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Exam A

QUESTION 1

Case Study 1

Overview

General Overview

You are a history teacher at a school that has students between the ages of 11 and 18.

Description of Students

You class contains 30 students who are 12 and 13 years old.

Learning and Teaching Environment

The school has the following Information and Communication Technology (ICT) resources:

- Two networked computer labs that each contains 30 desktop computers. All of the computers are connected to the Internet through a Web filtering firewall. All of the computers are connected to a pool of printers and to a flatbed scanner.
- 16 laptop computers that have a wireless connection to a pool of printers and to the Internet.
- Five digital cameras, two video cameras, and one digital voice recorder. Video-editing software installed on all of the computers.

A Learning Management System (LMS) used for the following tasks:

- The students use the LMS to submit their work, access resources uploaded by the teachers, communicate with their teachers, and access discussion forums.
- The teachers use the LMS to upload resources for the students, assign homework, collect assignments, and grade their students' work.
- The school administration uses the LMS to create schedules and to track student performance data.

Planned Changes

You plan to help the school make better use of its existing ICT resources. The school administration also asks you to identify opportunities to use the ICT resources during your history lessons.

Teacher Problem Statement

The school reports that neither the teachers nor the students use the ICT resources. Also, when the ICT resources are used, they are often used for tasks that do not enhance learning.

You inform the school administration that you are interested in using new technologies during your lessons. The administration asks you to find opportunities within your subject area to develop the use of ICT resources.

Student Problem Statement

The students report that they often find historical sources in a foreign language, which hinders them from completing their assignments. Objectives

Learning Objectives

Develop the students' understanding of past societies and of how these societies shaped the world during the twentieth century.

Professional Development Objectives

You identify the following professional development objectives:

- Develop new approaches to using digital technologies for the teaching of history.
- Develop new approaches to using source materials for the teaching of history.

Organizational Goals

The school plans to increase the use of technology during teaching.

Planned Activity

- You plan to run a learning activity that will include the following tasks:
- The students split into small groups, and each group identify a theme or a historical event.
- The students select and edit digital images that illustrate the theme or the event.
- The students create a poster to demonstrate their learning.
- The students display their posters to their peers.

A.

Correct Answer:

Section: (none)

Explanation

Explanation/Reference:

QUESTION 2

What is the primary benefit of increasing the use of ICT resources during the history lessons?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. The students will have access to a greater range of learning resources.
- B. The students will more easily and quickly submit their assignments.
- C. The students will stay on task throughout the lessons.
- D. The students will deliver assignments that are clearer and more presentable.

Correct Answer: A





Section: (none) **Explanation**

Explanation/Reference:

QUESTION 3

You plan to have an expert speaker address the students about a recent historical event.

Which two possible ICT resources should you recommend that the students use to create an accurate record of the speaker's statements? (Each correct answer presents a complete solution. Choose two.) This item is part of a case study. To view the case study information, click on the Case Study button below.

A. the digital voice recorder

B. the LMS

C. an Internet connection

D. a digital camera

E. a video camera

F. the flatbed scanner

G. the printers

Correct Answer: AE Section: (none) **Explanation**

Explanation/Reference:

QUESTION 4

You have to recommend a solution to help the students solve their problem regarding the historical sources. The problem must be solved as quickly as possible.

What should you recommend?

This item is part of a case study. To view the case study information, click on the Case Study button below.

A. Modify the language settings on the students' desktop or laptop computers.

B. Email the source text to a language teacher at the school.

C. Use an Internet-based translation tool.

D. Use a social networking site to connect with students in other countries and upload the text to the social networking site.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 5

You want to identify which tasks in the planned learning activity incorporate the use of the computer lab. Which task should you identify?

This item is part of a case study. To view the case study information, click on the Case Study button below.

A. The students must hang the posters in the entrance hall of the school.

- B. The students must assemble the images on a wall poster.
- C. The students must select and edit digital images that illustrate the theme or the event.
- D. The students must split into small groups and each group must identify a theme or a historical event.

Correct Answer: C Section: (none) **Explanation**



QUESTION 6

As an extension activity to the planned learning activity, you ask some of the students to contact external experts to gather additional information about the historical events.

You want to ensure that the students use an appropriate means of communication when they contact the experts.

What should you advise the students to use?

This item is part of a case study. To view the case study information, click on the Case Study button below.

A. their personal mobile phone

B. an anonymous online forum

C. a generic email account of the school

D. their social network account

Correct Answer: C Section: (none) **Explanation**

Explanation/Reference:

QUESTION 7

You teach a class of 20 students. Your classroom contains six computers.

You run an activity that is carried out mostly on paper.

Before the end of the activity, the students will require access to the computers.

Which lesson structure should provide the best learning experience for the students?

- A. Create several different activities that require the computers at different stages during the lesson.
- B. Execute the computer-based portion of the activity as a class demonstration.
- C. Modify the tasks of the lesson so that only some of the students require access to the computers.
- C. Modify the tasks of the lesson so that only some or the students require sectors.

 D. Have all of the students perform the same activity and instruct the students to take turns using the computers.

Correct Answer: D Section: (none) **Explanation**

Explanation/Reference:

QUESTION 8

You are a teacher at a primary school. Your students are 9 and 10 years old.

Your classroom contains one desktop computer. Each student gets a 15-minute turn using the computer. The computer is always being used during class hours.

A new student with a physical disability joins the class. The student will need to complete his writing tasks on a classroom computer until he gets his own laptop computer.

What is the least disruptive and most equitable solution?

- A. Borrow a desktop computer from the school administration.
- B. Provide the new student access to the classroom computer after class hours.
- C. Provide the new student priority access to the classroom computer.
- D. Maintain the existing rotation schedule for the classroom computer, and then pair the new student with other students during their turn on the computer.

Correct Answer: A Section: (none) **Explanation**

Explanation/Reference:

QUESTION 9

You are a teacher at a secondary school. You work closely with the school administration.

A group of parents questions the large sum of money that the school invests in Information and Communication Technology (ICT) resources. You are requested to prepare a response on behalf of the school. On which argument will you base your response?



- A. Modern economies increasingly require a workforce that has good typing skills, so the school must try to incorporate computers into all its activities.
- B. Modern economies are increasingly based on knowledge and information, so students must learn the skills required to handle information.
- C. The business sector in modern economies increasingly expects schools to produce students who are qualified in financial knowledge.

D. Modern economies increasingly depend on the growth of the computer manufacturing industry, an economic sector that schools must support.

Correct Answer: B Section: (none) Explanation





Exam B

QUESTION 1

Case Study 2

Overview

General Overview

You are a teacher at a secondary school.

You are also the chairperson of a school committee comprised of members of the school administration and the team responsible for Information and Communication Technology (ICT) at the school.

Description of Students

The students at the school are between the ages of 15 and 18.

Learning and Teaching Environment

The school has a computer lab. The students use the lab frequently.

All of the teachers have laptop computers that they use for teaching and administrative tasks.

All of the teachers access the school's network and the Internet by using a wireless connection.

Planned changes

The school plans to implement the following additional ICT resources:

- An intanet
- A student management system (SMS)
- One laptop for each student. The laptops will contain curriculum content and will be connected to the school's network

Objectives

Learning Objectives

The students will be able to develop collaboration, communication, critical thinking, problem-solving, and creativity skills and use ICT resources in all their subjects.

Professional Development Objectives

The professional development objectives for the teachers are:

- Teachers design learning tasks that effectively incorporate ICT resources.
- Teachers implement learning tasks that can be performed either at school or at home.

Learning Activities

The teachers plan to use video-conferencing to enable the students to collaborate with peers and communicate with subject matter experts in various fields.

Organizational Goals

The school aims to have ICT integrated into all subjects' teaching and learning. The school aspire to qualify for a sponsorship to help implement planned ICT changes. To qualify for the sponsorship, the school must write a compelling proposal stating how the new ICT resources will be used to further learning objectives.

The school plans to encourage collaborative learning skills and independent learning skills.

As part of the initial steps to writing the proposal, the school recognizes the need to convene a stakeholder meeting attended by the teachers, the school management and administration, and the students' parents. Once the school implements the planned changes, the teachers will be expected to incorporate student's laptops during their lessons.

A.

Correct Answer:

Section: (none) Explanation

Explanation/Reference:

QUESTION 2

You are requested to write the proposal to qualify for the sponsorship.

Which statement best describes the ICT Competency Framework for Teachers (ICT-CFT) policy goal that is met by implementing the new ICT resources? This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. The new ICT resources help the teachers design activities that enable the students to become collaborative, problem-solving learners.
- B. The new ICT resources allow the teachers to update their ICT skills and to meet the professional development objectives.
- C. The new ICT resources allow the teachers to create virtual activities that can be self-administered by the students without any teacher involvement.
- D. The new ICT resources allow the teachers to create problem-solving activities that the students can perform in a virtual environment.

Correct Answer: A Section: (none) Explanation



QUESTION 3

How does giving each student their own laptop enhance collaborative learning?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. The students can digitally share their work and their ideas.
- B. The students can connect with their peers outside of the classroom without being interrupted by the teachers.
- C. The students will feel free to exchange their views with one another anonymously during lessons.
- D. The students can work together without any guidance from a teacher.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 4

The teachers are concerned that their lack of experience with video conferencing will hinder their ability to achieve the planned lesson.

What advice should you provide to the teachers to help them achieve the planned lesson?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Tell them that video conferencing is a simple process and not to worry.
- B. Start by using technology that they are most familiar with.
- C. Teach students the benefits of video conferencing before the lesson.
- D. Test the video conferencing equipment before the lesson.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:



QUESTION 5

The parents worry that the students will be distracted if they use their laptop during the lessons.

What should you tell the parents to reassure them that this will not occur?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. The teacher will send the students out of the classroom if they misuse their laptop.
- B. The teacher will confiscate the laptops if the students misuse them.
- C. The teacher will ensure that all of the lessons incorporate the use of a laptop.
- D. The teacher will only allow the use of the laptops during lessons that specifically benefit from the use of ICT resources.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 6

You create your first lesson that incorporates the use of the students' laptops.

You want to evaluate the effectiveness of the use of laptops during the lesson.

How do you determine effectiveness after one lesson?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Students actively engage in the lesson.
- B. Students are able to access curriculum content.
- C. Student scores improve on a test given at the end of the lesson.



D. Students give feedback that they enjoyed using laptops during the lesson.

Correct Answer: A Section: (none) Explanation





Exam C

QUESTION 1

Case Study 3

Overview

General Overview

You are a physics/science teacher who often teaches material outside of your area of expertise.

The teachers at your school principally use a teacher-centered approach in their teaching.

Some of the teachers have started to move toward a learner-centered approach and have adopted project-based learning.

The teachers rarely attend professional development courses.

Organizational Goals

The school aims to have ICT integrated into all subjects' teaching and learning through project-based learning in the classroom.

Most of the classrooms in the school contain a computer and a data projector. The school management motivates teachers to integrate ICT during their lessons.

The school furthermore plans to deploy 100 wireless laptop computers that will include student response systems. The school also plans to deploy interactive whiteboards in all of the science classrooms/laboratories.

Learning and Teaching Environment

Your students are between the ages of 12 and 14. Most of them have experience using computers and other technologies. You regularly use ICT to achieve learning objectives and to present new information to the students. You teach primarily in a classroom dedicated to science (science laboratory). The classroom also contains the following Information and Communication Technology (ICT) resources:

- Speakers
- One printer
- One scanner
- One digital camera
- One data projector
- One computer that is connected to the Internet

Objectives

Learning Objectives

The students will be able to develop collaboration, communication, critical thinking, problem-solving, and creativity skills in their science work.

Professional Development Objectives

Your professional development objectives are to:

- use ICT effectively for teaching and learning;
- incorporate appropriate ICT activities into lesson plans so as to support students' acquisition of school subject matter knowledge;
- and integrate the use of ICT into the curriculum.



A.

Correct Answer: Section: (none) Explanation

Explanation/Reference:

QUESTION 2

You want to motivate the school to invest in ICT resources. The reason must be based on the ICT Competency Framework for Teachers (ICT-CFT). Which argument should you use?

This item is part of a case study. To view the case study information, click on the Case Study button below.

A. to become the best equipped school in your region.

B. to improve local economic conditions.

C. to give the students in your school access to a range of resources and learning experiences.

D. to meet the expectations of the students and the parents.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 3

The school recently implemented the planned ICT changes and deployed laptops in your classroom.

Some of the laptops can access to the Internet, while others cannot. You want to ensure that all of the laptops can access the Internet.



What should you verify?

A. the wired network connection of the laptops

B. the wireless network connection of the laptops

C. whether the Internet router is on

D. whether the laptops are plugged into a power outlet

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 4

You are teaching a biology class on the human nervous system.

One of the students asks a Qthat is beyond your knowledge.

Based on the current ICT resources in the classroom, which resource should you use to answer the Qas quickly as possible during the lesson? This item is part of a case study. To view the case study information, click on the Case Study button below.

A. Email

B. a search engine

C. a blog

D. the online educators' community

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

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QUESTION 5

The school plans to deploy six of the planned laptops in each classroom.

You were asked to recommend a solution that enables each student to use the laptops as part of a group project.

What should you recommend?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Make your classroom available to students at lunchtime and after school.
- B. Have all the groups first plan their project, and then book timeslots for computer use.
- C. Assign one computer to each group.
- D. Let students from any group use any of the computers as needed.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 6

You want to explain how the planned ICT changes will most benefit your own productivity?

Which benefit should you refer to?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. You will be able to access professional development resources.
- B. You will be able to communicate with the parents more often.
- C. You will be able to produce better lesson plans.
- D. You will be able to use online tools for formative assessments.



Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 7

You have to meet the professional development objectives by using the ICT resources.

What should you do?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Use a laptop to take notes during professional seminars at a local university or college.
- B. Join online educator networks to exchange ideas.
- C. Create a blog and ask the students to comment on your lessons and your blog posts.
- D. Download ready-made materials to use during your lessons.

Correct Answer: D Section: (none) Explanation





Exam D

QUESTION 1 Case Study 4

Overview

General Overview

You are a language teacher in a lower secondary school.

Learning and Teaching Environment

You have 30 students in your class of mixed ability. The students are 14 years old.

Your school recently set up a computer lab. The computer lab contains the following equipment:

- One computer for the teacher One data projector
- One monochrome laser printer
- Two flatbed scanners
- Six digital cameras, three of which record still images and video 25 networked computers for the students.

The school has an intranet and is connected to the Internet. The intranet contains a central storage location for all of the information required by the teachers and other school staff.

Objectives

Learning Objectives

The students will be able to expand their understanding of how language is used persuasively.

Learning Activities

You want to teach a native language lesson on persuasive writing. The lesson focuses on how to use language persuasively by examining the way language is used in advertising, promotional material, slogans, headlines, titles, catch-phrases, quotes, and famous speeches.

You plan to use examples of persuasive writing that are closely related to the students' interests, such as advertisements aimed at the youth market.

To help achieve the learning objective, you ask the students to bring to class printed examples of the persuasive writing they collected during the previous week's lesson.

Professional Development Objectives

Your professional development objectives for the year are to:

- use ICT effectively for teaching and learning;
- incorporate appropriate ICT activities into lesson plans so as to support students' acquisition of school subject matter knowledge; and
- integrate the use of ICT into the curriculum by observing other teachers who incorporate Information and Communication Technology (ICT) into their lessons.

A.

Correct Answer: Section: (none) Explanation



Explanation/Reference:

QUESTION 2

You want to identify the primary benefit of using ICT during the persuasive writing lesson.

Which benefit should you identify?

This item is part of a case study. To view the case study information, click on the Case Study button below.

A. In today's world, writing is mostly done on a computer.

B. ICT helps students develop word processing skills.

C. The computer lab is used regularly.

D. Word processing applications allow students to easily edit and modify text.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 3

You plan to lead a class discussion about the persuasive writing examples that the students bring in and to display the examples to the entire class.

Which two ICT resources should you use to achieve this task? (Each correct answer presents part of the solution. Choose two.) This item is part of a case study. To view the case study information, click on the Case Study button below.

A. a flatbed scanner

B. a data projector



C. a monochrome laser printer

D. a digital camera

Correct Answer: AB Section: (none) **Explanation**

Explanation/Reference:

QUESTION 4

You plan to ask the students to use a search engine during the persuasive writing lesson.

Which instructions or advice should you provide to the students?

This item is part of a case study. To view the case study information, click on the Case Study button below.

A. Search for organizations that use persuasive writing.

B. Use a variety of search engines.

C. Use a variety of Web browsers.

D. The first search result will contain the information you seek.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 5

You plan to use ICT to prepare an effective persuasive writing lesson.

What should you do?
This item is part of a case study. To view the case study information, click on the Case Study button below.



- A. Use the Internet to find a complete, ready-made lesson to use with the students.
- B. Use the Internet to find teaching resources to discuss with the students.
- C. Use spell check software to improve your lesson plan.
- D. Scan sections of the class textbook to use as reference.

Correct Answer: A Section: (none) **Explanation**

Explanation/Reference:

QUESTION 6

You want the students to collect information from organizations that they find on the Internet.

Which instructions or advice should you provide to the students?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Have the information sent to the student's home e-mail address.
- B. Only request information from organizations that have a secure Web site.
- C. Have the information sent to the school's e-mail address.
- D. Only request information from organizations that have a Web site that requires registration.

Correct Answer: C Section: (none) **Explanation**



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Exam E

QUESTION 1

Case Study 5

Overview

General Overview

You are a geography teacher at a school of 500 students.

Organizational Goals

The school wants students to acquire twenty-first century skills, including collaboration, problem solving, and authentic learning, by using ICT resources.

Learning and Teaching Environment

You have 40 students of mixed abilities in your class. The students are between the ages of 14 and 16.

The students are computer literate but have limited knowledge of how to use the Internet to communicate and to share ideas.

The school has one computer lab that contains 15 computers. The computers are networked and have access to the Internet. The computers support video-conferencing.

The computer lab has a student response system that includes 45 handsets.

Objectives

Learning Objectives

The students will be able to understand the cause and effects of acid rain.

Learning Activities

You plan a project with the students on the topic of acid rain. The students will use Information and Communication Technology (ICT) resources to complete the project. The project will require the students to:

Improve their research skills.

- Collaborate with one another and with students in other schools.
- Create a Web site to educate the public on how to minimize the impact of acid rain.

To introduce the project, you plan to show videos on the causes and consequences of acid rain.

You also plan to conduct a video-conference with a farmer who has suffered the effects of acid rain.

To develop project-based learning strategies, you plan to use the school's limited ICT resources.

You are aware that many videos about acid rain are available on the Internet, but you do not know how to identify the relevant ones.

Professional Development Objectives

Your professional development objectives are to:

- use ICT effectively for teaching and learning;
- incorporate appropriate ICT activities into lesson plans so as to support students' acquisition of school subject matter knowledge; and integrate the use of ICT into the curriculum.

A.

Correct Answer: Section: (none) Explanation

Explanation/Reference:

QUESTION 2

You want to address the ICT Competency Framework for Teachers (ICT-CFT) policy goals by using the school's limited ICT resources.

What should you do?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Ask the students to use their computers at home.
- B. Have the students work in collaborative groups.
- C. Ask the students to use their mobile devices.
- D. Have the more confident students use the computers while the other students observe them.

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 3

Certain teachers at the school Qthe value of using video conferencing for the project.

What is the most important benefit of video conferencing as it is being used in this project?



This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Video conferencing provides an opportunity to use a new technology.
- B. Video conferencing provides an opportunity for group collaboration.
- C. Video conferencing provides an authentic conversation about the problem.
- D. Video conferencing provides a reliable way to gather scientific information.

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 4

You want to improve the students' research skills by using ICT resources. The solution must help meet the school's organizational goals. What should you do?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Tell the students to search for information on the Internet.
- B. Give the students a list of Internet links to sites about acid rain.
- C. Give the students printed Web pages about acid rain.
- D. Work with the students to create a list of search terms.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:



QUESTION 5

Your class just completed the video-conference with the farmer.

You want to do a quick assessment to identify how many students understood the key points of the video-conference. What should you do?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Have the students use the student response system.
- B. Have the students work in pairs to create a blog.
- C. Have each student write an essay by using a word processing application.
- D. Have each student design a presentation.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 6

One of your students has poor hearing.

You want to ensure that the student has the opportunity to interact with the farmer during the video-conference. What should you do? This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. After the video-conference, have the other students explain the key points of the conference to the student.
- B. Before the video-conference, have the student submit questions in writing.
- C. Manipulate the seating arrangement.
- D. Record the audio portion of the video-conference for further listening.



Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 7

You want your students to analyze the costs of running a business.

You plan a visit with your students to a business center that sells business services. The business center offers the following services.

- Printing
- Photocopying
- Web site design
- Document scanning
- Word processing and editing.

What should you include as part of your classroom activities?

- A. Give an assignment during which the students will read three case studies about office service businesses. Summarize the students' findings in a word processing document.
- B. Run a research project during which the students will use the Internet to compile a list of prices of various business services.
- C. Run a three-day project during which the students will set up their own office service business at the school and sell business services to the students and the staff.
- D. Run a two-hour project during which you will provide reference information on the cost of equipment, materials, and salaries. Guide the students to use spreadsheets to calculate the costs of a business.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 8

You teach an economics lesson about the effects of using price discount strategies. During the class, you provide detailed sales statistics from a major national retailer.

Some of the students Qthe effectiveness of price discount strategies.

You want to demonstrate to the students that the strategies are cost-effective. What should you do?

- A. Search the Internet for Web sites that contain more information about retail pricing strategies.
- B. Enter sample sales figures into a spreadsheet to model the effects of using price discount strategies.
- C. Search the Internet for teaching resources on retail pricing strategies.
- D. Email several retail management experts and ask them for examples of how they use price discount strategies.

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 9

You have used Information and Communication Technology (ICT) successfully in the classroom for several years.

A new teacher at the school says that she has had little opportunity to use ICT in the classroom. She wants to make use of the computer lab in her teaching. What advice would you give her?

- A. Ensure that the planned activities are easy for the students.
- B. Ensure that the planned activities are fun for the students.
- C. Ensure that the planned activities are suitable for the learning objectives.
- D. Ensure that the students understand how ICT will be used to complete their activities.

Correct Answer: C Section: (none) Explanation









Exam F

QUESTION 1

Case Study 6

Overview

General Overview

You are a teacher at a school that recently introduced computers. The school requires that all teachers use the computers to enhance teaching and learning. Most of the teachers in the school have no experience using technology in the classroom. You are familiar with ICT for personal use, but have limited experience integrating ICT into learning activities.

Organizational Goals

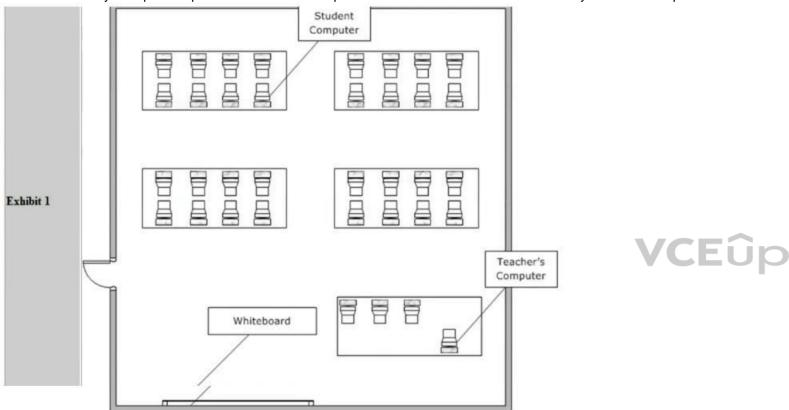
The school wants to encourage all of the teachers to use the school's computer lab and to integrate ICT into their learning activities. All of the teachers will do this at their own pace, based on their level of competence and confidence.

Learning and Teaching Environment

Your students are between the ages of 7 and 9. The students are of mixed ability and are organized in classes of up to 35 students.

All of the students have basic computer skills and have their own email accounts hosted on different external providers. All of the students are aware of the school's acceptable use policy (AUP) for the use of Information and Communication Technology (ICT).

The school recently set up a computer lab. All of the computers are connected to a network. The layout of the computer lab is shown in the exhibit and includes a projector and an interactive whiteboard. (See Exhibit 1)



Due to the high number of teachers and lessons in the school, you only have access to the computer lab for one lesson every two weeks.

The school plans to purchase more equipment and set up additional computer labs. The school also plans to introduce computers into standard classrooms.

Objectives

Learning objectives

The students will be able to:

- identify symmetrical and asymmetrical shapes;
- and differentiate between symmetrical and asymmetrical shapes.

Learning Activities

You recently taught a mathematics lesson on symmetrical shapes and demonstrated some examples. The lesson took place in a standard classroom.

You plan to teach a second lesson on symmetry. The lesson will take place in the computer lab. The objective of the second lesson is to teach students how to identify different symmetrical shapes. Each student will be asked to create three symmetrical shapes and two asymmetrical shapes. The students must use ICT to explain to the class why their shapes are either symmetrical.

Professional Development Objectives

Your professional development objectives for the year are to:

use ICT effectively for the teaching and learning;

incorporate appropriate ICT activities into lesson plans so as to support student's acquisition of school subject matter knowledge; and integrate the use of ICT into the curriculum.

A.

Correct Answer: Section: (none)

VCEûp

Explanation

Explanation/Reference:

QUESTION 2

In addition to learning about symmetry, how else should the students benefit from using ICT during the second mathematics lesson? This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. ICT will teach them data entry skills.
- B. ICT will teach them computer programming skills.
- C. ICT will help them develop presentation skills.
- D. ICT will help them develop collaboration skills.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 3

You want to identify the quickest and most cost-effective method to collect the students' presentations for assessment. What should you ask the students to do?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Save their work to a USB drive.
- B. Save their work to a shared folder on the network.
- C. Print out their work and hand it in to you.
- D. Email their work to you.

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 4

You want to track and manage student's performance data.

Which type of application should you use?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. desktop publishing
- B. presentation
- C. spreadsheet
- D. word processing

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 5

At the beginning of the second mathematics lesson, you want to engage students and remind them of the learning objectives.

What should you use?

This item is part of a case study. To view the case study information, click on the Case Study button below.





A. a presentation that models the learning outcome

B. an audio recording that defines symmetry

C. a graphics application that displays symmetrical objects

D. a printed handout that contains an outline of the learning objectives

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 6

You are preparing to teach the second mathematics lesson.

Which two tasks should you perform to ensure that the students benefit most from working in the computer lab? (Each correct answer presents part of the solution. Choose two.) This item is part of a case study. To view the case study information, click on the Case Study button below.

A. Verify that the Internet connection is only available on the teacher's computer.

B. Verify that the printer has enough paper.

C. Ensure that the data projector works.

D. Verify that the computers have the appropriate software installed.

E. Ensure that the USB drives have free space available.

Correct Answer: CD Section: (none) Explanation





Exam G

QUESTION 1

Case Study 7

Overview

General Overview

You are a film studies teacher at a secondary school. You are part of a team of three teachers that teaches drama, music, and film.

Description of Students

Twenty-five of your students will participate in a project. The students are all in the same class and are 13 and 14 years old.

Learning and Teaching Environment

The school has a computer lab that contains the following ICT resources:

- One television
- One DVD player
- One data projector
- One interactive whiteboard
- One high-quality sound system
- Six low-cost digital video cameras
- One professional grade, high-definition video camera
- 15 powerful computers that are connected to the Internet

Professional grade film editing and music production software

The teachers also have access to desktop computers located in the faculty lounge and the administration offices.

Learning Activities

The school plans to introduce a more collaborative approach between teachers of different subjects.

The team identifies an opportunity to create a collaborative learning activity for the students of drama, music and film. The team plans to complete the collaborative project in four weeks.

Currently, the students study each of the three subjects for one hour per week.

The school will pay a local filmmaker to visit the students for a one hour lesson early in the project. The filmmaker will answer the students' questions and demonstrate how to use film-editing software.

The filmmaker will also be available during each project lesson via video-conference link, telephone, and email.

Objectives

Learning Objectives

You identify the following learning objectives:

- Improve the students' ability to work collaboratively within a creative framework.
- Create a 60-second film trailer that combines live action film, voice-over narration, and original music.

Professional Development Objectives

The professional development objectives for the team are to:

- use ICT effectively for teaching and learning;
- incorporate appropriate ICT activities into lesson plans so that students work collaboratively within a creative framework; and integrate the use of ICT into the curriculum.

Pedagogical objectives

The school plans to increase the use of cross-curricular approaches to help the students understand learning as a connected experience rather than a set of separate disciplines.

A.

Correct Answer: Section: (none) Explanation

Explanation/Reference:

QUESTION 2

The students recently started using the film editing software.

You want to ensure that the students benefit as much as possible from the filmmaker's visit.

What should you do?

This item is part of a case study. To view the case study information, click on the Case Study button below.

- A. Schedule the filmmaker to present a one-hour lecture to the entire class.
- B. Schedule each student to individually ask the filmmaker questions.
- C. Have each student email you a list of questions before the visit.
- D. Have the students use a wiki to collaborate on a list of questions for the filmmaker.

Correct Answer: D Section: (none) Explanation **VCE**ûp



Explanation/Reference:

QUESTION 3

You are an environmental education teacher.

Your students are doing a collaborative project with students from another country using Information and Communication Technology (ICT).

You create an activity that requires your students to use presentation software to display pictures and videos of local birds. The students will then email the presentation to the foreign students.

You discover that the file size of the presentation exceeds the size limit set by your email provider. You want to ensure that the students can send the presentation by email.

What should you advise the students to do?

- A. In the presentation, reduce the font sizes and deactivate the custom animations.
- B. Remove the pictures and the videos from the presentation.
- C. Convert the presentation file to a bitmap image.
- D. Compress the video files and the pictures before inserting them into the presentation.

Correct Answer: D Section: (none) **Explanation**

Explanation/Reference:

QUESTION 4

You teach political science to a class of 20 students. The students are 17 years old. Your school has a computer lab that has access to the Internet.

Your government has an election.

You create a lesson that requires the students to spend the entire day of the election analyzing the election results as they are announced.

You reserve the computer lab for the activity.

You want to ensure that the students can continuously record the election results. The solution must also ensure that the students see the changes to the political map as the results come in.

What should you do?

A. Have the students input the election results to a spreadsheet application and create charts to present the results.

B. Have the students use a word processing application to create a table that a

- C. Have the students use a spreadsheet application to build a model presenting the election results.
- D. Have the students use a spreadsheet application to import charts from the political parties' Web sites, and then export the charts to a presentation.

Correct Answer: C Section: (none) **Explanation**

Explanation/Reference:

QUESTION 5

You are a teacher at a secondary school. You have 30 students in your class. Your classroom contains 10 laptop computers.

You plan a project for the students. You will provide the students with information in three different formats: audio recordings, photographs, and printed documents. The students must combine the information to produce graphs and charts in a detailed report.

What is the best way to organize the project?

A. Divide the project into a series of separate tasks. Allocate each task to a different student. Ask all of the students to create their own detailed report.

B. Create a rotation schedule for the classroom computers.

Ask every student to use their turn on the computer to produce their own detailed report.

C. Provide all of the information to all of the students.

Ask every student to explain how they will achieve the goals of the project.

D. Divide the class into 10 groups.

Ask the groups to work collaboratively to assemble the detailed report.

Correct Answer: D Section: (none)



Explanation

