SS Grade 6 – Latitude and Longitude – Mrs. M

Subject/Grade: Social Studies – Grade 6 **Lesson Title: Longitude & Latitude** **Teacher: Mrs. M**

Stage 1: Identify Desired Results

Outcome(s)/Indicator(s):

In preparation for focusing on the outcomes listed under the goal of: Interactions and Interdependence (examine the local, indigenous, and global interactions and interdependence of individuals, societies, cultures, and nations (IN) we will be looking at longitude and latitude.

Key Understandings: ('I Can' statements)	**Essential or Key Questions:**
- I can understand what latitude and longitude mean **- I can explain what latitude and longitude are** **- I can provide an example of the latitude and longitude (coordinates) for a specific location**	**What is latitude?** **What is longitude?** **How do you use latitude and longitude to find a location?**

Prerequisite Learning:

- Students should be familiar with maps and know how to find different countries (with little to no assistance)
- Students should understand the concept of degrees as a form of measurement
- Students should know the terms and be able to describe: North, South, East, West, parallel, degrees

Instructional Strategies:

- use a variety of teaching methods (video, worksheet, games)
- provide encouragement to students to motivate them
- pair or small group work

Stage 2: Determine Evidence for Assessing Learning

Diagnostic assessment:

- Ask students questions about their prior knowledge regarding:
    - the measurement of a degree
    - understanding and showing directions of North, South, East, West
    - vocabulary words (longitude, latitude, equator, parallel)

Formative assessment:

- Students will keep track of learning from Latitude and Longitude video by making their own basic version of a globe
- Worksheet
- Asking questions and keeping track of who is providing answers (to track effort and participation)

Stage 3: Build Learning Plan

Set (Engagement): **Length of Time: 8-10 mins**

(Get their attention! And then tell them what you are going to learn through this lesson)

1. **Begin by sharing that we are going to learn about latitudes and longitudes**
    - Open google slides presentation
    - Provide vocabulary words that we will be discussing to test their prior knowledge on whiteboard (latitude, longitude, degree, equator)
    - Ask: Has anyone heard of _____"? Can you explain what it means?
    - Go through each word using the same process as above.

2. Give each student a piece of paper with a circle. Draw on board and have students copy it step by step.

- Have them draw a line straight down the middle of the circle.
- Next, have them draw 5 straight lines parallel to one another horizontally on the circle.
- Explain to students that you will be watching the video and they will be using their drawing to write down important points that are mentioned in the video about the names of the lines they drew.

Materials/Resources:

- Latitudes and Longitudes Worksheet – Have copies printed out
- Google slide with presentation notes
- Paper with circle (last page of lesson plan)
- Writing utensil
- Protractor (to explain degrees)
- Request students to have protractors
- Projector
- Computer

Video:
Latitude and Longitude | Time Zones | Video for Kids

Websites:
- World Map with longitude and latitude lines

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3. Show video: Latitude and Longitude | Time Zones | Video for Kids
4. Have students brainstorm together abut what they learned from the video using google slides

Development: **Length of Time: 35 mins**

1. Show World Map with longitude and latitude lines or use class map

- Ask students if they know north, south, east, and west and have them explain it or show you using the map
- Ask students if they can point out the north and south poles
- Ask students if they know what degrees are in terms of measurement
- Show a picture or a tangible version of a protractor and have students grab their own protractors
- Show students how degrees are shown on map

2. Explain: Lines of latitude circle earth parallel to the Equator

- Ask: What is the Equator and what line it refers to.
- Answer: The Equator is an imaginary line that lies halfway between the North Pole and South Pole.
- It runs east-west around the earth.
- Lines of latitude describe positions north and south of the Equator.
- Point out other important lines of latitude (arctic circle, Antarctic circle, tropic of cancer, and tropic of Capricorn). Have them draw or label them on their drawing if they have not already.

3. Explain: Lines of longitude run between the North Pole and the South Pole

- Point out lines on map
- Share fun fact: As mentioned briefly in the video, the north-south line that marks 0 (degrees) or "the prime meridian", passes through Greenwich (Gren-itch), England.
- Ask: Do you have any guesses as to why the prime meridian would be chosen to go through Greenwich?
- Answer: At the time of the system of longitude and latitude being created, Great Britain was a world leader in exploration and map making. Greenwich was the home or Britain's royal observatory. (https://kids.britannica.com/kids/article/latitude-and-longitude/353366)

4. Provide students with Latitude and Longitude worksheet

- Quickly quiz students on directions by directing them to point at proper place on map when I say north, south, east, or west.
- Before they start, ask if they have any questions about what they have learned so far.
- Do a few examples with them - What country is 50 N and 30 E? (Ukraine). What country is 35 N and 45 E? (Iraq).
- Have students work in groups of 2 on worksheet

5. Using Mapmaker by National Geographic**, have students try and provide the coordinates of Regina. (Do this if you have extra time, otherwise move along to closure)**

- If they do not mention it, ask what they think they should do if the place is not directly on a line of latitude or longitude.
- Have them try and figure out a close estimate of the exact coordinates.
- Google coordinates of Regina – Exact answer is 50.4452 N, 104.6189 W

Learning Closure: **Length of Time: 15**

- Latitude and Longitude Article
- Mapmaker by National Geographic
- Google coordinates of Regina

Website Games:
- Latitudes and Longitudes – Map Quiz Game
- Coordinates – Online Game
- Longitude and Latitude

Possible Adaptations/ Differentiation:
- Provide assistance to students who may need help understanding concepts by working more one-on-one when you are free to do so.
- Include subtitles so that students can visually read while listening to words spoken in videos

Management Strategies:

- Pair up students that will work the most effectively together
- Walk around to each student and group to track their progress and to be available for questions

Safety Considerations:
- Mention to students to avoid clicking on ads or searching anything other than what is being asked of them
- Encourage efforts made by students to answer questions, even if answer is incorrect, to promote them trying.

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Have students choose games to do that involve finding coordinates or providing labels. 1) Latitudes and Longitudes – Map Quiz Game 2) Coordinates – Online Game **3)** Longitude and Latitude	
Stage 4: Reflection	
(This part of the lesson is completed after the lesson has been delivered; this is where you can record how it went, what you would keep, and what would you change for next time)	
Professional Development Goal for this Lesson	
I want to practice being clear with my instructions by talking at a proper volume and an appropriate speed. I want to leave room for students to answer after I ask a question. Allow time for inquiry to arise.	

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