

**NM** Public Education Department

# Basic Computers

END-OF-COURSE EXAM | GRADE 9–12 | YEAR 17–18

ASSESSMENT BLUEPRINT

## ***Purpose Statement***

### ***Basic Computers***

The Basic Computers End-of-Course (EOC) exam is intended to measure student proficiency of the International Society for Technology Educators (ISTE) Standards for Students. This course-level exam is provided to all students who have completed Basic Computer or related courses.

**This exam can be given for the following STARS course code:**

#### **0301 - Basic Computer**

Intended as a final exam for the course, this is a summative exam covering a range of content, skills, and applications. Scores are reported to the teacher, school, district, and state levels for the purposes of student grades, curriculum review, and NMTech summative reports.

***“The EOCs are exams written by New Mexico Teachers for New Mexico Students.”***

During the 2016-17 school year, teachers were brought together in person or online as part of the blueprint and exam revision process. The NMPED extends our gratitude to all those who contributed to this improvement process. Although we were unable to implement every suggestion due to conflicting viewpoints at times, this blueprint reflects the best collaborative effort among dedicated peers.

## Explanation of Blueprint Layout & Test Specifications Table

Standard Alignment	Performance Standards
<p>The standards identified in this portion of the blueprint are aligned to the 2016 International Society for Technology Educators (ISTE) Standards for Students: <a href="https://www.iste.org/standards/standards/for-students">https://www.iste.org/standards/standards/for-students</a></p> <p>New Mexico Teachers identified the standards to be measured on the EOC exam using the following criteria: 1) a great deal of instructional time is spent on the standard as identified in the curriculum and/or; 2) the standard is important to subsequent learning.</p>	<p>It is important to note that the standards in the blueprint are only a <b>subset</b> of standards to be measured with the understanding that teachers cover more standards during the course of instruction than what has been selected to be measured.</p>
	<p><b>Item Types:</b> The item types for this EOC exam are limited to: MC = Multiple Choice with or without stimulus (e.g., picture, graph, table)</p>
	<p><b>Sample Question(s):</b></p> <p>Sample questions have been provided to assist teachers to correlate the questions with the performance standards and the test item specification, when applicable.</p> <ul style="list-style-type: none"> <li>● An * denotes the correct answer</li> <li>● DOK = Depth of Knowledge</li> </ul>

## Blueprint Table - Basic Computers

Standard	Performance Standards
<p><b>1.d</b></p> <p><b>1. Empowered Learner:</b> Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.</p>	<p><b>Performance Standard</b></p> <p>d. Understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.</p>
	<p><b>Item Types:</b></p> <ul style="list-style-type: none"> <li>• MC with or without stimulus</li> </ul>
	<p><b>Sample Question:</b></p> <p>Which of the following is something that a computer <i>can</i> do and a calculator cannot?</p> <p>A. store data for long periods of time *</p> <p>B. perform complex functions</p> <p>C. use alpha and numeric keys</p> <p>D. simultaneously integrate multiple tasks</p> <p><i>Standard: 1.d</i> <i>DOK Level: 1</i></p>
<p><b>2.b</b></p> <p><b>2. Digital Citizen:</b> Students recognize the rights, responsibilities and opportunities of living, learning and</p>	<p><b>Performance Standard</b></p> <p>b. Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.</p>
	<p><b>Item Types:</b></p> <ul style="list-style-type: none"> <li>• MC with or without stimulus</li> </ul>
	<p><b>Sample Question:</b></p>

<p>working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.</p>	<p>With more than 13 million victims each year, identity theft is one of the fastest growing crimes in the United States. Which of the following is an inadequate security measure?</p> <p>A. Send personal information via email to those you can trust. *</p> <p>B. Keep passwords, pins, or classified information in your wallet or purse.</p> <p>C. Shred or destroy discarded financial statements and records.</p> <p>D. Enter your Social Security number only when absolutely necessary and on secure sites.</p> <p><i>Standard: 2.b</i> <i>DOK Level: 1</i></p>
<p><b>3.a</b> <b>3.b</b> <b>3.c</b></p> <p><b>3. Knowledge</b> <b>Constructor:</b> Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.</p>	<p><b>Performance Standards</b></p> <p>a. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.</p> <p>b. Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.</p> <p>c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.</p> <hr/> <p><b>Item Types:</b></p> <ul style="list-style-type: none"> <li>● MC with or without stimulus</li> </ul> <hr/> <p><b>Sample Question:</b></p> <p>Your math teacher wants you to depict the sets of students who use three different social media sites. He also wants to be able to see if there are students who use more than one site. Which digital graphic organizer would best model the information gathered?</p> <p>A. flow chart</p>

	<p>B. Venn diagram *</p> <p>C. hierarchy chart</p> <p>D. cycle diagram</p> <p><i>Standard: 3.c</i></p> <p><i>DOK Level: 1</i></p>
<p><b>4.a</b></p> <p><b>4.b</b></p> <p><b>4. Innovative Designer:</b> Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.</p>	<p><b>Performance Standards</b></p> <p>a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.</p> <p>b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.</p> <hr/> <p><b>Item Types:</b></p> <ul style="list-style-type: none"> <li>● MC with or without stimulus</li> </ul> <hr/> <p><b>Sample Question:</b></p> <p>What are the <i>best</i> tools to use on the computer to collaborate on a computer project?</p> <p>A. email and social media *</p> <p>B. written notes and messages</p> <p>C. phone calls and face-to-face meetings</p> <p>D. a mouse and headphones</p> <p><i>Standard: 4.b</i></p> <p><i>DOK Level: 1</i></p>
<p><b>5.b</b></p> <p><b>5. Computational Thinker:</b></p>	<p><b>Performance Standard</b></p> <p>b. Collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.</p> <hr/> <p><b>Item Types:</b></p>

<p>Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions</p>	<ul style="list-style-type: none"> <li>● MC with or without stimulus</li> </ul> <p><b>Sample Question:</b></p> <p>Your supervisor has asked you to produce a report with evidence of increased sales for the marketing department. Your report will include both a written and oral presentation. Which applications will be <b>best</b> suited to complete the tasks in a timely manner?</p> <p>A. presentation, spreadsheet and email software  B. word processing, database, and email software  C. word processing, spreadsheet, and presentation software *  D. presentation, database, and spreadsheet software</p> <p><i>Standard: 5.b</i>  <i>DOK Level: 1</i></p>
<p><b>6.b</b> <b>6.d</b></p> <p><b>6. Creative Communicator:</b>  Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.</p>	<p><b>Performance Standards</b></p> <p>b. Create original works or responsibly repurpose or remix digital resources into new creations.  d. Publish or present content that customizes the message and medium for their intended audiences.</p> <p><b>Item Types:</b></p> <ul style="list-style-type: none"> <li>● MC with or without stimulus</li> </ul> <p><b>Sample Question:</b></p> <p>You are creating a slide presentation to showcase your learning about The Jazz Age in American history. Which would be <b>best</b> to include in your presentation?</p> <p>A. only text on every slide  B. text on some slides and images or video clips on other slides  C. only images and video clips</p>

	<p>D. both text and either images or video clips on every slide *</p> <p><i>Standard: 6.d</i> <i>DOK Level: 1</i></p>
<p><b>7.a</b> <b>7.c</b></p> <p><b>7. Global Collaborator:</b> Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.</p>	<p><b>Performance Standards</b></p> <p>a. Use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.</p> <p>c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.</p> <hr/> <p><b>Item Types:</b></p> <ul style="list-style-type: none"> <li>● MC with or without stimulus</li> </ul> <hr/> <p><b>Sample Question:</b></p> <p>When working on a computer group project, what is the <b>best</b> way to coordinate the work?</p> <p>A. divide the work according to each person’s strongest ability *</p> <p>B. choose a leader who assigns everyone a task</p> <p>C. pick individual tasks without discussing the decision in the group</p> <p>D. divide the work evenly and never check the progress of work after the first meeting</p> <p><i>Standard: 7.c</i> <i>DOK Level: 1</i></p>



<b>Basic Computers EOC Reporting Category Alignment Framework</b>				
<b>Standard</b>	<b>Number of Questions Per DOK Category by Standard</b>			<b>Totals</b>
	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	
1.d	4	4		8
2.b	2			2
3.a		2		1
3.b	1	1		2
3.c		2		2
4.a	1			1
4.b	1			1
5.b	1			1
6.b		3		3
6.d	1	2		3
7.a	2	1		3
7.c		2		2
<b>Totals</b>	<b>13</b>	<b>17</b>	<b>0</b>	<b>30</b>