The Q-Matrix

The **Q-Matrix** consists of 36 squares, numbered 1 – 36 in the upper left hand corner of each square. Each square is labelled with a two-word question prompt. Take a close look at the **Q-Matrix**. How are the 36 question prompts arranged? One of the things you may notice about the **Q-Matrix** is that the design exhibits a strong, systematic connection to Bloom's Taxonomy. Recall question prompts are in the upper left hand corner and as one moves out from that corner, the more the prompts encourage comprehension, application, analysis, synthesis and evaluation questions. Take a few minutes examining the types of thinking involved in generating or answering questions from different parts of the matrix. What kind of thinking does it take to generate or answer a 'What is' question? What kind of thinking does it take to generate or answer a 'How might' question?

Four quadrants make up the **Q-Matrix**. The **Red quadrant** contains mostly recall questions. The **Yellow quadrant** asks for comparisons, explanations and examples. The **Green quadrant** calls for predictions and possibilities. The **Blue quadrant** requires speculation, probabilities and evaluation.

Just think of a stop light, staring at its top. **RED indicates STOP**, the most restrictive question prompts; **YELLOW indicates CAUTION**, but less restrictive than red, **GREEN indicates GO** or fairly open questions prompts; and **BLUE indicates that the SKY IS THE LIMIT**.

Using the Q-Matrix quadrants

To use Q-cards to invent a game, you might use them as Tic-Tac-Toe game board. They work very well for that, as well as a wide variety of other uses. Each of four teammates might each have separate Q-cards, with no two alike, a single Q-cards shared by all, or a selection of two or three cards shared by all teammates.

The Q-cards can be used to either limit or expand the range of thinking required in responding to question prompts. For example, if you want to limit students' questions to a review of known material, simply limit them to the Red Q-card. On the other hand, if you want to see students expand their thinking into the many open-ended possibilities, assign either

1	2	3	4	5	6
What is?	Where/ When is?	Which is?	Who is?	Why is?	How is?
7	8	9	10	11	12
What did?	Where/ When did?	Which did?	Who did?	Why did?	How did?
13	14	15	16	17	18
What can?	Where/ When can?	Which can?	Who can?	Why can?	How can?
19	20	21	22	23	24
What would?	Where/ When would?	Which would?	Who would?	Why would?	How would?
25	26	27	28	29	30
What will?	Where/ When will?	Which will?	Who will?	Why will?	How will?
31	32	33	34	35	36
	Where/	Which	Who	Why	How

the Blue of Green Q-cards. And if you want to assure a balance of student questions representing all levels of Bloom's taxonomy, then instruct teammates to each use a different coloured Q-card. Exchanging Q-cards midway through the activity will ensure that all students have the opportunity to both create and respond to questions across many levels of thought.

Q-Matrix quadrants

¹ What is?	² Where/ When is?	³ Which is?	⁴ Who is?	⁵ Why is?	6 How is?
⁷ What did?	8 Where/ When did?	9 Which did?	Who did?	Why did?	12 How did?
What can?	Where/ When can?	¹⁵ Which can?	Who can?	Why can?	18 How can?
What would?	²⁰ Where/ When would?	Which would?	Who would?	Why would?	How would?
What	Where/ When	Which	Who	Why	How

Using the Q-Matrix as Q-strips

The twelve Q-Strips contain all of the 36 word pairs on the **Q-Matrix**. Q-strips are used when you want students to focus on particular attributes. For example, if students agree to generate questions which address the events if a story, they would select their question prompts from the *Events Q-Strip*. On the other hand, if you want students to generate questions about a problem in science, you might have them use the *Reasons Q-Strips* or the *Means Q-Strips*. Q-Strips may be used in place of Q-cards when you want to more narrowly focus students' questions in a particular way, such as *possibilities* only or *reasons* only.

To use the Q-Strips to incorporate into a game, you might use the Q-Strip as a race track with teammates trying to be first to get to the last square. This chapter illustrates a variety of ways that the Q-Strips can be used including a race game, a team builder, as well as a variety of content applications.

Event	Situation	Choice	Person	Reasons	Means
u What is?	where/ When is?	³ Which is?	4 Who is?	s Why is?	6 How is?
, What did?	8 Where/ When did?	9 Which did?	who did?	Why did?	12 How did?
what can?	Where/ When can?	¹⁵ Which can?	Who can?	Why can?	18 How can?
What would?	where/ When would?	Which would?	Who would?	Why would?	How would?
What will?	Where/ When will?	Which will?	Who will?	why will?	™ How will?
What might?	Where/ when might?	Which might?	Who might?	Why might?	36 How might?

Present	What is?	Where/ When is?	³ Which is?	4 Who is?	s Why is?	6 How is?
Past	7 What did?	s Where/ When did?	9 Which did?	who did?	Why did?	12 How did?
Possibility	What can?	¹⁴ Where/ When can?	15 Which can?	16 Who can?	Why can?	18 How can?
Probability	What	²⁰ Where/ When	Which	Who	Why	How would?
		would?	would?	would?	would?	would?
Prediction	25		Which will?	Who will?	Why will?	How will?

Q-matrix strips 1

Event	Situation	Choice	Person	Reasons	Means
1	2	3	4	5	6
What is?	Where/ When is?	Which is?	Who is?	Why is?	How is?
7	8	9	10	11	12
What did?	Where/ When did?	Which did?	Who did?	Why did?	How did?
13	14	15	16	17	18
What can?	Where/ When can?	Which can?	Who can?	Why can?	How can?
19	20	21	22	23	24
What would?	Where/ When would?	Which would?	Who would?	Why would?	How would?
25	26	27	28	29	30
What will?	Where/ When will?	Which will?	Who will?	Why will?	How will?
31	32	33	34	35	36
What might?	Where/ when might?	Which might?	Who might?	Why might?	How might?

Q-matrix strips 2

	1	2	33	4	5	9
Present	What is?	Where/ When is?	Which is?	Who is?	Why is?	How is?
Past	7 What did?	» Where/ When did?	9 Which did?	¹0 Who did?	™Why did?	12 How did?
Possibility	¹³ What can⊋	Where/ When can?	15 Which can?	16 Who can?	¹⁷ Why can?	18 How can?
Probability	What would?	Where/ When would?	Which would?	Who would?	Why would?	How would?
Prediction	25 What will?	Where/ When will?	Which will?	Who will?	Why will?	30 How will?
Imagination	What might?	Where/when might?	Which might?	Who might?	Why might?	How might?

Using the Q-Matrix as Q-chips

There are 36 Q-chips. Each chip represents one cell of the **Q-Matrix**. By cutting the 36 Q-Chips from the brightly-coloured sheet, you create a highly flexible set of materials which can be used in a variety of ways. Single chips may be used to focus on a specific situation such as a past event, probabilities regarding events, alternatives, possibilities, and so on. Groups of chips may be assigned to different cooperative learning teams allowing each group to explore different aspects of a problem within a content area. The Q-chips may be used as tokens in games to cover corresponding squares on the **Q-Matrix** or one of the **Q-cards**.

What is?	Where/ When is?	Which is?	4 Who is?	5 Why is?	6 How is?
What did?	8 Where/ When did?	9 Which did?	Who did?	"Why did?	How did?
What can?	Where/ When can?	Which can?	Who can?	Why can?	18 How can?
What would?	Where/ When would?	Which would?	Who would?	Why would?	How would?
What	Where/ When	Which	Who	Why	How

There are twelve Q-Strips that comprise a complete set for each team. The six vertical Q-Strips address *Events, Situations, Alternatives, People, Reasons* and *Means*. Six other Q-Strips represent horizontal rows of the Question Matrix. They address *the Present, the Past, Possibilities, Probabilities, Predictions* and *Imagination*.

Q-matrix chips

¹ What is?	² Where/ When is?	³ Which is?	4 Who is?	5 Why is?	6 How is?
What did?	8 Where/ When did?	9 Which did?	Who did?	Why did?	How did?
What can?	Where/ When can?	Which can?	Who can?	Why can?	How can?
What would?	Where/ When would?	Which would?	Who would?	Why would?	How would?
What	Where/ When	Which	Who	Why	How