



K-12 Computer Science

Adoption Guide

For additional information (e.g. pricing, copyright, ISBN) and Idaho completed evaluations, please contact the curricular materials coordinator.

Materials in this guide are contracted from November 2018-December 31, 2024

GRADES K-5

Learning.com

EasyTech with Inquiry

- **Kindergarten-5th Grades- Comprehensive**
 - Strengths: PBL is frequently used and encourages students to review each other's work regularly as they master the standards. Lessons spiral throughout grades allowing students to reconnect to old concepts as they delve deeper.
 - Weaknesses: Online access is required. Every student in the class needs access to their own device. 1:1 is probably the best though a lab setting would also work. While many projects are present and students must review each other's work, collaboration is sparse. It is present, but not as often as one might expect from a PBL program.
 - Other: Themes scaffold throughout primary and intermediate grades providing access to content all the way from Kindergarten up to 12th grade.

GRADES 6-12

Cengage

Invitation to Computer Science

- **9th-12th Grades- Comprehensive**
 - Strengths: Curriculum is very thorough. It aligns with the Idaho content standards at 88%. Text is highly academic and would suffice for a computer science principles class but would need to be supplemented for AP Computer Science Principles course or a concurrent credit course. Graphics are grade

appropriate. Additional resources are very extensive and provide teachers with an overview including Teaching Tips and Quick Quizzes, Class Discussion Topics, Additional Projects, Additional Resources, and Key Terms. Other resources include PowerPoint slides, example syllabus, solution files, test banks, and flash cards. Text integrates the different components of the chapters and how they are necessary to build on one another to form a well-rounded view of Computer Science.

- Weaknesses: Textbook does not have many relatable graphics. Computing concepts and code is abstract. The text doesn't commit to a coding language which is confusing for students at this level. The text either needs to use pseudo code or commit to one of the five languages it mentions (ADA, C++, C#, Java, or Python).
- Other: This textbook is very thorough in explaining concepts and ideas to students but will require a lot of teacher intervention to break down concepts to students at the high school grade level. Students whose primary language is not English will find the text difficult. An appropriate prerequisite to this course should be Exploring Computer Science.

Java Programming

- **9th-12th Grades- Component**

- Strengths: This text covers Standard 5 in the Computer Science Standards. It is very strong covering the Java programming. Some of the activities include questions about the content, debugging sections, writing of code in programming exercises, and Game Zone (where you create games). Two Truths and a Lie, Find the Bugs, projects, and end of chapter review questions are available for assessing student comprehension. This is a technical book and therefore, the vocabulary and content is at a higher reading level. The instructor resources include PowerPoints, Solutions, and a test bank.
- Weaknesses: This textbook does not cover all of the Idaho Computer Standards.
- Other: The online simulation Mindtap has not been released. It was not available for review.

Programming Logic and Design, Comprehensive

- **9th-12th Grades- Component**

- Strengths: This text covers Standard 5 in the Computer Science Standards along with the online simulations of Mindtap. It is very strong covering the logic of programming. The online simulation covers the textbook contents, but not the activities and exercises. It adds different activities and codes and allows you to pick the programming language you want to use. Some of the activities include

questions about the content, debugging sections, writing of code in programming exercises, and Game Zone (where you create games). This is a technical book and therefore, the vocabulary and content is at a higher reading level.

- Weaknesses: It does not cover all standards. The textbook is limited without the Mindtap online simulation.
- Other: The book is not language specific. Mindtap gives the choice between C++, Java, and Python. If teaching a language specific class, take into consideration that the text is not language specific.

Learning.com

EasyTech with EasyCode Pillars

- **6th-8th Grades- Comprehensive**
 - Strengths: PBL is frequently used and encourages students to review each other's work regularly as they master the standards. Lessons spiral throughout grades allowing students to reconnect to old concepts as they delve deeper.
 - Weaknesses: Online access is required. Every student in the class needs access to their own device. 1:1 is probably the best though a lab setting would also work. While many projects are present and students must review each other's work, collaboration is sparse. It is present, but not as often as one might expect from a PBL program.
 - Other: Themes scaffold throughout primary and intermediate grades providing access to content all the way from Kindergarten up to 12th grade.

Pearson Education

Computer Programming: Fundamental Concepts Using Java

- **9th-12th Grades- Component**
 - Strengths: Programming examples work with the text seamlessly. Teacher's Edition works right alongside Student Edition and provides teaching tips, assessments answers from the text, questions for discussion, and instructional strategies. Vocabulary is italicized in the text and placed in the margins in green text. Program functions are highlighted in blue text. Case studies can use class set of data (ex: students own BMI). Pseudo code flows nicely into the Java language. Each chapter outlines key terms, has chapter summary, and exercises for students to solidify concepts.

- Weaknesses: This is not suitable for an AP Computer Science A course nor an AP Computer Science Principles course. It introduces the Java language but too many concepts are left out for it to be a standalone curriculum for an advanced level of instruction. Also, not all concepts for AP Computer Science Principles are addressed.
- Other: The layout and flow of this curriculum are good however there is not enough content covered. This could be used for an introduction to programming course, but the broad concepts of computer science are not covered. Parts of the text could be used to help supplement an Exploring Computer Science course.

For Questions Contact

Instructional Support for Student-Centered Learning
Idaho State Department of Education
650 W State Street, Boise, ID 83702
208 332 6800 | www.sde.idaho.gov