

Health Issues and Problems in ICT

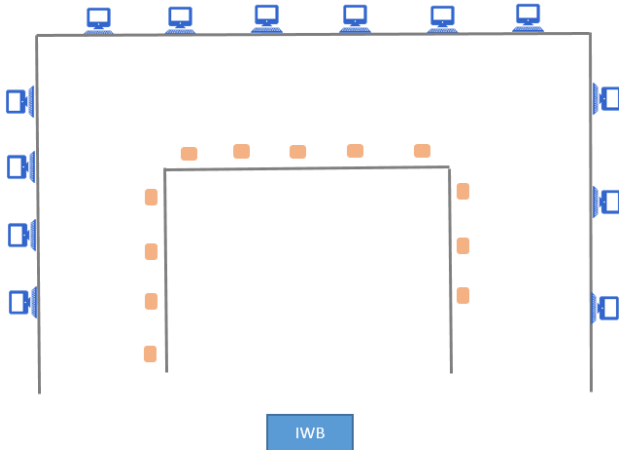

Lesson Study in a Secondary Classroom

Lesson Plan Trial 1

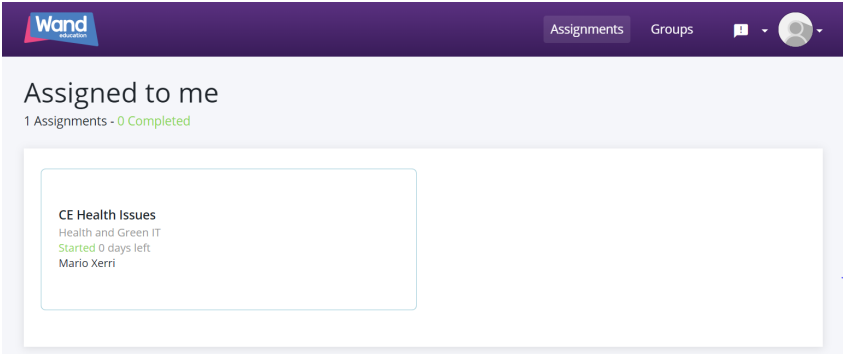
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Lesson Plan

Title	Health issues and problems in ICT
Subject	ICT
Year Group	Year 8
Time and duration	40 minutes
Lesson Purpose	<p>Recognise ways to help ensure a user's well-being when using a computer or device</p> <ol style="list-style-type: none">1. Take regular breaks,2. Ensure appropriate lighting,3. Posture,4. Equipment
Objectives Addressed	<p>By the end of the lesson students will be able to:</p> <ol style="list-style-type: none">1. Discover the various health issues in using a computer2. Learn about the negative impacts related to physical and mental health3. How to minimise health problems associated with computer use
Lesson Overview	<p>The use of computers and communications technology has increased our productivity. But the same time, their use has also had its negative impacts on our physical and mental health.</p> <p>Through this lesson, students will be exposed to negative issues that can impact their health. Students also learn how to be aware about minimising such impacts.</p>
Promoted Practices	<p>Throughout this lesson, students will be exposed to the following practices:</p> <ul style="list-style-type: none">● Class discussion● Group work (in pairs)● eLearning tool (Wand & iLearn)● Teacher acts as a facilitator

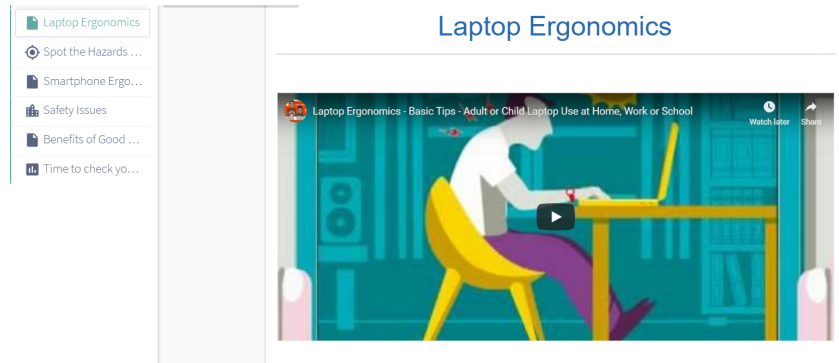
Resources	IWB, PowerPoint presentation, iLearn, Wand, video, picture
Classroom organisation	<p data-bbox="501 300 1374 412">During the first part of the lesson, students will sit in the form of a U shape, facing the IWB. In the second part of the lesson, the students shall go on the computers.</p> 
<p data-bbox="196 1077 466 1144">Part 1 - Introduction to the lesson</p> <p data-bbox="196 1238 284 1267">6 mins</p>	<p data-bbox="501 1077 1385 1227">Students sit in the inner U shape facing the IWB. The teacher opens the PowerPoint presentation, shows the students a picture and says “Look closely at the picture. You have 2 minutes to think on what the lesson is going to be about.”</p> 

	<p>The teacher gives feedback from the students and then tells them: “The picture contains a number of hazards that we should strive to avoid which may harm our health. Your task is to identify such hazards and correct them.”</p> <p>Students need to identify the following hazards:</p> <ol style="list-style-type: none"> 1. Seating posture - back is not supported 2. Elbows and wrist not in a straight (right angle) level 3. Forearms are not levelled with the same height of the table 4. Eye strain due to light from the window 5. Chair is not adjusted appropriately 6. Eyes are not levelled with the top of the monitor <p><i>If students do not identify all the six hazards in the picture, aid them with the question prompts accordingly.</i></p> <ol style="list-style-type: none"> 1. “What is wrong with the man’s seating position while using the computer?” 2. “Are the hands positioned appropriately in using the keyboard?” 3. “Does the window help or hinder monitor brightness?” 4. “Is the monitor set at a correct position?” <p>Using the above questions, the teacher starts a class discussion where students give out feedback.</p>
<p>Part 2 - Video</p> <p>5 mins</p>	<p>Teacher tells the students that we have become so used to sitting in uncomfortable positions when using the laptop or other device that we rarely notice the negative impact that we are doing on our health. Teacher then instructs students to team up in pairs and while watching the video look closely for points on how to avoid injuries. Students watch the following video clip which shows different ways one can get injured while using the computer and ways on how to avoid or minimise these injuries.</p> <p>https://www.youtube.com/watch?v=jqvtImP7CTE&fbclid=IwAR1QoyHAmasJzVCcROVsDLVVV-kOak85nLOk6PFqGK6cQBWCF1gnMgeqO8g</p> <p>After the video, give a couple of minutes for students to jot down the points they come up with from the video.</p>

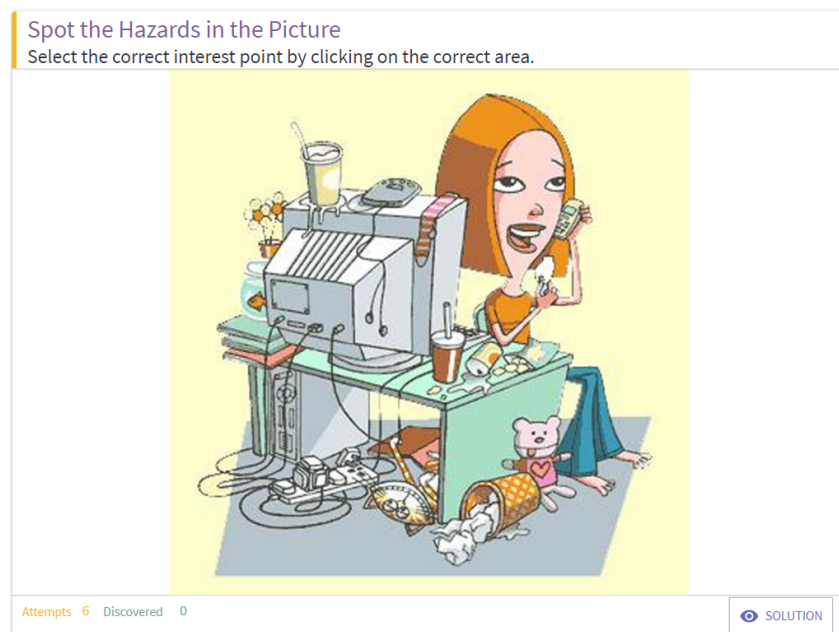
<p>Part 3 - Class discussion</p> <p>6 mins</p>	<p>When the teacher notices that the students have finished jotting down the points, the teacher says “After having some time to work in pairs it is now time to share what you have discussed with the rest of the class. One member from each team is invited to write one point you came up with on the IWB”. Thus, students have to work with the person that is sitting next to them and the person that works on the computer next to them.</p> <p>Some points that students can mention are:</p> <ul style="list-style-type: none"> ● Forearms roughly horizontal ● Footrest if required ● Desk about 70cm high ● Wrist support if required ● Eye level with top of screen ● Chair with adjustable seat height, adjustable back height and tilt ● Forearms roughly horizontal ● Take regular breaks <p>Students do not have to write the same point if it is already written on the IWB.</p>
<p>Part 4 - Wand activity</p> <p>15 mins</p>	<p>Students shift from the middle table and go on separate computers. During this exercise, students have the freedom of discussing in pairs if they would like to, however contributions need to be inputted from each student.</p> <p>Students:</p> <ol style="list-style-type: none"> 1. Access the link https://app.wand.education/login and 2. Login in with their ilearn details 3. Click on the CE Health Issues link  <p>The screenshot shows the Wand Education app interface. At the top, there is a purple header with the Wand Education logo on the left and navigation links for 'Assignments' and 'Groups' on the right. Below the header, the main content area is titled 'Assigned to me' and shows '1 Assignments - 0 Completed'. A single assignment card is displayed, titled 'CE Health Issues' with a sub-header 'Health and Green IT'. It indicates 'Started 0 days left' and lists the assigner as 'Mario Xerri'.</p>

Students will be directed to a page consisting of interactive multiple tasks.


The first task that students need to do is watch a video about **Laptop Ergonomics**



After watching the video, they progress to an interactive task **“Spot the Hazards in the Picture”** where the students have to identify the hazards in the picture. When they click on the image, a check button appears, students click on solution to check their answer.



The students move on to another game on safety issues where a phrase drops from the cloud and the students have to move the box with either “correct” or “incorrect”.

	<p>Safety Issues Classify the following as correct or not in terms of Safety Procedures related to ICT</p>  <p>The teacher goes around the lab to help and guide students where they have any difficulties.</p> <p>Students that may finish earlier than their classmates can log in on iLearn and do one of the activities on safety issues.</p>
<p>7 mins - Conclusion</p>	<p>Students remain seated in the outer U shape but turn to look at the IWB. To conclude the lesson the teacher asks the students the following questions:</p> <p>“What did you enjoy most about the lesson?”</p> <p>“What did you learn?”</p> <p>“Mention words or phrases that are related to safety while using the internet.”</p> <p>The teacher invites the students to go in the iLearn room where they can find some resources on the topic covered today. They can do these activities on the computer any mobile device from home.</p> <p><i>For precaution, just in case the iLearn page is not working, activities can also be accessed via these links:</i></p> <ul style="list-style-type: none"> • Activity 1: https://learningapps.org/display?v=p9kwr1tp318 • Activity 2: https://learningapps.org/watch?v=piupv70d518