

Human Sundial (Chalk)

Material:

- Chalk
- A Large Space Outside
- Watch

Objective: Today, explorers will learn about earth's rotation and how people are able to tell time based off the earth's position.

Lesson:

What Is A Sundial?

Explain to explorers that today they will be making their own sundial. What is a sundial? A sundial is a device that is able to tell what time it is based on how the sunlight hits it. This occurs due to the earth's rotation. At different positions in the sky, the sun will cast different shadows on objects and today, explorers will get to see this firsthand.



Procedure

- Take kids outside and have them stand in a large open area where they can use chalk to draw on the floor (A concrete area is best)
- Have at least two people to do this activity
- Based from one child's position in the group, have the other child grab a piece of chalk and trace this person's shadow
- Check your watch and write what time it is above the completed shadow
- Next, evenly separate spaces (1-12) and continue to repeat this person's shadow in each slot. (This should reflect the different times on a clock and you will have to try this at several different times to see where the shadow lands)
- Once done, write the estimated times on each position after the original time you wrote.
- This should complete your human sundial

- You can check if you did this correctly by checking back after an hour to see if when someone stands in the same original spot, the shadow reflects to the appropriate time slot.