

# Observation of the moon

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## INTRODUCTION

In our research we observed the angle of the moon and its luminosity. We also sketch how the moon looked. This information was collected from Slovenia, Spain and Iceland. The data was collected from 19<sup>th</sup> March 2020 until 25<sup>th</sup> March 2020.

Our hypothesis were that we would the hight of the angles would differ, depending where we are measuring from. The other hypothesis we had was that the luminosity and the sketches are going to be similar.

### MATERIALS AND METHODS

In order to collect our data, we had to: calculate the height of the angle at which the moon is, measure the luminosity of it and sketch how the moon looks.

For calculating the angle we had to outstretching our arm parallel to the floor and then put the palms of our hands on top of each other until we reached the moon. Each palm equaled 15 degrees. The luminosity of the moon however, we measured with an app called »LightMeter«.

The key was, to collect the information at the same time and on the same location.

After the data was collected, we compared the results based on the category.



## CONCLUSION

To conclude, from the data all three groups collected we can see the luminosity percentage in about the same for all the countries but it differs through the days. The height of the moon angle differs from the place where we measure it. And the two lunar phases that were visible are: waning crescent and new moon.

We confirmed all of our hypothesis.



## **RESULTS**

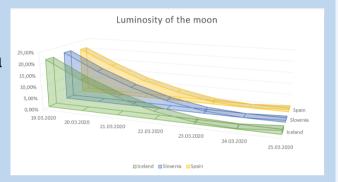
### Luminosity of the moon

From the chart on the right we can se that the data of luminosity we collected is similar for all the countries. At the **beginning of the week** the luminosity level was around **21%**, and this was the highest ranting. **The lowest** one, at **0%** was on the **24<sup>th</sup> March**. We were surprized to see that the numbers were almost exact.



## ♦ Moon sketches

In the table on the right we can see that the only two lunar phases we could see in the sky were waning crescent and new moon. We decided that instead of sketches we decided to use photos.

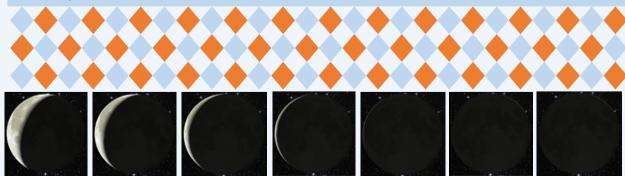


#### ♦ The height of the angle of the moon

Because of bad weather in Iceland we couldn't collect the data there. From the chart on the left we can see that the moon in Spain had a higher angle for most days than Slovenia. The highest angle in **Spain** was **40°** and for **Slovenia** it was **26°**. The lowest angle was the first day (the 19<sup>th</sup> March) in **Spain** was **18°** and in **Slovenia** was **21°**.

	Iceland	Slovenia	Spain
19.03.2020	Waning crescent	Waning crescent	Waning crescent
20.03.2020	Waning crescent	Waning crescent	Waning crescent
21.03.2020	Waning crescent	Waning crescent	Waning crescent
22.03.2020	New moon	Waning crescent	Waning crescent
23.03.2020	New moon	Waning crescent	Waning crescent
24.03.2020	New moon	New moon	New moon
25.03.2020	New moon	Waning crescent	New moon

Under the introduction we can see the moon phases in Spain and above acknowledgments we can see the phases in Slovenia.



## **ACKNOWLEDGMENTS**

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