The Art and Science of Teaching 10 Design Questions

DQ1: What will I do to establish and communicate learning goals, track student progress, and celebrate success?
- Make a distinction between learning goals and learning activities or assignments
- Write a rubric or scale for each learning goal
- Have students identify their own learning goals
- Assess students using a formative approach (allows students to observe their own progress)
- Have students chart their own progress for each learning goal
- Recognise and celebrate growth

DQ2: What will I do to help students effectively interact with new knowledge?
- Identify critical input experiences.
- Preview the content prior to a critical input experience.
- Organize students into groups to enhance the active processing of information.
- Present new information in small chunks and ask students for descriptions, discussion, and predictions.
- Ask questions that require students to elaborate on information.
- Have students write out their conclusions or represent their learning nonlinguistically.
- Have students reflect on their learning.

DQ3: What will I do to help students practice and deepen their understanding of new knowledge?
- Provide students with activities that require them to examine similarities and differences
- Help students identify errors in thinking
- Provide opportunities for students to practise skills, strategies and processes
- Determine the extent to which cooperative groups will be used
- Assign purposeful homework that involves appropriate participation from the home
- Have students systematically revise and make corrections in their academic notebooks

DQ4: What will I do to help students generate and test hypotheses about new knowledge?
- Teach students about effective support
- Engage students in experimental inquiry tasks that require them to generate and test hypotheses
- Engage students in problem solving tasks that require them to generate and test hypotheses
- Engage students in decision making tasks that require them to generate and test hypotheses
- Engage students in investigation tasks that require them to generate and test hypotheses
- Have students design their own tasks
- Consider the extent to which cooperative learning structures will be used.

DQ5: What will I do to engage students?
- Use games that focus on academic content
- Use inconsequential competition
- Manage questions and response rates
- Use physical movement
- Use appropriate pacing
- Demonstrate intensity and enthusiasm for content
- Engage students in friendly controversy
- Provide opportunities for students to talk about themselves
- Provide unusual information… (E.g. Did you know that…?)

DQ6: What will I do to establish or maintain classroom rules and procedures?
- Organise the classroom for effective teaching and learning
- Establish a small set of rules and procedures
- Interact with students about classroom rules and procedures
- Periodically review rules and procedures, making changes as necessary
- Use classroom meetings

DQ7: What will I do to recognize and acknowledge adherence and lack of adherence to classroom rules and procedures?

DQ8: What will I do to establish and maintain effective relationships with students?
- Action steps that communicate concern and cooperation:
- Know something about each student
- Engage in behaviours that indicate affection for each student
- Bring student interests into the content and personalise learning activities
- Engage in physical behaviours that communicate interest in students
- Use humour when appropriate
- Action steps that communicate an appropriate level of guidance and control:
- Consistently enforce positive and negative consequences
- Project a sense of emotional objectivity
- Maintain a cool exterior

DQ9: What will I do to communicate high expectations for all students?
- Identify your expectation levels for students (maybe use criteria sheet?)
- Identify differential treatment of low-expectancy students
- Make sure low-expectancy students receive verbal and non-verbal indications that they are valued and respected
- Ask questions of low-expectancy students
- When low-expectancy students do not answer correctly or incompletely, stay with them (express gratitude for all responses, do not allow negative comments from other students, point out what is correct and incorrect about students' responses, restate the question, provide ways to temporarily let students off the hook – I'll leave you some time to think about it… and come back with a question that is easier for the student to address).

DQ10: What will I do to develop effective lessons organized into a cohesive unit?