Helpful Resources for Better Use of the Question Formulation Technique (QFT):

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Source: www.rightquestion.org

We invite you to access free resources at rightquestion.org/educators, including:

- Planning tools
- Powerpoint templates
- Classroom examples
- Instructional videos
- Forums and discussions with other educators
- Downloadable free resources
The Question Formulation Technique (QFT)

**PRODUCE Your Own Questions**

**IMPROVE Your Questions**

**PRIORITIZE Your Questions**

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**Question Focus**
Use a focus or Question Focus to ask questions about.

**Produce Your Questions**
Make a list of questions about the question focus.
- Follow the four essential rules for producing questions

**Improve Your Questions**
Categorize your questions as Closed or Open-ended:
- Find closed-ended questions. Mark them with a “C.”
- Find open-ended questions. Mark them with a “O.”

Discuss the value of each type of question:
- Advantages & disadvantages of closed-ended questions.
- Advantages & disadvantages of open-ended questions.

Change questions from one type to another:
- Change one closed-ended question to open-ended.
- Change one open-ended question to closed-ended.

**Prioritize Your Questions**
Choose your three most important questions:
- Why did you choose these three as the most important?
- What are the numbers of your priority questions?

**Discuss Next Steps**
- How are you going to use your questions?

**Reflect**
- What did you learn?
- How can you use what you learned?

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**Four Rules for Producing Your Own Questions:**
- Ask as many questions as you can
- Do not stop to discuss, judge or answer the questions
- Write down every question exactly as it is stated
- Change any statement into a question

**Open-ended and closed-ended questions:**
- Closed-ended questions can be answered with “yes” or “no” or with one word.
- Open-ended questions require an explanation and cannot be answered with “yes” or “no” or with one word.

**Next Steps Action Plan:**
In order to answer your priority question(s)...
- What INFORMATION do you need to know?
- What TASKS do you need to do?
Question Formulation Technique (QFT) Video Guide

Below are detailed steps of the QFT and video footage for corresponding steps. The videos can be viewed in their entirety at http://rightquestion.org/educators/video

<table>
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<tr>
<th>Steps</th>
<th>Video</th>
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<tr>
<td><strong>Design a Question Focus (QFocus)</strong></td>
<td>4th Grade Math&lt;br&gt;8th Grade Social Studies&lt;br&gt;High School Science&lt;br&gt;High School Humanities</td>
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<td>The Question Focus (QFocus) is a stimulus for jumpstarting student questions; it is the focus for students to generate their questions. The QFocus may be anything as long as it is not a question, and it is related to the content you are teaching. The QFocus may be a statement, phrase, a primary source, a visual, an aural aid, a math problem, etc. A good QFocus should be simple and clear about what students are asking questions (without any further explanation) and it should encourage divergent thinking.</td>
<td>4th Grade Math&lt;br&gt;8th Grade Social Studies&lt;br&gt;High School Science&lt;br&gt;High School Humanities</td>
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<td><strong>Introduce the Rules</strong></td>
<td>4th Grade Math&lt;br&gt;8th Grade Social Studies&lt;br&gt;High School Science&lt;br&gt;High School Humanities</td>
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| Introduce the four essential rules for producing questions to students:  
• Ask as many questions as you can.  
• Do not stop to discuss, judge, or answer the questions.  
• Write down every question exactly as it is stated.  
• Change any statement into a question. | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
| The students should discuss the challenges in following the rules the first time they use them. Subsequently, when using the QFT, you’ll just need to remind them to follow the rules. | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
| Give instructions for students to think about the rules and let them discuss:  
• What might be difficult about following the rules for producing questions?  
• Which rule might be most difficult to follow? | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
| Avoid naming or telling the students the difficulties or value of the rules. | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
| **Introduce the Question Focus & Produce Questions** | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
| Present the QFocus without any additional information. Your students might ask you for examples. Do not explain the QFocus or give examples of questions. This is the challenge for them. | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
| Following the discussion of the rules, you will simply present the QFocus and they will start to generate a list of questions. Students number each question. This step helps students think divergently. | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
| **Improve Questions** | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
| Students work with the questions they produced. This step helps students do high-level work with their questions and identify how different types of questions elicit different types of information and answers. | 4th Grade Math<br>8th Grade Social Studies<br>High School Science<br>High School Humanities |
Questions can be open- or closed-ended: Closed-ended questions can be answered with *yes*, *no*, or with *one word*. Open-ended questions require an explanation and cannot be answered with *yes*, *no*, or with *one word*.

**Categorize** questions as closed or open-ended: Students find closed-ended questions and mark them with a C. Students find open-ended questions and mark with an O.

**Discuss** the value of each type of question: Students identify advantages & disadvantages of closed-ended questions. Students identify advantages & disadvantages of open-ended questions.

**Change** questions from one type to another: Students change one closed-ended question to open-ended. Students change one open-ended question to closed-ended.

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<thead>
<tr>
<th><strong>Prioritize Questions</strong></th>
<th>4th Grade Math</th>
<th>8th Grade Social Studies</th>
<th>High School Science</th>
<th>High School Humanities</th>
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<tr>
<td>Prioritization instructions should bring students back to teaching objectives and the plan for using student questions. This step helps students think convergently. Although the number &quot;3&quot; is used below, facilitators may decide the amount of questions to prioritize that is best suited for the lesson.</td>
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<td>Examples of prioritization instructions: Choose 3 questions that…</td>
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<td>• you consider most important.</td>
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<td>• will help with your research.</td>
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<td>• can be used for your experiment.</td>
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<td>• will guide your reading/ writing.</td>
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<td>• can be answered as you read.</td>
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<td>• will help you solve the problem.</td>
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<td>Students should discuss and share why they selected their priority questions and where their priority questions fell in the sequence of their question list.</td>
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<tr>
<th><strong>Discuss Next Steps</strong></th>
<th>4th Grade Math Class</th>
<th>8th Grade Social Studies</th>
<th>High School Science</th>
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<td>How will questions be used? Next steps should align with priority instructions. For students, this further contextualizes how their questions will be used.</td>
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<th><strong>Reflect</strong></th>
<th>4th Grade Math Class</th>
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<tr>
<td>Students should reflect:</td>
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<tr>
<td>• What did you learn?</td>
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<td>• How can you use what you learned?</td>
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<td>This step helps students think metacognitively about how they used questions to learn and reflect on new lines of thinking they may have developed.</td>
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General Tips for Facilitating the QFT

- Your role is to simply provide the instructions for each step and allow the students to do all the thinking and all the work.

- As they are working, you’ll monitor group work and remind them to follow the rules or to stay on the task of the specific step. Go around the room to observe group work and interactions during the process. Listen for the types of questions they are asking. They may seek your approval or ask you to decide if a question is closed or open. Try your best not to get pulled into any of their discussions. Avoid answering any questions while students are in the process of producing questions.

- When students report, try to validate all student contributions equally. Use the same words for all contributions. For example: “thank you” acknowledges contributions neutrally. Words such as “good, great, excellent” are often used to encourage and celebrate student work. However, they can actually cause students to await your approval or fear that you will not describe their question with the same terms. This will undermine the value of the QFT which pushes the students to do their own divergent, convergent and metacognitive thinking.

- Students may ask for examples. Don’t give them. If you do, they will spend their time trying to follow your line of questioning instead of working hard to generate their own.

- Sometimes a group may slow down or get stuck in their questioning. You can direct them to the QFocus again. For example, “Look at your QFocus and think about if there’s anything you would like to know about it and ask some more questions.” If they’re really stuck, you may ask them to look at just one word of the QFocus and ask new questions about that.

- The QFT is not a competition to ask the most questions. Some groups will produce more questions than others. As long as students have more than three questions, they will be able to complete the process. Students who may ask only a few questions the first time may be absorbing the process and thinking about the content. Next time, they may ask more questions.
Free Online Resources

Register
Register on our free Educator Network at rightquestion.org/educators/resources/ to access downloadable materials and content, including blogs, educational articles, and instructional videos.

Put Your Class on the Map!
We are deeply grateful to The Sir John Templeton Foundation and The Hummingbird Fund for their generous support of the Million Classrooms Campaign, which aims to ensure that the Question Formulation Technique is used to nurture student curiosity and to develop students’ critical thinking skills in a million classrooms by the year 2020. Find out more or put your classroom on the map at: http://rightquestion.org/blog/million-classrooms-campaign-launch/

Read these Articles
From Educational Leadership…
Making Questions Flow
“Although teachers should refrain from too quickly judging students' questions, teachers do play an active and essential role in planning how student-generated questions will influence and become part of their lessons. In our work, we’ve seen teachers at all levels, from kindergarten to higher education, use the Question Formulation Technique for a range of instructional purposes.” Read the whole article at: http://rightquestion.org/wp-content/uploads/2015/08/2015-Making-Questions-Flow.pdf


From Education Week…
Cultivating Curiosity
Question formulation is fundamental to cognitive development and how we learn from others, and yet it is a skill that is rarely developed in classrooms."
Read about the importance of deliberately teaching students how to ask questions here: http://blogs.edweek.org/edweek/global_learning/2016/10/cultivating_curiosity_by_deliberately_teaching_students_how_to_ask_questions.html

Metacognition is a “Catalyst for Action”
What is metacognition and why should teachers be concerned about it?
“We need to begin to see metacognition less as an activity residing solely in the interior regions of the mind and see it more as a catalyst for action. Naming what you know and what you understand helps lead to more informed action.” Read more about metacognition and reflection: http://blogs.edweek.org/teachers/classroom_qa_with_larry_ferlazzo/2016/10/response_metacognition_is_a_catalyst_for_action.html