

# ISTE NETS for Teachers

---

---

## Performance-Based Assessment Measures

---

---

**Helen Barrett & Peggy Kelly**

Leadership Team, ISTE NETS for Teachers



# *A few thoughts about Assessment*

- **Assessment OF Learning? or**
- **Assessment FOR Learning?**



# *Purposes of Assessment*

- **Assessment for learning (formative assessment) is different from assessment of learning (summative assessment)**

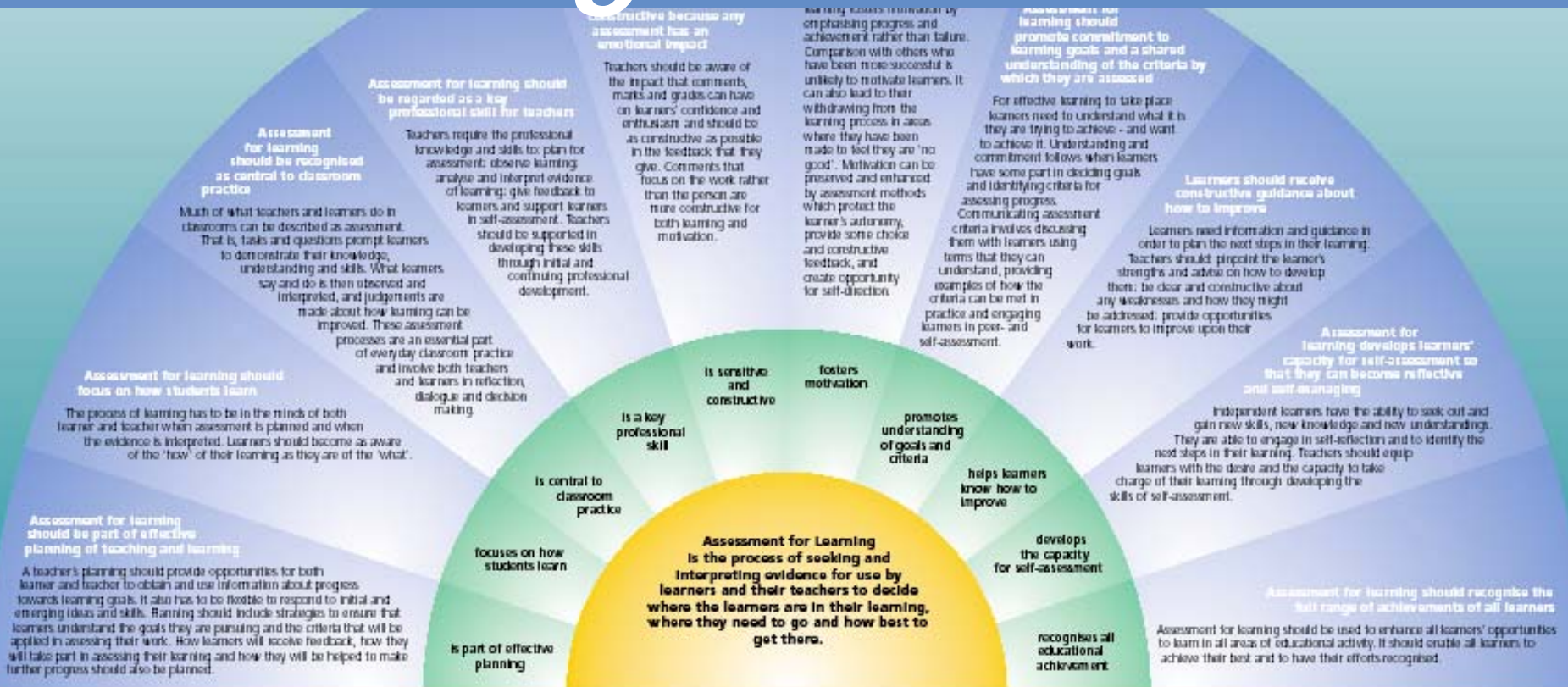
# *Principles of Assessment FOR Learning*

- Definition:  
**Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there.**



# www.qca.org.uk

## ages 3-14



Research-based principles of assessment for learning to guide classroom practice

# Assessment for Learning

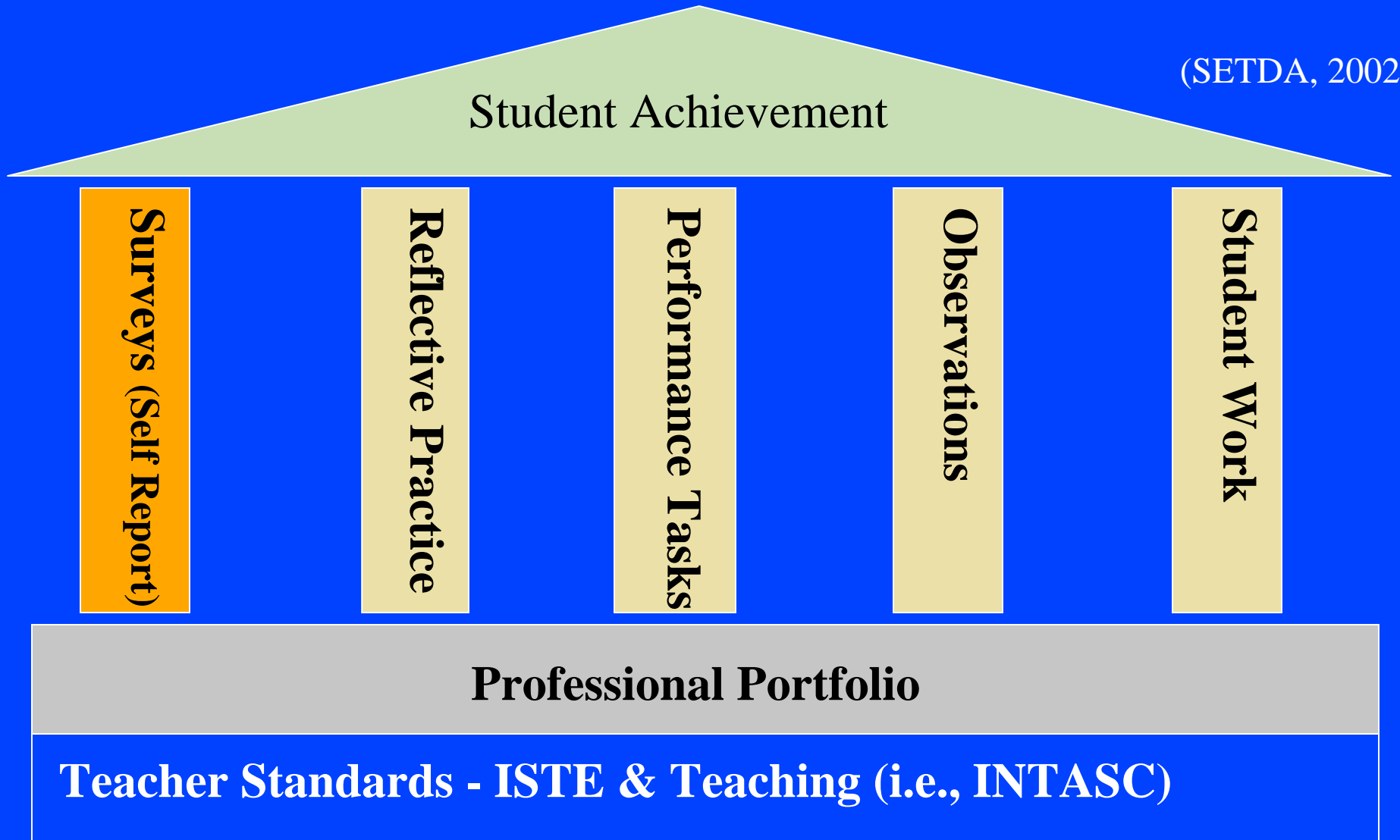
*What are your questions about  
Assessing the NETS for Teachers?*

**Low Stakes or High Stakes?**



# *Framework for Assessing Effective Teaching with Technology*

(SETDA, 2002)



**Student Achievement**

**Surveys (Self Report)**

**Reflective Practice**

**Performance Tasks**

**Observations**

**Student Work**

**Professional Portfolio**

**Teacher Standards - ISTE & Teaching (i.e., INTASC)**

# *Framework for Assessing Effective Teaching with Technology*

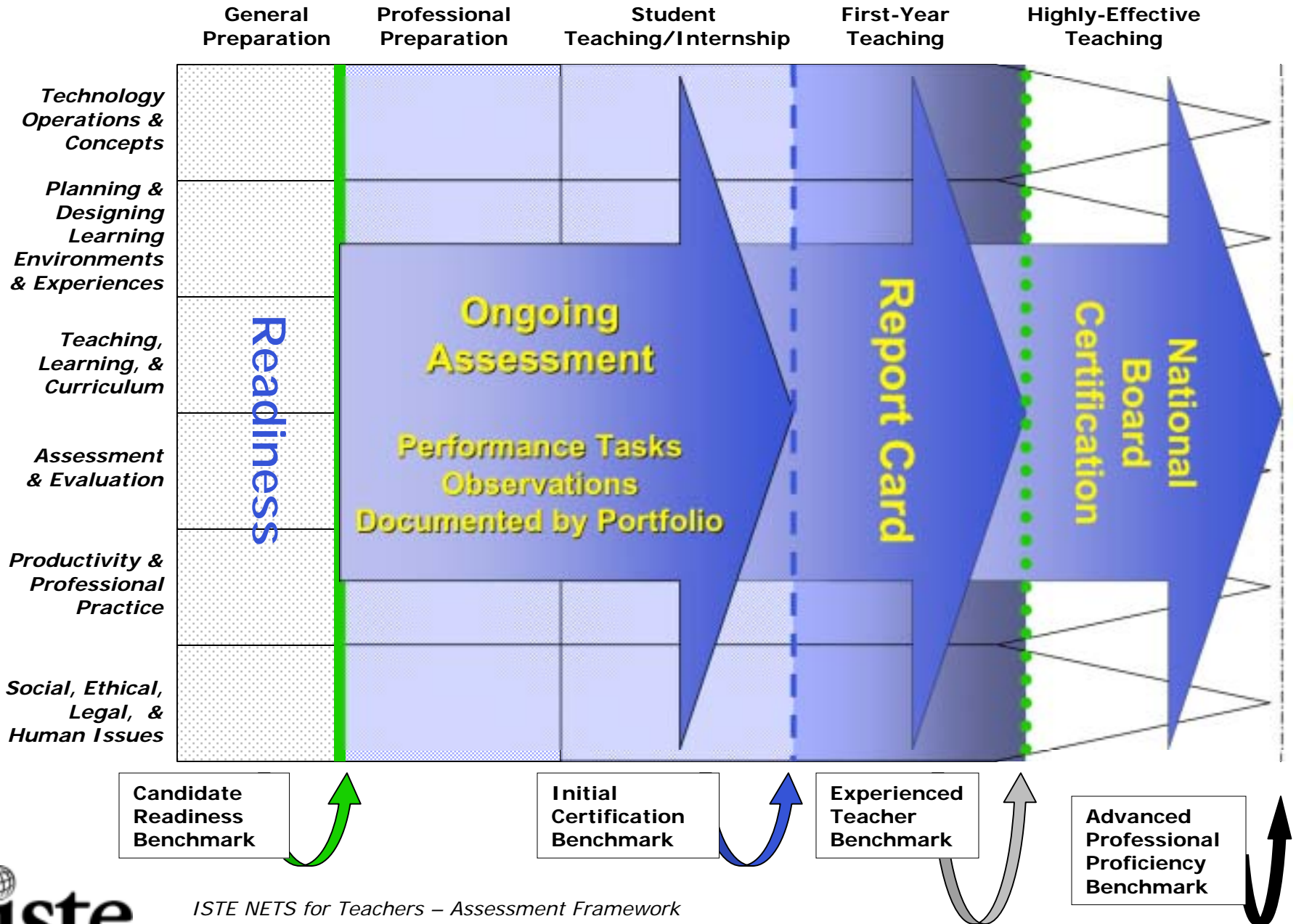
(SETDA, 2002)



**Teacher Standards - ISTE & Teaching (i.e., INTASC)**



# National Educational Technology Standards for Teachers Assessment Model



# *ISTE NETS Developments*

- **Partnerships with:**

**→ Microsoft (NETS-S)**  
**Online Assessment**

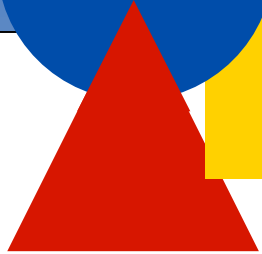
**→ IC3 Certiport**  
**(Internet and Computing Core Certification)**  
**Online Assessment (NETS-T General**  
**Preparation Profile Pilot Study)**



# *Future NECC Presentations*

- **Don Knezek's Presentation:**  
**Wednesday 1:30 - 2:30 PM Room 266**  
**“NETS & Assessment: What is ISTE**  
**Doing to Support You in Technology and**  
**Assessment”**
- **Lajeane Thomas' Presentation”**  
**Tuesday 11:00 - 12:00 Room 338**  
**“NCATE/ISTE Assessment for**  
**Accreditation and National Recognition in**  
**Teacher Preparation”**





# NETS\*T

## Resources for Assessment





# *Writing Team Meetings*

- **Tempe Meeting - December 2000**
  - **Writers selected by job and expertise**
  - **Outcome- Dimensions of assessment**
  
- **Dallas Meeting - July 2002**
  - **Small group - selected for expertise**
  - **Outcome- Detailed dimensions for publication**

# *Tools include:*



- 1. Rubrics for Standards**
- 2. Rubrics for Performance Indicators**
- 3. Observation Rubrics**
- 4. Suggested Portfolio Entries**
- 5. Program Implementation Rubric**



# *Tools continued....*



## **6. Beyond NETS for Teachers**

- NCATE - Technology Facilitator
- NCATE - Technology Leader

## **7. Appendices**

- Instruments
- Templates



# Chapter 1

Page 5

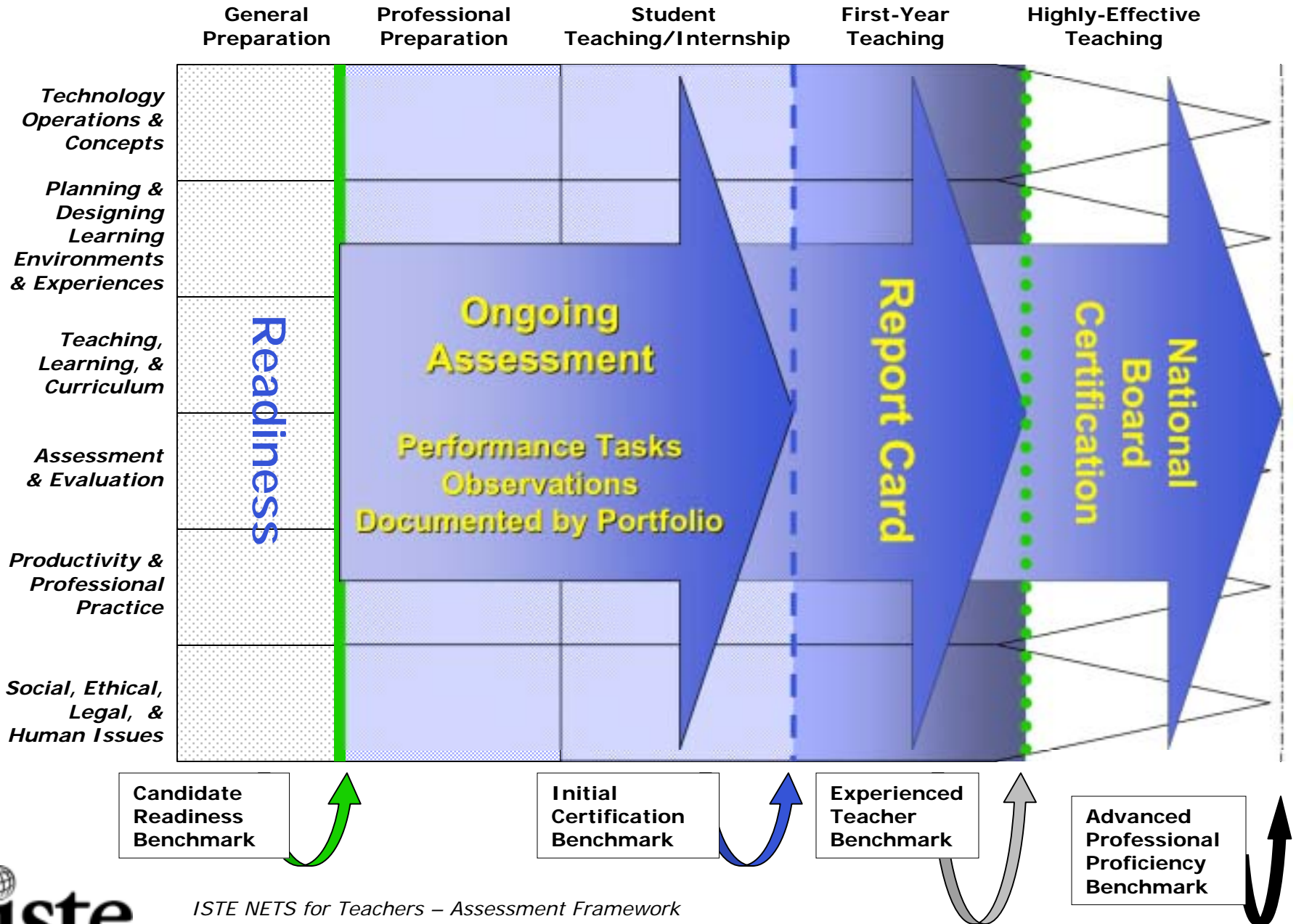


## NETS Assessment Model





# National Educational Technology Standards for Teachers Assessment Model

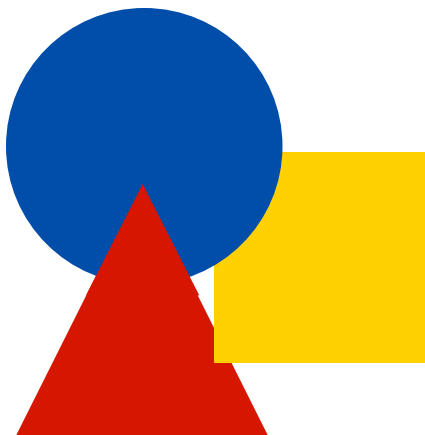


# Chapter 1



Page 15

## Role of technology in *No Child Left Behind* Legislation

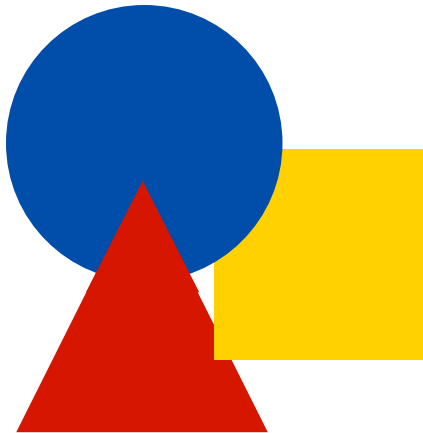


# Chapter 2



Page 23

## Essential Conditions Rubrics



# Chapter 2

## Essential Conditions

*What can the rubric be used for?*

- Check Perception of Individuals
- Support Self Study & Accreditation
- Justify Budget and Resource Decisions

# Chapter 3

Page 33



- **Performance Indicator Description**
- **Suggested Artifacts**
- **Rubrics to Assess NETS**

# *How were the rubrics developed?*



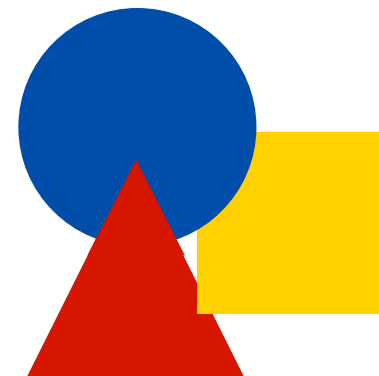
**Performance indicators were dissected into component parts....**

***II. A. design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners***

# Developing the Rubrics

II.A. Planning developmentally appropriate learning activities				
CRITERIA	PERFORMANCE LEVEL			
	Developing	Nearly Meets	Meets	Exceeds
<b>Plan developmentally appropriate learning activities</b>	Developmental appropriateness of planning lacks many areas of consideration or is questionable.	Developmental appropriateness is considered in planning but is incomplete.	Developmentally appropriate levels of difficulty demonstrated in content and processes (i.e., cognitive, physical development, social and emotional development);	Developmentally appropriate levels of difficulty demonstrated in content and processes (i.e., cognitive, physical development, social and emotional development). <i>(no change)</i>
<b>Apply technology-enhanced instructional strategies</b>	Applies one technology-enhanced instructional strategy. Students do not use the technology.	Applies one technology-enhanced instructional strategy with insufficient student use of technology.	Multiple technology-enhanced strategies that include student use of technology	Multiple tech

***A detailed rubric is made of each performance indicator***



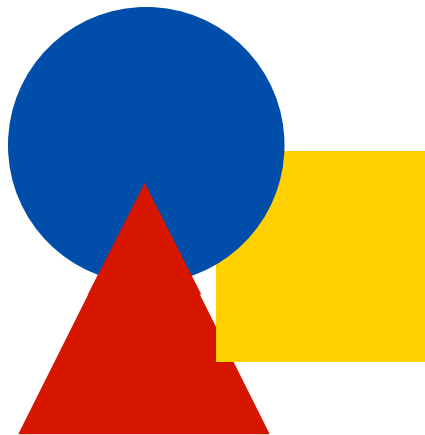
# Chapter 4



Page 85

## Performance Task Continuum

*Looks at a series of  
performances to mark  
progress*

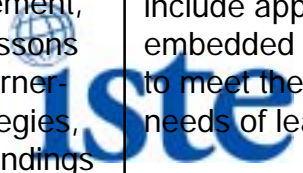
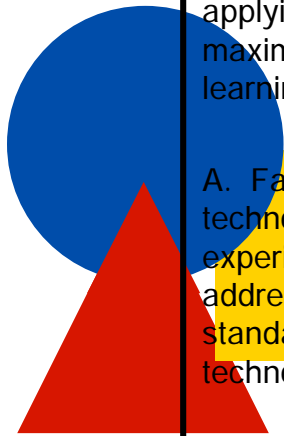




# Chapter 4

Teachers and teacher candidates are able to:

<p><i>NETS for Teachers</i></p>	<p><b>General Preparation</b> <b>NOVICE</b></p>	<p><b>Professional Preparation</b> <b>DEVELOPING</b></p>	<p><b>Student Teaching or Internship</b> <b>APPROACHING</b></p>	<p><b>First Year Teacher</b> <b>MEETS STANDARDS</b></p>
<p><b>III. Teaching, Learning, and the Curriculum.</b> Teachers implement plans that include learning strategies and methods while applying technology to maximize student learning. Teachers:</p> <p>A. Facilitate technology-rich experiences that address content standards and student technology standards.</p> <p>B. Use technology to support learner-centered strategies that address the diverse needs of</p>	<p><i>Teaching, learning and the curriculum are functions of professional preparation and begin at the developing stage.</i></p>	<ul style="list-style-type: none"> <li>•Design and teach technology-enriched learning activities that connect content standards with student technology standards to meet the diverse needs of students.</li> <li>•Design and peer teach a lesson that meets content area standards based on current educational technology research demonstrating application of research on teaching and learning with technology</li> <li>• Plan and teach student-centered</li> </ul>	<ul style="list-style-type: none"> <li>•Design and teach a coherent lesson sequence learning activities that that integrates appropriate use of technology resources to enhance student academic achievement and technology proficiency by connecting district, state and national curriculum standards with student technology standards (as defined by ISTE NETS for Students).</li> <li>•Design, implement, and assess lessons that apply learner-centered strategies, drawing upon findings from current research</li> </ul>	<ul style="list-style-type: none"> <li>•Plan for, implement and evaluate management student use of technology resources as part of classroom operations at specialized instructional</li> <li>•Implement a instructional technology a grouping strategy teacher-led, collaborative individualized learner-centered include appropriate embedded approaches to meet the diverse needs of learners</li> </ul>

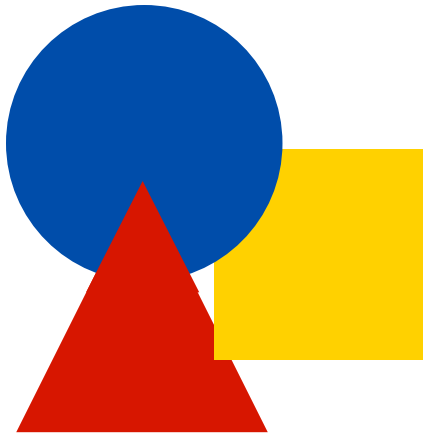


# Chapter 5



Page 97

## General Preparation Self Assessment





# Chapter 5

(University of North Texas)

**Instructions: Select one level of agreement for each statement to indicate how you feel.**

= Strongly Disagree, D = Disagree, U = Undecided, A = Agree, SA = Strongly Agree

	SD	D	U	A	SA
I have a strong understanding of the nature and operation of technology systems.	①	②	③	④	⑤
I am proficient in the use of common input and output devices; I can solve routine hardware and software problems; I can make informed choices about technology systems, resources, and services.	①	②	③	④	⑤
I can use technology tools and information resources to increase productivity, promote creativity, and facilitate academic learning.	①	②	③	④	⑤
I can use content-specific tools (e.g., software, simulation, environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.	①	②	③	④	⑤
I can use technology resources to facilitate higher order and complex thinking skills, including problem solving, critical thinking, informed decision-making, knowledge construction, and creativity.	①	②	③	④	⑤
I can collaborate in constructing technology-enhanced models, preparing publications, and producing other creative works using productivity tools.	①	②	③	④	⑤
I can use technology to locate, evaluate, and collect information from a variety of sources.	①	②	③	④	⑤
I can use technology tools to process data and report results.	①	②	③	④	⑤

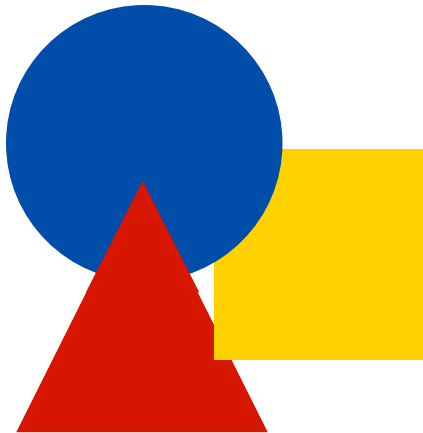


# Chapter 5



**Page 100**

## **ISTE Technology Competency Survey**





# Chapter 5

## ISTE Survey of Technology Competence

<i>Not competent . . .</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neither Agree/ Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
operating a computer using a variety of software packages.	SD	D	N	A	S
using terminology related to computers and technology appropriately in written and oral communications.	SD	D	N	A	S
describing and implementing basic troubleshooting techniques for computers.	SD	D	N	A	S
using devices such as scanners, digital cameras, and/or video cameras with computers and software.	SD	D	N	A	S
using word processing applications.	SD	D	N	A	S
using the internet for research (web-based information retrieval)	SD	D	N	A	S
using computers for information management (databases).	SD	D	N	A	S
using spreadsheet applications.	SD	D	N	A	S
creating multimedia presentations.	SD	D	N	A	S
using computers to enhance my teaching and learning.	SD	D	N	A	S
using computers for planning and organizing activities.	SD	D	N	A	S
using computers for on-line communication	SD	D	N	A	S

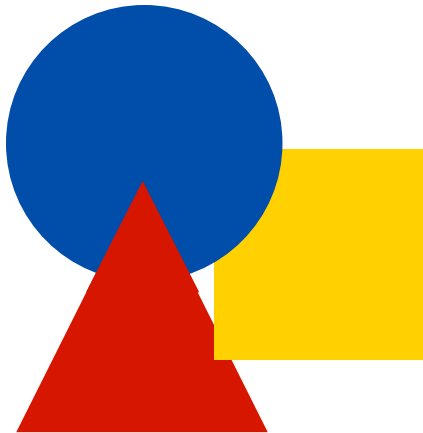


# Chapter 5



**Page 103**

## **Michigan Self Assessment TTI**

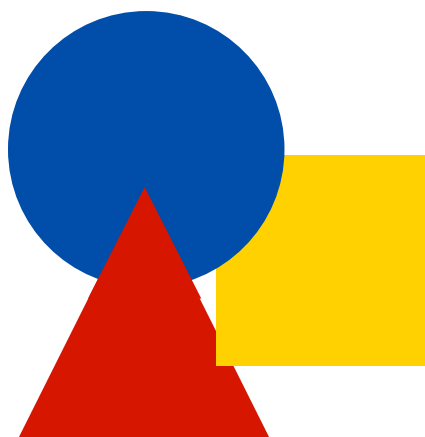




# Chapter 5

## Michigan Self Assessment TTI

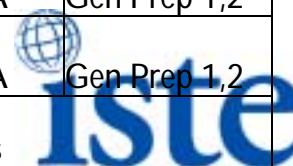
SCALE  
 1-Not at all  
 2-Minimally  
 3-Confidently  
 4-Able to teach others



ITEMS	Rating	Correlation - NETS Standard	Profile
<b>I Can...</b>			
<b>I. Technology Operations and Concepts</b>			
1. Create a newsletter with graphics and text in columns using a word processor.		NETS-T IA	Gen Prep 6
2. Create charts and graphs of numerical data using a spreadsheet.		NETS-T IA	Gen Prep 3,5,8
3. Calculate students' grades using a spreadsheet.		NETS-T IA	Gen Prep 3,8
4. Search the World Wide Web for information to make choices of hardware and software.		NETS-T IA	Gen Prep 2,7,12
5. Create my own World Wide Web pages to be accessed by my students as part of a lesson.		NETS-T IA	Gen Prep 13
6. Use presentation software such as PowerPoint or HyperStudio to create a multimedia presentation.		NETS-T IA	Gen Prep 11
7. Capture images using a digital camera or scanner and transfer them to a computer.		NETS-T IA	Gen Prep 2
8. Apply basic troubleshooting strategies with a computer that is not working properly.		NETS-T IA	Gen Prep 1,2
9. Save and access files on your school's network from your classroom.		NETS-T IA	Gen Prep 1,2

## II. Planning and designing learning environments and experiences

10. Design a lesson in which students search

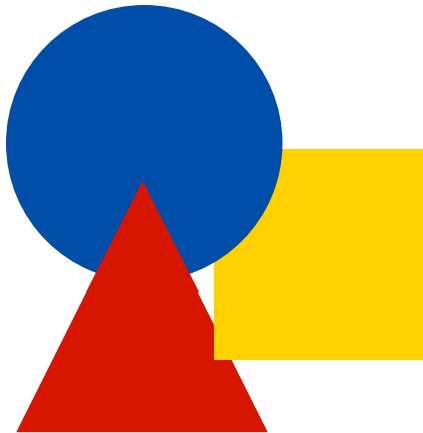


# Chapter 5



**Page 107**

## Interview Techniques



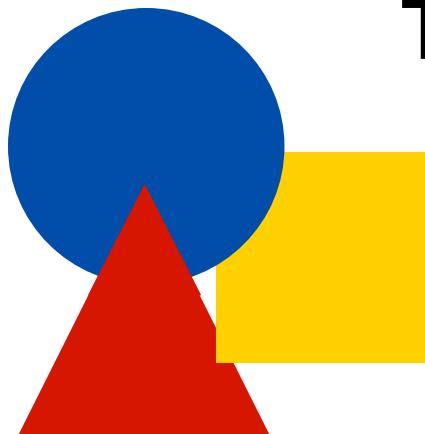


# Chapter 6



Page 117

## ASU-West Technology Show Case Lesson





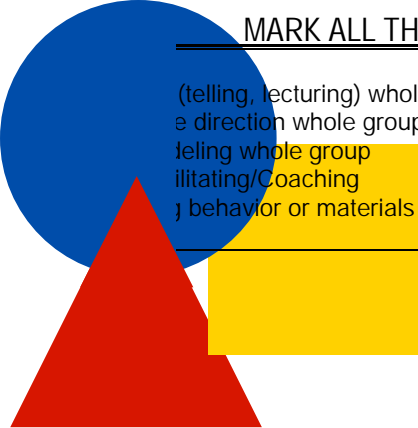
# Chapter 6

## ASU-West Technology Show Case Lesson

*Just a Snapshot of the entire document....*

Segment Time																				E S :  How are students NETS*T III B; III D	
Organization																					
<u>MARK ALL THAT APPLY</u>																					
Individual students working alone	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①		
Number of students	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②		
Small groups (3+ students)	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③		
Whole class	④	④	④	④	④	④	④	④	④	④	④	④	④	④	④	④	④	④	④		

Teacher role	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	N O T E S : What is the teacher role? NETS*T III B;	
<u>MARK ALL THAT APPLY</u>																			
(telling, lecturing) whole group	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①		
Facilitating whole group	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②		
Facilitating whole group	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③		
Facilitating/Coaching	④	④	④	④	④	④	④	④	④	④	④	④	④	④	④	④	④		
Facilitating behavior or materials	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤		

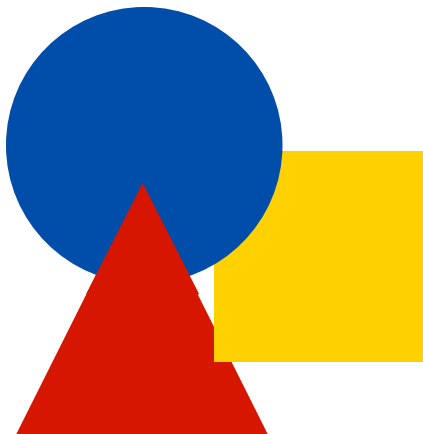


# Chapter 7



**Page 136**

## **Suggested Portfolio Evidence**

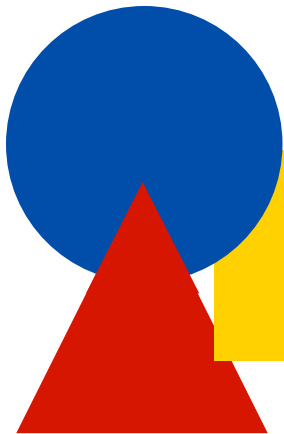




# Chapter 7

## Suggested Portfolio Evidence

Portfolio Tasks	NETS Standard					
	1	2	3	4	5	6
Classroom Technology Application Plan and Philosophy Statement	●	●		●	●	●
Technology in Teaching Unit/ Lesson Plans with Video Clip	●	●	●	●	●	●
Technology in Communications		●			●	●
Technology in Record keeping	●	●	●	●		●
Technology Professional Development Plan	●	●		●	●	●



# Chapter 7

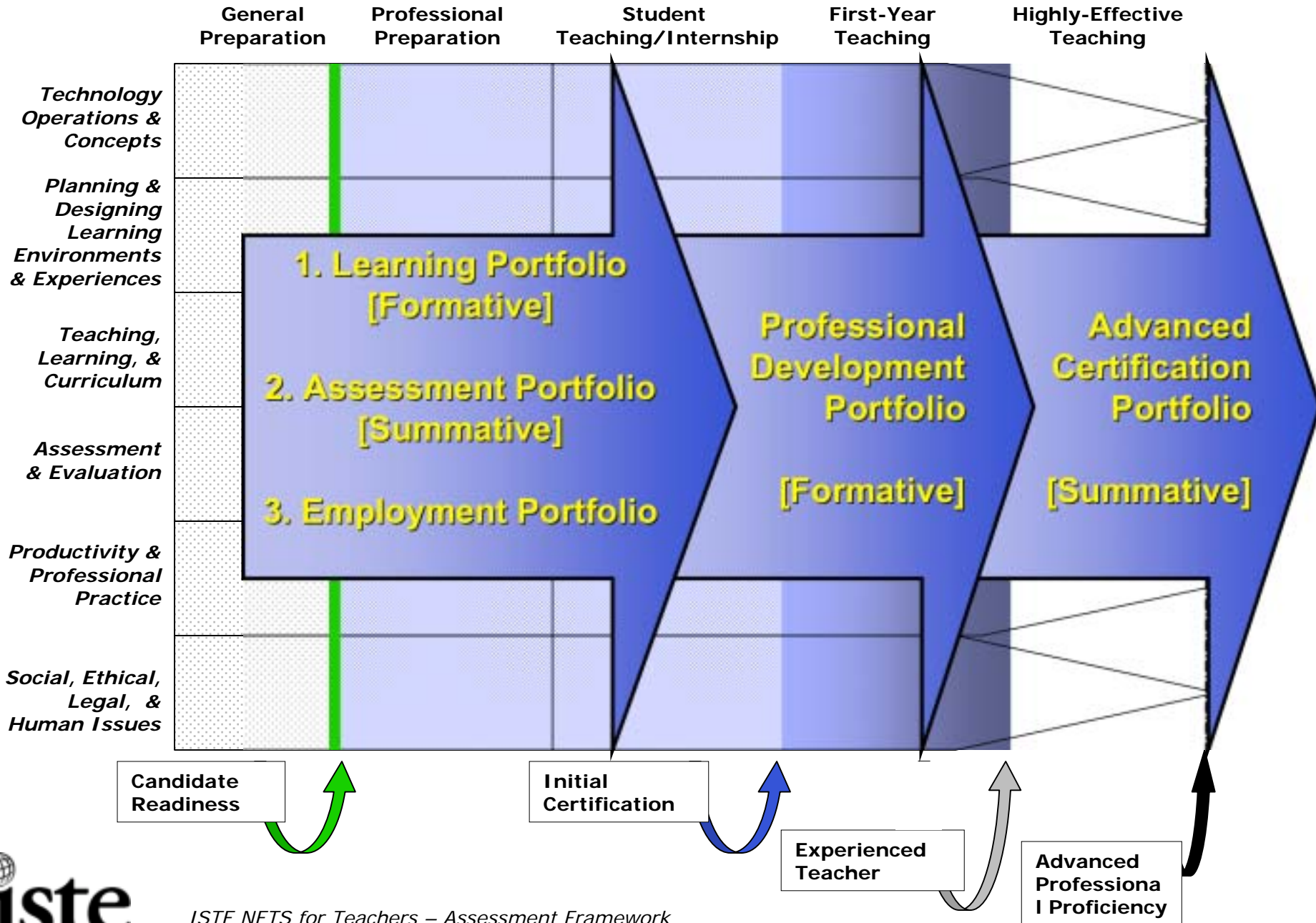


Pages 137 and 142



**Artifact detailed rubric and  
distilled rubric**

# Portfolio Development Progression - From Pre-Service to Advanced Certification



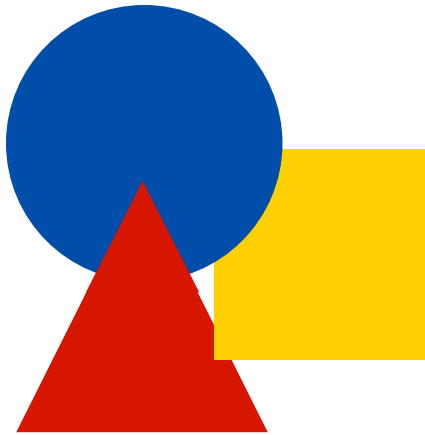
# Chapter 8

Page 163



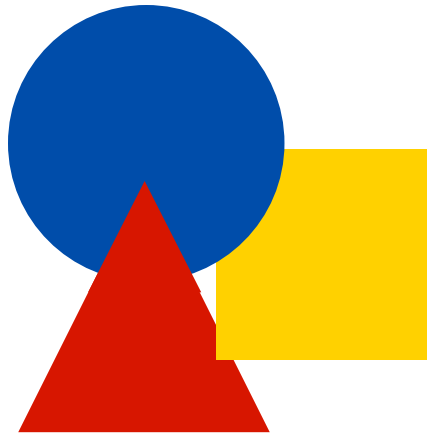
## PORTFOLIOS

### Suggested evidence by standard



# Chapter 8

Page 168



## METARUBRIC

### Holistic look at meeting the ISTE NETS for Teachers



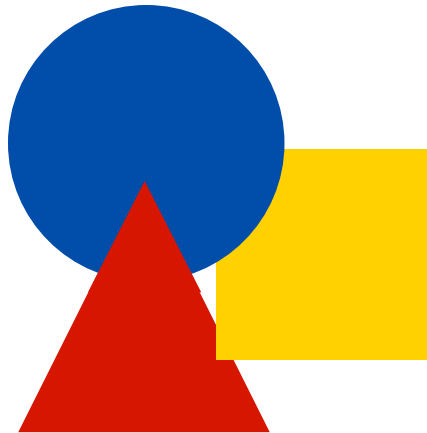


# Chapter 9

Page 183



## School Site Facilitators and District Level Leaders

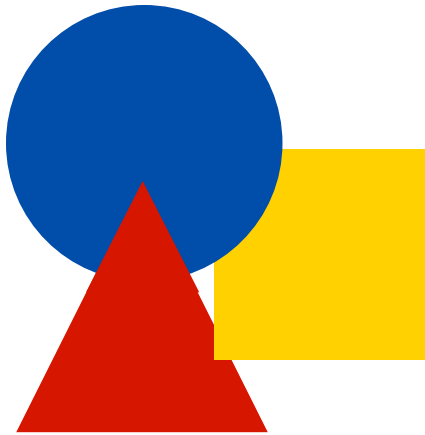


# Appendices

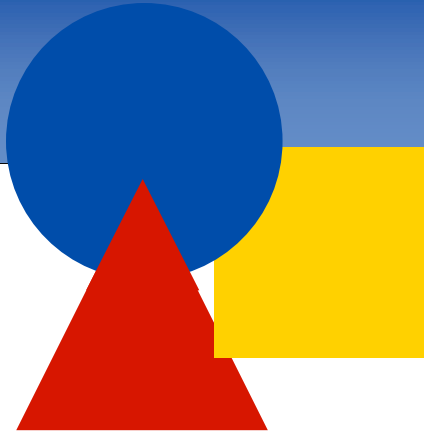
Page 201



**STANDARDS**  
**NETS\*Students**  
**NETS\*Teachers**  
**NETS\*Administrators**



*All Done!*



**Just  
remember  
why we do  
this!**





# *Thank you!*

**For more information go to  
[www.iste.org](http://www.iste.org) or contact us at**

- ▶ **M.G. (Peggy) Kelly - *pkelly@csusm.edu***
- ▶ **Helen Barrett - *hbarrett@iste.org***

