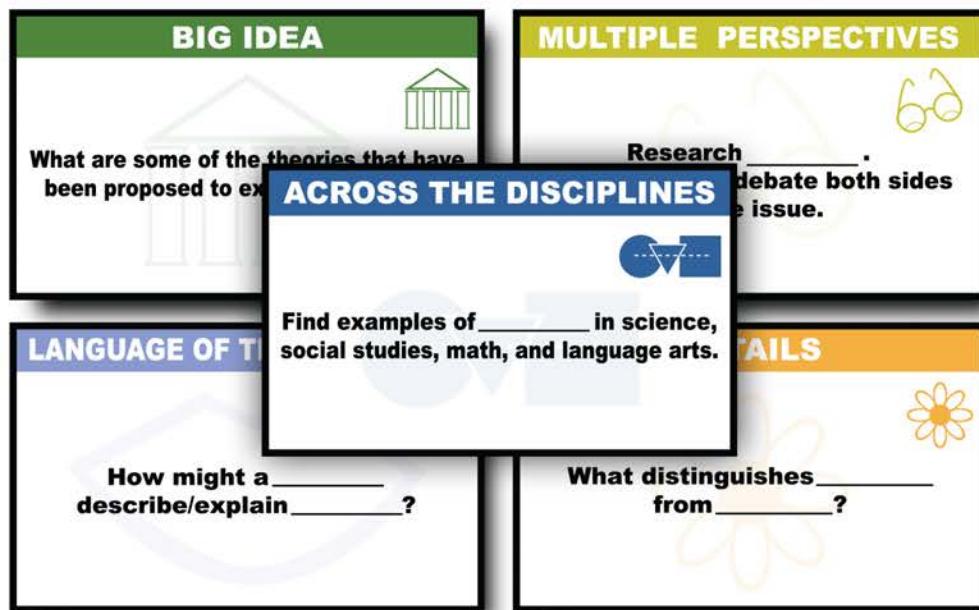


Q³ CARDS

**Q³uick, Q³uality, Q³uestion Cards
for Differentiating Content with
Dimensions of Depth & Complexity**



Differentiation refers to modifying the curriculum content, processes (or skills), and products to make instruction more appropriate for different learners' needs, abilities, and interests. **Q³ cards** provide a tool for quickly developing quality questions to differentiate content.

Q³ differentiate content by integrating depth and complexity into classroom curriculum and instruction. The questions on the cards are categorized according to the following dimensions of depth and complexity:

Depth: language of the discipline, details, patterns, trends, unanswered questions, rules, ethics, and big idea

Complexity: relate over time, multiple perspectives, and across the disciplines



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How to Use Q³ Cards

Q³ cards have unlimited uses for both the teacher and for students. The following is a list of some of the possible ways in which they can be used:

For the Teacher:

1) Select a card(s) to use for HOOKING students' interest in the lesson.

For example, when studying habitats, give students several pictures of different habitats and then select cards to develop the following questions for discussing the pictures:

- a) **Language of the Discipline:** What specialized language is needed to define and/or describe a habitat?
- b) **Details:** What distinguishes one habitat from another habitat? (or with specific examples, i.e.: What distinguishes a desert from grasslands?)
- c) **Patterns:** What elements are repeated in each of these habitats?

2) Select cards to use when planning a DISCUSSION within a lesson.

For example, select cards to develop the following questions about a story being read:

- a) **Patterns:** What is the order of events in (the story)?
- b) **Trends:** What factors contributed to the conflict in the story?
- c) **Multiple Perspectives:** How did (one character from a story) view (this situation) differently from (another character in the story)?
- d) **Ethics:** What controversies exist regarding the problem in the story?
- e) **Big idea:** What statement could best describe the story theme?

3) Select cards to develop a WORKSHEET to accompany a lesson.

For example, the following questions could be used to guide a student-directed activity involving the construction of a vehicle out of various scrap materials:

- a) **Language of the Discipline:** What words would a physicist use to describe motion and force?
- b) **Language of the Discipline:** What tools would a physicist use to measure motion and force?
- c) **Details:** Describe how changes made to your vehicle affected mass and acceleration.
- d) **Details:** What factors contributed to the distance the vehicle traveled?
- e) **Rules:** How can you use Newton's Laws of Motion to explain what happened in your experiment?

4) Select cards to create LEARNING CENTER activities.

For example, the following questions could be used to guide discovery in a learning center activity based on the theme of "Balance" as applied to the study of the U.S. government:

- a) **Details:** What factors did the Founding Fathers include in the Constitution of the United States that contributed to balance within our system of government?
- b) **Trends and Relate Over Time:** What ongoing factors over the last 100 years have influenced balance within our system of government?
- c) **Unanswered Questions:** What ideas are still unresolved/not settled about balance within our system of government?

5) Select cards to use for creating a TIERED ASSIGNMENT for a lesson.

For example, select several cards from the elements of **lesser depth** to give to a group of students who might not be quite ready to explore a concept in depth; select several cards from the elements of **medium depth** to give to students ready to explore a concept in depth; and select cards from the elements of **greater depth** to give to students who are ready to go beyond a general understanding of the concept:

Group 1:

- a) **Language of the Discipline:** What words would an election judge use to describe an election?
- b) **Details:** What features characterize an election?
- c) **Patterns:** What reoccurring events occur in an election?

Group 2:

- a) **Trends:** What ongoing factors have influenced elections?
- b) **Rules:** Explain the overt and covert rules affecting elections.
- c) **Unanswered Questions:** What ideas are still unresolved/not settled about elections?

Group 3:

- a) **Ethics:** What dilemmas or controversies are involved in elections?
- b) **Multiple Perspectives:** How might the following people view an election differently: a voter, a politician, an incumbent, an opponent, a sociologist, a political scientist?
- c) **Big idea:** What general statement sums up all we have discussed regarding elections?

6) Select cards to use for the CULMINATING ACTIVITY for a lesson.

For example, select cards to develop the following culminating questions to engage in a culminating discussion about circle measurement :

- a) **Details:** What are the parts-to-whole relationships in a circle?
- b) **Rules:** Describe the rules governing circle measurement.
- c) **Across the Disciplines:** How can what we learned about circle measurement be applied to architecture, graphic design, and carpentry?
- d) **Big Idea:** Defend the statement "Systems are a collection of patterns and relationships." using the information we have just learned about circle measurement.

How to Use Q³ Cards

For the Student:

1) Select cards to use in developing an INDEPENDENT STUDY project.

For example, students might select cards to guide an independent study on the rock cycle:

- a) **Details:** What are the interrelated parts of the rock cycle?
- b) **Patterns:** What are the reoccurring events in the rock cycle?
- c) **Trends:** What influences affect changes in the rock cycle?
- d) **Rules:** What hidden rules of order are found in the rock cycle?
- e) **Relate Over Time:** What perspectives does time provide in understanding the rock cycle?

2) Select cards to use when INTRODUCING A CONCEPT.

For example, in groups, students might choose a predetermined number of questions to discuss in gaining a general understanding of the concepts included within a written piece: (They can then participate in a whole class discussion of the concepts using the information they explored in their small group discussion as a method of introducing a new unit.)

- a) **Language of the Discipline:** What specialized language does the author use to define (the concepts included in the article)?
- b) **Rules:** What are the stated/unstated causes of (the concepts included in the article)?
- c) **Multiple Perspectives:** How would others view (the concepts included in the article)?
- d) **Unanswered Questions:** What ideas remain unclear or incomplete about (the concepts included in the article)?
- e) **Across the Disciplines:** How does (the concepts included in the article) relate to other ideas across disciplines?

3) Select cards to use in DEVELOPING A CONCEPT IN A LESSON ACTIVITY.

For example, each student can select one card to use in answering a question about the concept being discussed.

After answering the question, they can participate in an Inner Circle/Outer Circle cooperative grouping activity where students in the inner circle pair with students in the outer circle to read their question and answer. The outer circle then rotates and students repeat the activity, reading question and answer. This activity continues until students have had a chance to hear a number of questions and answers, thus exposing students to many new ideas about the concept.

4) Select cards to use in REVIEWING A TOPIC OF STUDY.

For example, in partners or small groups, students might shuffle the cards and select a predetermined number of questions to discuss in reviewing information about fractions:

- a) **Language of the Discipline:** What specialized language is needed to define and/or describe fractions?
- b) **Details:** What are the parts-to-whole relationships in fractions?
- c) **Patterns:** Compare and contrast the patterns of found in fractions.
- d) **Rules:** What rules do we use in solving equations involving fractions?
- e) **Big Idea:** Which ideas are best included in a general statement about fractions?
- f) **Across the Disciplines:** How are fractions important in school, industry, scientific research, and medicine?

For the Parent:

1) Select cards to use when helping your child think about making good decisions.

For example, when discussing how to spend an allowance, you might ask:

- a) **Details:** What are the attributes of wise spending?
- b) **Patterns:** What patterns do you find in unwise spending?
- c) **Rules:** What are the reasons, motivations, or events that underlie impulse spending?
- d) **Ethics:** What dilemmas or controversies are involved in spending your allowance?
- e) **Relate Over Time:** How might your ideas for spending your money change over time?

2) Select cards to use in asking questions in discussing a family activity.

For example, when discussing a sports game your child has played, you might ask:

- a) **Details:** What variables would have changed the outcome of the game?
- b) **Patterns:** Describe the patterns used in pushing the ball forward.
- c) **Trends:** What factors contributed to your team having a winning season?
- d) **Rules:** What hidden rules of order are found in a winning game?
- e) **Ethics:** Discuss the merits of using (one play) vs. (another play).
- f) **Relate Over Time:** How has time affected how you play this game?

(Continued)

How to Use Q³ Cards

For the Parent (cont'):

3) Select cards to use in asking questions when reading with your child.

For example, when reading the book, Charlotte's Web, you might ask:

- a) **Details:** What factors contributed to Wilber being awarded a prize at the county fair?
- b) **Patterns:** What patterns do you find in Charlotte's behavior in the book Charlotte's Web?
- c) **Unanswered Questions:** In what way is information about Charlotte still incomplete or missing?
- d) **Rules:** What hidden rules of order are found on Zuckerman's farm?
- e) **Multiple Perspectives:** What are the opposing viewpoints regarding what should be done with Wilber?

4) Select cards to use in asking questions to guide your child while researching a topic of interest.

For example, when researching flight, you might ask:

- a) **Details:** What specific elements define the forces acting upon an airplane?
- b) **Patterns:** What sequence of events is repeated to cause lift during flight?
- c) **Rules:** How can you explain what happens in steady flight?
- d) **Big Idea:** Describe the principles of motion at work in flight.
- e) **Relate Over Time:** How have developments in technology over the past 50 years affected flight?

Other Ideas for Teachers:

- 1) Introduce one element of depth and complexity at a time so students may become familiar with that type of thinking. Select cards of the same type and then use in one of the ways previously mentioned.
- 2) Place one card on each student's desk at the beginning of the day as an idea starter for journal entries.
- 3) Give each student one card a few minutes before the end of class to use to write an answer for his/her "ticket out the door."
- 4) Place a card(s) on a bulletin board in the room under the caption "Question of the Day" for students to complete as a sponge activity.
- 5) Pull a question card at random for students to respond to as a filler activity while waiting in line.
- 6) Select a question to use as an essay question on a test.
- 7) Write one question on each face of a cube and let students roll as a die. Students answer the question that lands on top. (Can do the same thing with a beach ball – students answer the question that their hands touch when caught.)

Other Ideas for Parents:

- 1) Select a card to use as a discussion starter at the dinner table.
- 2) Play a game by placing the deck of cards in the center of the table and taking turns selecting a card. The player completes and answers the question. Each player who can complete and answer the question gets a point. To make the game more challenging, each player selects a card and completes the question, but the next player answers the question.
- 3) Play a car game while on vacation by having your children research the town/area you plan to visit (or bring along travel brochures and maps from this area). Then have your children take turns using the cards to ask and answer questions about this locale.
- 4) Start a family discussion by letting your child select a card and complete a question for YOU to answer.
- 5) Select cards to formulate a question for your children to answer regarding a newspaper article you would like for them to read. (This can also be used for the discussion starter at the dinner table.)

Discover other ways to use the Dimensions of Depth & Complexity to differentiate content in these other J TAYLOR EDUCATION products:

- Depth and Complexity Icon Cards (JTE-3)*
- Differentiation Smart Reference Guide (JTE-23)*
- Depth and Complexity Icon Magnets (JTE-28)*
- Depth and Complexity Icon Posters (JTE-46)*
- Deep and Complex Look Books (JTE-22)*

A Deep and Complex Look at Biographies and Literary Characters (JTE-49)



Definitions of dimensions of depth and complexity are from "The Flip Book: A Quick and Easy Method for Developing Differentiated Learning Experiences," Kaplan & Gould, 1995. Symbols/Icons for depth and complexity, Madsen, Gould & Kaplan, 1996, 2003, 2010.