



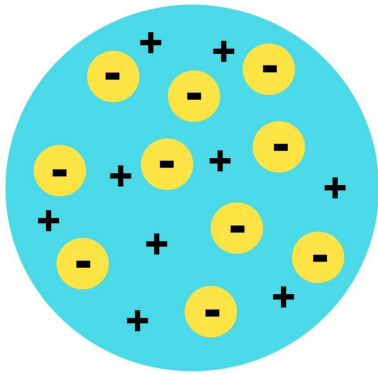
Open-Ended Response

Name: _____

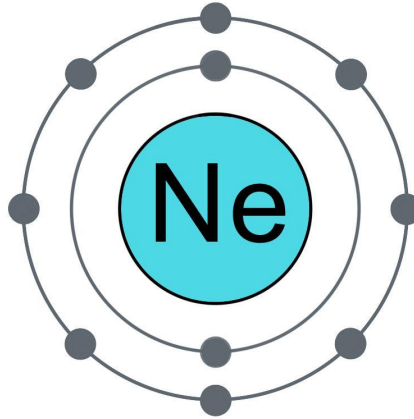
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Scenario

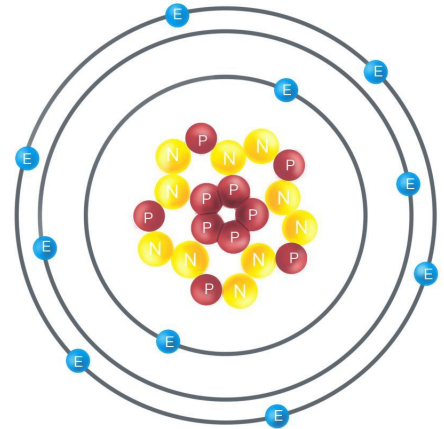
Sara is your next door neighbor and is in your science class. For tomorrow's test, she needs help understanding atomic structure. She is confused about the different models of the atom. She has three different models of a neon atom: a plum pudding model, a Bohr model, and a nuclear model. According to her notes, "atoms contain three subatomic particles: the proton, the electron, and the nucleus. The electrons travel in concentric orbits around a central nucleus that has protons and neutrons."



Plum pudding
model



Bohr model



Nuclear
model

Based on the evidence, write a scientific explanation for which model best represents the true appearance of an atom.



Open-Ended Response

Claim

Evidence

Reasoning



Open-Ended Response

Rebuttal (Optional)



Argue: CER

Rubric for Writing a Scientific Explanation

Points Awarded	2	1	0
Claim	Student makes an accurate and complete claim.	Student makes a claim that is inaccurate or incomplete.	Student does not make a claim.
Evidence	Student makes use of all pieces of available evidence, uses labels, and addresses variables.	Student provides some pieces of accurate evidence but does not make use of all available evidence.	Student does not provide evidence or only provides inappropriate or vague evidence.
Reasoning	Student connects evidence to the claim and uses scientific principles and vocabulary.	Student cites a reason, but it is inaccurate or does not support the claim. Student's reasoning does not use scientific terminology or uses it inaccurately.	Student does not connect the evidence to the claim.