Sci 9 Modelling Mitosis and Meiosis Modeller:



Modelling Mitosis:

1. Collect a whiteboard and draw the outline of the mitosis cycle (interphase, prophase, metaphase, anaphase, telophase and cytokinesis)
2. Collect 48 paper clips (6 of each colour) and link them in groups of 3 (16 chains)
3. Collect 16 pieces of paper
4. Assign each paperclip chain a specific trait. (Remember they should be in pairs!!) Colour the chart below to match your chromosomes

|  |  |
| --- | --- |
| Dominant Gene | Recessive Gene |
| Cleft chin | No cleft |
| Widow's Peak | No Widow's Peak |
| Dimples | No dimples |
| Brown/Black hair | Blonde hair |
| Freckles | No freckles |
| Brown eyes | Grey/blue eyes |
| Free earlobes | Attached earlobes |
| Straight thumb | Hitch-hiker's thumb |

1. Write the traits on separate pieces of paper and slide them into their corresponding paperclip chain
2. On your whiteboards, draw in centrioles and spindle fibers where need be
3. Using the paperclip chains as chromosomes model the process of mitosis.
4. Call your me (your teacher!) over and show off your mitosis modelling skills!! Be sure to include descriptions of each stage!

Modelling Meiosis:

1. Clear your whiteboard and draw the outline of meiosis (interphase, prophase I, metaphase I, anaphase I, telophase I, interkinesis, prophase II, metaphase II, anaphase II, telophase II, cytokinesis)
2. On your whiteboards, draw in the centrioles and spindle fibers where need be
3. Use the same paperclip chains as you did in the mitosis modelling
4. Using the paperclip chains as chromosomes model the process of meiosis
5. Use your phone to record your modelling of meiosis. Be sure to include descriptions of each stage! EVERYONE needs to speak during this video (HINT: split up the phases between each member of your group – you should all have something to say!)
6. Either email me your video OR save your video to your Google Drive and share it with me

 