### 21CLD part2 answers

#### <u>1.</u>

This question requires that you evaluate the underlined text to determine if it is correct.

Your history class of 15-16 year old students are studying the U.S. Constitution. You've grouped your students into teams and assigned each team an Amendment to research. Each team must produce a PowerPoint presentation for their peers reporting on their Amendment.

Each team must create a multi-modal presentation.

This learning activity must meet the Level 4 of the 21CLD Skilled Communication Rubric. Which modifications would achieve this goal?

Review the underlined text. If it makes the statement correct, select ""No change is needed."" If the statement is incorrect, select the answer choice that makes the statement correct.

0000 include extended communication design the digital presentation for an adult audience No change needed

## 2.

Which ICT resource will enable you to share student performance data with the science teacher?

According to 21CLD Use of ICT to be an Effective Educator, which resource would help you reach your professional goal?

0000 Electronic Gradebook Learning Management System (LMS) Teacher's Forum

# <u>3.</u>

The 21CLD Collaboration Rubric is shown in the following table:

#### Level - Rubric

- 1 Students are not required to work together in pairs or groups.
- Students do work together but they do not have shared responsibility.
   Students do have shared responsibility but they are not required to make substantive decisions together.
- 4 Students do have shared responsibility and they do make substantive decisions together about the content, process, or product of their work but their work is not interdependent. 5 - Students do have shared responsibility and they do make substantive decisions together about the content, process, or product of their work and their work is interdependent

Match the 21CLD Collaboration Rubric levels with the learning activity. To answer, drag the appropriate level on the left to its learning activity on the right. Each level may be used once, more than once, or not at



For each of the following scenarios, select Yes if the ICT resource helps resolve logistical challenges of reaching the desired educational outcome. Otherwise, select No.

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	Yes	No
Your primary school does not have space for a computer lab, so you persuade the administration to purchase two classroom sets of laptops, each on a secured cart, and make them available for teachers to checkout from the library on an hourly basis	•	0
Biology students in a rural school located in Minnesota use teleconferencing to take a virtual field trip to the Georgia Aquarium in Atlanta, Georgia guided by an aquarium staff member	•	0
A community college provides enrolled students a free subscription to Microsoft Office 365 via the academic licensing program	•	
You provide gaming software in your classroom to reward students who complete their assignments early		•

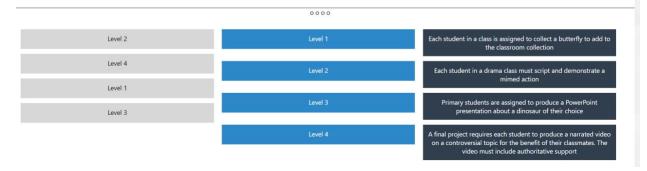
# <u>5.</u>

The 21CLD Skilled Communication Rubric is shown in the following table.

#### Level - Rubric

- 1 Students are not required to produce extended or multi-modal communication.
- 2 Students are required to produce extended communication or multi-modal communication but they are not required to provide supporting evidence or design their work for a particular audience.
- 3 Students are required to produce extended communication or multi-modal communication and they are required to provide supporting evidence; they must explain their ideas or support a thesis with facts or examples or they are required to design their communication for a particular audience but not both.
- 4 Students are required to produce extended communication or multi-modal communication and they are required to provide supporting evidence and they are required to design their communication for a particular audience.

Match the 21CLD Collaboration Rubric levels with the learning activity. To answer, drag the appropriate level on the left to its learning activity on the right. Each level may be used once, more than once, or not at all.



## <u>6.</u>

For each of the following scenarios, select Yes if the learning activity facilitates real world problem solving according to the 21CLD Real World Problem Solving and Innovation Rubric. Otherwise, select No.

	Yes	No
A Chemistry instructor organizes students in pairs to conduct a lab experiment		•
Your Horticulture class has been asked by the school administration to design and landscape the front of a new school building	•	
Students in a Sport Conditioning class are required to meet individualized weight, measurement, and heart-rate goals by the end of the semester	•	
A teacher decides to use a Learning Management System (LMS) to help track and evaluate student performance		•

#### This question requires that you evaluate the underlined text to determine if it is correct.

Your Literature class is learning about the structure of Historical Fiction. After studying about character development and fictional stories you assign each student to read a historical fiction novel and write a book

This learning activity must meet the Level 5 of the 21CLD Knowledge Construction Rubric.

Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

0000

Learn about the life of a famous historical leader and write a short fictitious story about that person in that time period Watch a movie about a famous incident in history Read three historical fiction novels and analyze the common characteristics of each book No change needed

### <u>8.</u>

You teach Photography to a class of 13-14 year old students. You've been studying Depth of Field concepts. You want to show your students examples.

According to 21CLD Use of ICT to be an Effective Educator, which resource would the best support your educational outcome?

Document camera connected to a printer Microsoft Paint connected to a tablet DVD player connected to a projector

# <u>9.</u>

This question requires that you evaluate the underlined text to determine if it is correct.

Your Marketing students are learning how to write articles that promote places. You assign each student to do the following:

- · select a restaurant, museum, or local tourist site.
- write an article that promotes the student's chosen place of interest.
- use Microsoft Word to write the article.include a photograph.

In order to meet Level 5 of the 21CLD Use of ICT for Learning Rubric, the project could be modified so students incorporate their work into a digital presentation.

Review the underlined text. If it makes the statement correct, select ""No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.



#### This question requires that you evaluate the underlined text to determine if it is correct.

You are teaching Poetry in Literature to a class of 13-14 year old students. You've assigned each student to keep a journal during the semester and to write at least one poem a week about something they've learned in class. You provide the students with learning goals, grading criteria, and some sample poems.

You also require each student to create artwork to accompany their poems.

This learning activity must meet the Level 4 of the 21CLD Self-Regulation Rubric. Which modification would achieve this goal?

Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.

OOOO

Submit their poem journal for review and feedback each week

Create a schedule for their work

Develop learning goals for the semester

No change needed

# <u>11.</u>

For each of the following scenarios, select Yes if the learning activity facilitates student use of ICT according to the 21CLD ICT Rubric. Otherwise, select No.

0000

	Yes	No
Students use Microsoft Visual Studio to learn programming skills	•	
Students use Microsoft OneNote to capture the important points in a lecture	•	
Students read an article about the new features of a Microsoft Office upgrade		•

# <u>12.</u>

Your class of 14-15 year old students are studying environmental change. You want to manage this learning activity to facilitate collaboration.

Which of the following learning activity modifications would facilitate student collaboration?

For each of the following activities, select Yes if the statement is true. Otherwise, select No.

0000

	Yes	No
Make the school computer lab available to the students before and after school to conduct research		•
Post important information about environment change on a Wiki and grant your students access		•
Present important information to the entire class using a projector and analyze it using a classroom discussion	•	
Assign each student a topic to research and post their analysis on a Wiki for classmates to critique	•	

# <u>13.</u>

Your Pre-Engineering students are participating in a state-sponsored STEM Day. The construction design contest requires each school team to apply their academic knowledge by building a miniature bridge using scaled down specifications of a real-world project.

Which level of the 21CLD Rubric for Real-World Problem-Solving and Innovation does this learning activity meet?

0000

Level 2 - The learning activity's main requirement is problem-solving but the problem is not a real-world problem

Level 3 - The learning activity's main requirement is problem-solving and the problem is a real-world problem but students do 

not innovate. They are not required to implement their ideas in the real world, or to communicate their ideas to someone 
outside the academic context who can implement them

Level 1 - The learning activity's main requirement is not problem-solving. Students use a previously learned answer or procedure for most of the work

Level 4 - The learning activity's main requirement is problem-solving and the problem is a real-world problem and students do innovate. They are required to implement their ideas in the real world, or to communicate their ideas to someone outside the academic context who can implement them

# 14.

Your school recently installed a wireless network and a new firewall to prevent intruders from the outside. Students have been bringing personal computing devices from home and using the school network to connect to the Internet.

You have noticed several students accessing inappropriate content during lunch and between classes.

According to 21CLD Use of ICT to be an Effective Educator, which two actions should you take to support Digital Citizenship among your students? Choose two.

0000

Ask the school administration to restrict students from using their personal devices at school

Post signs in the lunchroom reminding students of the school's Acceptable Use Policy (AUP)

✓ Ask the school administration to configure the firewall to filter content

Ask the school administration to require the MAC address of each personal device be registered and configure the firewall to only permit connections from registered devices

Create an activity that explores the effects of cyberbullying

# **15.**

You teach Career Education at a high school located next to an Air Force Base. All of your students have parents who are employed on base. The school has well funded technology resources. Many of your students have expressed an interest in a career with the Air Force. You want to prepare your students with unique skills that will help them achieve that goal.

Select the best ICT resource to help resolve or manage the logistical challenges of reaching the desired educational outcome.

0000

You arrange for frequent field trips to the Air Force base to expose students to the various occupations available

You use a PowerPoint presentation to explain the steps to acquiring a beginning pilots license for operating small private aircraft

You develop a unit about the Air Force Academy and incorporate it into your lesson plan

You acquire two old, but functional, flight simulators from the Air Force base that they no longer us

Which statement is required at Level 5 of the 21CLD Collaboration Rubric?

Students must have the opportunity to A fundamental requirement of the main activity is for student work to be interdependent

## <u>17.</u>

The 21CLD Skilled Communication Rubric is shown in the following table.

#### Level - Rubric

- 1 Students are not required to produce extended or multi-modal communication.
- 2 Students are required to produce extended communication or multi-modal communication but they are not required to provide supporting evidence or design their work for a particular audience.

  3 Students are required to provide supporting evidence; they must explain their ideas or support a thesis with facts or examples or they are required to design their communication for a particular audience but not both.

  4 - Students are required to produce extended communication or multi-modal communication and they are required to provide supporting evidence and they are required to design their communication for a

Students in a journalism class are assigned to work in pairs to create a video of each student reporting on a current event of interest to their peers. Each morning, one of the videos will be broadcast throughout the school following morning announcements.

How can this learning activity be modified to meet Level 4 of the 21CLD Rubric for Skilled Communication?

The video should target community leaders as the audience The video should be embedded in a PowerPoint presentation Student journalists are required to publish their report in the school paper

#### 18.

Students in your Business Application course are learning document design concepts.

Which strategy requires students to problem-solve, innovate, and apply a solution that benefits a real world audience?

Your Business Application students volunteer to format and correct reports and proposals for small business owners in your local community Students are required to create a report with a table of contents, figures, and an index Students work in small groups to critique sample document designs Students compete in a keyboarding contest and are scored on speed and accuracy

Students in an Earth Science class are studying the solar system.

For each of the following scenarios, select Yes if it transforms the learning activity into one that involves knowledge construction according to the 21CLD Knowledge Construction Rubric. Otherwise, select No.

0000

	Yes	No
Students memorize the names of the planets and moons in our solar system. Students play a matching game to reinforce their learning		•
The educator assigns each student a planet to research. The students are to paint a water-color of their assigned planet using skills recently taught in their Art class	•	
Each student is assigned to read journal articles about a planet of their choice. The student must then write a summary of their findings using Microsoft Word		•
Students research the structure and function of an atmosphere. Then they are assigned to write a fictitious story about life on a planet shrouded by their atmosphere	•	

# <u>20.</u>

You wanted to use the computer lab to support a portion of a learning activity, but the software you require is only licensed for use on your six classroom computers.

What should you do to provide equitable access for your students to complete this activity?

According to 21CLD Use of ICT to be an Effective Educator, which pedagogical approach should you use to provide equitable access for your students to complete this activity?

0000

Split the students so only 1/3 perform the animation task using computers while the other 2/3 draw it on paper

Ask the school administration to procure more software licenses for the lab

Schedule each student one-third of class time to work on the classroom computers

Divide your students into groups of three to complete this portion of the learning activity on the classroom computers

### 21.

You teach a Business Marketing course to 17-18 year old students. Your class size is 20 students and you've organized them into 10 pairs. You've assigned each pair of students to find a local business and develop a marketing plan for the business.

Which two modifications to the learning activities would provide an opportunity for self-regulation according to Level 4 of the 21CLD Self-Regulation Rubric? Choose two.

0000

You establish learning goals for your students and provide them with a rubric for grading their work at the end of the project

You require the students to use ICT to design their marketing plan

The student pairs schedule meetings with teachers of other subjects and request interdisciplinary support

✓ You require the student pairs to plan their own work and meet with them weekly to assess their progress and provide guidance.

Students design their consulting tasks to be interdependent

**22.** 

The 21CLD ICT for Learning Rubric is shown in the following table:

- 1 Students do not have the opportunity to use ICT for this learning activity.
- Students use ICT to learn or practice basic skills or reproduce information.
   Students use ICT to support knowledge construction, but they could construct the same knowledge without using ICT.
- 4 Students use ICT to support knowledge construction, and the ICT is required for constructing this knowledge.
   5 Students use ICT to support knowledge construction, the ICT is required for constructing this knowledge, and students do create an ICT product for authentic users.

Match the 2TCLD ICT for Learning Rubric levels on the left to the learning activities on the right. To answer, drag the appropriate rubric level from the column on the left to its learning activity on the right. Each rubric level may be used once, more than once, or not at all.



# 23.

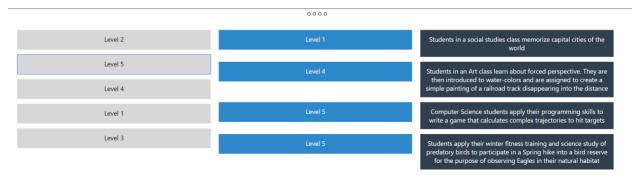
The 21CLD Knowledge Construction Rubric is shown in the following table.

#### Level - Rubric

- 1 The learning activity does not require students to construct knowledge. Students can complete the activity by reproducing information or by using familiar procedures.

  2 The learning activity does require students to construct knowledge by interpreting, analyzing, synthesizing, or evaluating information or ideas, but the activity's main requirement is not knowledge construction.
- 3 The learning activity's main requirement is knowledge construction, but the learning activity does not require students to apply their knowledge in a new context.
  4 The learning activity's main requirement is knowledge construction and the learning activity does require students to apply their knowledge in a new context, but the learning activity does not have learning goals in more than one subject.
- 5 The learning activity's main requirement is knowledge construction and the learning activity does require students to apply their knowledge in a new context and the knowledge construction is interdisciplinary. The activity does have learning goals in more than one subject.

Match the appropriate level of the 21CLD Knowledge Construction Rubric to each learning activity. To answer, drag the appropriate rubric level from the column on the left to its learning activity on the right. Each rubric level may be used once, more than once, or not at all.



You have requested to use online forums as part of your preparation of a learning activity. Your school administrator asks you why. According to 21CLD Use of ICT to be an Effective Educator, which would be the best response? 0000 Online forums provide immediate feedback to your questions Lessons shared in forums are guaranteed to work with your students Information posted in forums is always relevant

# <u> 25.</u>

The 21CLD Real-World Problem-Solving and Innovation Rubric is shown in the following table:

#### Level - Rubric

- 1 The learning activity's main requirement is not problem-solving. Students use a previously learned answer or procedure for most of the work.
- 2 The learning activity's main requirement is problem-solving but the problem is not a real-world problem.

  3 The learning activity's main requirement is problem-solving and the problem is a real-world problem but students do not innovate. They are not required to implement their ideas in the real world, or to
- communicate their ideas to someone outside the academic context who can implement them.

  4 The learning activity's main requirement is problem-solving and the problem is a real-world problem and students do innovate. They are required to implement their ideas in the real world, or to communicate their ideas to someone outside the academic context who can implement them.

Match the 21CLD Real-World Problem-Solving and Innovation Rubric Level with the learning activity. To answer, drag the appropriate level from the column on the left to the learning activity on the right. Each level may be used once, more than once, or not at all.



## 26.

Pre-Engineering students are studying stress points in building design. The instructor then assigns each student to write a proposal about how to safely demolish an old building located in town.

Which level of the 21CLD Knowledge Construction Rubric does this learning activity fulfill?

0000 The learning activity's main requirement is knowledge construction, but the learning activity does not require students to apply their knowledge in a new context The learning activity requires students to construct knowledge by interpreting, analyzing, synthesizing, or evaluating information or ideas, but the main requirement is not knowledge construction The learning activity's main requirement is knowledge construction, the learning activity requires students to apply their knowledge in a new context, and the knowledge construction is interdisciplinary The learning activity's main requirement is knowledge construction, and the learning activity requires students to apply their knowledge in a new context, but the learning activity does not have learning goals in more than one subject

You teach Communications at a secondary school. You have noticed that all of your students have personal smartphones.

A local television station broadcasts a story about a student in another school who committed suicide after being harassed by malicious messages and photos from classmates. Your students mention that similar harassing occurs in your school

According to 21CLD Use of ICT to be an Effective Educator, which two actions should you take to support Digital Citizenship among your students? Choose two.

0000 Post signs in the classroom reminding students of the school's Acceptable Use Policy (AUP) Ask the school administration to ban student possession of phones Restrict the students from using their smartphones computers during class time

#### 28.

#### This question requires that you evaluate the underlined text to determine if it is correct.

You teach Art to a class of eighteen 14-17 year old students.

Your classroom has the following ICT resources:

- Six desktop computers each equipped with audio cards and video editing software
- · Vector-based illustration software that can also create animated graphics
- Data projector connected to a computer on the teacher's desk.

You want your students to experience how lighting and shadows give objects a 3-D appearance and then create an animation of a sphere or cube moving across a stationary background.

According to 21CLD Use of ICT to be an Effective Educator, the best resource(s) to support your educational outcome would be to take photos of a ball and a cube and display them to the class using a PowerPoint

Review the underlined text. If it makes the statement correct, select "No change is needed." If the statement is incorrect, select the answer choice that makes the statement correct.



## 29.

You assign a project to your Political Science class of 17-18 year old students. The project has the following components:

- Students will interview a successfully elected person about their past campaign.
  Students will create a digital presentation about how to run a successful election campaign.

For each of the following modifications to the above learning activity, select Yes if the modification meets level 4 of the 21CLD Rubric for Skilled Communication. Otherwise, select No.

Students must interview multiple elected persons • • Students must cite evidence of how specific campaign activities led to election Students must design their digital presentation to an audience of 11-12 year old students Students must embed a video into their digital presentation •

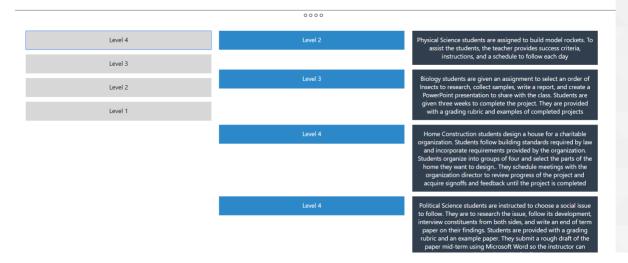
The 21CLD Self-Regulation Rubric is shown in the following table:

#### evel - Rubric

- 1 Pre-requisites for self-regulation are not in place; the learning activity is not long-term or students do not have both learning goals and associated success criteria in advance of completing their work.

  2 The learning activity is long-term and students do have learning goals and associated success criteria in advance of completing their work but students do not have the opportunity to plan their own work
- 2 The learning activity is long-term and students do have learning goals and associated success criteria in advance of completing their work but students do not have the opportunity to plan their own work.
  3 The learning activity is long-term and students do have learning goals and associated success criteria in advance of completing their work and students do have the opportunity to plan their own work but students do not have the opportunity to revise their work based on feedback.
- 4 The learning activity is long-term and students do have learning goals and associated success criteria in advance of completing their work and students do have the opportunity to plan their own work and students do have the opportunity to revise their work based on feedback.

Match the appropriate level of the 21CLD Self-Regulation Rubric to each learning activity. To answer, drag the appropriate rubric level from the column on the left to its learning activity on the right. Each rubric level may be used once, more than once, or not at all.



#### 31.

Which two learning activities fulfill student learning outcomes according to the 21CLD Student Use of ICT Rubric. Choose two.

The teacher of a Physical Education class provides students with Minecraft to play when weather won't allow the students to go outside

Student use Snap Chat to keep in touch with other students during lunch

A Marketing class uses Microsoft Excel to graph trends of a product's popularity

The high school Gardening Club creates a GoFundMe page so they can purchase a greenhouse kit

Students in a Computer Science class use Microsoft Visual Studio to design a website

#### 32.

At the conclusion of a computer art activity, you want your students to discuss and critique each others projects.

What is the best collaboration approach to use?

Post all of the projects to the school website and invite input

Copy all of the student projects onto the teacher's computer and display them to the class using a projector

Store all of the projects on a USB drive for the students to take to the school computer lab for viewing

Upload the projects to a shared folder on the school network and grant the students access

# **33.**

You are team teaching 30 students with a Science teacher. You teach Computer Skills. You have 10 laptop computers on a wheeled cart, each equipped with wireless capabilities and Microsoft Office 365. You are teaching the students how to manipulate data using pivot charts. You want each student to create a chart using data they collected during a science experiment.

According to 21CLD Use of ICT to be an Effective Educator, which pedagogical approach should you use to provide equitable access for your students to complete this activity?

Borrow computers from other classrooms so you have enough for your students to complete the assignment

Schedule the computers so they can be accessed outside of class for more available time

Group your students into teams of three and have them work collaboratively to help each other create their individual charts

Have 1/3 of your students do the activity on the computers and the other 2/3 do the activity using paper and pen

# <u>34.</u>

Which statement is required at Level 4 of the 21CLD Self-Regulation Rubric?

For each of the following scenarios, select Yes if the learning activity facilitates self-regulation at Level 4 of the 21CLD Learning Activity Rubric. Otherwise, select No.

	Yes	No
Students must have the opportunity to grade themselves		•
Students must have the opportunity to revise their work based on reliable feedback	•	
During the learning activity students plan their own work	•	