G.C.E. O/L Grade 11 ICT · Lesson 5

5.4 Publishing a Website: Domain Names, Web Hosting, Uploading and Maintenance

Syllabus 14.4. A website on your own computer can be seen only by you. To let the whole world see it, you must **publish** it: get a **domain name**, rent space from a **web hosting** company (often an **ISP**), **upload** the files, switch on **HTTPS** and test it. After that the work is not over – a good site needs regular **maintenance**. This note explains each step with the Sunrise College site.

1. What does publishing mean?

Publishing a website means copying its files to a **web server** – a computer that is always on and connected to the Internet. When someone types your address, their browser asks the web server and it sends the pages back.



Figure 5.11 – The five steps to publish a website.

2. Domain names

A **domain name** is the easy-to-remember name of a website, such as **sunrise.lk**. Behind it is an **IP address** (numbers like 203.0.113.10). The **DNS** (Domain Name System) changes the name into the IP address, like a phone book. You **register** a domain for a yearly fee; Sri Lankan **.lk** names are registered with **LK Domain Registry**.

Ending	Meaning
.com	Company / general
.org	Organisation
.lk	Sri Lanka
.edu.lk	Sri Lankan education
.gov.lk	Sri Lankan government

3. Web hosting and ISPs

Web hosting is renting space on a web server so your site is online all day, every day. An **Internet Service Provider (ISP)** such as **SLT-Mobitel** or **Dialog** gives Internet connections, and many ISPs and hosting companies also sell **web hosting** plans. When you choose a plan, check the **storage**

© 2026 schoolict.net (Ruwan Mangala Suraweera) · All rights reserved

space, the **bandwidth** (data sent to visitors each month), **uptime** (for example 99.9%), **e-mail accounts**, free **SSL (HTTPS)**, **backups** and **support**.

Type of hosting	Features
Free hosting	No cost; adverts, little space, sub-domain
Shared hosting	Many sites on one server; cheap; good for schools
VPS / cloud	Own share of a server; grows with visitors
Dedicated server	A whole server for one site; costly

4. How much space does the school site need?

Add up the size of all files. Then compare with the hosting plan (1 GB = 1,048,576 KB).

Files	Count	Size each	Total
HTML pages	12	40 KB	480 KB
Photos	80	250 KB	20,000 KB
Videos	4	25,600 KB	102,400 KB
All files	96	–	122,880 KB = 120 MB

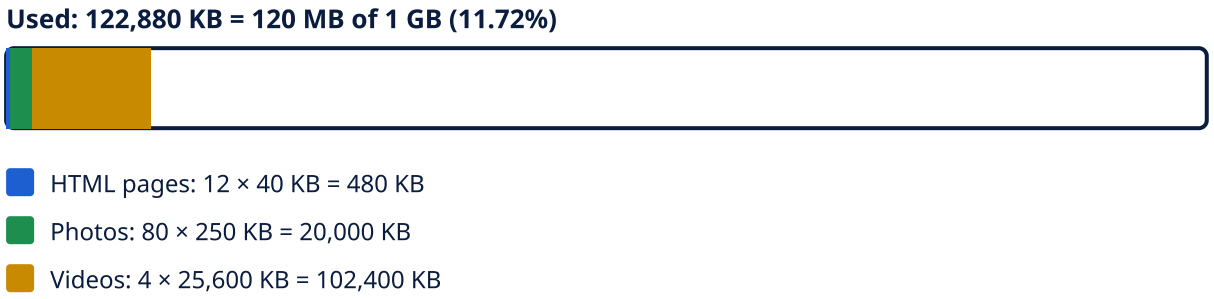


Figure 5.12 – The school site uses 120 MB, only 11.72% of a 1 GB plan. Videos take the most space.

Upload time: 120 MB = 960 megabits. At 8 Mbps: 960 ÷ 8 = **120 seconds** (= 2 minutes). **Bandwidth:** if 3,000 visitors each load 2 MB in a month, the site sends 3,000 × 2 = **6,000 MB** (about 6 GB).

> 💡 Remember: **1 byte = 8 bits**, so MB × 8 = megabits. Internet speed is in **bits** per second (Mbps), file size is in **bytes**.

5. Uploading the files

The host gives you a login. You upload the files to the server folder (often **public_html**) using one of these ways. Keep the **same folders and file names** you used on your computer, or the links and pictures will break. File names should be **lowercase with no spaces** (about-us.html, not About Us.html).

© 2026 schoolict.net (Ruwan Mangala Suraweera) · All rights reserved

FTP / SFTP program FTP / SFTP වැඩසටහන	**Host file manager** Host file manager
CMS dashboard CMS dashboard	**Git / builder** Git / builder

6. HTTPS and testing

HTTPS encrypts the data between the visitor and the server, using an **SSL/TLS certificate**. Browsers show a **padlock** and warn people about sites without it. Most hosts give a **free certificate** (Let's Encrypt). After uploading, **test** the site: open every page on a phone and a computer, click every link, check pictures, forms and spelling, and check the speed.

7. Making the site easy to find

- Give every page a clear **<title>** and a short description – this is what Google shows.
- Add the site to **Google Search Console** so Google finds all pages (this is part of **SEO**, search engine optimisation).
- Share the link on the school social media pages and in letters to parents.

8. Maintaining a website

Maintenance means keeping the site **correct, working and safe** after it is published. An old site with last year's dates makes people stop visiting. Make a timetable and share the jobs among the team.

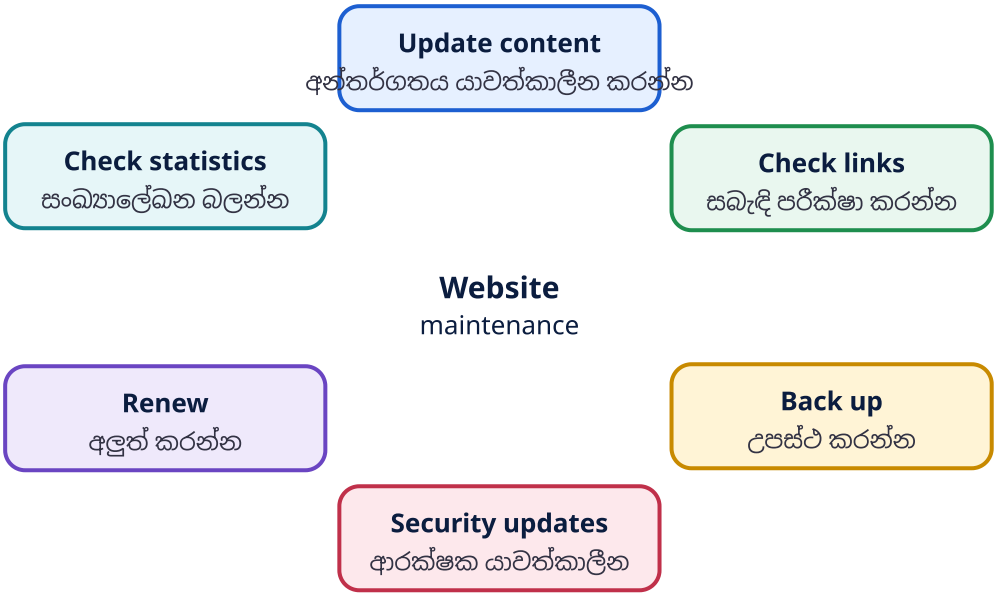


Figure 5.13 – Website maintenance is a cycle of regular jobs.

Job	What to do

© 2026 schoolict.net (Ruwan Mangala Suraweera) · All rights reserved

Update content	News, dates, results
Check links	Fix broken links (404)
Back up	Copy files and database
Security updates	Update CMS, plugins, passwords
Renew	Domain, hosting and SSL
Check statistics	Visitors, speed, errors

💡 A **404 error** (“Page not found”) means a link points to a page that is missing or was renamed. Check links after every change.

9. Safe and legal publishing

- Get **permission** before putting students’ photos or names online.
- Never publish phone numbers, home addresses or marks of individual students.
- Use strong passwords and **two-step verification** for the hosting and CMS logins.
- Respect **copyright**: use your own or licensed media and give credit.

NEW 2026 **2026:** Many school and personal sites now use **free static hosting** (GitHub Pages, Netlify, Cloudflare Pages) with free HTTPS, or a website builder that hosts for you. Google ranks sites by **mobile speed and HTTPS**, so small images and a padlock matter. AI tools can check broken links, suggest alt text and write page descriptions, but a person should review them.

Key Words

Publishing – Copying website files to a web server so anyone can see them.

Web server – A computer, always online, that sends web pages to browsers.

Domain name – The easy name of a website, e.g. sunrise.lk.

DNS – Domain Name System: changes domain names into IP addresses.

Web hosting – Renting space on a web server for a website.

ISP – Internet Service Provider: gives Internet access and often hosting.

Bandwidth – The amount of data a site may send to visitors each month.

Uptime – The percentage of time a site is online.

FTP – File Transfer Protocol: used to upload files to a server.

HTTPS – Secure HTTP: encrypts data using an SSL/TLS certificate.

Maintenance – Keeping a site up to date, working and safe.

404 error – Page not found: a broken or wrong link.

© 2026 schoolict.net (Ruwan Mangala Suraweera) · All rights reserved

Sample Q&A

1. What is web hosting?

> **Answer:** Renting space on a web server so the site is online all the time.

2. What does DNS do?

> **Answer:** It changes a domain name into the IP address of the server.

3. How big are all the school site files?

> **Answer:** 122,880 KB = 120 MB.

4. How long does the upload take at 8 Mbps?

> **Answer:** 120 × 8 = 960 megabits ÷ 8 = 120 seconds.

5. Why should a website use HTTPS?

> **Answer:** It encrypts data, shows a padlock and browsers trust it.

6. Give three website maintenance jobs.

> **Answer:** Any three: update content, check links, back up, security updates, renew domain and hosting, check statistics.

MCQ

1. Publishing a website means

A. copying its files to a web server
B. e-mailing the code to friends
C. saving it on a pen drive
D. printing every page

2. Which changes sunrise.lk into an IP address?

A. FTP
B. DNS
C. HTML
D. CMS

3. Which domain ending is for Sri Lankan education?

A. .com
B. .org
C. .edu.lk
D. .gov.lk

© 2026 schoolict.net (Ruwan Mangala Suraweera) · All rights reserved

4. Renting space on a server so a site is always online is

A. web browsing
B. web design
C. web hosting
D. web searching

5. SLT-Mobitel and Dialog are examples of

A. search engines
B. browsers
C. CMSs
D. ISPs

6. The total size of the school site files is

A. 100 MB
B. 1 GB
C. 120 MB
D. 19.53 MB

7. Which files take the most hosting space?

A. HTML pages
B. CSS files
C. Photos
D. Videos

8. Uploading 120 MB at 8 Mbps takes about

A. 120 seconds
B. 960 seconds
C. 15 seconds
D. 8 seconds

9. The data a host lets your site send to visitors each month is

A. storage
B. bandwidth
C. uptime
D. domain

10. A program used to upload files to a web server is

A. FileZilla (FTP)
B. Audacity
C. Excel
D. Notepad

© 2026 schoolict.net (Ruwan Mangala Suraweera) · All rights reserved

11. The padlock in the address bar means the site uses

A. HTML4
B. FTP
C. DNS only
D. HTTPS

12. A 99.9% uptime means the site is

A. 99.9% faster
B. visited by 99.9% of people
C. online almost all the time
D. 99.9% full

13. A "404 Page not found" error is fixed by

A. correcting the broken link
B. buying more storage
C. changing the colour scheme
D. adding more videos

14. Which is a website maintenance job?

A. Choosing the audience
B. Backing up files and the database
C. Writing the purpose
D. Drawing the first wireframe

15. Before putting a student photo on the school site you should

A. remove the alt text
B. get permission
C. add the home address
D. make it bigger

Structured Questions

1. List the steps to publish a website. *(4 marks)*

> Make and test the files; register a domain name; choose a web host (ISP); upload with FTP or the file manager; switch on HTTPS and test online.

2. Give four things to check when choosing a web hosting plan. *(2 marks)*

> Storage space, bandwidth, uptime, free SSL, e-mail accounts, backups, support, price (any four).

3. Calculate the space needed for the school site and the percentage of a 1 GB plan used. *(2 marks)*

> 12 × 40 + 80 × 250 + 4 × 25,600 = 122,880 KB = 120 MB; 122,880 ÷ 1,048,576 × 100 = 11.72%.

© 2026 schoolict.net (Ruwan Mangala Suraweera) · All rights reserved

4. What is the role of an ISP in publishing a website? *(2 marks)*

> It connects users and servers to the Internet, and often rents web hosting space, domain names and e-mail.

5. Why is website maintenance needed? Give three tasks. *(2 marks)*

> To keep the site correct, working and safe so visitors return. Tasks: update content, fix broken links, back up, install security updates, renew domain/hosting.

Summary

- Publish = copy files to a web server that is always online.
- Domain name (sunrise.lk) → DNS → IP address.
- Web hosting from ISPs or hosting companies: storage, bandwidth, uptime, SSL.
- Hosting types: free, shared, VPS/cloud, dedicated.
- School site: 120 MB of 1 GB; upload 120 s at 8 Mbps.
- Upload with FTP/SFTP (FileZilla), file manager or CMS; keep folders and names.
- HTTPS padlock; test on phone and PC; add to Google Search Console.
- Maintain: update, check links, back up, security, renew, statistics.

MCQ answer key – 5.4

1. **A** – Files on a web server can be seen by anyone online.
2. **B** – DNS works like a phone book for the Internet.
3. **C** – .edu.lk = education in Sri Lanka.
4. **C** – A host keeps your files online 24 hours a day.
5. **D** – They are Internet Service Providers.
6. **C** – 122,880 KB ÷ 1024 = 120 MB.
7. **D** – 4 videos × 25,600 KB = 102,400 KB.
8. **A** – Change MB to megabits (× 8), then divide by the speed.
9. **B** – Bandwidth = data transferred.
10. **A** – FileZilla is an FTP/SFTP program.
11. **D** – HTTPS encrypts data with SSL/TLS.
12. **C** – Uptime is the share of time the server is working.
13. **A** – 404 means the link points to a missing page.
14. **B** – The others are planning steps done before building.
15. **B** – Privacy and safety come first.

© 2026 schoolict.net (Ruwan Mangala Suraweera). All rights reserved.