



(ENG) The epidemic and attendance at world-famous museums

Introduction

Step 1 - Motivational Stage

Step 2 - Investigational Stage

Step 3 - Consolidation Stage

Introduction



#In-class activity #Inquiry-based learning #Experimental learning #Gamified learning #Simulation

Using available data published on websites, pupils will compare visits to the world's six most famous art museums in 2013, 2016, 2019 and 2020.

Data for the six most famous museums in the world will be extracted and edited from published online articles:

- Musée du Louvre (Paris),

- British Museum (London),
- Metropolitan Museum of Art (New York),
- National Gallery (London),
- Musei Vaticani (Vatican City),
- Tate Modern (London).

The pupils will display the data graphically using a spreadsheet, line, and column diagram. They will analyse the obtained data and determine the decline in museum visits during the epidemic.

Learning Objectives

☐

Acquire the knowledge of graphic displays, table displays, pie diagrams, line diagrams and column diagrams

☐

Acquire, classify, and interpret data with a spreadsheet, line, and column diagram

☐

based on the data, Appraise the increase or drop in visits for individual periods in world-famous art museums

ACTIVITY DETAILS

Activity Details

Connection of the activity with Art —

Analyzing data on the decline in visits during the epidemic to world-famous museums.



Link to local, national School Curriculum —

Percentage/Graphical display p%



Equipment required —

- A computer connected to the Internet,
- a pencil,
- a ruler,
- colour pencils,
- a sheet of paper - A4 format



Duration of activity —

45 minutes



Sources —

Picture 1: Musée du Louvre (Paris) <https://thebettervacation.com/wp-content/uploads/2021/06/Louvre-Museum-Paris.jpg>

Picture 2: British Museum (London)

https://upload.wikimedia.org/wikipedia/commons/1/1b/British_Museum_from_NE_2_%28cropped%29.JPG

Picture 3: Metropolitan Museum of Art (New York)

https://upload.wikimedia.org/wikipedia/commons/thumb/3/30/Metropolitan_Museum_of_Art_%28The_Met%29_-_Central_Park%2C_NYC.jpg/1200px-Metropolitan_Museum_of_Art_%28The_Met%29_-_Central_Park%2C_NYC.jpg

Picture 4: National Gallery (London) https://www.ceeh.es/wp-content/uploads/2018/03/P3598_005_pr.jpg

Picture 5: Musei Vaticani (Vatican City)

<https://toursanner.com/blog/wp-content/uploads/2019/02/Vatican-museums-last-minute-tickets.png>

Picture 6: Tate Modern (London)

<https://paginas.co.uk/wp-content/uploads/2018/03/london-des-13.jpg>

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- Chart 1: by Matjaž Bizilj, CC
- Chart 2: by Matjaž Bizilj, CC

- Chart 3: by Matjaž Bizilj, CC
- Chart 4: by Matjaž Bizilj, CC
- Chart 5: by Matjaž Bizilj, CC
- Chart 6: by Matjaž Bizilj, CC
- Chart 7: by Matjaž Bizilj, CC
- Chart 8: by Matjaž Bizilj, CC
- Chart 9: by Matjaž Bizilj, CC
- Chart 10: by Matjaž Bizilj, CC
- Chart 11: by Matjaž Bizilj, CC
- Chart 12: by Matjaž Bizilj, CC
- Chart 13: by Matjaž Bizilj, CC
- Chart 14: by Matjaž Bizilj, CC
- Chart 15: by Matjaž Bizilj, CC
- Chart 16: by Matjaž Bizilj, CC
- Chart 17: by Matjaž Bizilj, CC
- Chart 18: by Matjaž Bizilj, CC

- Table 1: by Matjaž Bizilj, CC
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- Table 4: by Matjaž Bizilj, CC
- Table 5: by Matjaž Bizilj, CC

Step 1 - Motivational Stage



Explain to pupils:

Encouraging thinking, observation and aesthetic sensitivity is the experience that a visit to a museum offers us. Although it is man's contact with the past, it helps understand human development over time.

The time of the epidemic strongly marked the individual's life in all areas - personal, social, economic and cultural areas. During this time, cultural activity practically came to a standstill. Museums and galleries closed their doors, and many planned exhibitions could only be viewed virtually and online.

People come to museums with the desire to satisfy their personal and socio-cultural needs. Furthermore, it has been scientifically proven that visiting museums and galleries significantly affects an individual's mental

health, reduces stress, increases creativity and extends life.

The dictionary of the Slovenian literary language defines a museum as an institution that collects, organises and stores culturally and historically significant objects, and a gallery as an exhibition space or building with a collection of art paintings or statues.

There are many different museums in the world. They differ in size and the type of collections they display (for example, an archaeological museum, a history museum, a natural history museum, an architecture museum, an art museum, a technical museum, etc.).

The museum has a long tradition dating back to antiquity. The oldest museum housed Mesopotamian antiquities and was the property of Princess Ennigaldi from 530 BC. Throughout history, the museum has also experienced tremendous development and progress. In modern times, it even opens up the possibility of a virtual way to see exhibitions worldwide.

In the assignment, we will focus on six selected and most visited world-famous museums:

MUSÉE DU LOUVRE	BRITISH MUSEUM	METROPOLITAN MUSEUM OF ART	NATIONAL GALLERY	MUSEUM OF MODERN ART
<p>The Louvre is a historic palace, the national museum of Paris and the most visited museum in the world. It was founded in 1793. About 35,000 objects are exhibited on an area of 60,600 square metres.</p> <p>Picture 1: Musée du Louvre (Paris).</p>				



**MUSÉE DU
LOUVRE**

BRITISH MUSEUM

**METROPOLITAN
MUSEUM OF ART**

**NATIONAL
GALLERY**

MUS

The British Museum was founded in 1753 and is the first public national museum in the world. It stores around 8,000,000 objects that speak of human culture from the beginning to the present day.

[Picture 2: British Museum \(London\)](#)



**MUSÉE DU
LOUVRE**

BRITISH MUSEUM

**METROPOLITAN
MUSEUM OF ART**

**NATIONAL
GALLERY**

MUS

An art museum that was founded in 1870 is located in New York. It has a permanent collection of more than 2,000,000 works of art.

[Picture 3: Metropolitan Museum of Art \(New York\)](#)



MUSÉE DU
LOUVRE

BRITISH MUSEUM

METROPOLITAN
MUSEUM OF ART

NATIONAL
GALLERY

MUS

It is an art museum that was founded in 1825. It owns a collection of more than 23,000 paintings.

[Picture 4: National Gallery \(London\)](#)



**MUSÉE DU
LOUVRE**

BRITISH MUSEUM

**METROPOLITAN
MUSEUM OF ART**

**NATIONAL
GALLERY**

MUS

They are museums of mostly Christian art, founded in 1506. Art collections collected by popes throughout history are on display in the museums. They own about 70,000 works of art.

[Picture 5: Musei Vaticani \(Vatican City\).](#)



MUSÉE DU LOUVRE	BRITISH MUSEUM	METROPOLITAN MUSEUM OF ART	NATIONAL GALLERY	MUS
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Tate Modern is an art gallery established in 2000. It owns a collection of international and contemporary UK art.

[Picture 6: Tate Modern \(London\)](#)



Everyday life problem

Explain to pupils:

We want to graphically display and compare data on visits to the world's six most famous art museums for the time before and during the epidemic.

Consolidation of already known content

Explain to pupils:

- The epidemic's impact on the individual's cultural life
- gained knowledge of museums and their purpose,
- revision of the transfer of given data into graphic displays.

Step 2 - Investigational Stage



STUDENTS' TASKS

1

Task 1

Ask pupils:

First, search the Internet for visitation data for the following museums:

- 1 Musée du Louvre (Paris)
- 2 British Museum (London)
- 3 Metropolitan Museum of Art (New York)
- 4 National Gallery (London)
- 5 Musei Vaticani (Vatican City)
- 6 Tate Modern (London)

Print the data for the years 2013, 2016, 2019 and 2020.

You will present the collected data in a table with various diagrams or charts based on the articles.

Display data with a spreadsheet

Explain to pupils:

First, open the programme Word on your computer. Then, enter the previously collected numerical data into the table and arrange them in rows and columns.

The data display should be clear and manageable so that the obtained data can be read more quickly than written data in the text.

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	2013	2016	2019	2020
Musée du Louvre (Paris)	9,334,435	7,400,000	9,600,000	2,700,000
British Museum (London)	6,701,036	6,420,000	6,239,983	1,280,000
Metropolitan Museum of Art (New York)	6,226,727	7,000,000	6,479,548	1,130,000
National Gallery (London)	6,031,574	6,263,000	6,011,007	1,200,000
Musei Vaticani (Vatican City)	5,459,000	6,067,000	6,882,931	1,300,000
Tate Modern (London)	4,884,939	5,839,000	6,098,340	1,430,000

Table 1

Ask pupils:

Display the obtained data with a bar and line diagram.

Task 2

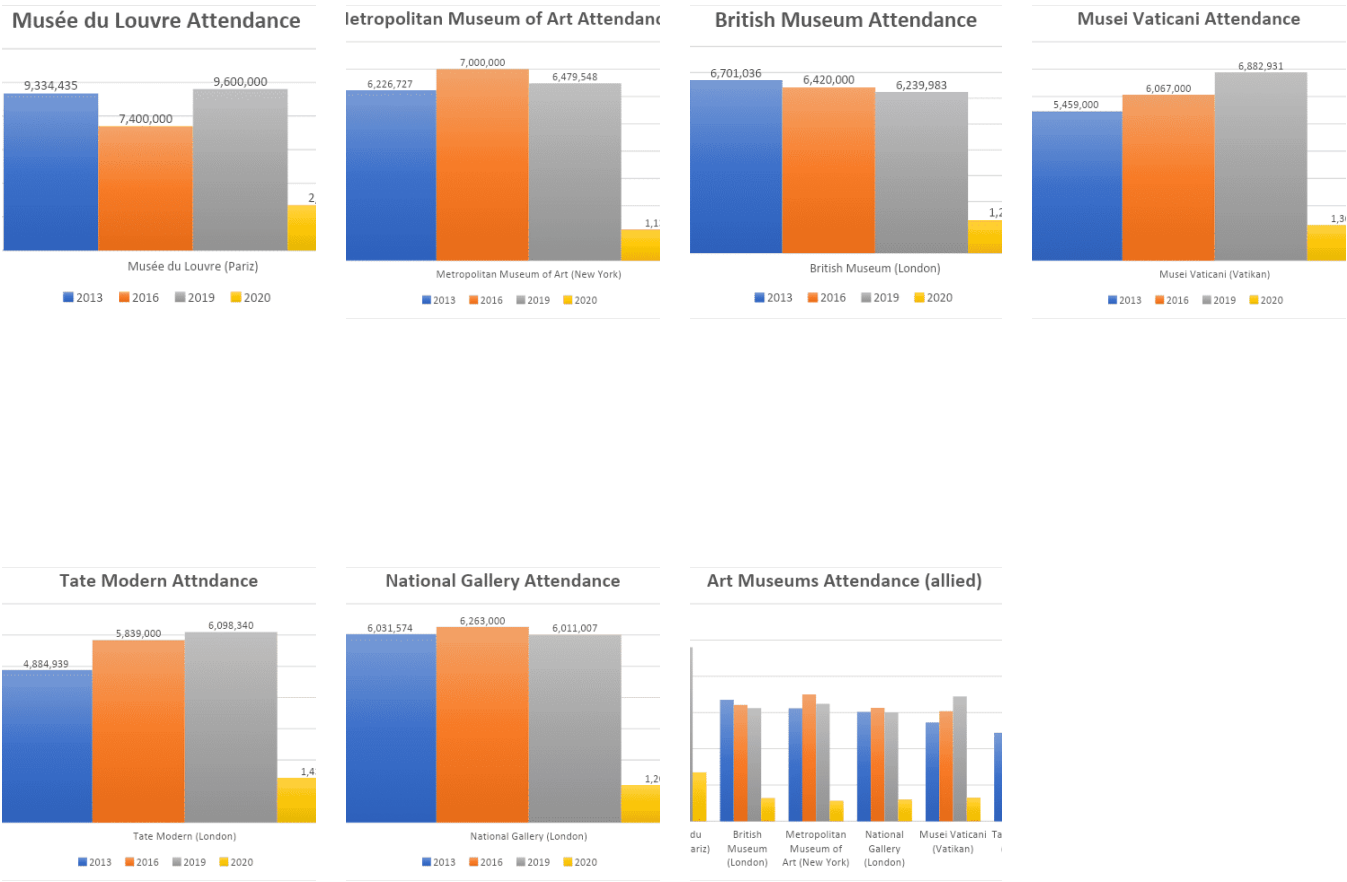
Bar chart

A bar chart is a display with arbitrarily but equally wide and spaced columns. We display the same information about the obtained numerical data as a spreadsheet.

For each museum, create a bar chart with the number of visitors per year. Finally, try to put all the data on one diagram.

Ask pupils:

Which is more manageable: a spreadsheet, an individual bar chart, or an overall bar chart?



Task 3

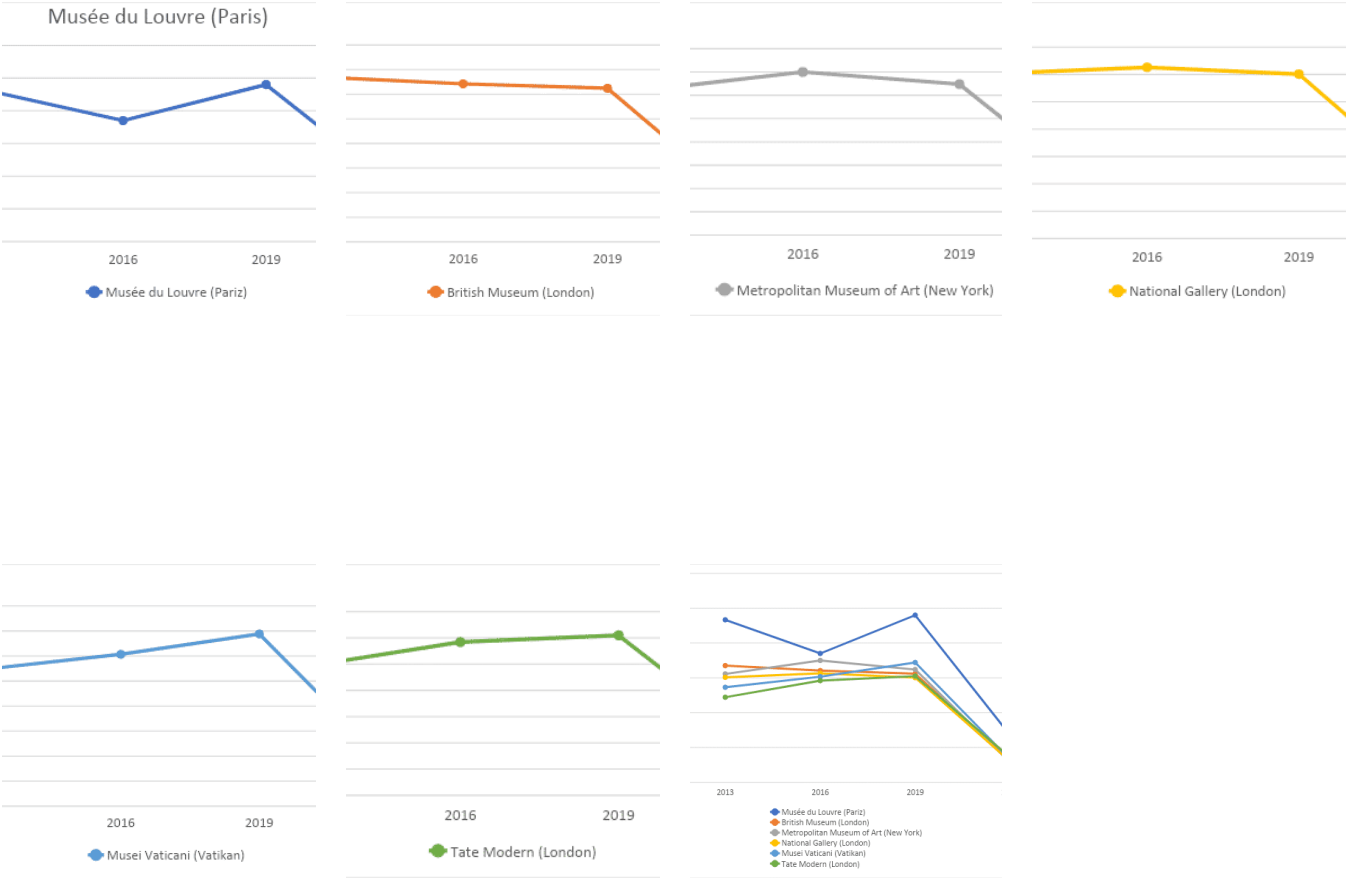
Line diagram

Explain to pupils:

A line diagram is a graphical display of data using points connected by distances. We use a line diagram when we monitor events over time and can infer continuity.

Ask pupils:

Draw line charts for all museums where you have data and a common line chart for all data.



Ask pupils:

Compare the diagrams. Which is the most clear and manageable? Which diagram would you present the data with?

Which chart is better when all the data is on it? Column or line?

Do you know any other types of diagrams? List them.

4

Task 4

Pie Chart

Have you ever heard of a pie chart?

Explain to pupils:

A circle or pie chart is a circle-shaped representation used to perceive the proportion of total frequency more quickly. Data is shown in a pie chart.

Ask pupils:

Could you put these data in a pie chart? Try it!

Draw a pie chart to show the proportion of visitors each museum had out of all visitors who visited these six museums in 2013, 2016, 2019 and 2020.

Explain to pupils:

First, you have to calculate what percentage of visitors the individual museum had (based on the number of visitors who visited the museum during the year).

You calculate how many visitors visited one of the selected museums in a year. Sum up all visitors in a given year:

The museum\year	2013
Musée du Louvre (Paris)	9.334.435
British Museum (London)	6.701.036
Metropolitan Museum of Art (New York)	6.226.727
National Gallery (London)	6.031.574
Musei Vaticani (Vatikan)	5.459.000
Tate Modern (London)	4.884.939
Sum	38.637.711

Table 2

38, 637, 711 visitors visited the selected museums in 2013. You get the share percentage by dividing the number of visitors to a particular museum by the number of all visitors.

Let's look at the example of the Musée du Louvre (Paris).

$$p\% = \frac{9.334.435}{38.637.711} \cdot 100 = 24\%$$

Therefore, the Musée du Louvre (Paris) had 24% of visitors who visited the selected museums.

Now calculate the share percentage of other museums in the same way.

The museum\year	2013	%
Musée du Louvre (Paris)	9.334.435	24
British Museum (London)	6.701.036	17
Metropolitan Museum of Art (New York)	6.226.727	16
National Gallery (London)	6.031.574	16
Musei Vaticani (Vatikan)	5.459.000	14
Tate Modern (London)	4.884.939	13
Sum	38.637.711	

Table 3

Ask pupils:

What is the sum of the percentages you have calculated? If you calculate correctly, the sum equals 100.

Now draw a pie chart. As already mentioned, a pie chart shows the proportion with a circular cutout.

Explain to pupils:

First, let's calculate how much of the interior angle represents 1% on the pie chart. Since a circle has 360° , we divide by 100 and get:

$$1\% = \frac{360^\circ}{100} = 3,6^\circ$$

Calculate how many degrees the British Museum represents on the pie chart.

The share of the British Museum is 17%, which we multiply by 3.6 and get the angle.

$$17\% \cdot 3,6^\circ = 62^\circ$$

Therefore, the central angle of the circular segment is 62° . Additionally, calculate the central angles of the other circular sections.

The museum\year	2013	odstotki	α
Musée du Louvre (Paris)	9.334.435	24	87

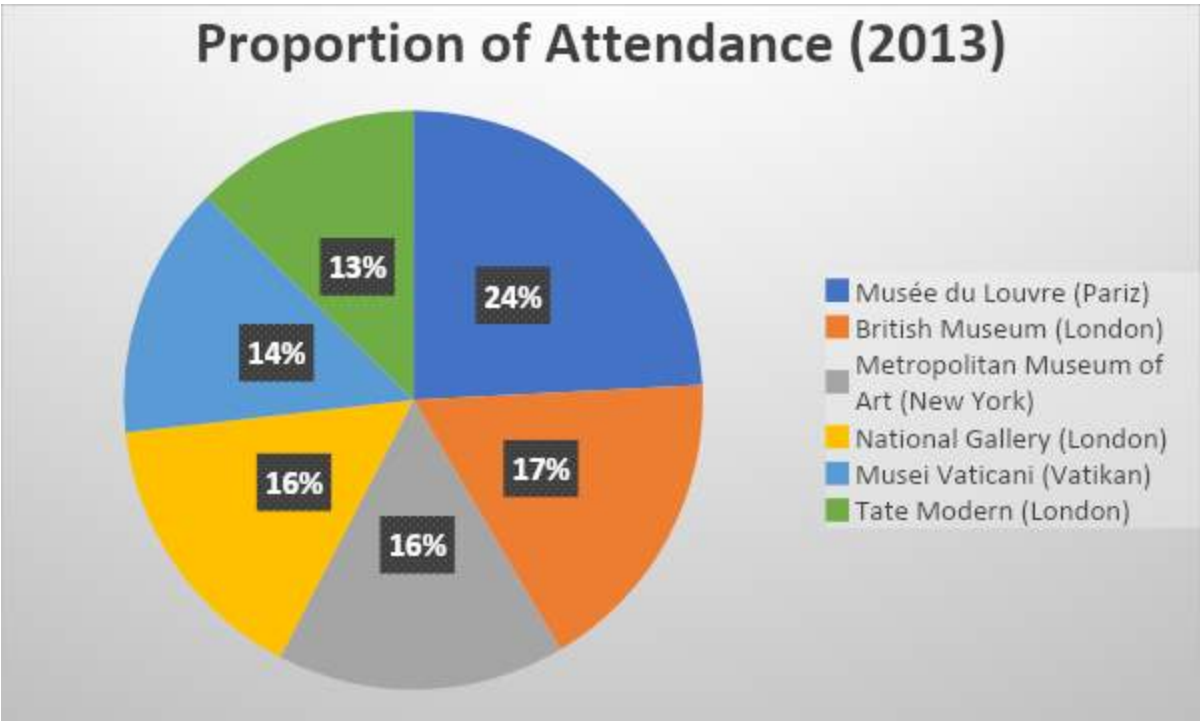
British Museum (London)	6.701.036	17	62
Metropolitan Museum of Art (New York)	6.226.727	16	58
National Gallery (London)	6.031.574	16	56
Musei Vaticani (Vatikan)	5.459.000	14	51
Tate Modern (London)	4.884.939	13	46
Sum	38.637.711	100	360

Table 4

The sum of all angles is 360°, representing a complete circle.

Ask pupils:

Draw a pie chart using Microsoft Word, and choose the museums' names and percentages from the table to get the following diagram.

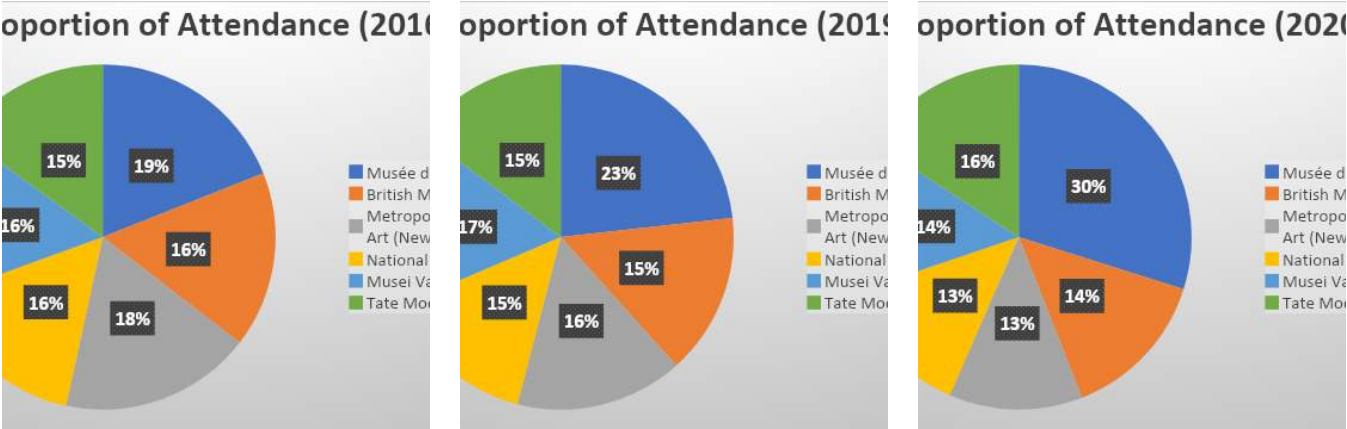


Calculate the percentages similarly for the other years and display them with a pie chart.

	2013		2016		2019		2020
Musée du Louvre (Paris)	9.334.435	24	7.400.000	19	9.600.000	23	20
British Museum (London)	6.701.036	17	6.420.000	16	6.239.983	15	14
Metropolitan Museum of Art (New York)	6.226.727	16	7.000.000	18	6.479.548	16	15

Art (New York)							
National Gallery (London)	6.031.574	16	6.263.000	16	6.011.007	15	1.
Musei Vaticani (Vatikan)	5.459.000	14	6.067.000	16	6.882.931	17	1.
Tate Modern (London)	4.884.939	13	5.839.000	15	6.098.340	15	1.
Sum	38.637.711	100	38.989.000	100	41.311.809	100	9.

Table 5



Summary

Explain to pupils:

The time of the epidemic strongly marked the individual's life in all areas - personal, social, economic and cultural areas. During this time, cultural activity practically came to a standstill. Museums and galleries closed their doors. The activity's introductory part motivated pupils to learn about the concept of a museum and the individual impact of visiting museums. They graphically displayed data with the help of given data on visits to world-famous museums for certain years. Additionally, they determined the difference between visits (attendance) before and during the epidemic.

Step 3 - Consolidation Stage



Ask pupils:

Visit the website of the Statistical Office of your country:

Print the number of visitors to museums and galleries in Slovenia from the website in the last five years.

Calculate the percentage of foreign visitors and the percentage of children and youth. Present all data with a pie chart.

End of the activity

EXIT