What Is Critical Thinking?

And why does it matter?

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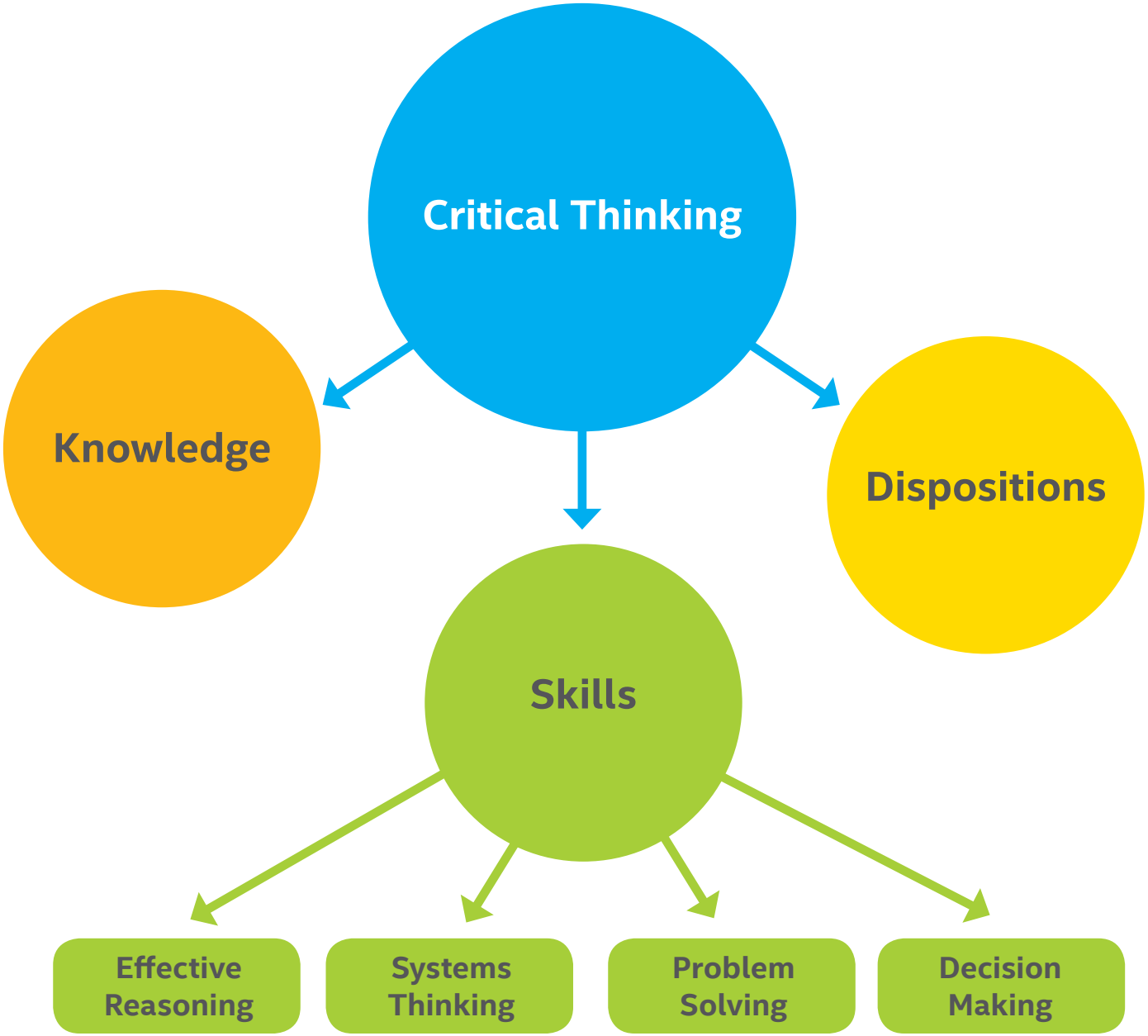

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Critical Thinking Skills

Effective Reasoning

- Deductive reasoning: Applying a general theory or statement to specific situations.

  All noble gases are stable; helium is a noble gas, so helium is stable.

- Inductive reasoning: Developing a general principle from looking at specific situations.

  I know five people who read a variety of writing that are good writers, so I think reading a variety of types of writing helps people write better.

Source: Partnership for 21st Century Skills

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Critical Thinking Skills

Systems Thinking

- Analyze how parts of a complex system interact with each other to produce outcomes.

  The extinction of one species affects the survival of other species in an ecosystem

Source: Partnership for 21st Century Skills

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Critical Thinking Skills

Decision Making

- Identify, analyze, and evaluate beliefs and evidence.
- Evaluate different points of view.
- Make connections between information and arguments.
- Interpret information and draw conclusions
- Reflect on learning and processes.

Research a controversial topic on the Web, evaluate resources, and form an opinion.

Source: Partnership for 21st Century Skills

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Critical Thinking Skills

Problem Solving

- Solve unfamiliar problems using both conventional and innovative strategies.
- Ask relevant and significant questions that lead to solutions.

  Identify and use technology to help keep track of assignments and meet deadlines.

Source: Partnership for 21st Century Skills

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Critical Thinking Knowledge

Subject-area knowledge and skills are necessary components of critical thinking.

- Content knowledge provides the basis for evaluating evidence and arguments.

  What counts as good evidence in the analysis of literature is different from good evidence for an historical argument.

- Many critical thinking strategies are different in different subjects.

  Scientific investigation processes are different from creating geometric proofs.

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Critical Thinking Dispositions

"Thinking dispositions are broad intellectual behaviors that include skills but also include attitudes, motivations, [and] emotions..." (p. 72)

- An interest in posing and exploring problems
- The desire to test and evaluate theories, evidence, and explanations
- Eagerness to explore multiple perspectives and possibilities
- A desire to be judicious and reflective

Source: Costa, A. L. (2000). Developing minds: A resource book for teaching thinking. Alexandria, VA: ASCD.

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