute **Handout 2: Steps in Conducting an Interview.** Assure participants that there is a more extended explanation in the section of Chapter 4 they will read.

Q. Project **PowerPoint Slide 6.9.**

The Personality of Questions

Detectives' Questions

Detectives' questions try to solve a mystery, looking first at a problem and then attempting to find its cause.

R. Point out that mysteries always start with a problem: a death, a theft, a disappearance. The detective then begins to ask the questions that will uncover the cause of the problem—Who committed the murder? Who stole? Where is the missing person?

S. Project **PowerPoint Slide 6.10.**
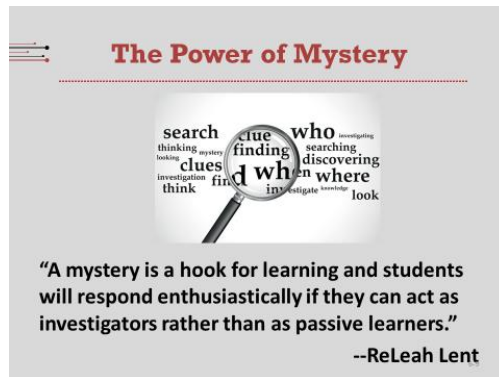
T. Read through the slide, stressing that giving students a mystery to solve immediately engages them with the content they are about to learn.

U. Project some examples of nonfiction texts based on a mystery. Explain that these are the kinds of texts that could serve as models with students. Discuss the kinds of questions asked and talk about where the answers might have been found.

Here are some possible texts:

- How Gatsby Went from a Moldering Flop to a Great American Novel
  http://www.npr.org/templates/transcript/transcript.php?storyId=406748019
- Why Are Teens So Moody and Impulsive?
  http://www.huffingtonpost.com/2015/06/14/teenage-brain-neuroscience_n_7537188.html?utm_hp_ref=science
- What can we do to save the bees?
  http://tweentribune.com/tween56/what-can-we-do-save-bees
- What would happen if a big asteroid hit the moon?
  http://tweentribune.com/tween56/what-would-happen-if-big-asteroid-hit-moon
- Can fluoride be too much of a good thing?
  http://tweentribune.com/tween56/can-fluoride-be-too-much-good-thing
- Where have all the seabirds gone?
  http://tweentribune.com/tween56/where-have-all-seabirds-gone
- What makes the Mile High City a mile high?
  http://tweentribune.com/tween56/what-makes-mile-high-city-mile-high

V. Project **PowerPoint Slide 6.11.**

W. Read through the definition on the slide.

X. Project **PowerPoint Slide 6.12.**

Note to presenter: If time is running short, skip to Y.

Y. Give participants 2-3 minutes to discuss the quotation in their table groups.

Z. While participants discuss, post the chart paper headed *Skepticism is important because…*

AA. Ask volunteers to share out reasons why skepticism is important. Jot them on the chart.

BB. Project **PowerPoint Slide 6.13.**

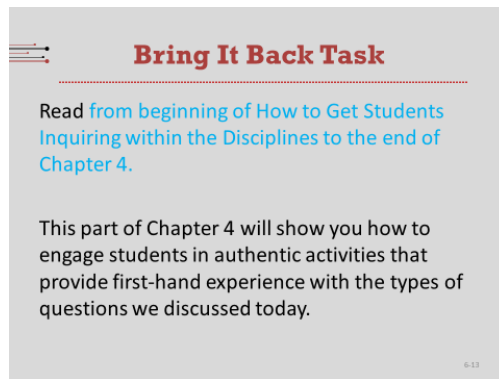**CC.** Drive home the point that we as critically literate people cannot afford to take everything we see and hear at face value. By becoming skeptics, we become more likely to rely on facts than on someone's opinion. In this age of social media and blogging, the idea of being a skeptic is critical.

DD.   Explain that students have to be *taught* to be effectively skeptical and will need support as they learn.

EE. Distribute **Handout 3: The Skeptic Ponders a Text.**

Bring It Back Task: Approximately 5 minutes
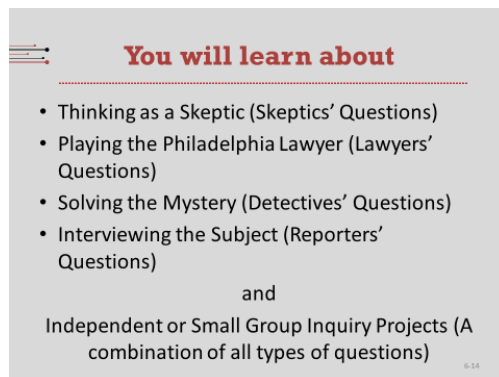
A. Project **PowerPoint Slide 6.14.**

Bring It Back Task

Read from beginning of How to Get Students Inquiring within the Disciplines to the end of Chapter 4.

This part of Chapter 4 will show you how to engage students in authentic activities that provide first-hand experience with the types of questions we discussed today.

B. Stress that the reading will fully explain activities that address the types of questions we've discussed today.

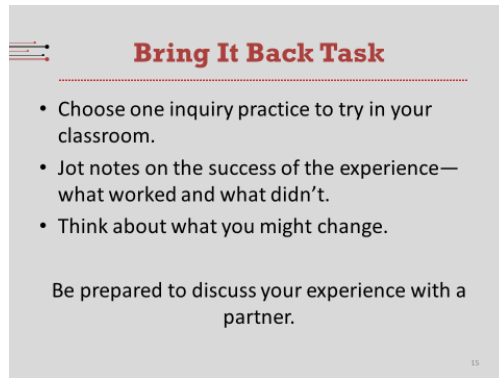**C.** Project **PowerPoint Slide 6.15.**

You will learn about

- Thinking as a Skeptic (Skeptics' Questions)
- Playing the Philadelphia Lawyer (Lawyers' Questions)
- Solving the Mystery (Detectives' Questions)
- Interviewing the Subject (Reporters' Questions)

and

Independent or Small Group Inquiry Projects (A combination of all types of questions)

D. Project **PowerPoint Slide 6.16.**

E. Go over the assignment.