



Phases of the Moon – Interactive Diorama

Supplies:

- 1 foam board in black (bought mine at a dollar store)
- 8 small plastic balls (golf, ping pong, foam- dealers choice)
- Paints in black, yellow, red, & orange
- Red glitter glue (optional) Painters tape
- Hot glue gun
- Hot glue sticks
- Glue dots
- White colored pencil
- Box cutter knife (adult use only for younger children)

Additional supplies for Sped modifications:

- Labels for phases
- Glue Stick
- Scissors

Key Vocabulary:

- Waxing - *increasing*
- Waning - *decreasing*
- New Moon - the phase where the *Moon cannot be seen* because we are looking at the *unlit side* of the Moon
- Waxing crescent - the phase where the Moon is *crescent in shape* and the crescent is *increasing in size*
- First quarter moon - the phase where *half of the lit portion* of the Moon is visible *after the waxing crescent phase*
- Waxing gibbous Moon - the phase when *more than half of the lit portion* of the Moon can be seen and the shape is *increasing in size*
- Full moon - this is the phase when we *can see the entire lit portion* of the Moon
- Waning gibbous Moon - the phase when *more than half of the lit portion* of the Moon can be seen and the shape is *decreasing in size*
- Last quarter Moon - the phase when *half of the lit portion* of the moon is visible *after the waning gibbous phase*
- Waning crescent - the phase when the Moon is *crescent in shape* and the crescent is *decreasing in size*



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First, find a circular object to trace out a circle onto your foam board. It will need to be large enough to easily fit your children's heads through the center, but small enough that it leaves room to apply your moons around the outside of the circle. I used the bottom of my classroom trash can! Once you've traced the circle onto the foam board, use your box cutter to cut out your hole. I do this for my second grade students. If they were older, I would have them do this part themselves.



Next, divide the plastic balls into halves with tape so that the students can paint 1/2 of each ball black. This is where my second grade students start in with the project themselves. In order to save time, I do the taping for my students. Also, if you place the tape correctly, you can use the tape as a stand to keep the ball from rolling around! Once the tape is on the ball, the students can paint half of each ball using the black paint and then set each to the side to dry.



TIP

I bought a class set of old McDonalds trays at a yard sale. They are perfect for this, because they can use expo markers to write their name on the tray. Then, they can put three or four sets of drying moons in each tray and set them aside to dry as they move on.



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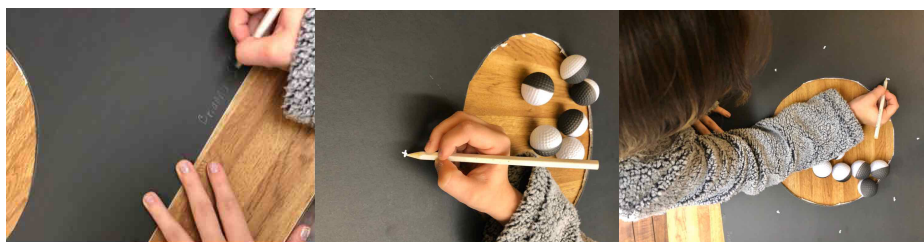
Next, the students paint their "sun" on one side of their foam board using yellow, orange, and red paints- being sure to paint low enough below the cutout so that there will be enough room to glue on the moons. Glitter can be added to the sun, if desired.



TIP

In my classroom, we complete the painting before they go to their electives (PE, Music, Computers, etc.) in order to give their balls extra time to dry!

Then, the students use white colored pencils to put their names on their board in one of the corners. On the smartboard, I display a diagram with the phases of the moon, so they can see where each moon should be placed. Using their white colored pencil, the students make small circles where they feel each moon should go. Once they are confident in their placement, the students write the name of the phase for each moon using the white colored pencil- this labeling will be written about an inch (two fingers as spacers) below the dot for each particular phase.





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TIP

For my students on IEPs and for those who struggle with writing, I have pre-made labels. Those students can then cut out and glue down their moons on the board- matching them to the image on the smartboard. This really seems to help with their frustration!

Finally, pass out a page of glue dots to each student letting them place them onto the foam board to prepare for the moons. When their glue dots are placed, the students may retrieve their moons from their trays. Once everyone has placed the glue dots in their spot on the foam board and retrieved their moons, we then place each moon together (one at a time) onto the board. We do this together to ensure that each student fully understands that the white side or “lit” side ALWAYS faces the sun and the dark side does not.



TIP

Why do you need a glue gun? I suggest walking around while they are at lunch/recess and dab a bit of glue under the moons to help make sure they don't fall off. I would also suggest making these the day of or the day before parent teacher conferences (or open house), so parents can pick them up when they come in.