



























# Communication and Collaboration: Exploring Email

<b>National Curriculum</b> Understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.		<b>Lesson Duration</b> It is estimated that this lesson will take approximately 60 minutes.
<b>Aim</b> To understand what email is and how it is used.		
<b>Success Criteria</b> I can identify the features of email.  I can understand that emails are used as a method of online communication.  I can explain how to be responsible and safe when using email.	<b>Key Vocabulary</b> ARPANET, attachment, domain, email, inbox, Internet, link, network, recipient, reply, sender, server, protocols, email client, cyber-attack, cybercriminal, spam, email provider.	
<b>Resources</b> <a href="#">Lesson Pack</a>  Highlighters	<b>Preparation</b> <a href="#">Email Feature Spotter Activity Sheet</a> - one per pair  Differentiated <a href="#">Spam Scenarios Sorting Activity Cards</a> - one set per pair	

<b>Prior Learning:</b> The children may have been introduced to email in what email is and using email safely. The children should also have an understanding of concepts such as ARPANET and servers, which were explored in	They will have had a brief overview of
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## Learning Sequence:

	<b>Remember It:</b> Ask the children to recap what they learnt in the last lesson. The children are to choose a method of online communication and tell their partner two positives and two negatives.	
	<b>What Is Email?:</b> Ask the children to discuss what they already know about email. Using the <a href="#">Lesson Presentation</a> , explain what email is and what email clients are.	
	<b>How Does It Work?:</b> Use the <a href="#">Lesson Presentation</a> to explain the three different protocols in the email's journey from sender to recipient. It may be worth mentioning that POP3 is known as the most current version of POP. Then, discuss the journey of the email.	
	<b>Why Do We Use Email?:</b> Ask the children to consider why we use email and then use the <a href="#">Lesson Presentation</a> to explain the reasons. <b>Can children think of reasons why they would want to send an email?</b> Ask the children to discuss with a partner the advantages of email. Share ideas with the class and then use the next slide to explore these advantages and see how many they identified.	
	<b>Email Addresses:</b> Use the <a href="#">Lesson Presentation</a> to discuss what an email address is and explain the various components that make up an email address.	
	<b>Features of Email:</b> Using the <a href="#">Lesson Presentation</a> , briefly look at the email format example and identify the name of each feature. You can do this by clicking on each feature. The aim here is to introduce the features. This is a great opportunity to assess what the children already know about features of an email.	
	<b>Feature Spotter:</b> Using the <a href="#">Email Feature Spotter Activity Sheet</a> , children can work with a partner to use what they have learned and spot the features within the example on the activity sheet. Give each pair a highlighter so they can easily highlight the features. Children could feedback to the class.	
	<b>Is It Safe?:</b> In talk partners, ask the children to discuss whether they think email is safe to use. Use the question prompts on the <a href="#">Lesson Presentation</a> to guide the discussion.	

	<p><b>Spam and Phishing:</b> Discuss what spam is and its dangers, particularly phishing, using the <b>Lesson Presentation</b>. Discuss the clues for deciding if an email is safe to open. Discuss the warning signs and encourage children, if they see these things, to be cautious and ask a trusted adult if they are unsure. Ask the children to think about how to spot spam. Discuss the top tips, can the children think of any of their own?</p>	
	<p><b>Spam Scenarios Sorting Activity:</b> Children to work with a partner, using the differentiated <b>Spam Scenarios Sorting Activity Cards</b>, to discuss and sort the scenarios, deciding whether or not they would trust the email. Encourage the children to explain their reasoning. Once completed, go through each scenario as a class. This is a good opportunity for discussion and comparing decisions.</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div>  <p>Children use the * cards and work with a partner to discuss and sort the scenarios, deciding whether they would trust the email.</p> </div> <div>  <p>Children use the ** cards and work with a partner to discuss and sort the scenarios, deciding whether they would trust the email.</p> </div> <div>  <p>Children to use the ** cards and work with a partner to discuss and sort the scenarios, deciding whether they would trust the email. They must then use the blank cards to write their own scenarios for a friend to sort.</p> </div> </div>	
	<p><b>Should You Have an Email Address?:</b> Discuss age restrictions on certain email sites. Ensure that children know not to send or receive emails without a trusted adult's consent.</p>	

**Exploreit**

**Actit:** Children to work in groups to act out the journey of the email. It is recommended groups of seven or eight to complete the activity. Each child can assume the role of an aspect of the journey and one child can play the role of the 'email', making its journey from the sender and travelling through the various protocols and servers to arrive at the recipient.

**Debateit:** Write a list of the advantages and disadvantages of using email.

**Assessment Notes:**



# Computing

## Communication and Collaboration

# Exploring Email



# Question Marks

**This is Quizby.  
He is a question mark who  
loves to ask questions.**



When you see a question mark icon like this in the **Lesson Presentation**, it can be clicked on to reveal one of Quizby's questions.



The questions that appear next to these question marks will help you to think about the key learning throughout the lesson.

## **Aim**

- To understand what email is and how it is used.

## **Success Criteria**

- I can identify the features of email.
- I can understand that emails are used as a method of online communication.
- I can explain how to be responsible and safe when using email.



## Remember It

Can you remember the different methods of online communication we looked at last lesson?

Choose one and tell your partner two positives and two negatives about it.



# What Is Email?

Email is short for electronic mail. It can also sometimes be written as e-mail.



Email is a way in which we send and receive messages over the Internet. They could be considered as the digital equivalent of a letter. Emails can be sent to anyone around the world, provided you both have an Internet connection and an email address. Emails usually arrive at the recipient's inbox almost immediately.

In 1971, Ray Tomlinson discovered the system of sending mail between users across the ARPANET. Before this, email existed but it was only possible to receive emails to the same computer they were sent from.





## What Is Email? Email Clients

Email clients are computer programs, which allow you to send and receive emails. This is your email provider.



With this, you can access your inbox, which is a folder where your emails arrive and wait before they are opened. You can also save emails to your drafts, which are emails you have started to write but have not finished or are not yet ready to send. You will also find a folder which contains all of the emails you have sent. The email client also allows you to search your inbox and manages your attachments.

Email clients can be app-based, web-based or both.

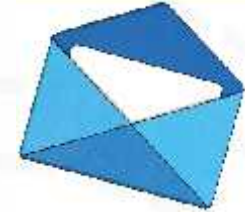
Can you think of any email clients?

Popular email clients include: Microsoft Outlook, Gmail, Mozilla Thunderbird and Yahoo! Mail.

# How Does It Work? Email Protocols



Email protocols are a set of rules that allow emails to be sent and received across the Internet.



- Simple Mail Transport Protocol (SMTP): a set of rules that allows an email to be sent from one email account to another over the Internet.

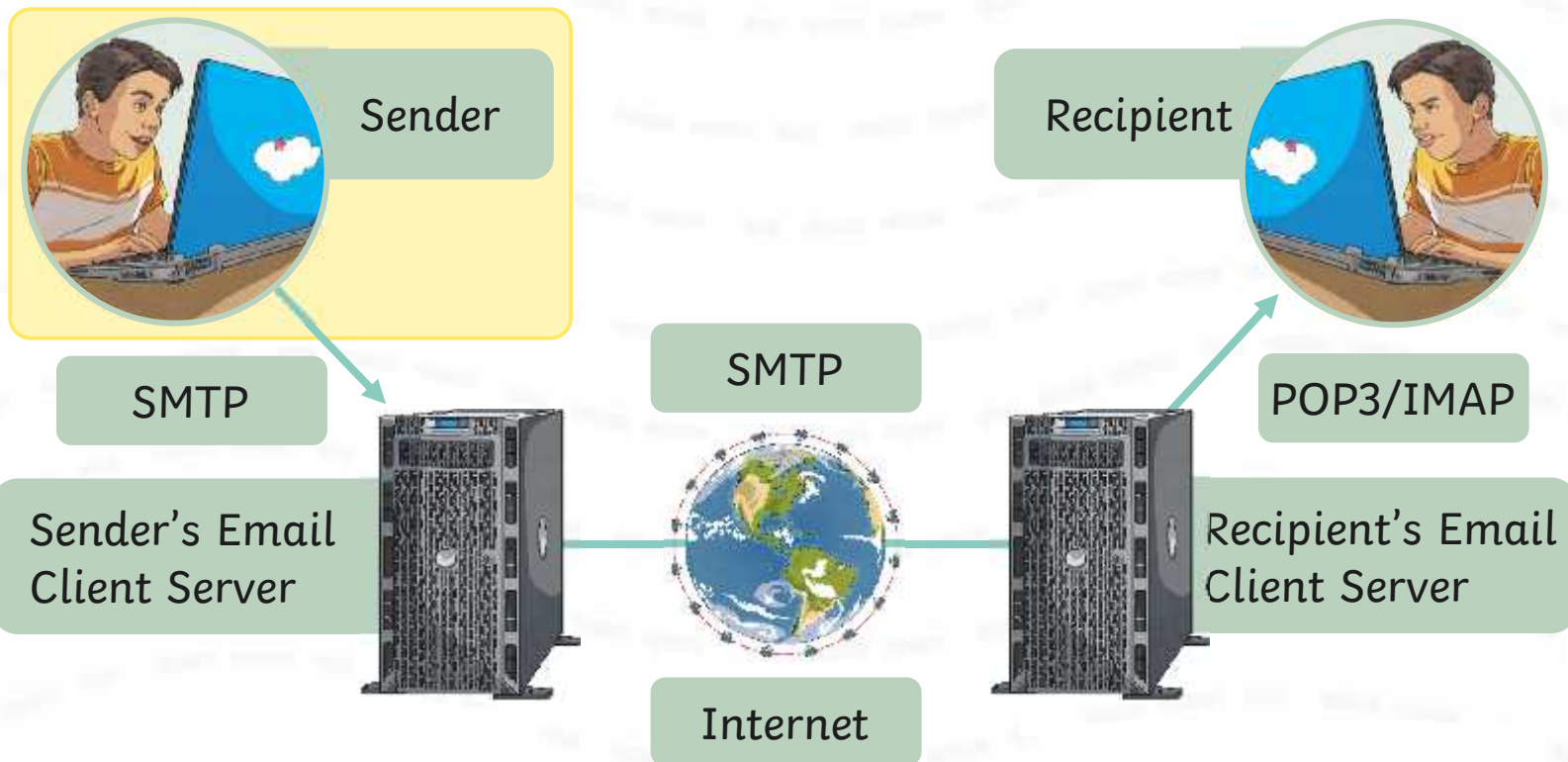
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- Post Office Protocol (POP3): a set of rules that allows an email to be received. POP3 is used when receiving emails through an app-based email client. This also means you can access existing emails in your inbox even if you don't have an Internet connection.

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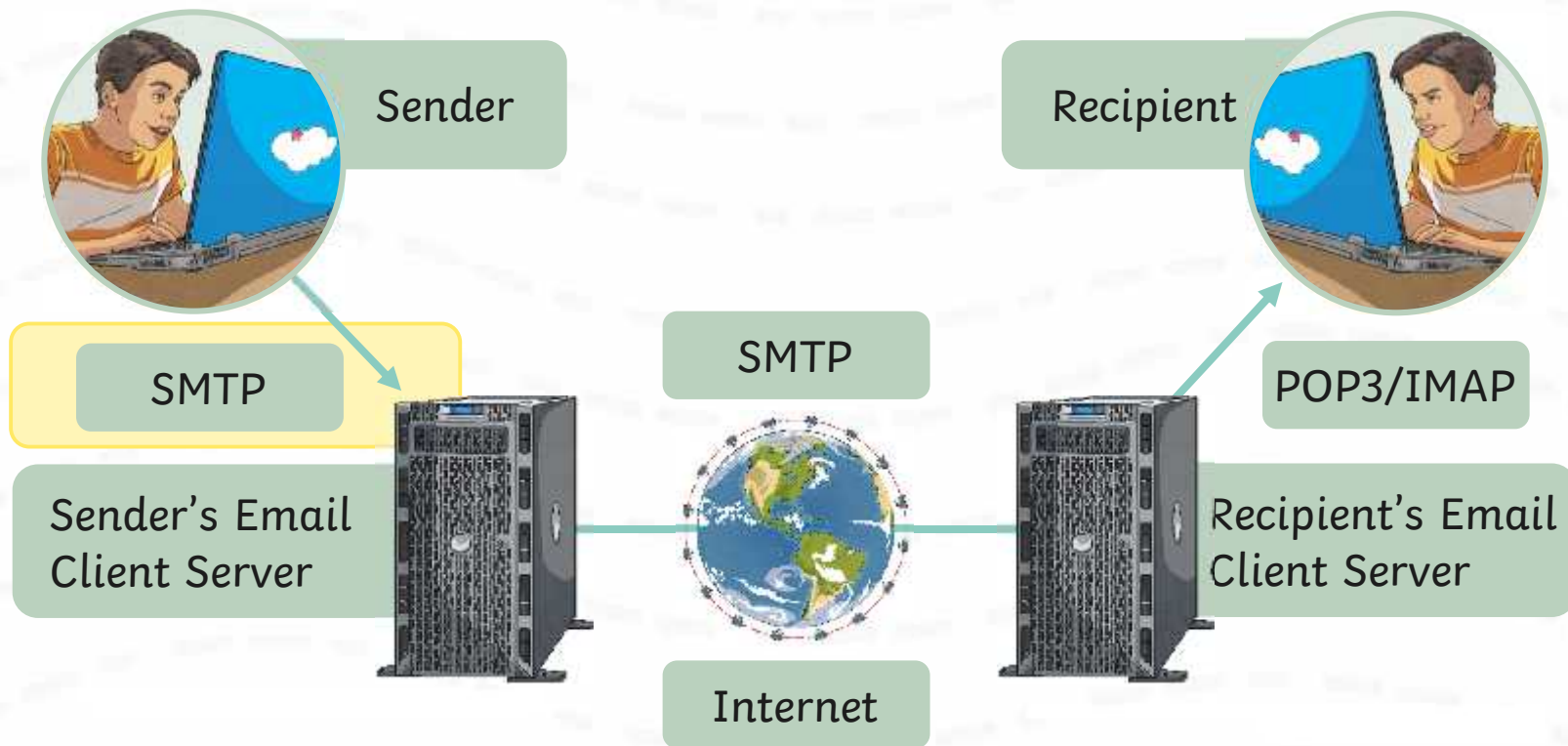
- Internet Message Access Protocol (IMAP): a set of rules that allows an email to be received. IMAP is used when receiving emails through a web-based email client and an Internet connection is needed to access the email account.

# How Does It Work? The Journey of the Email



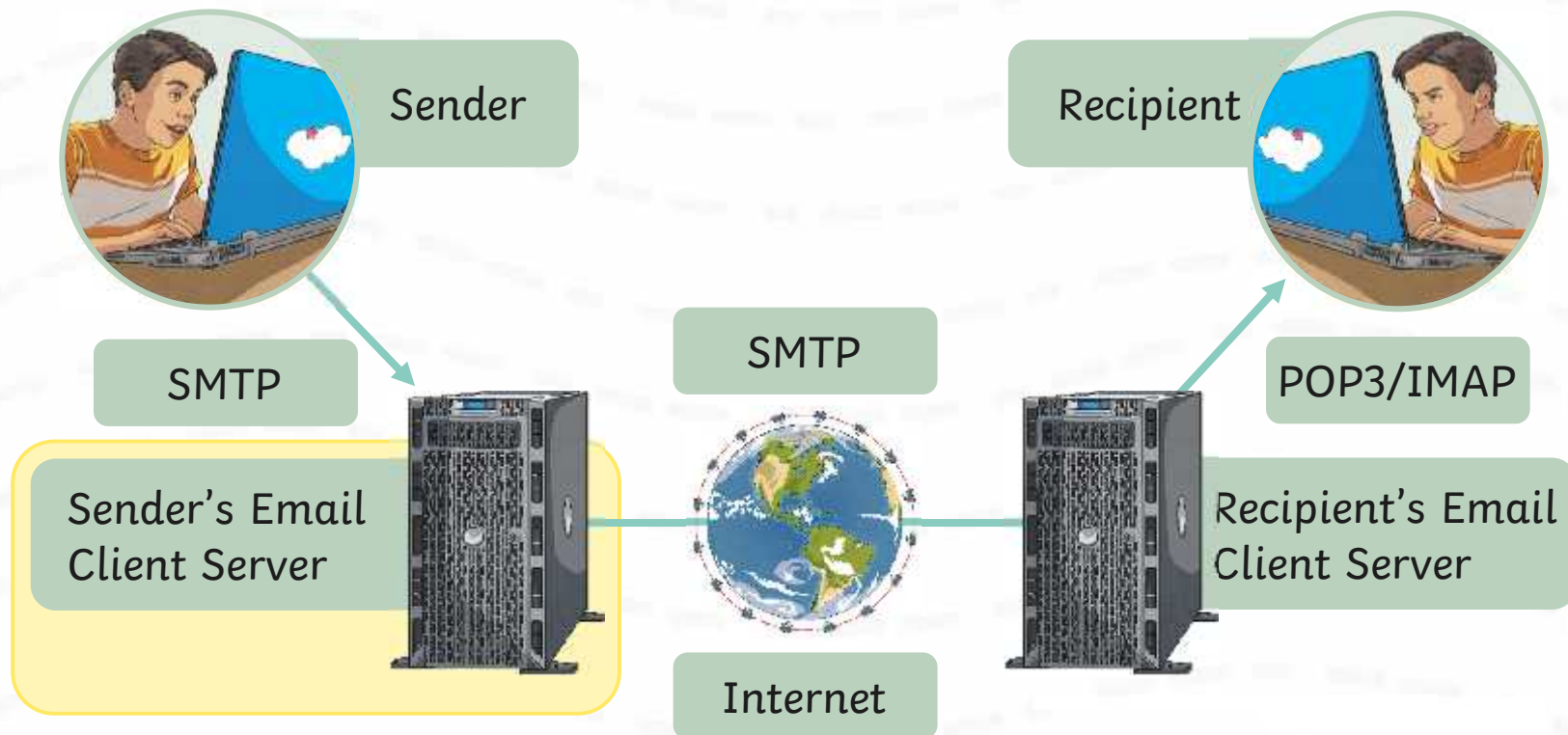
The sender presses the send button.

# How Does It Work? The Journey of the Email



The email travels via SMTP protocols...

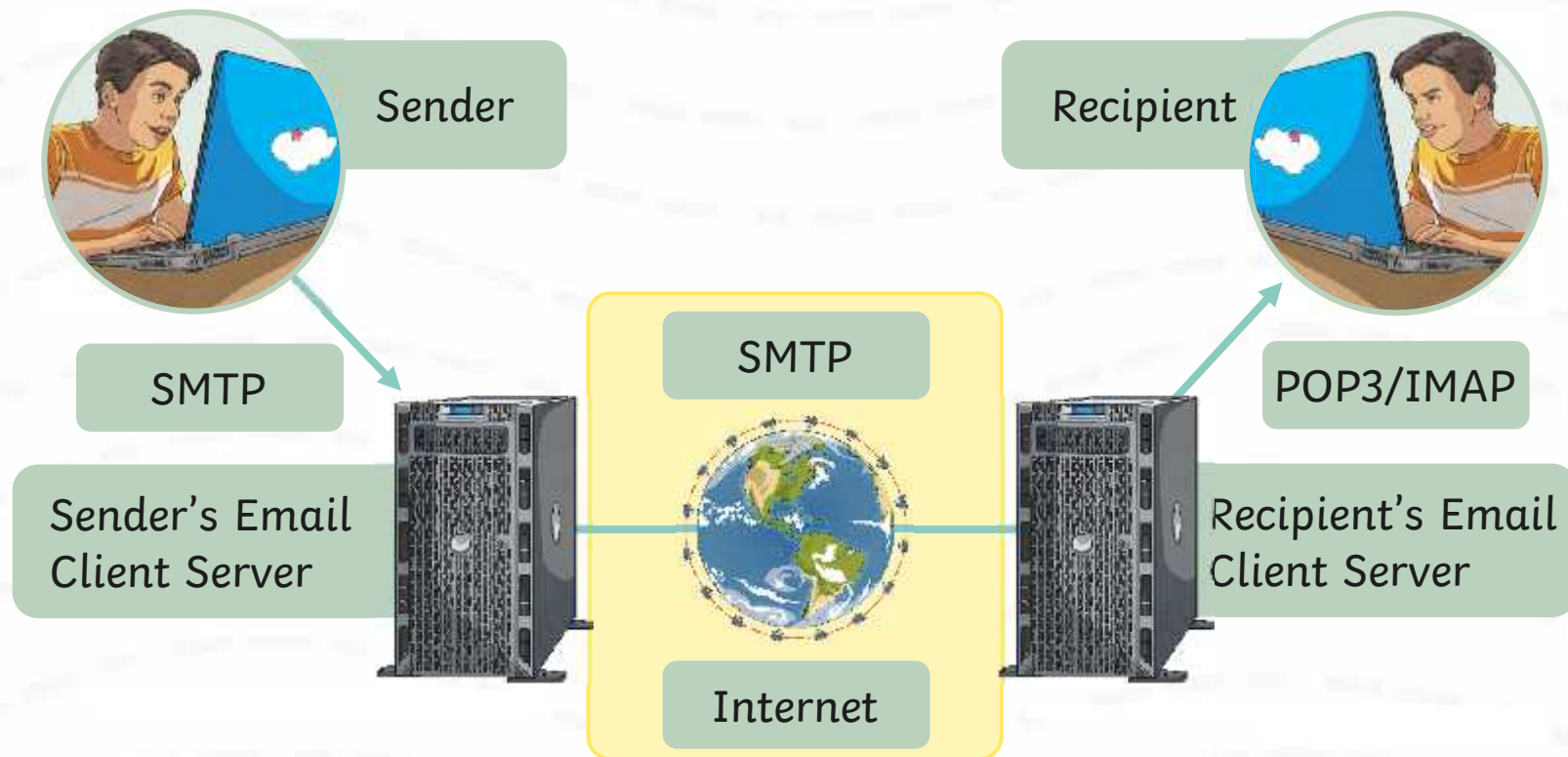
# How Does It Work? The Journey of the Email



...to arrive at the sender's email client server.



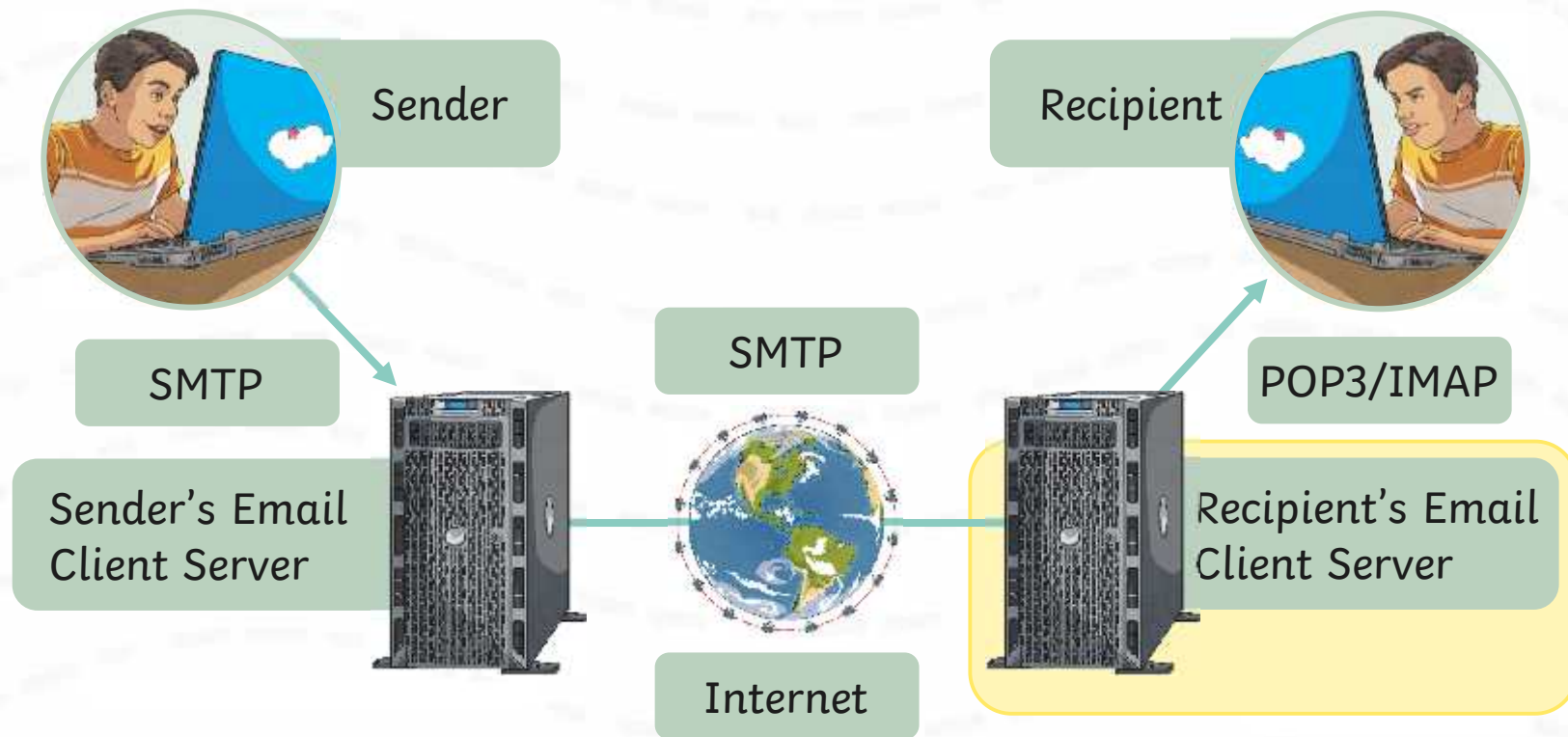
# How Does It Work? The Journey of the Email



It then travels via SMTP protocols again across the Internet...

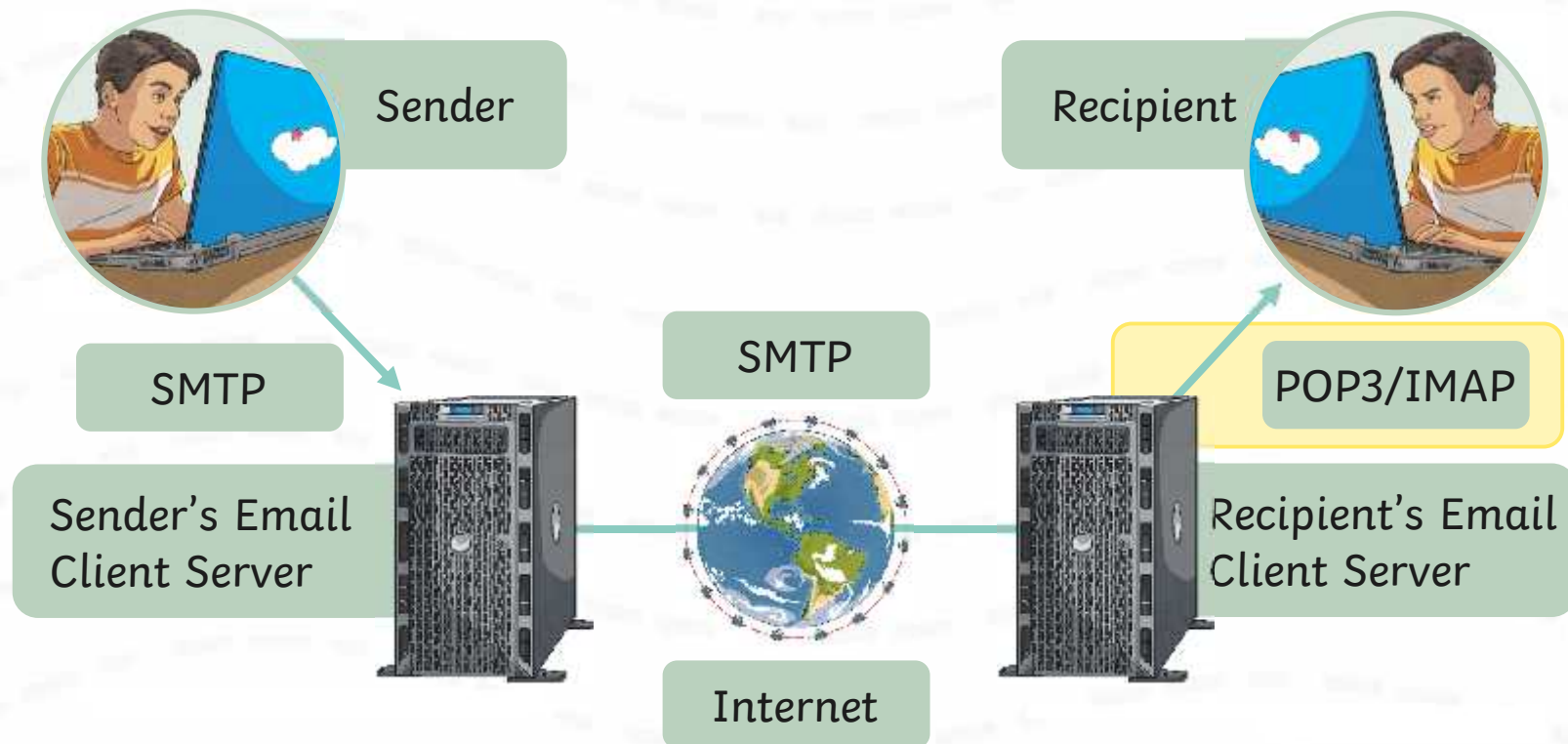


# How Does It Work? The Journey of the Email



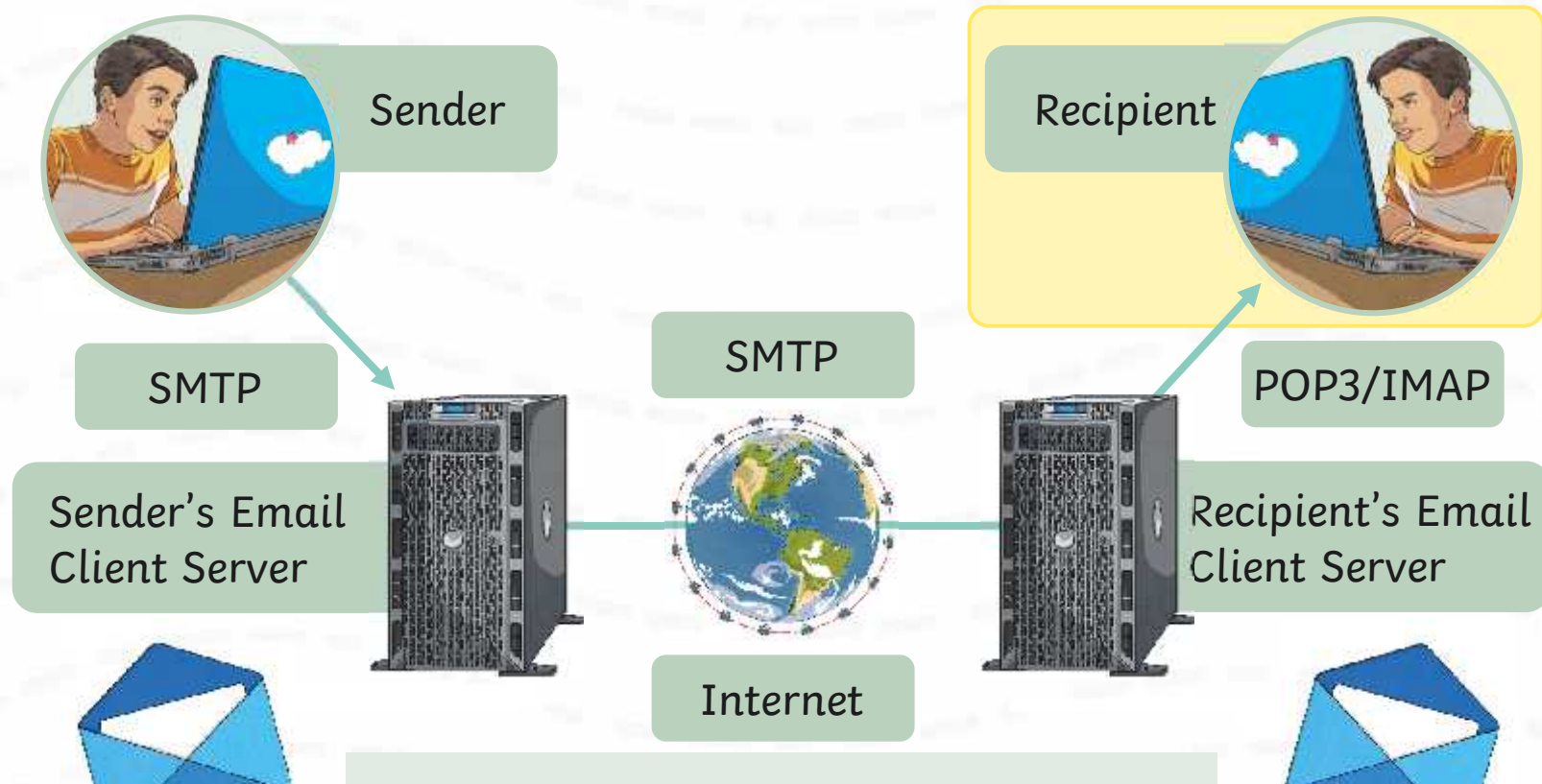
...to arrive at the recipient's email client server.

# How Does It Work? The Journey of the Email



The email then travels via POP3 or IMAP protocols...

# How Does It Work? The Journey of the Email



...to arrive at the recipient's inbox.

a network, e.g. to desktop computers or laptops.

# Why Do We Use Email?

**Think about it:**

Why is email used?



Why might emails be sent instead of a text message for example?

Who uses email?



When is it appropriate to send an email?

X

Can you think of reasons why you would want to send an email?



## Why Do We Use Email?

Email is used for a variety of purposes. Emails can be both formal and informal ways to communicate.

It is used by lots of companies as a handy method of formal online communication. They can use email to send important documents, links and files.

Emails can be sent to multiple people at once, which can be very useful for companies. Some companies also use email to communicate with their customers. They may send newsletters, invoices or advertisements.

As for informal uses, people can use email to communicate with their friends and family.





## Why Do We Use Email?: The Advantages

Think about the advantages of using email. Discuss with a partner.

Cheaper than sending a letter, especially when the destination is in another country.





## Why Do We Use Email?: The Advantages

Think about the advantages of using email. Discuss with a partner.

Sends almost immediately, providing the sender and the recipient both have a good Internet connection.



# Why Do We Use Email?: The Advantages

Think about the advantages of using email. Discuss with a partner.

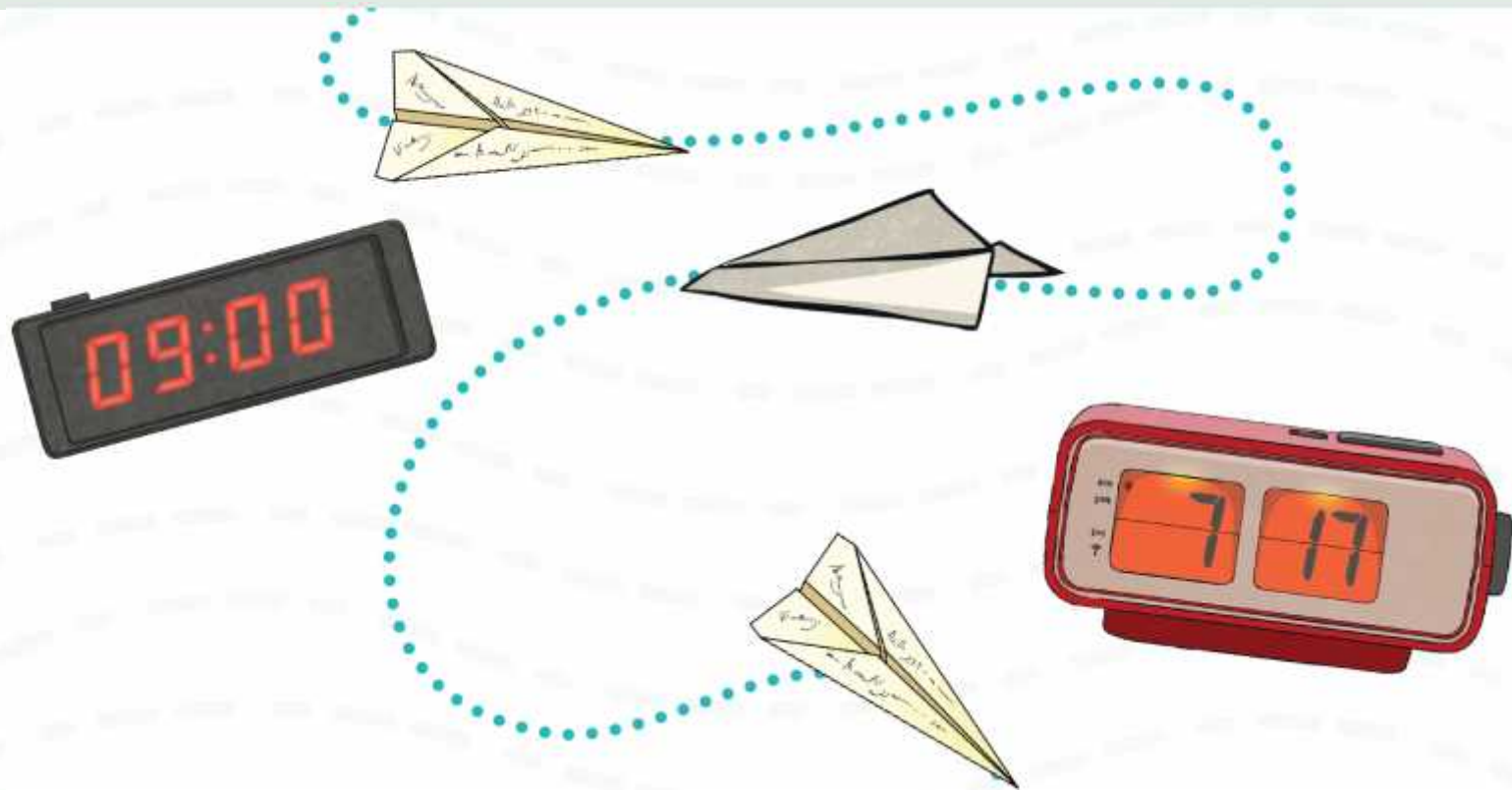
Timing is flexible as emails can be sent and responded to at any time.



# Why Do We Use Email?: The Advantages

Think about the advantages of using email. Discuss with a partner.

Can be scheduled to be sent at a suitable date and time.



# Why Do We Use Email?: The Advantages

Think about the advantages of using email. Discuss with a partner.

Include attachments, such as important documents, photos or files.



# Why Do We Use Email?: The Advantages

Think about the advantages of using email. Discuss with a partner.

Can be sent to multiple people at once, which saves time.





# Why Do We Use Email?: The Advantages

Think about the advantages of using email. Discuss with a partner.

Did you think of any more?  
Can you think of any possible disadvantages?





# Email Addresses

To be able to send or receive an email, you need an email account. There are lots of email clients which allow you to do this and many are free.



Can you remember the names of some email clients?



Email accounts provide you with an email address. This is similar to a home address which is used to send and receive letters.

Email addresses do not contain spaces and are not case sensitive.

# Email Addresses

This is what an email address looks like:

becky@twinkl.school.co.uk

The first part of the email address identifies the person or organization.

The final part of the email address contains the email domain. This is typically where the email account belongs to. For example, a Gmail account email domain will end in gmail.com and an Outlook account email domain will typically end in outlook.com or outlook.co.uk.

When an email domain ends in **.co.uk**, this means that the email address is UK-based. Other countries have their own codes. For example, if an email domain ends in **.fr**, this shows it is based in France.

# Features of Email

These are many of the features you will find in an email:

To:

CC:

BCC:

Subject

Attach

Link

Repl

Forward






Can you spot any similar features between an email and a letter?  
Are there any differences?

We will look at these features in more detail in the next lesson.

Send

# Feature Spotter

Can you identify the features on this email?  
Can you spot any other features or icons that you may recognise?

To:		
CC:		
BCC:		
Subject: <b>Party Invitation</b>		
Attach  Link 		
  		
<p>Hello,</p> <p>I would like to invite you to my birthday party this weekend. Please open the attachment for the invitation. I hope you can make it!</p> <p>From,  Vanessa</p>		
<table border="1"><tr><td>Send</td><td>▼</td></tr></table>	Send	▼
Send	▼	

# Is Emailing Safe?

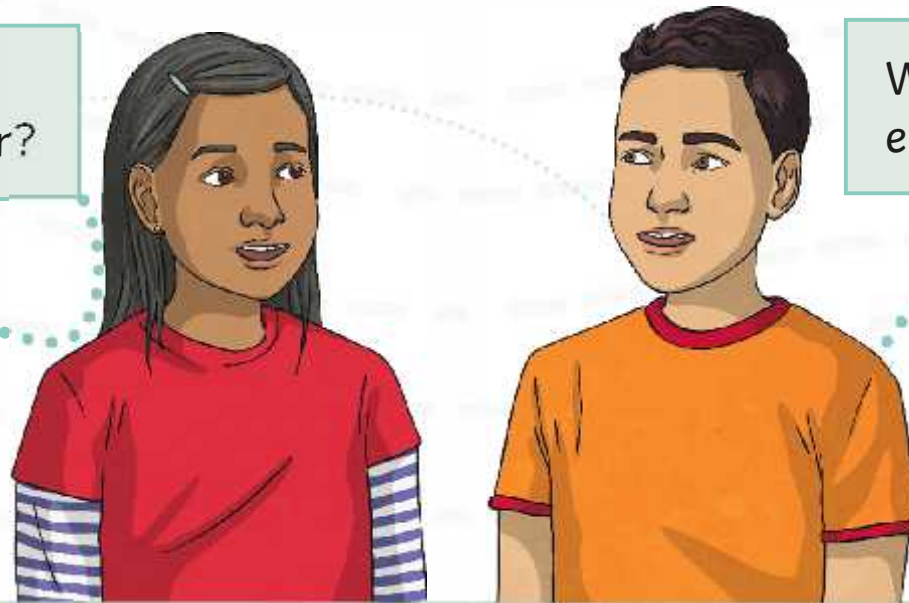
Discuss with a partner.

Could other people see it?

Is it always safe to open an email?

Is it safer than sending a letter?

What could an email contain?



# Spam and Phishing

When somebody is being attacked online, the cybercriminal could:

- steal your bank card details and other payment information;
- steal your personal information, such as your name or your address;
- steal your money by making you click on a false link to pay for something;
- steal your passwords and login information;
- infect your digital device with a virus.



is a cyber-attack where information is stolen from you by making you trust a website or email.



# Spam and Phishing: Stop, Read and Assess

When deciding if an email is safe to open, you must **Stop, Read and Assess** the email. Check if you know the sender by checking the email address and assess if the subject text looks accurate.

## Warning Signs

One or more of these things might mean an email is unsafe to open:

- an unknown or strange-looking email address
- an email address pretending to be something else (e.g. instead of the address might say
- spelling mistakes in the subject or a strange subject title
- strange-looking fonts, characters, symbols or an unfamiliar language

## Spam and Phishing: Top Tips for Spotting Spam

If you think that the sender and subject title look reliable and decide to open the email:

Are they trying to sell you something and does it sound too good to be true?

Hover over hyperlinks.

Look at attachments before downloading or opening.

Look out for incorrect grammar.

Are they asking you to share sensitive details? Never give out personal information, such as bank details or your address.

Is the email written using strange-looking fonts, characters or symbols? Is it written in an unfamiliar language?

Can you think of any other top tips for spotting spam?

Always tell a trusted adult if you have any concerns.



# Spam Scenarios Sorting Activity

Work with a partner to sort the scenarios.  
Decide whether or not you would trust the email.

Trust

Do Not Trust

The activity features ten email scenario cards arranged in a grid. Each card is designed to look like a real email in a web browser or email client. The scenarios include:

- Scenario 1:** An email from 'hachig@trunkschool.co.uk' with a subject line 'Subscribe to our newsletter' and a link to 'hachig@trunkschool.org.uk'.
- Scenario 2:** An email with a superhero image and a '50% OFF' discount code.
- Scenario 3:** An email with a subject line 'Your name has come up on a list' and a '50%' discount code.
- Scenario 4:** An email with a subject line 'We'd like to reward you a reward' and a '50%' discount code.
- Scenario 5:** An email with a subject line 'From London based' and a 'Subject: Computer Issues'.
- Scenario 6:** An email with a subject line 'My Sports Gear' and a large empty box for a response.
- Scenario 7:** An email with a subject line 'Click on this email to win an amazing prize!!!!' and a '50%' discount code.
- Scenario 8:** An email with a subject line 'Click on the live page' and a '50%' discount code.
- Scenario 9:** An email with a subject line 'My Sports Gear' and a large empty box for a response.
- Scenario 10:** An email with a subject line 'My Sports Gear' and a large empty box for a response.

## Should You Have an Email Address?

It is important to remember that most email providers have age restrictions. Usually, you cannot have your own email address until you are thirteen years old.

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If you need to use an email address to contact someone, you could ask for permission to do it with a trusted adult's email address.

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You might also be able to have an email address on a closed network. Your school may set up an email address for you which you can use to email other people in your school.

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On a closed network, only authorised computers or email addresses would be able to connect. This means you would only be able to send or receive emails from the addresses that are part of the school network.

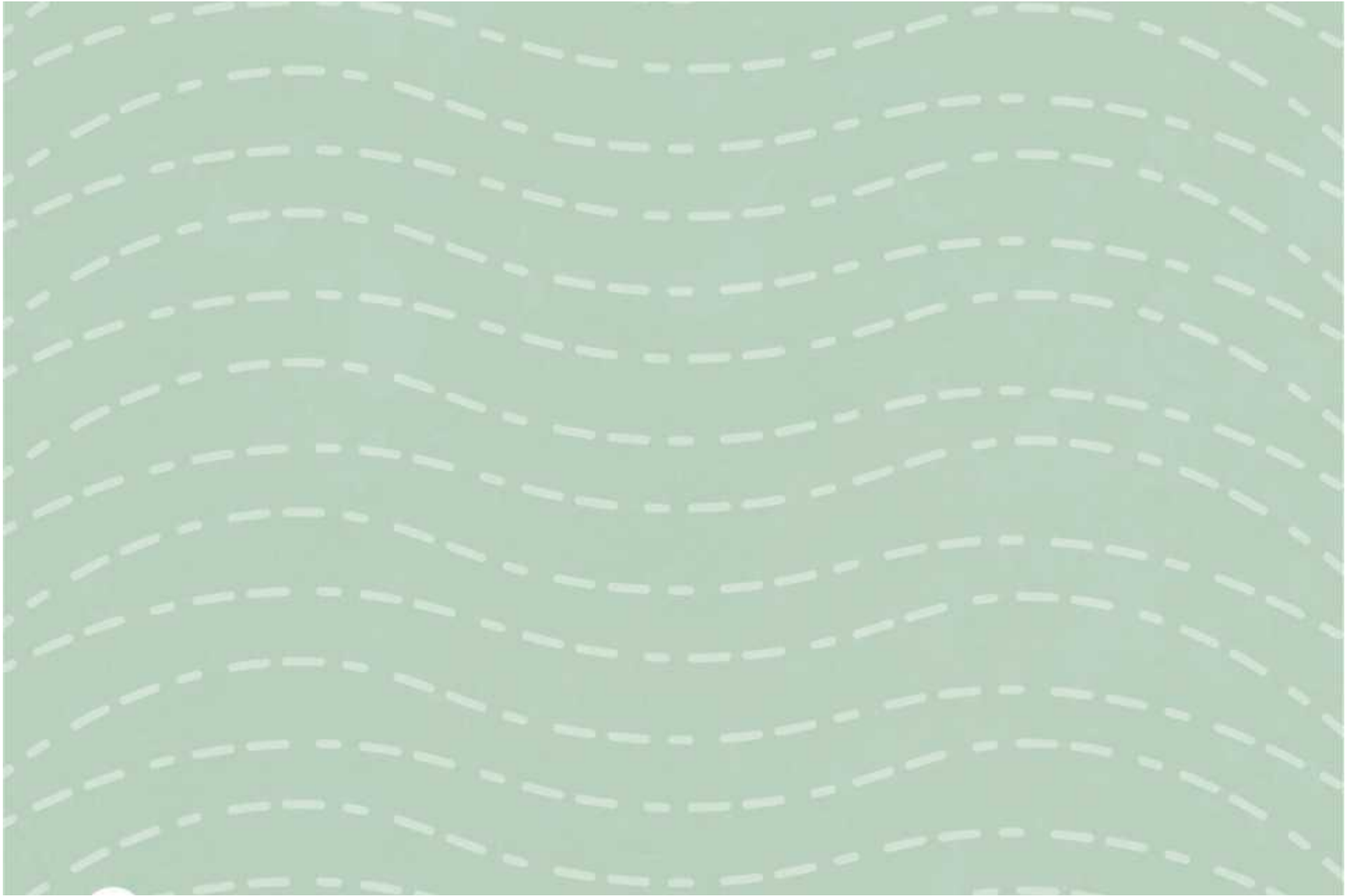
## **Aim**

- To understand what email is and how it is used.

## **Success Criteria**

- I can identify the features of email.
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# Email Feature Spotter

Can you identify all the features of this email? Discuss with your partner what each feature is used for.

**New Message** \_ ↗ ✕

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To:

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CC:

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BCC:

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Subject:


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Hello,

I would like to invite you to my birthday party this weekend.  
Please open the attachment for the invitation. I hope you can make it!

From,

Vanessa



It's time to party!  
You are invited to our Transition Picnic/Party!

# Email Feature Spotter

To understand what email is and how it is used.



Can you identify all the features of this email? Discuss with your partner what each feature is used for.

**New Message** — ↗ ✕

To:

CC:

BCC:

Subject: **Party Invitation**


Send Attach 📎 Link 🔗 ↩ ⏪ ⏩

Hello,

I would like to invite you to my birthday party this weekend.  
Please open the attachment for the invitation. I hope you can make it!

From,

Vanessa



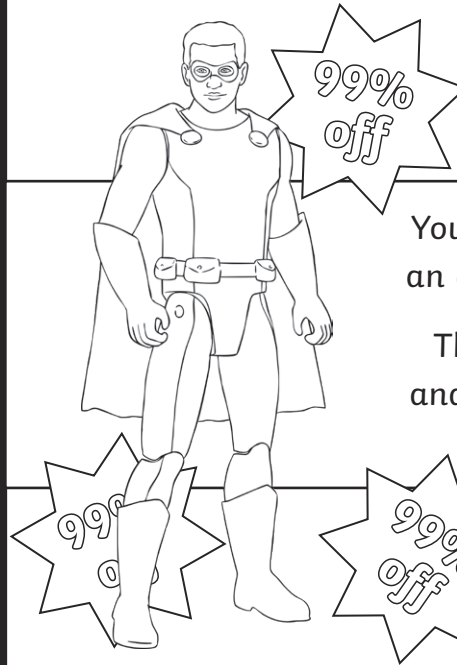


Your friend has sent you an email. Her email address is:

**becky@twinklschool.co.uk**

In this email, it looks slightly different:

**beckyy@twink.lschoo.org.uk**

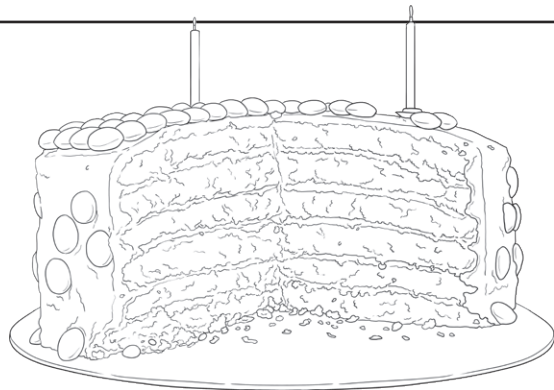


Your favourite toy shop has sent you an email containing an exciting deal!

They are offering 99% off any toy and you must click on the link in the email to buy the toy.



Your friend has sent you an email with an attachment, to invite you to his birthday party on Saturday. You spoke to your friend earlier today at school and he said he would be emailing the invitations after school with his trusted adult.



You have received an email from someone but you do not recognise the email address. The subject says:

**CLICK**

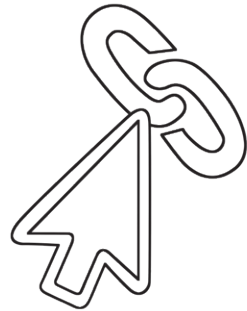
**Click on this email to win an amazing prize!!!!!!**

**CLICK**

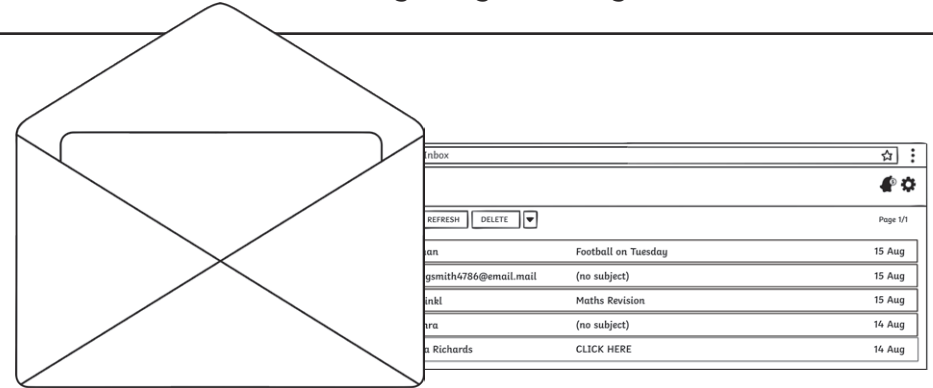
**CLICK**



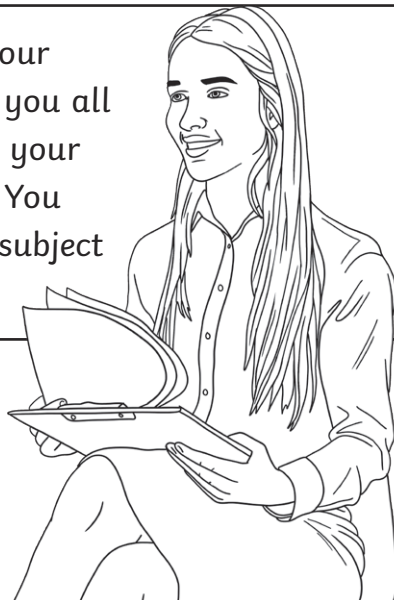
Your sister has sent you an email. You open it because you recognise her email address but the subject says: (no subject). When you open the email, there is no message except for a strange hyperlink.



Your friend has sent you an email. The subject says: Homework Help. When you open the email, your friend is asking for help with the homework your teacher gave you today.



You are in a computing lesson and your teacher tells you she will be sending you all an email to reply to. When you open your email account, you see a new email. You recognise her email address and the subject says: Today's computing lesson task.



**From:** teacher2455261\_ttyt22@schoo0l.co.uk

**Subject:** Computing lesson

Dear sir/ma'am,

today we are going to be learning about fishing. make shure you pay particular attention to the presentation shown in lesson today as there will be a quiz at the end.

Click on this link, type in your full name and password now to access the quiz: **Getyourinfo.34567644456644566.com**

Many Thanks,

Your teacher



**My Spam Scenario**



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A large, empty rectangular box with a thin black border, positioned to the right of the horizontal lines.

**My Spam Scenario**



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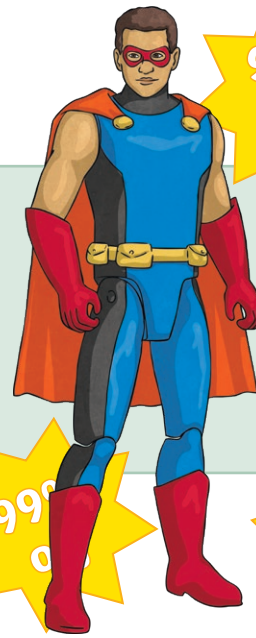


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In this email, it looks slightly different:

**beckyy@twink.lschooL.org.uk**



99%  
off

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They are offering 99% off any toy and you must click on the link in the email to buy the toy.

99%  
off

99%  
off



Your friend has sent you an email with an attachment, to invite you to his birthday party on Saturday. You spoke to your friend earlier today at school and he said he would be emailing the invitations after school with his trusted adult.



You have received an email from someone but you do not recognise the email address. The subject says:

CLICK

**Click on this email to win an amazing prize!!!!!!**

CLICK

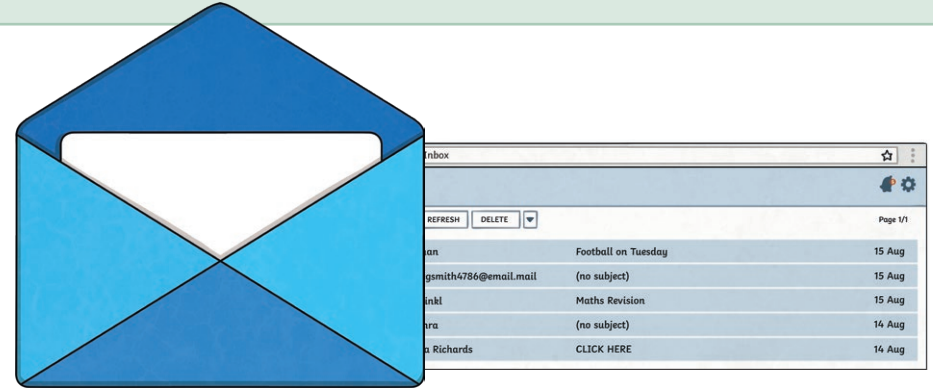
CLICK



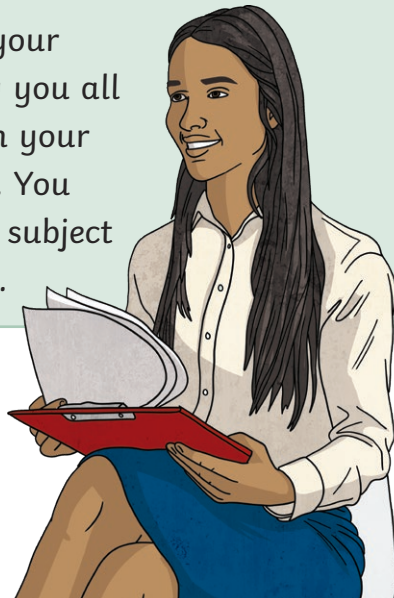
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Your friend has sent you an email. The subject says: Homework Help. When you open the email, your friend is asking for help with the homework your teacher gave you today.



You are in a computing lesson and your teacher tells you she will be sending you all an email to reply to. When you open your email account, you see a new email. You recognise her email address and the subject says: Today's computing lesson task.



**From:** teacher2455261\_ttyt22@schoo0l.co.uk

**Subject:** Computing lesson

Dear sir/ma'am,

today we are going to be learning about fishing. make shure you pay particular attention to the presentation shown in lesson today as there will be a quiz at the end.

Click on this link, type in your full name and password now to access the quiz: **Getyourinfo.34567644456644566.com**

Many Thanks,

Your teacher

**My Spam Scenario**



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**My Spam Scenario**



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**My Spam Scenario**



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**My Spam Scenario**



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Communication and Collaboration | Exploring Email

To understand what email is and how it is used.		
I can identify the features of email.		
I can understand that emails are used as a method of online communication.		
I can explain how to be responsible and safe when using email.		