



Flip Movie Project 7

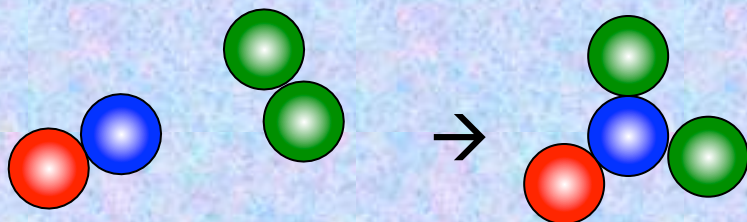
Nathan Lauder and Taylor York

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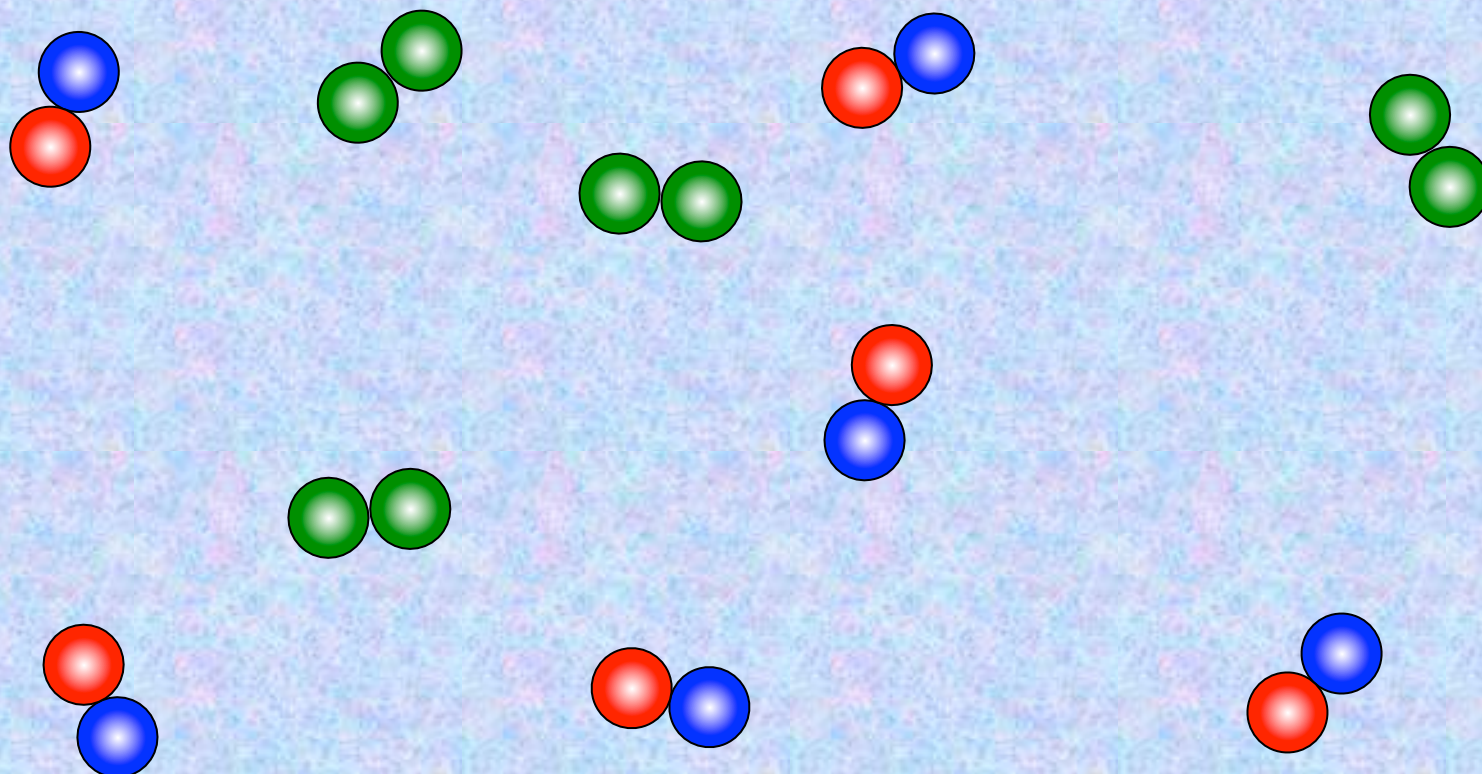
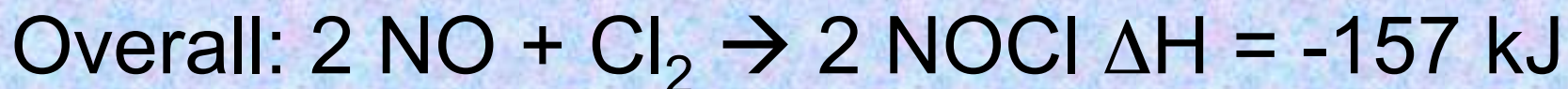
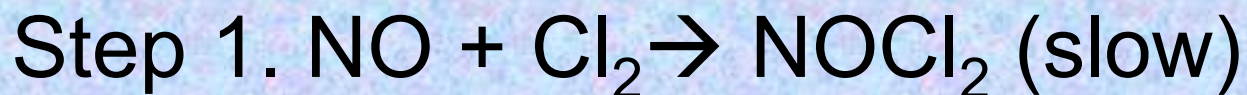
Step 1. $\text{NO} + \text{Cl}_2 \rightarrow \text{NOCl}_2$ (slow)

Step 2. $\text{NOCl}_2 + \text{NO} \rightarrow 2 \text{NOCl}$ (fast)

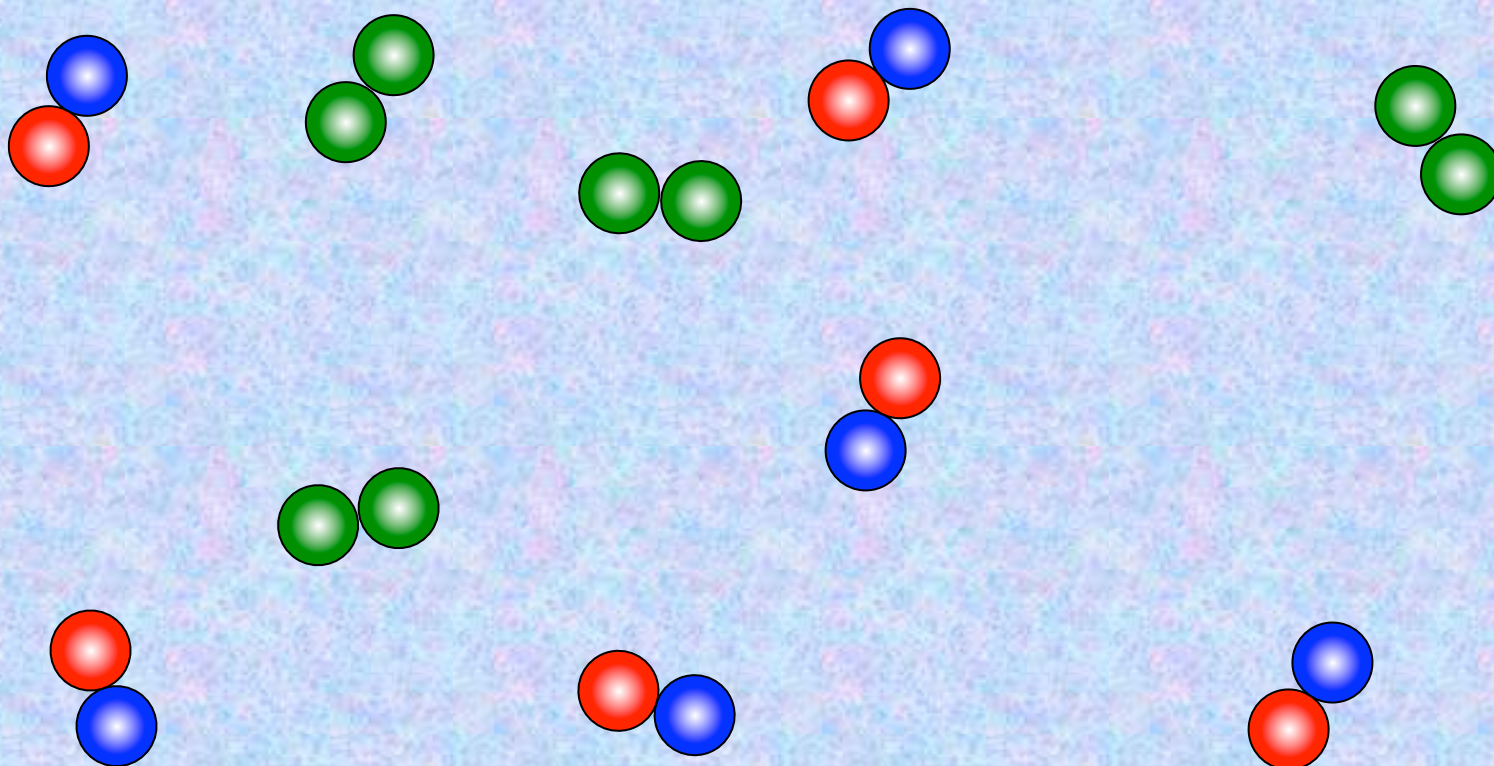
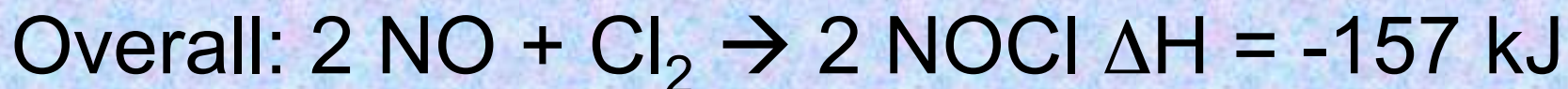
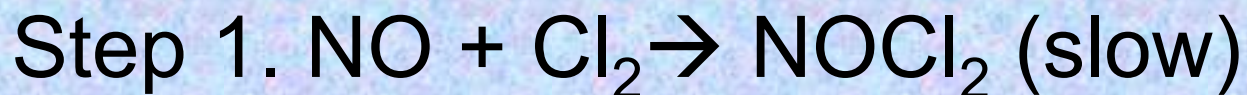
Overall: $2 \text{NO} + \text{Cl}_2 \rightarrow 2 \text{NOCl}$ $\Delta H = -157 \text{ kJ}$



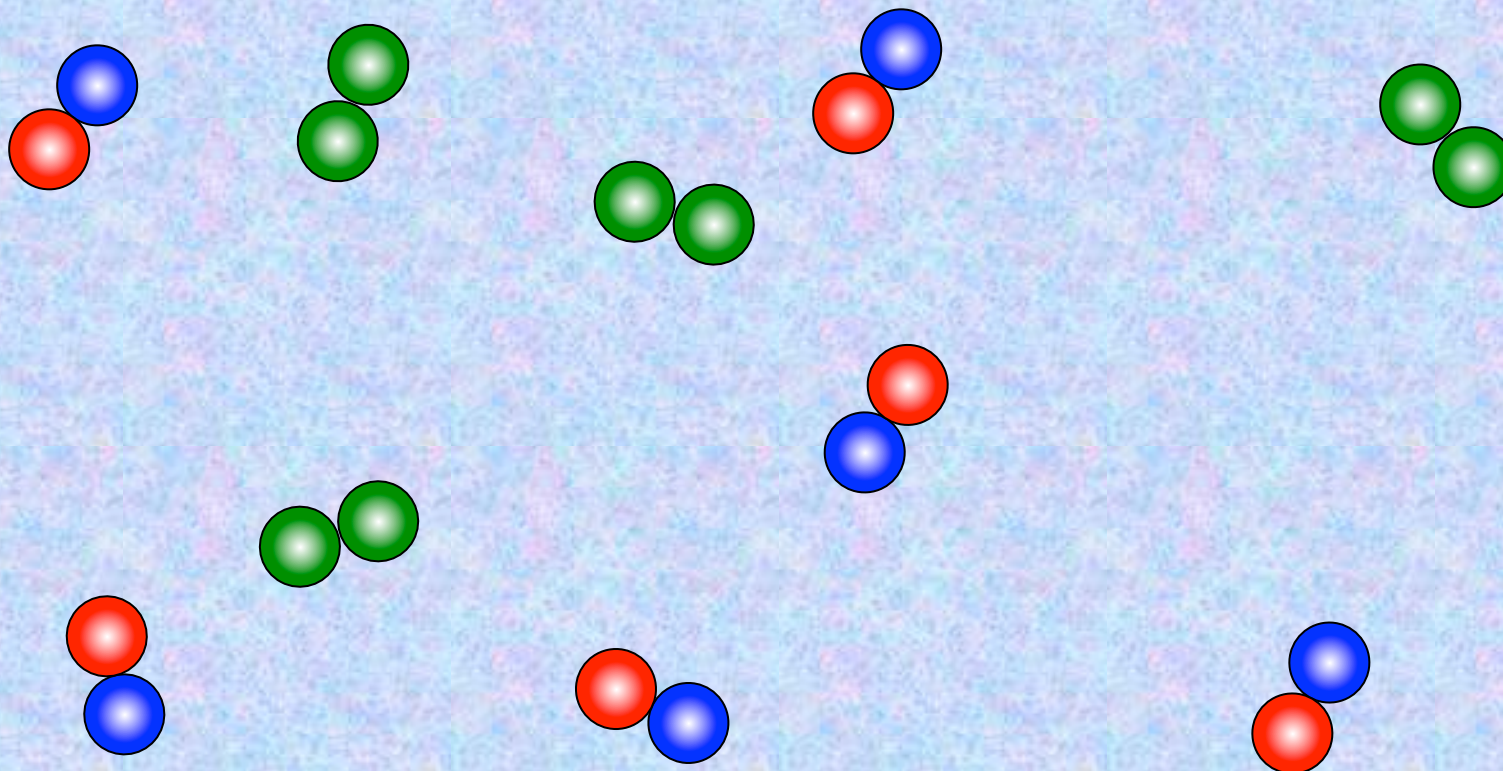
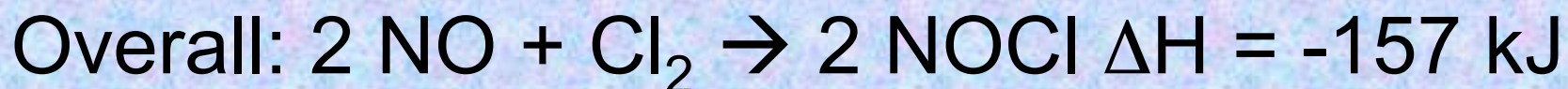
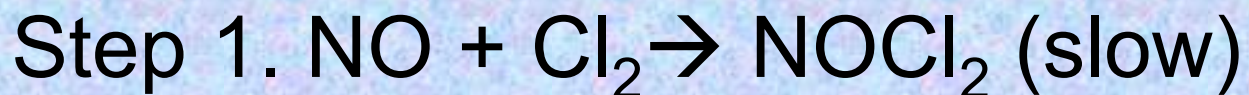
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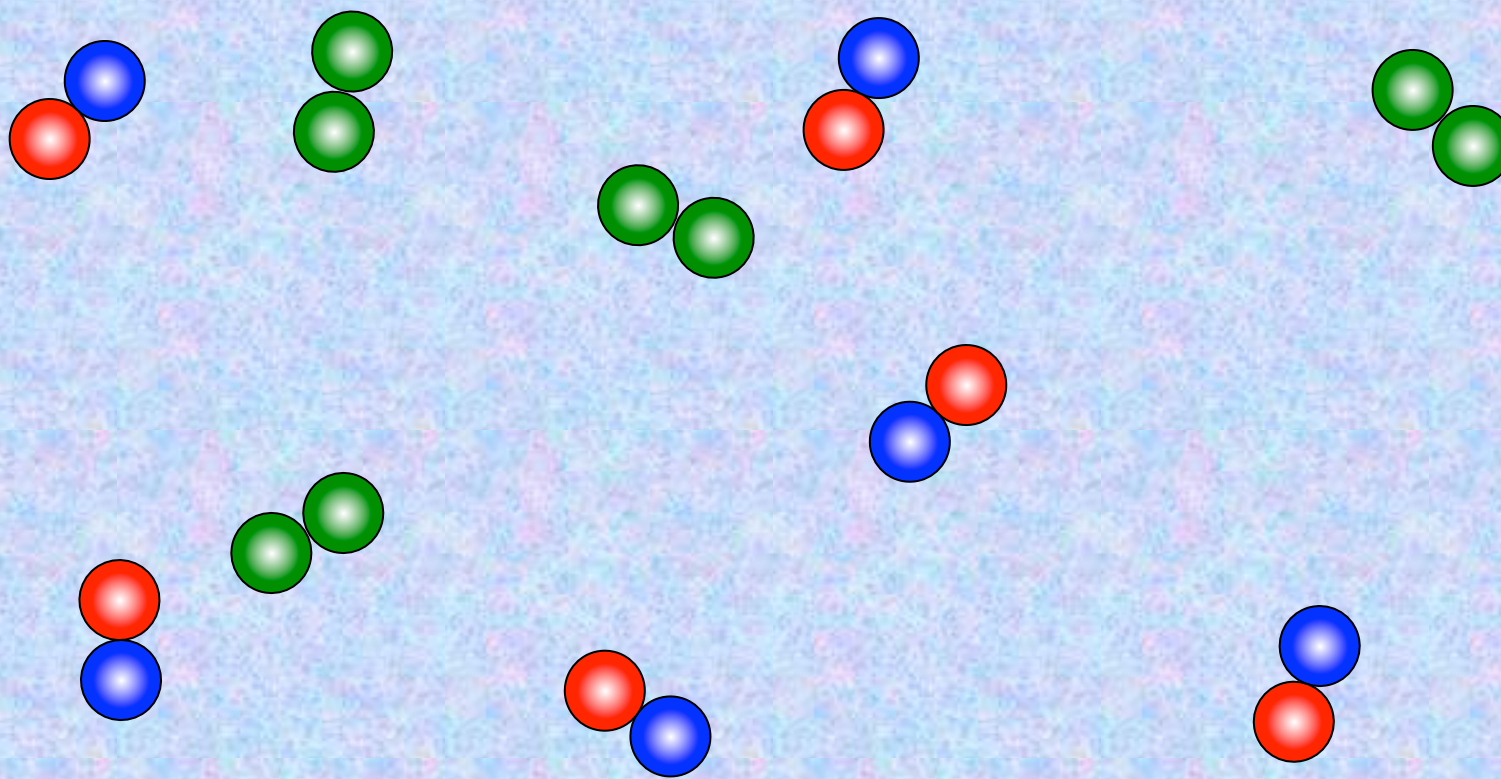
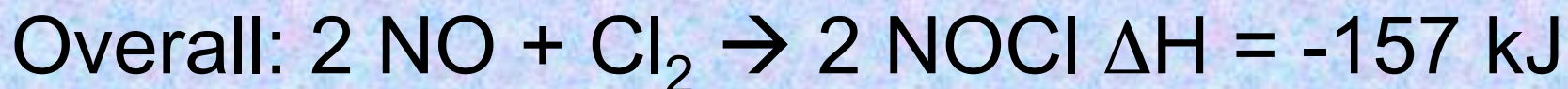
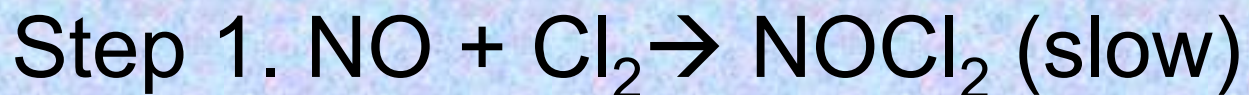
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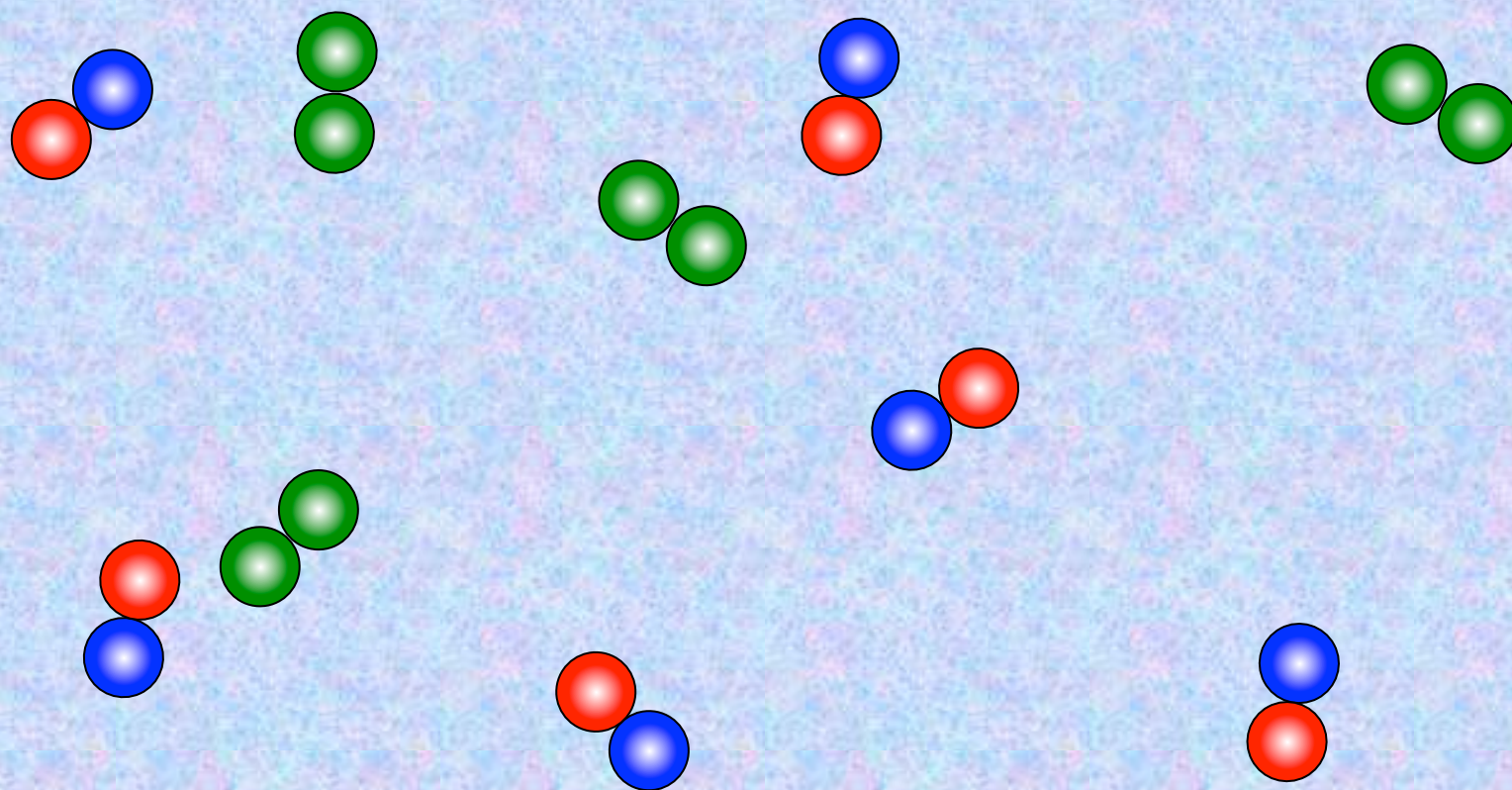
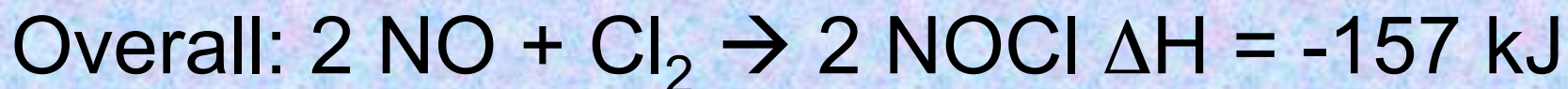
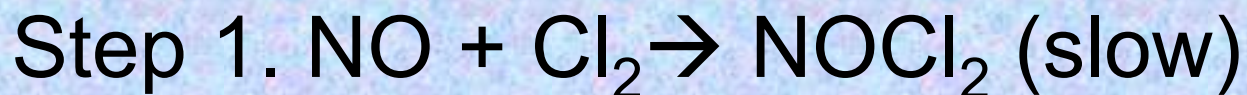
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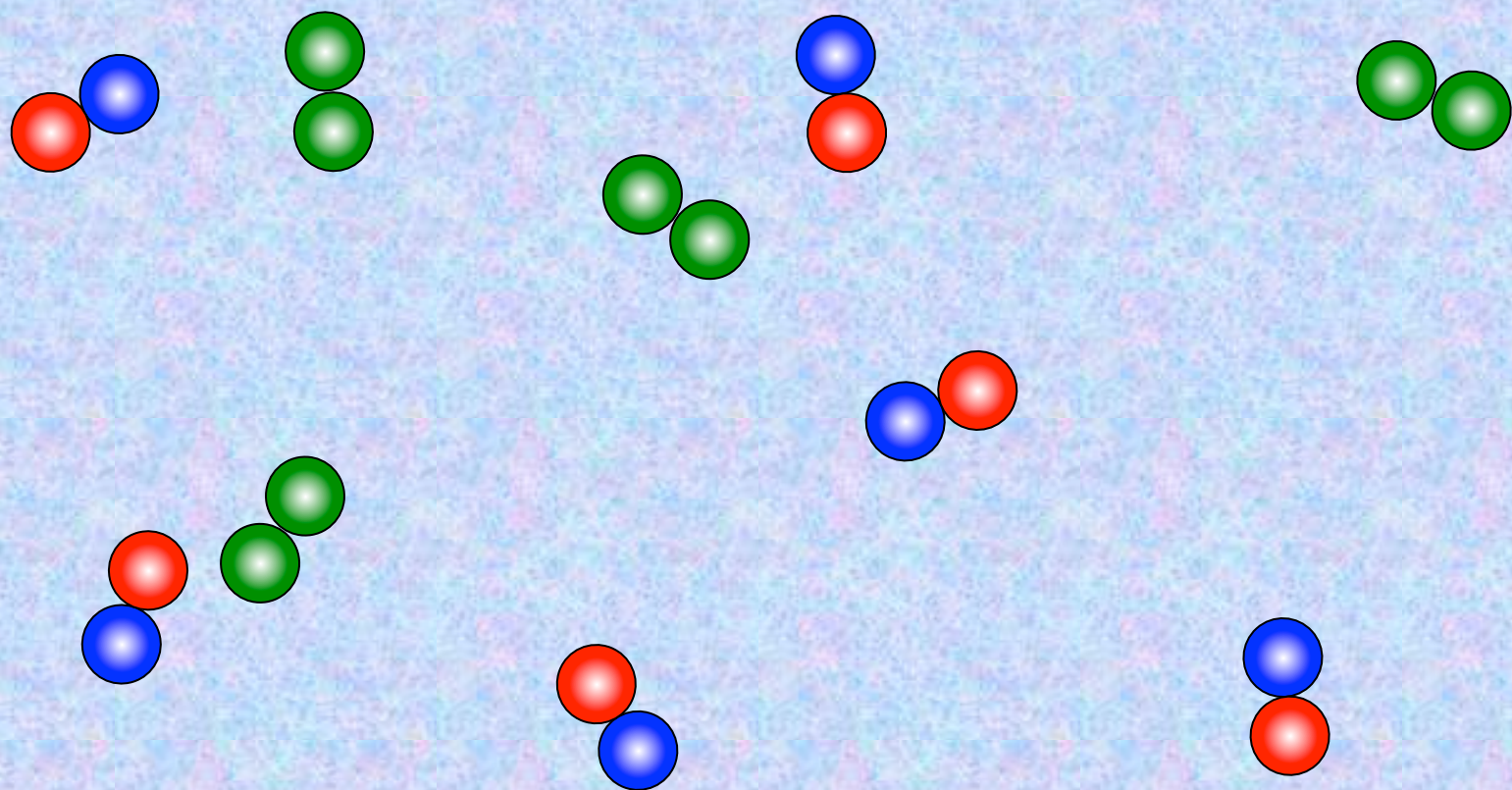
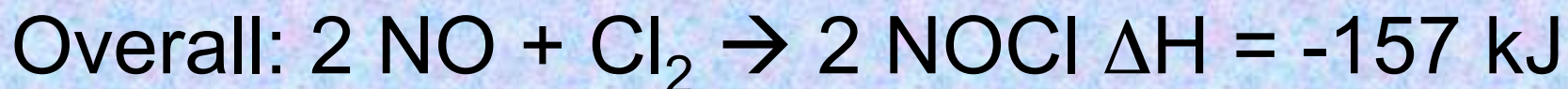
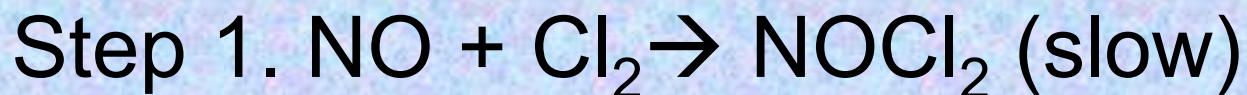
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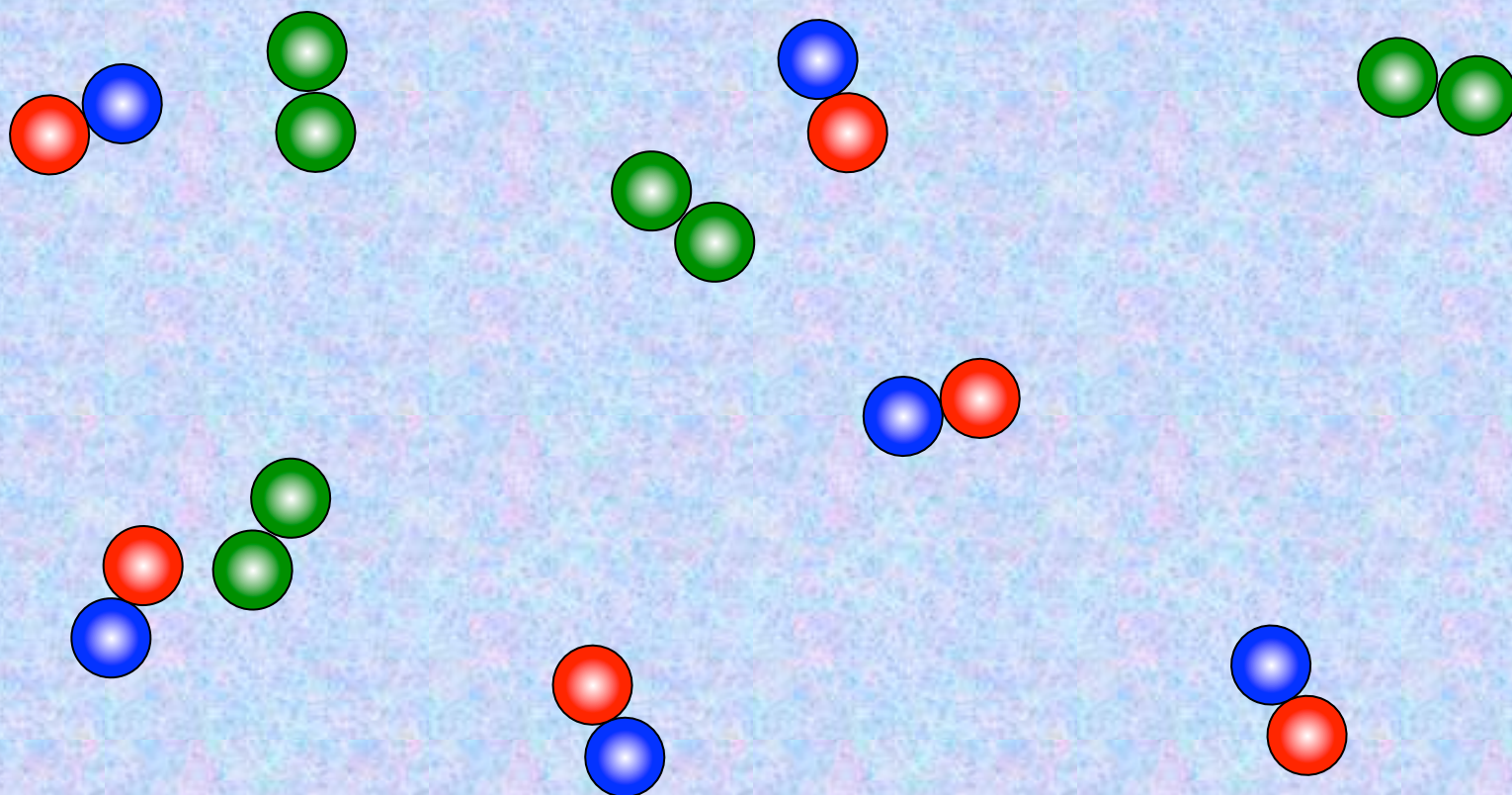
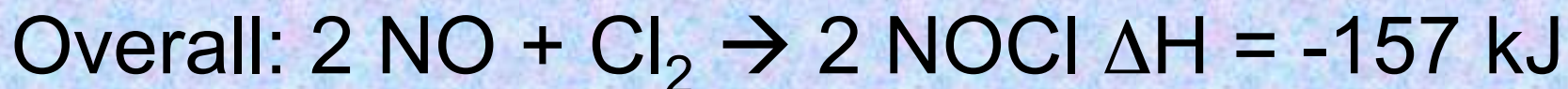
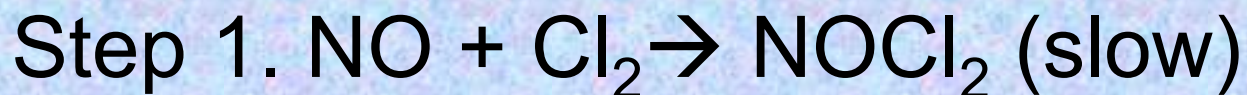
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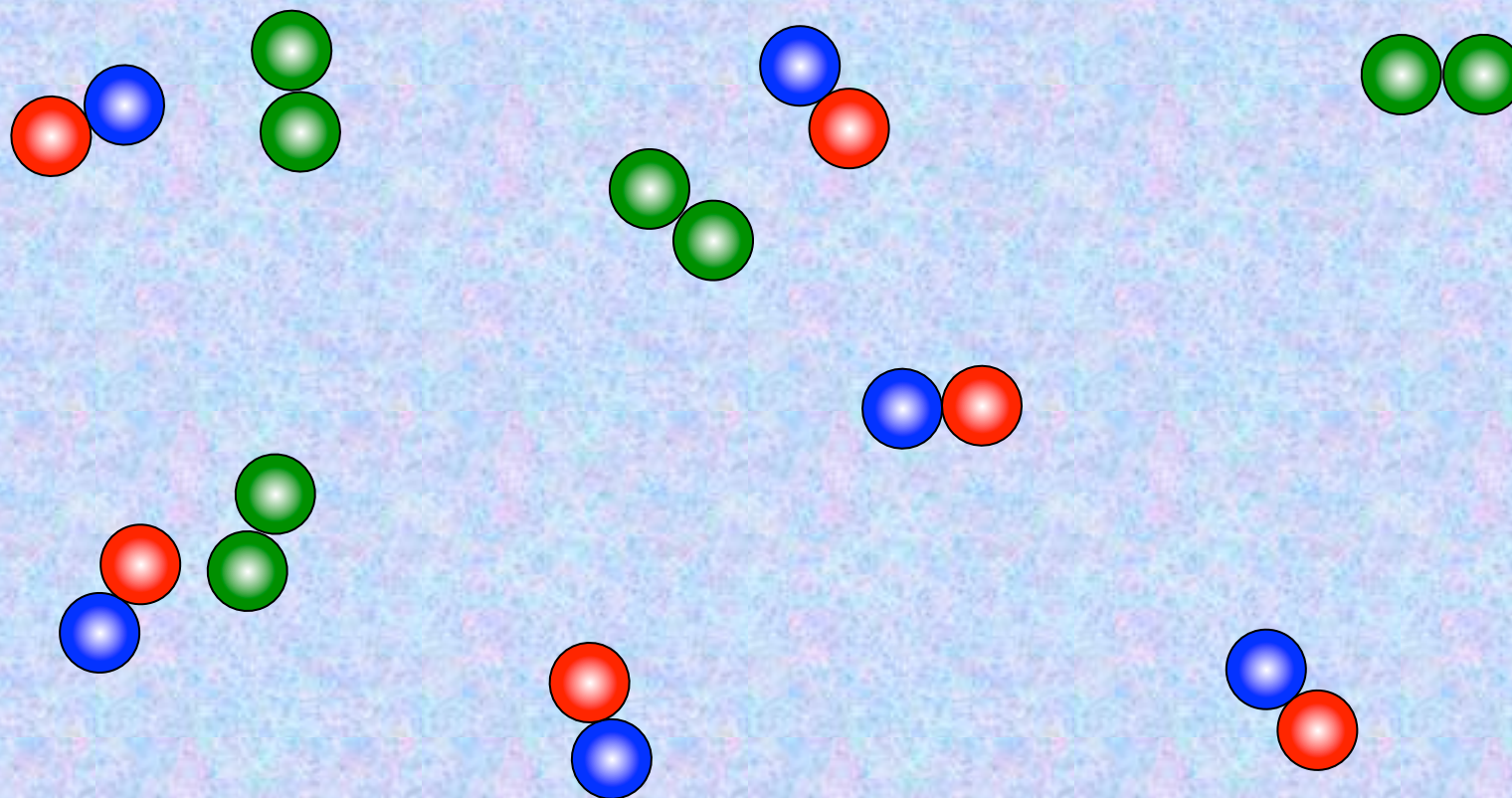


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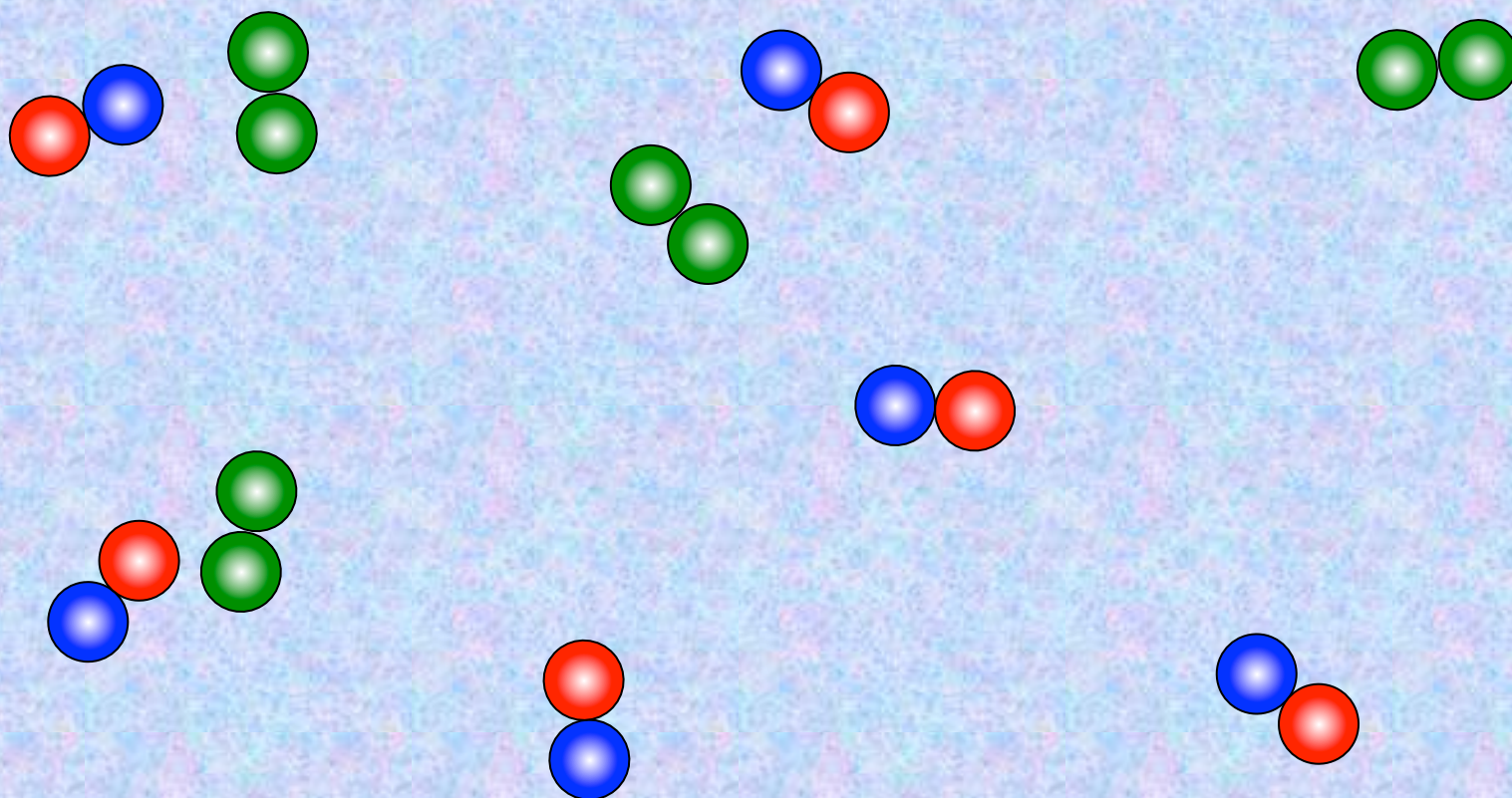
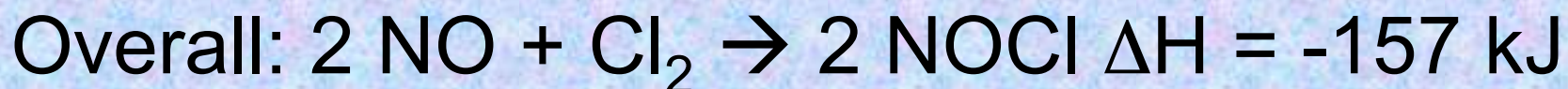
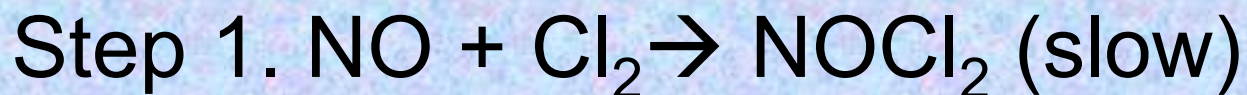
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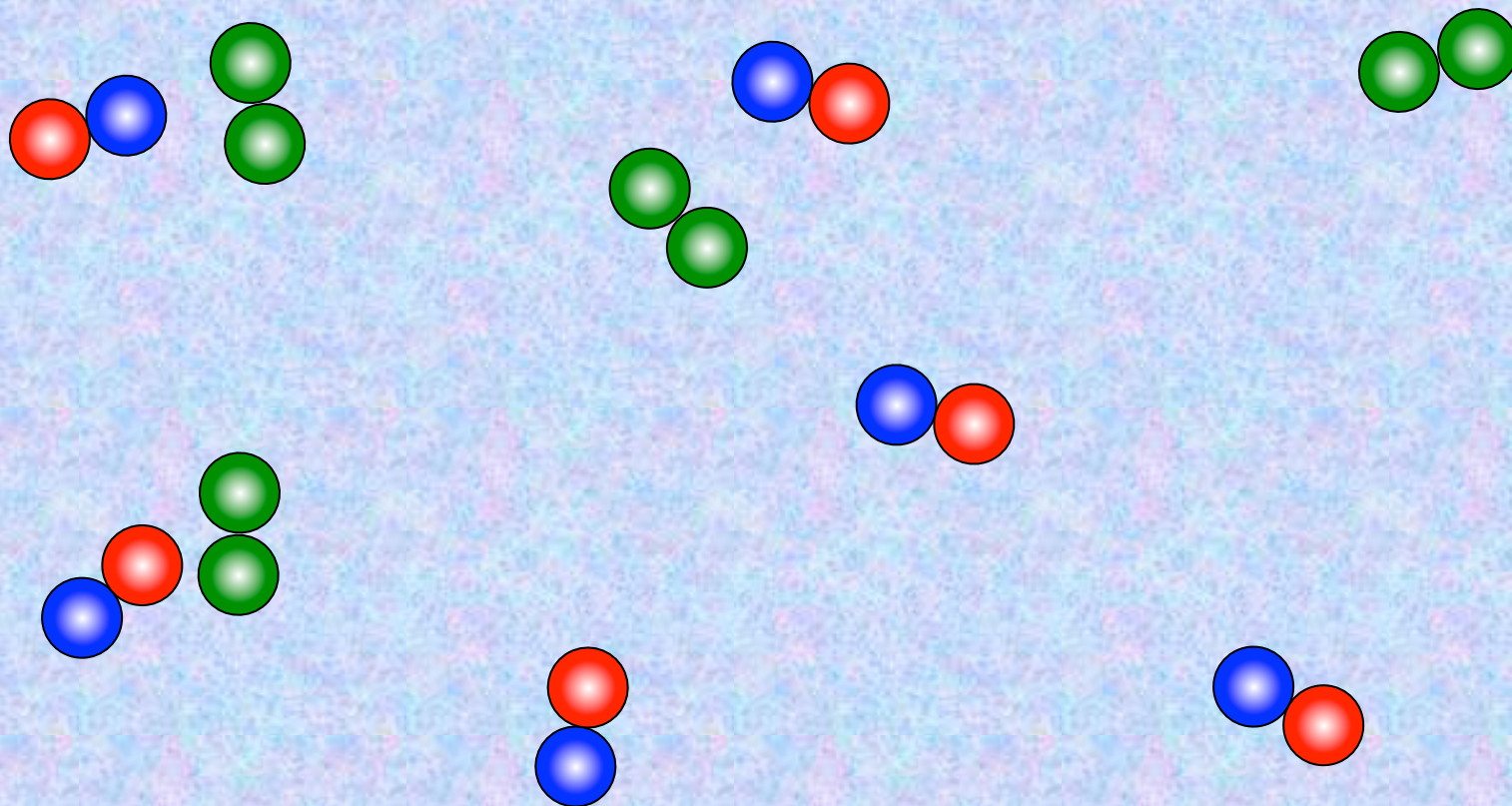
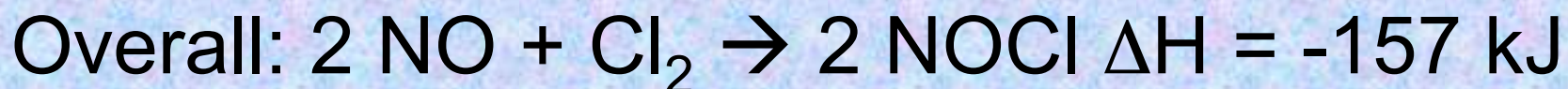
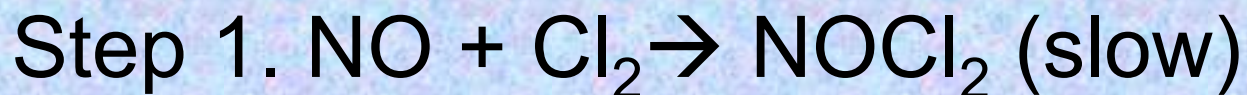
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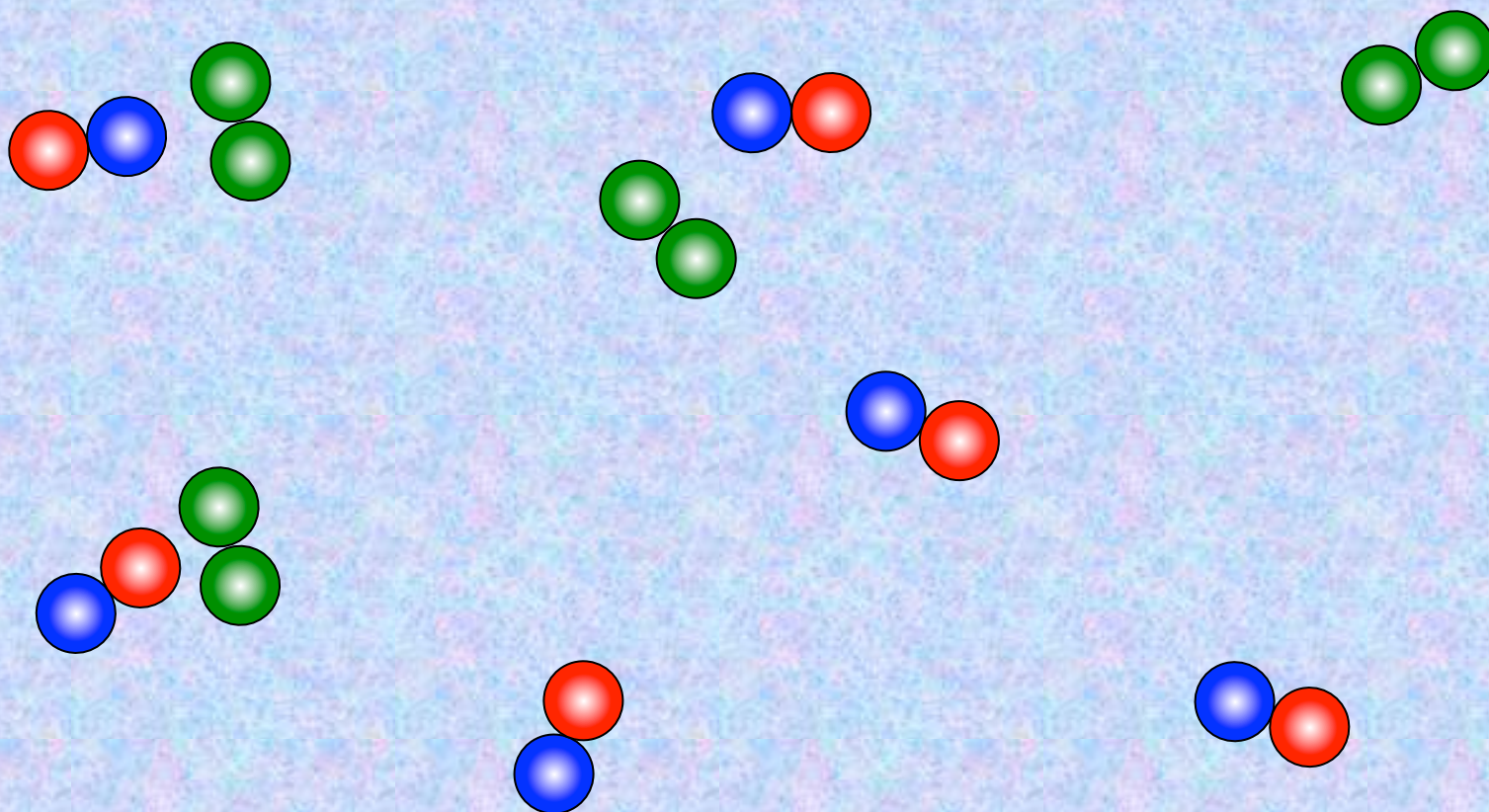
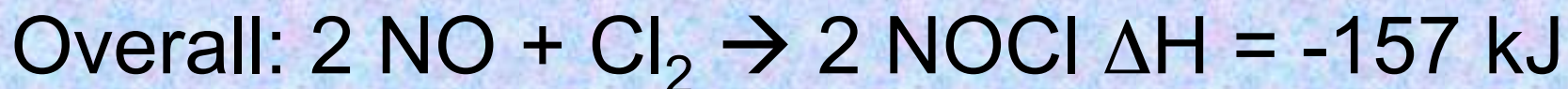
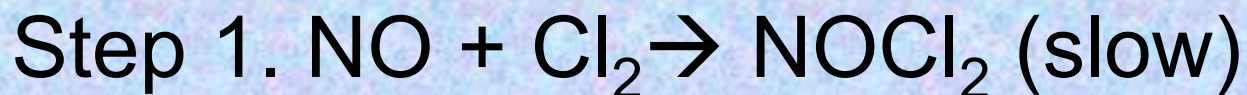
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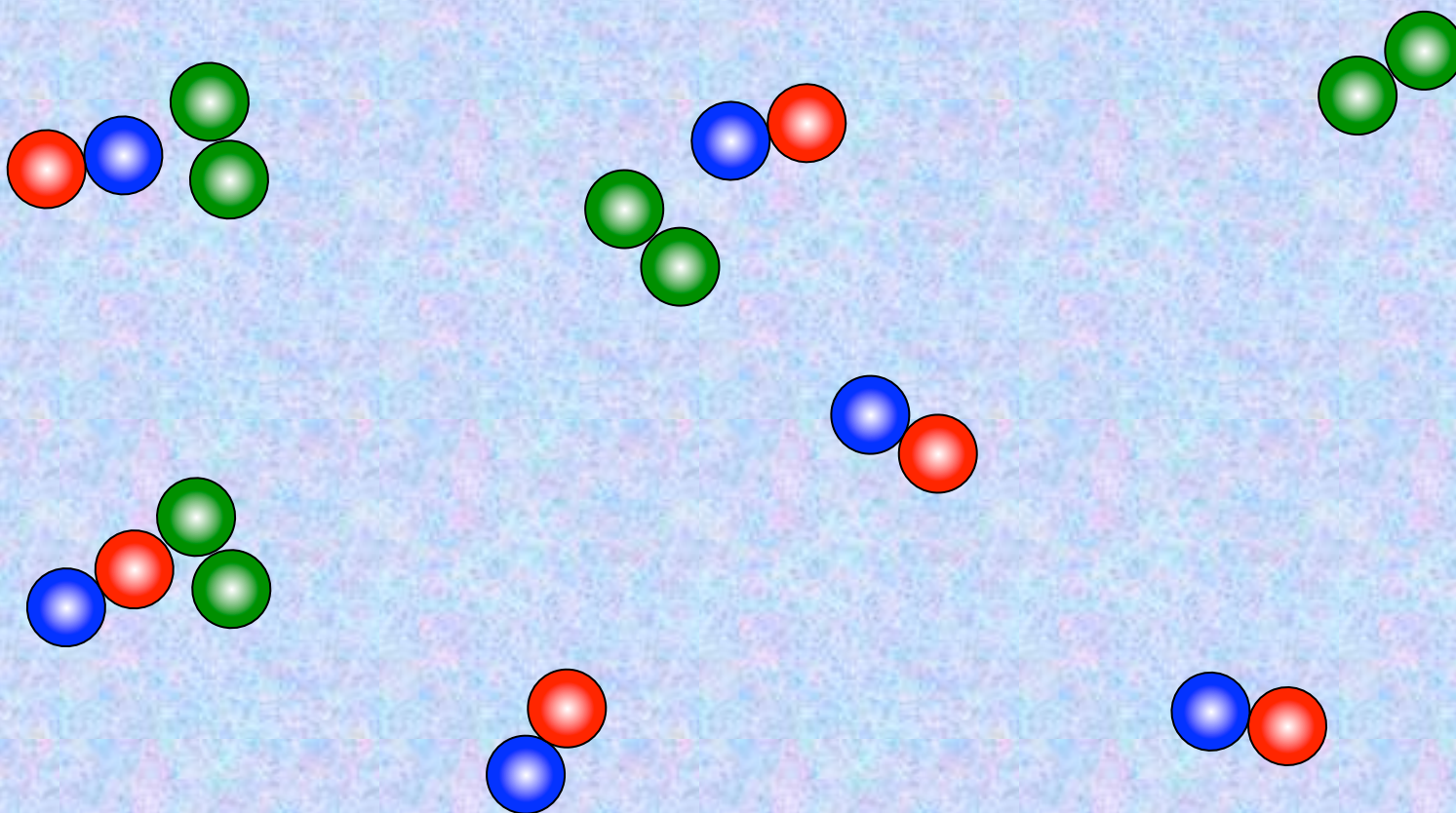
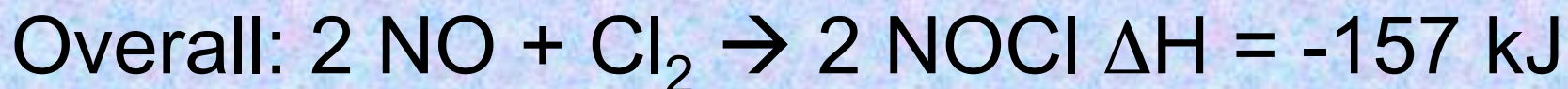
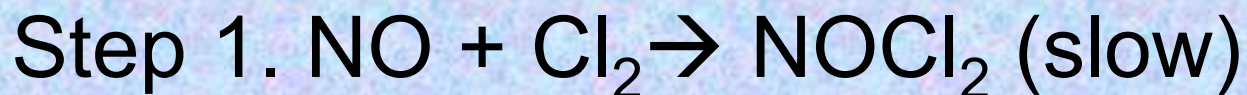
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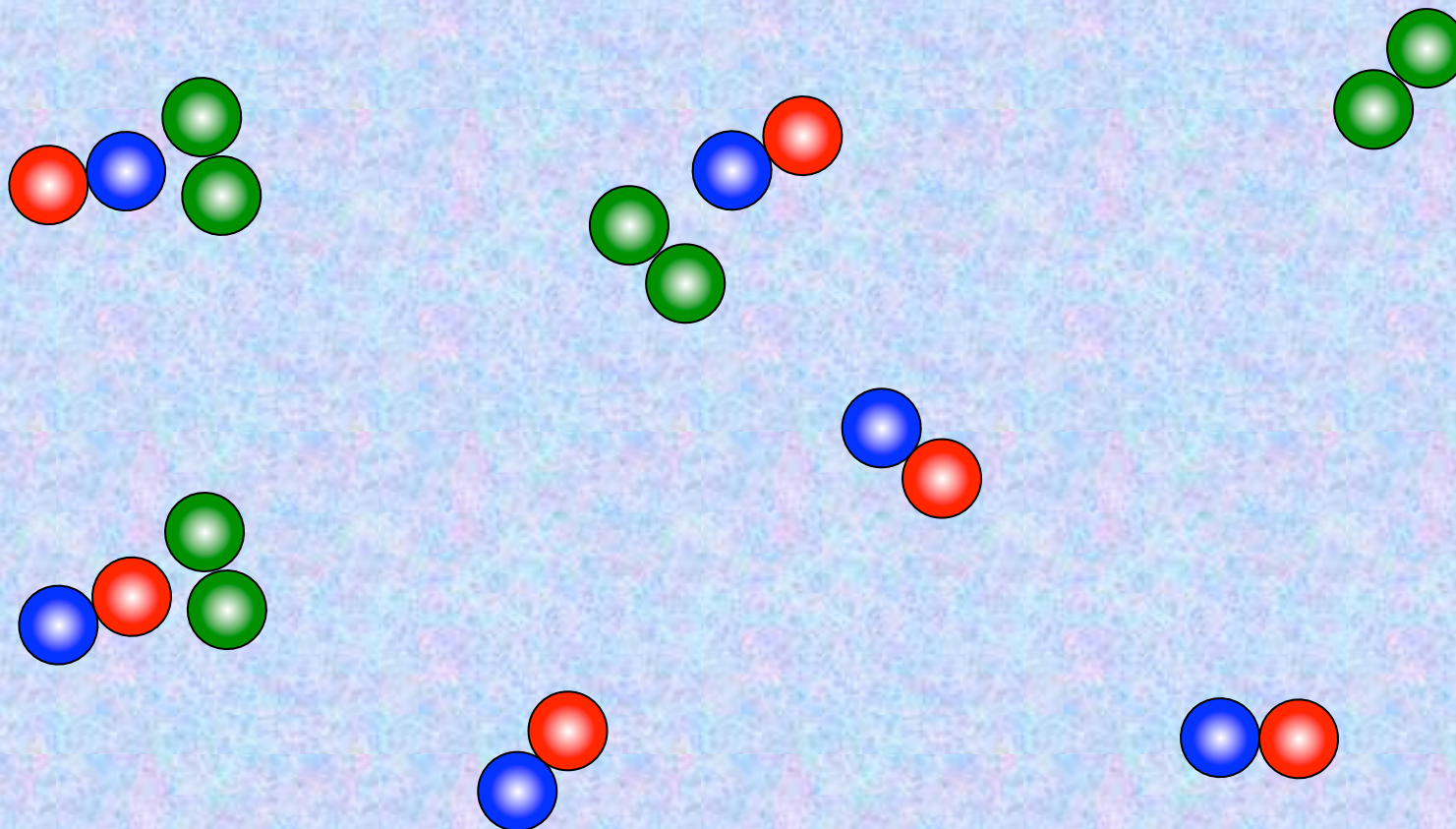
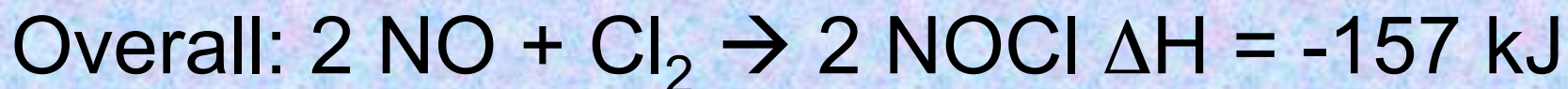
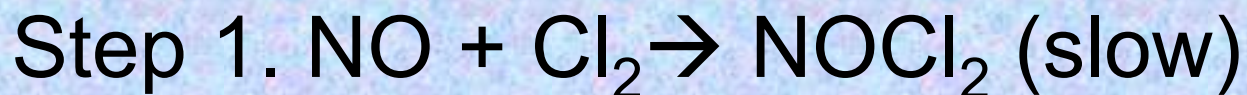
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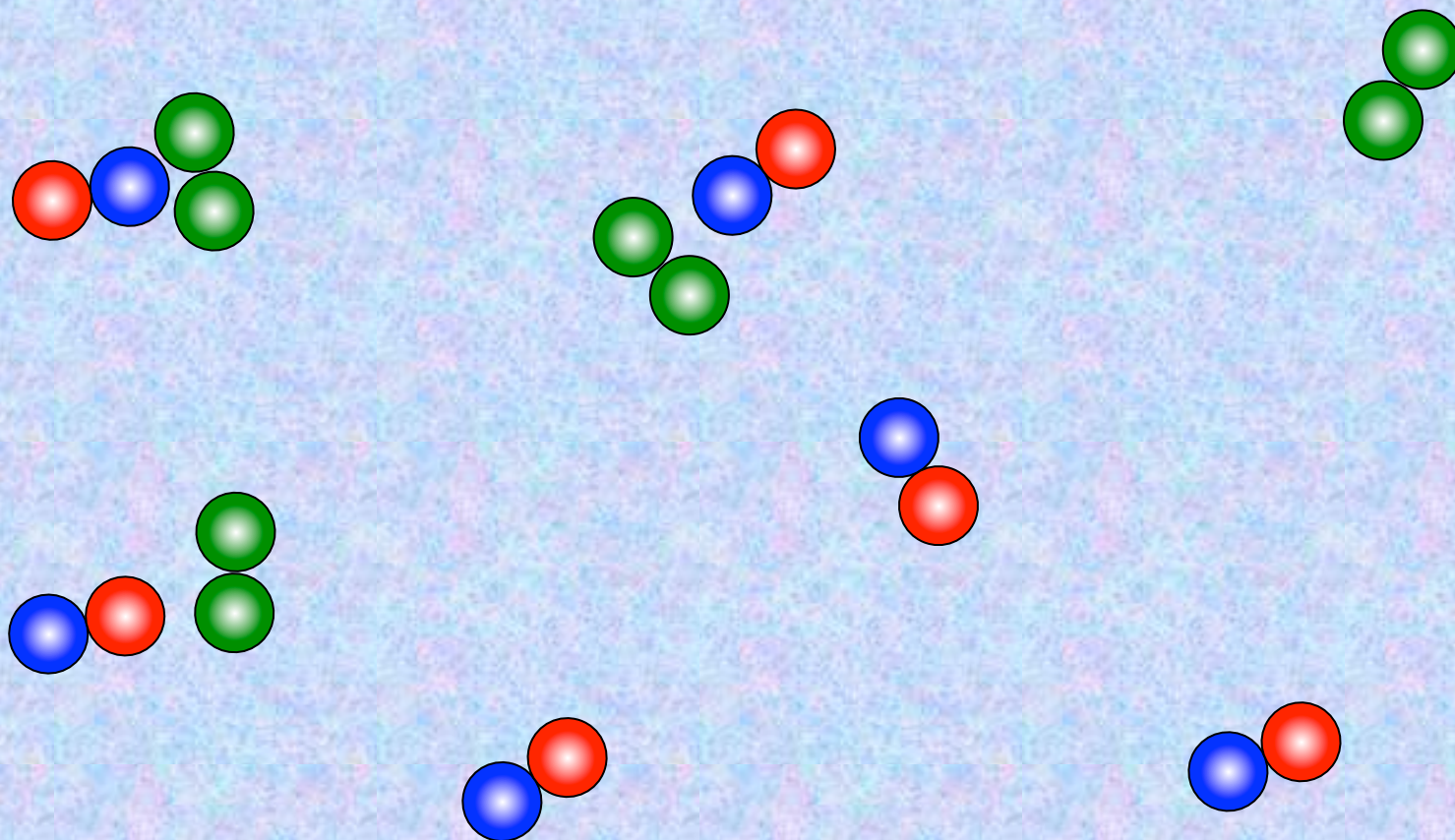


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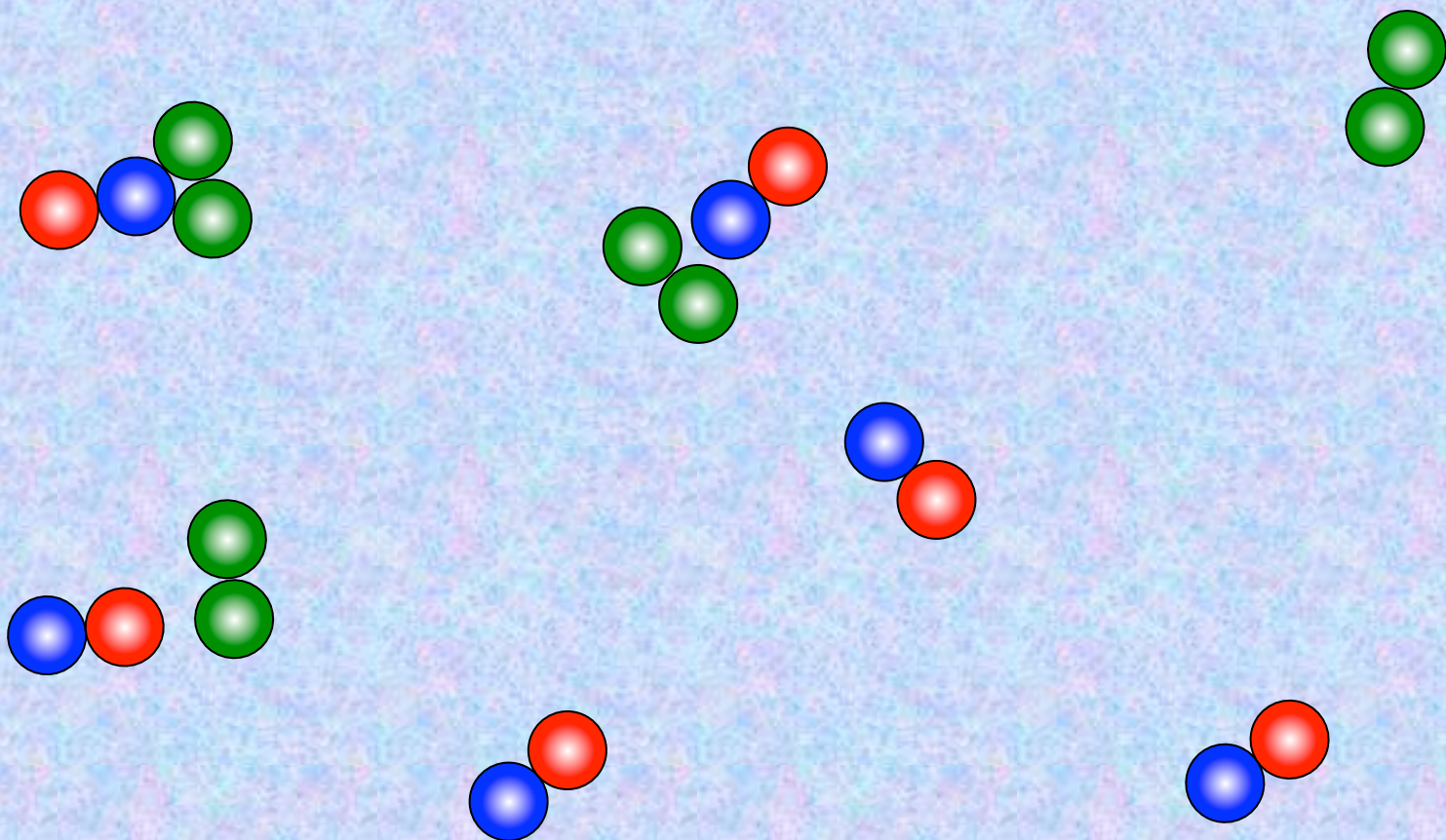
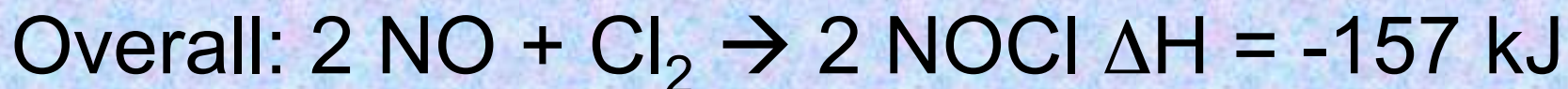
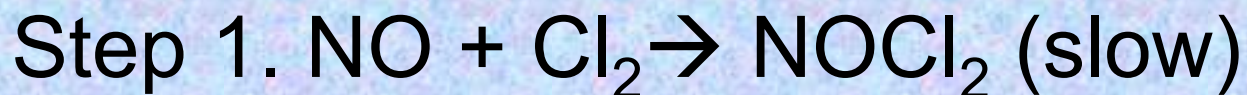
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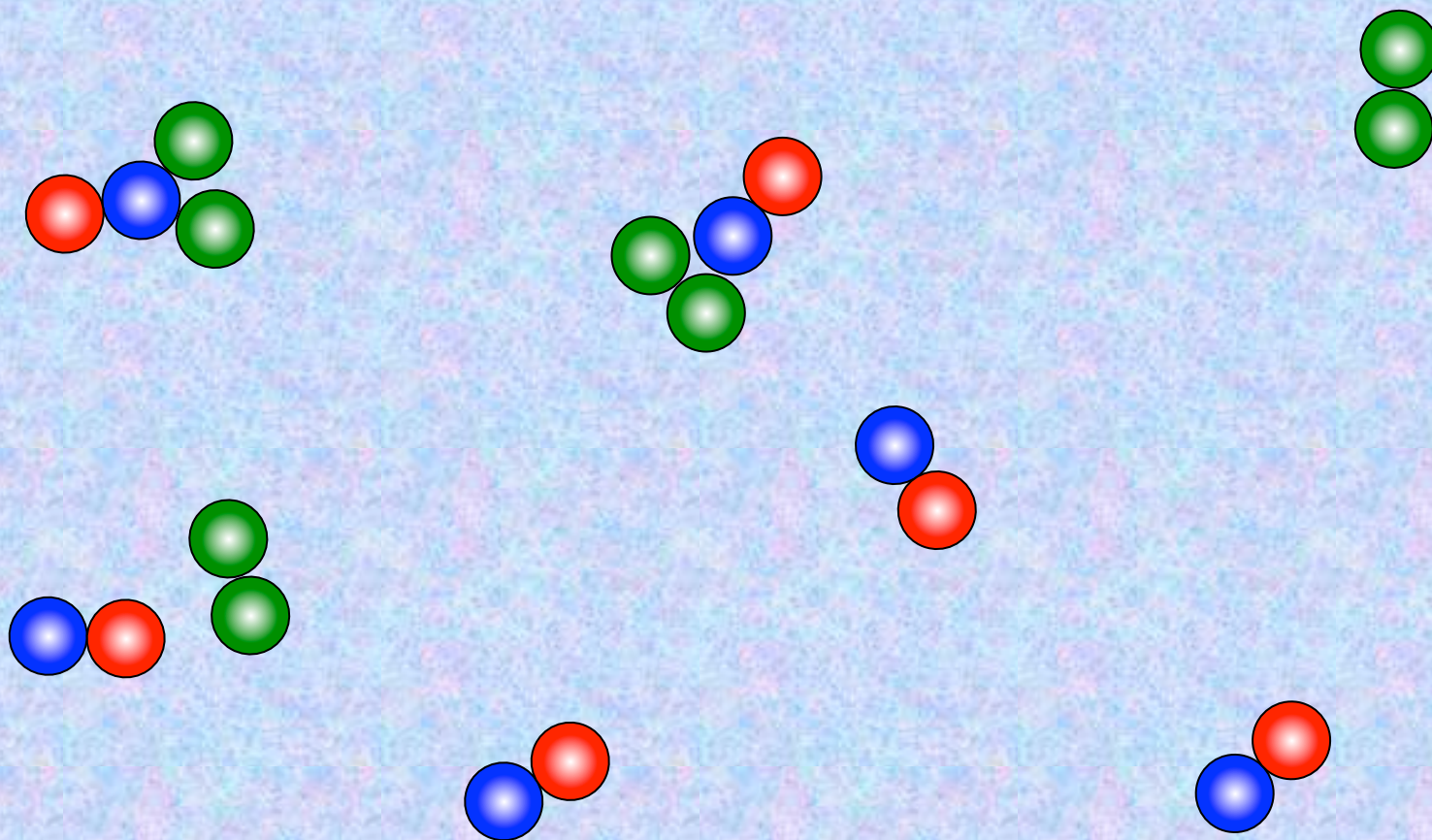
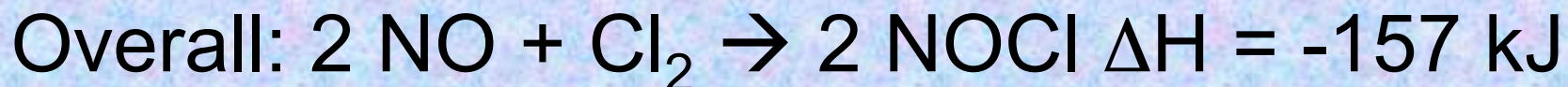
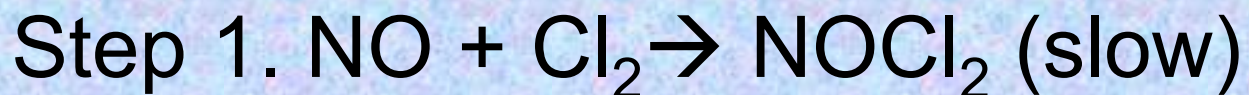
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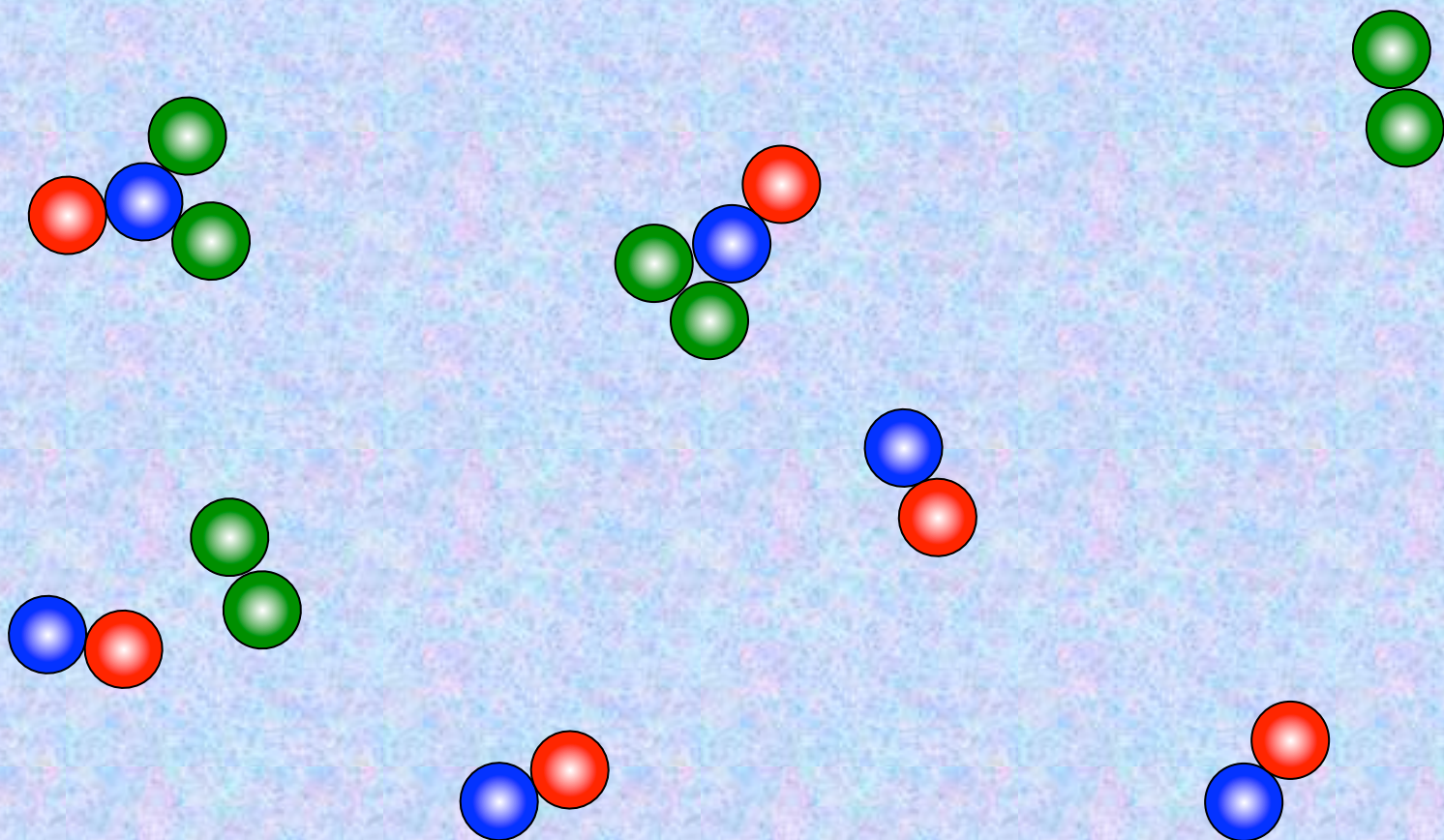
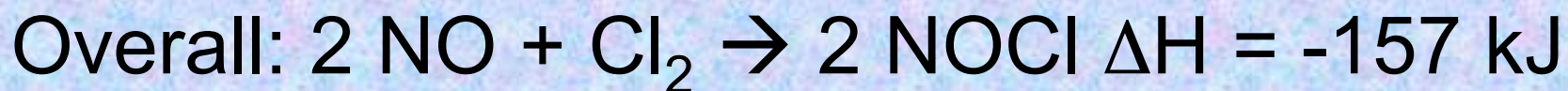
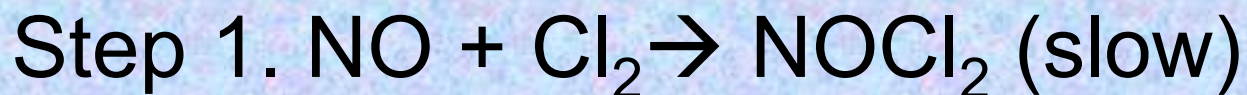
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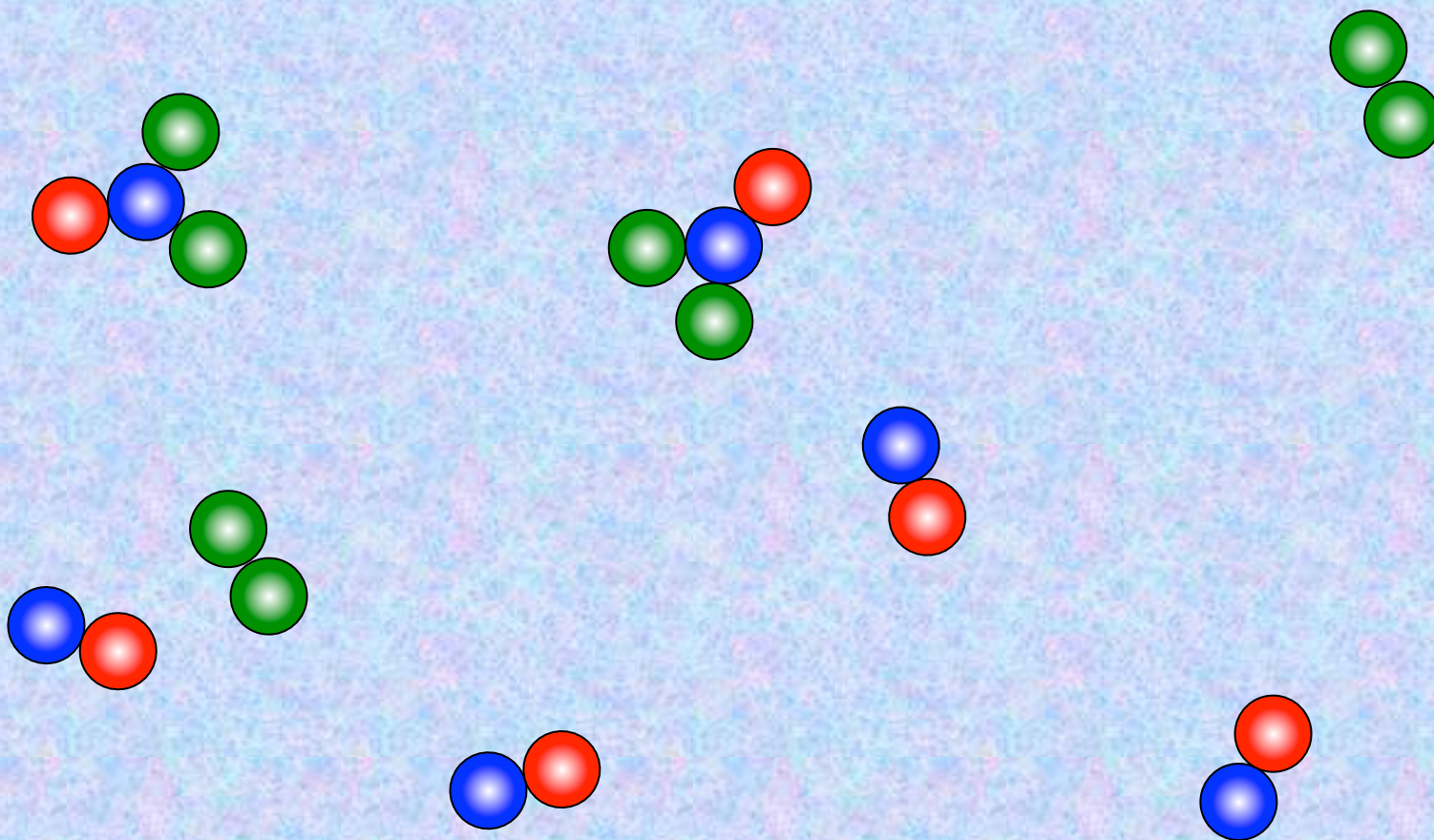
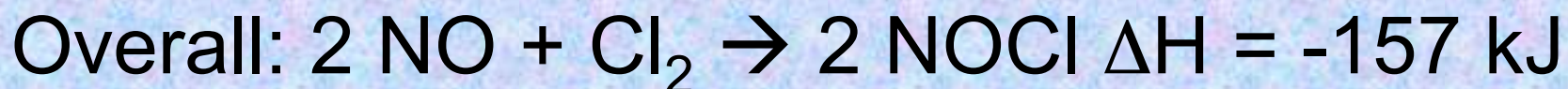
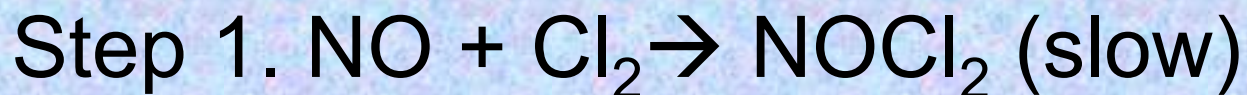
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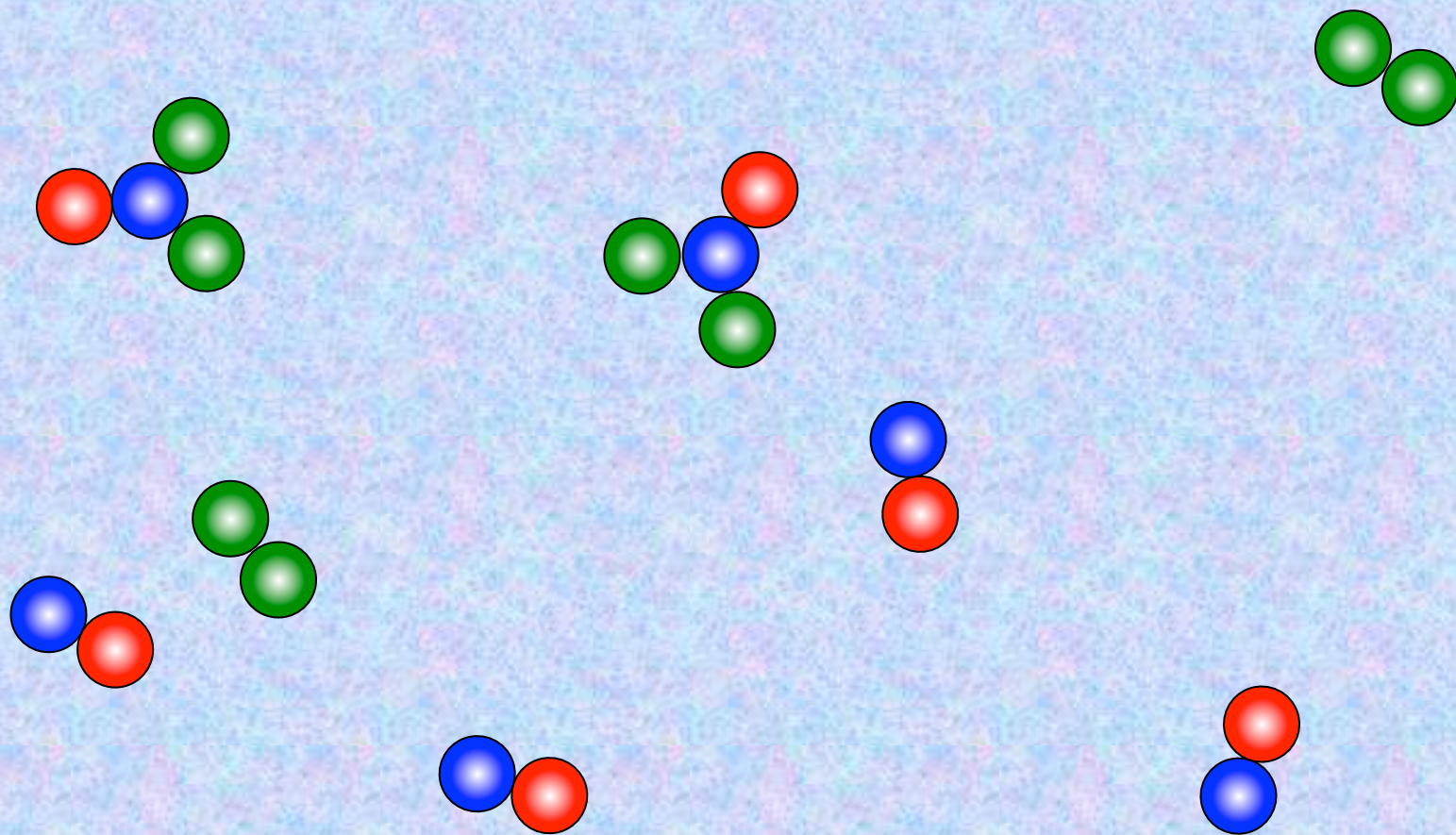
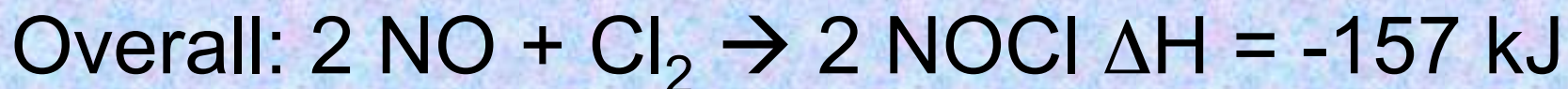
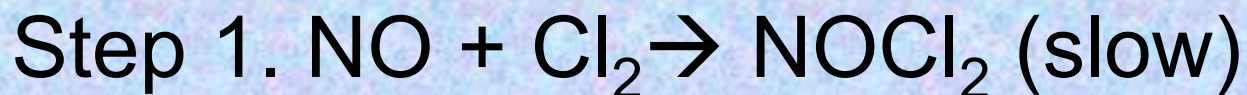
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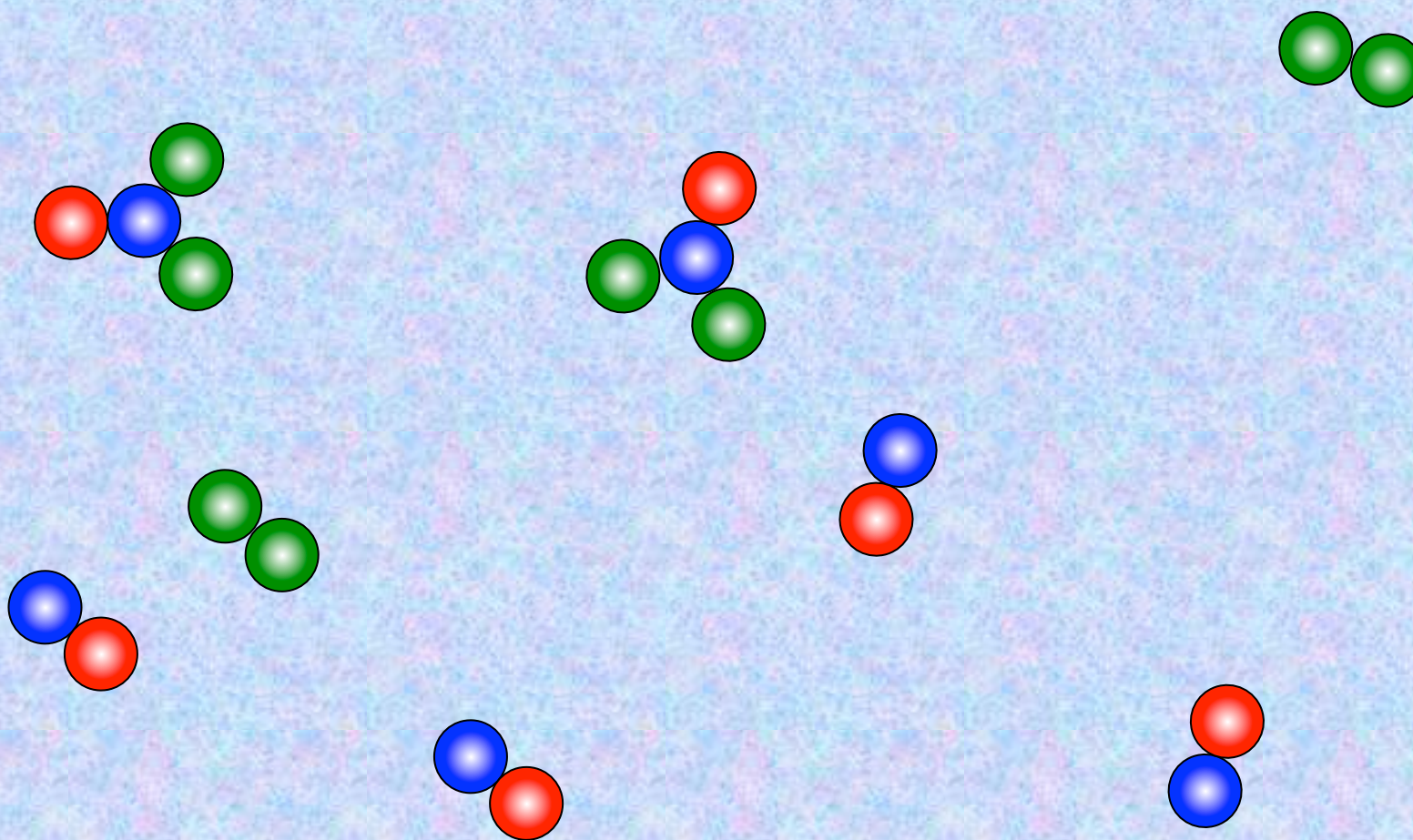


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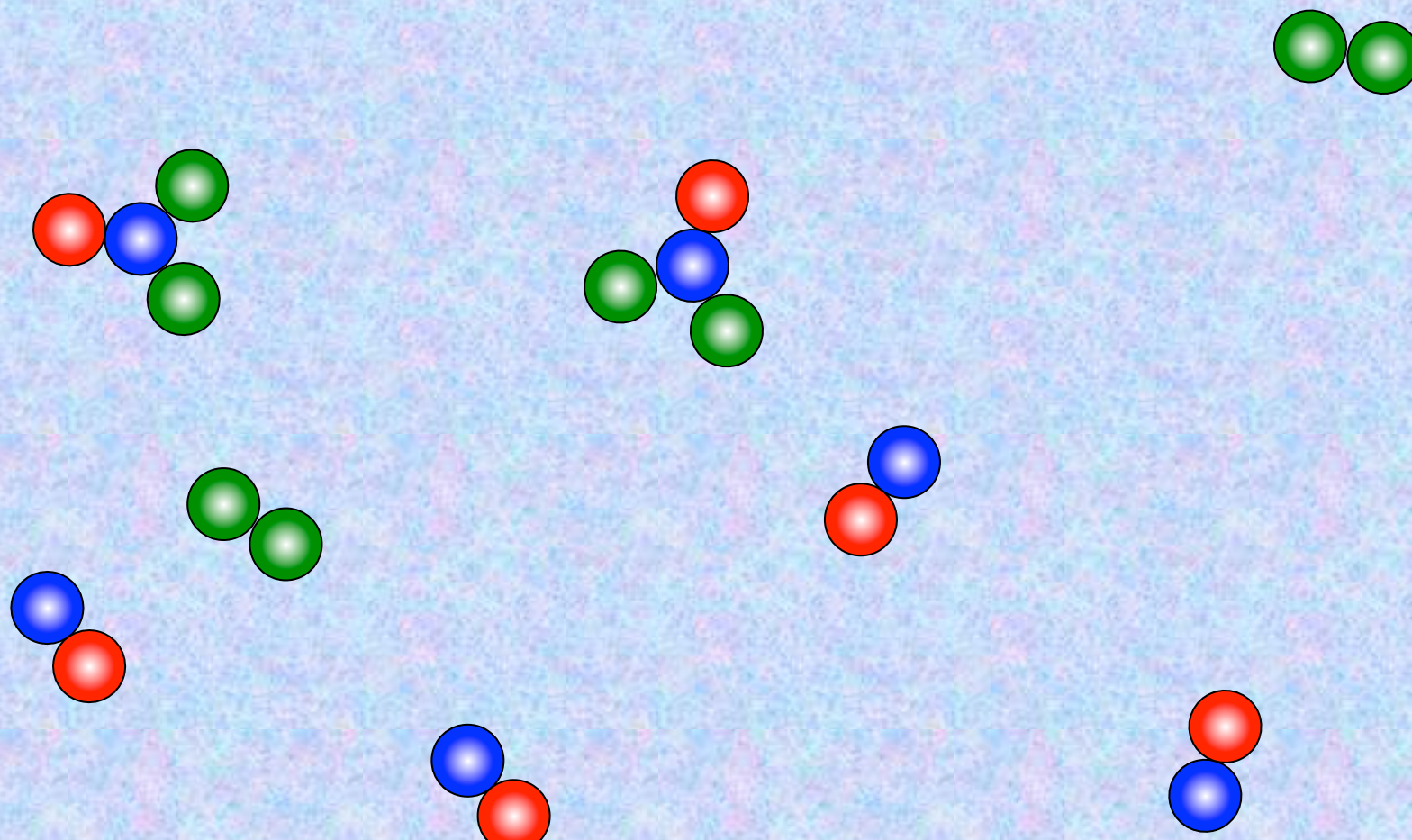
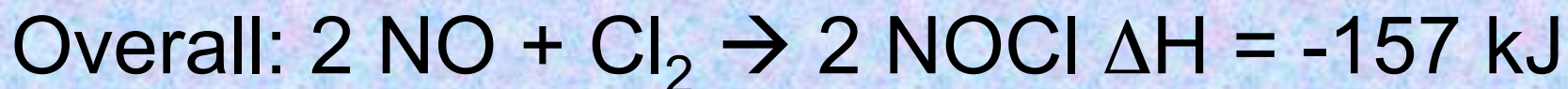
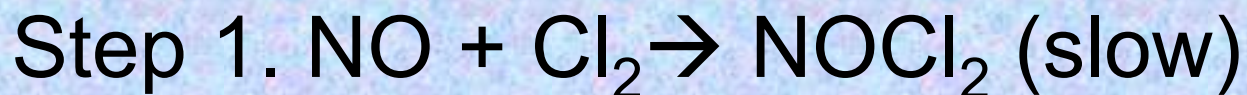
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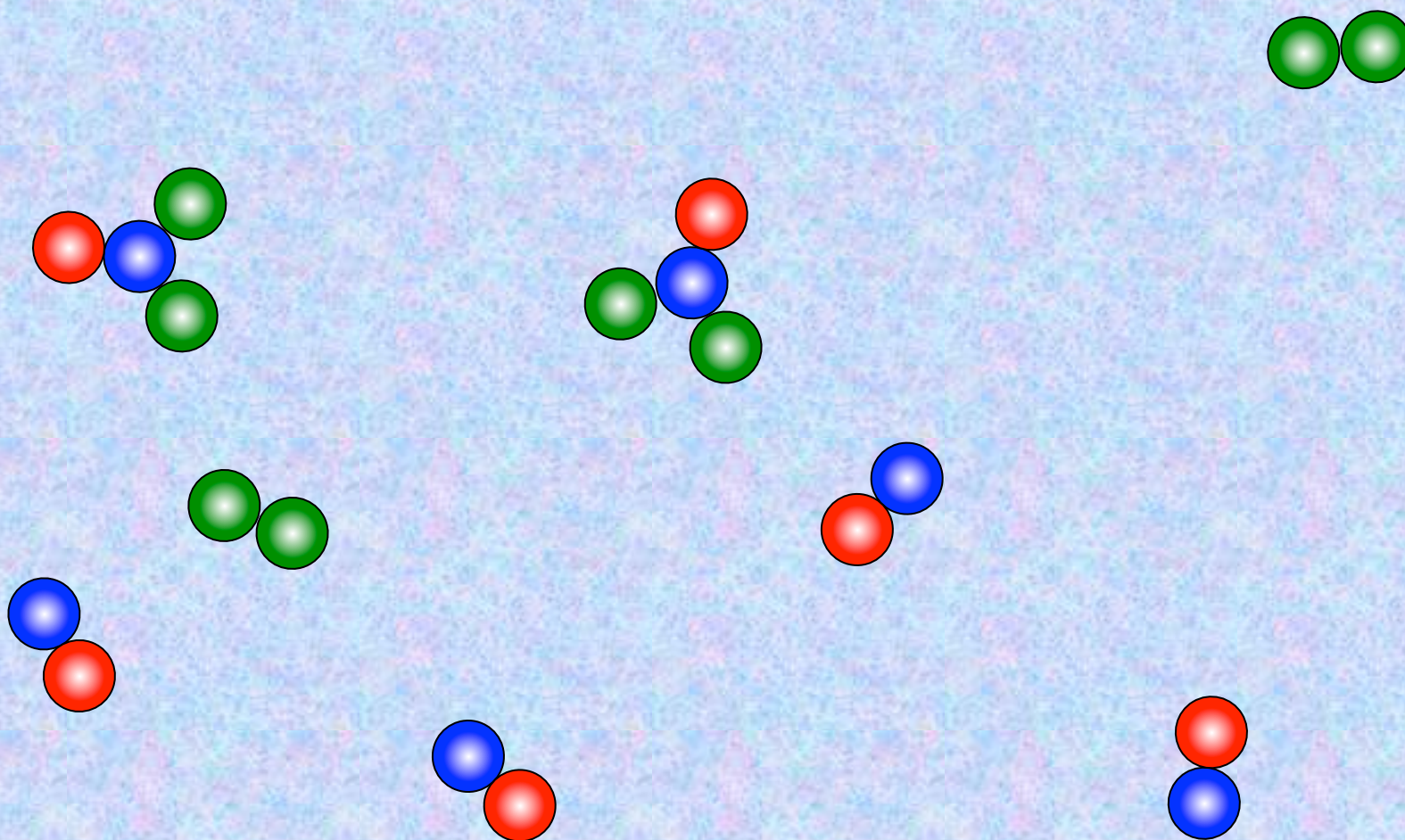
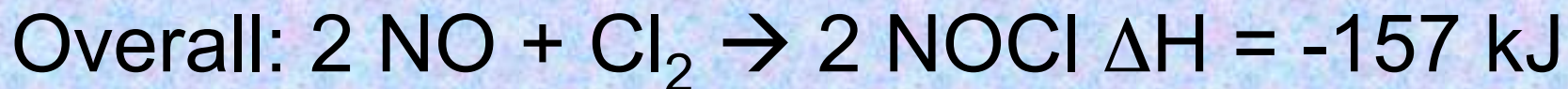
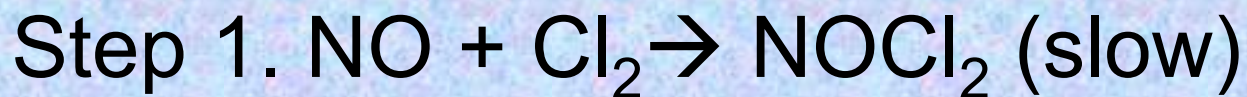
Overall: $2 \text{NO} + \text{Cl}_2 \rightarrow 2 \text{NOCl}$ $\Delta H = -157 \text{ kJ}$



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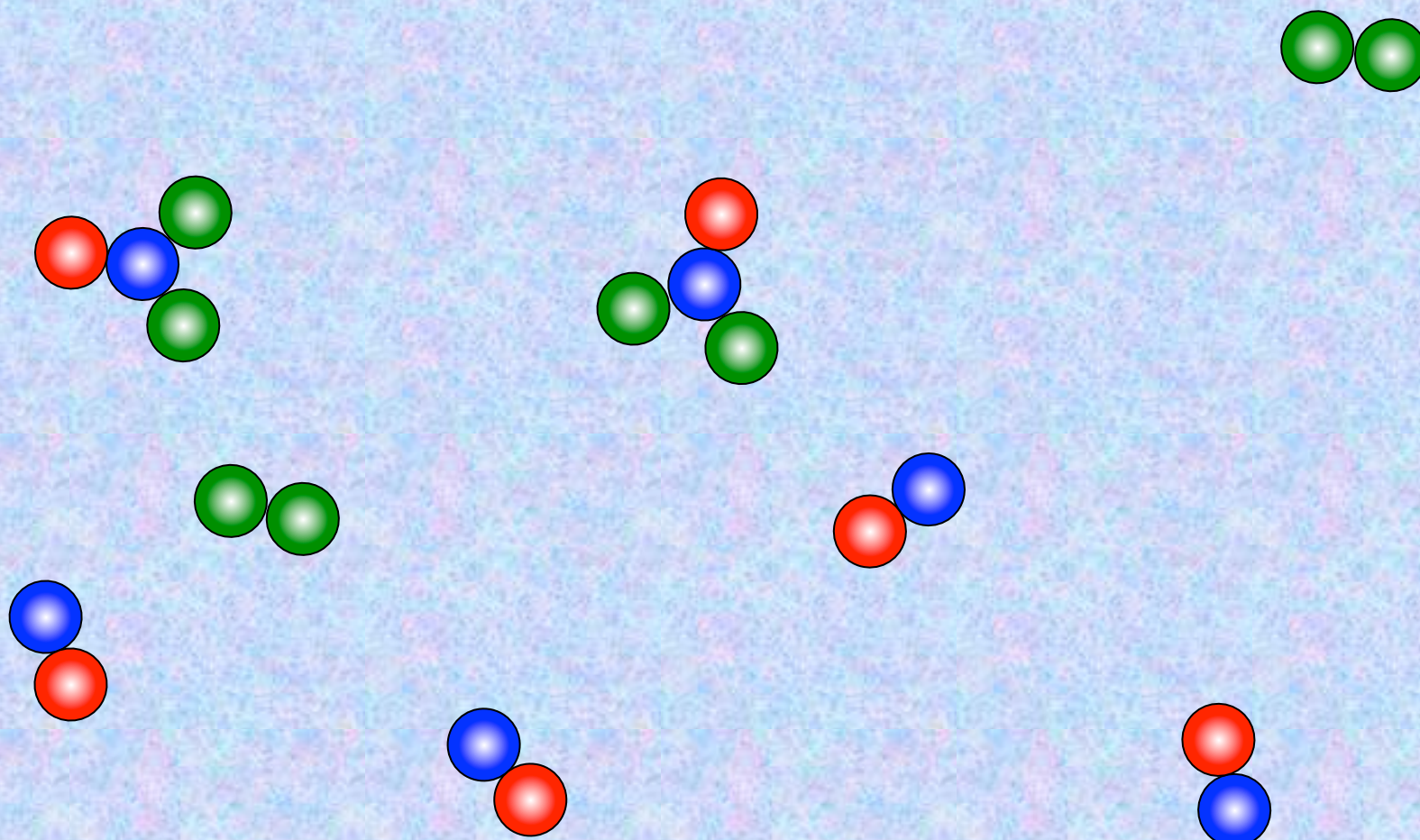


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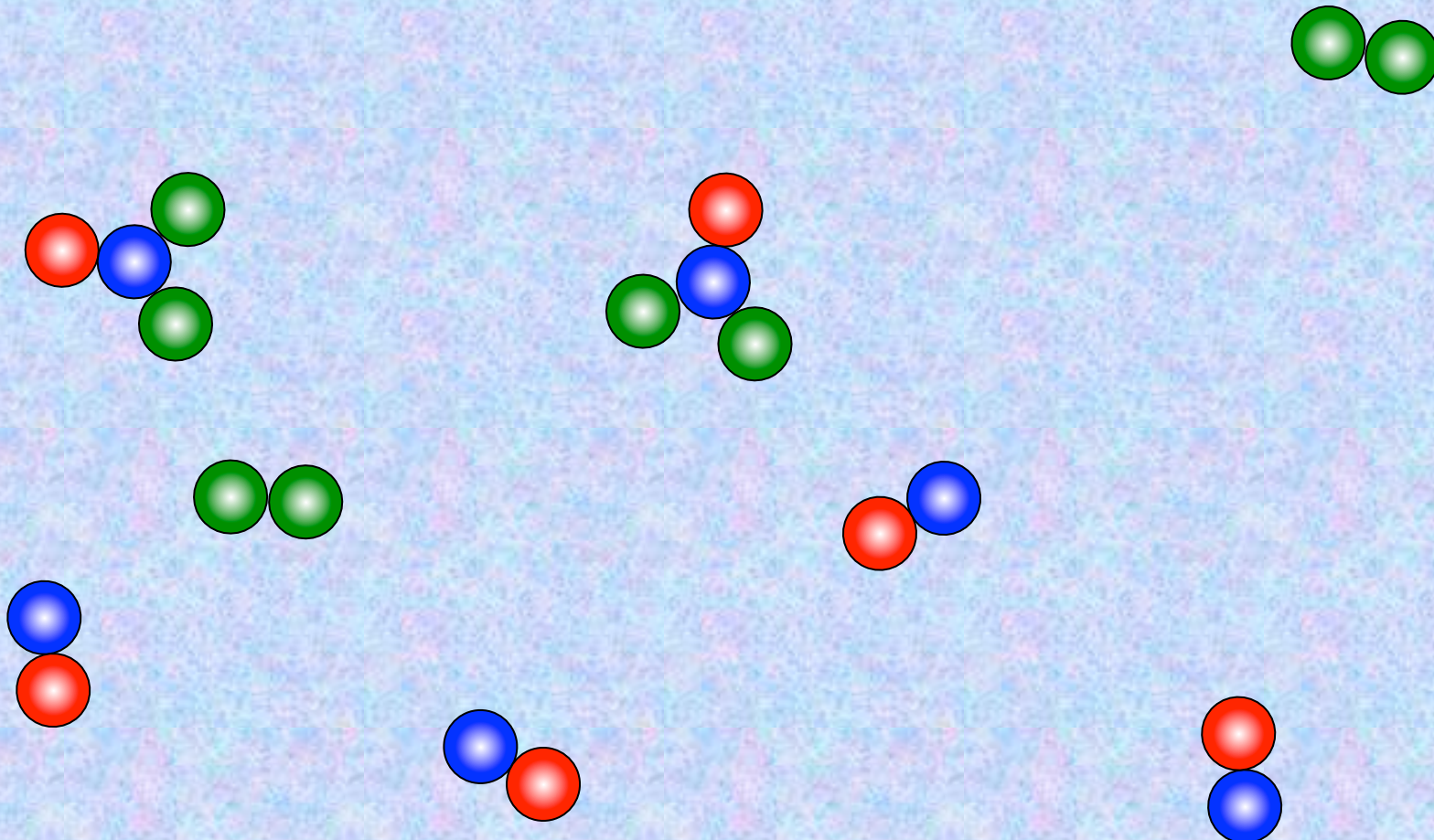


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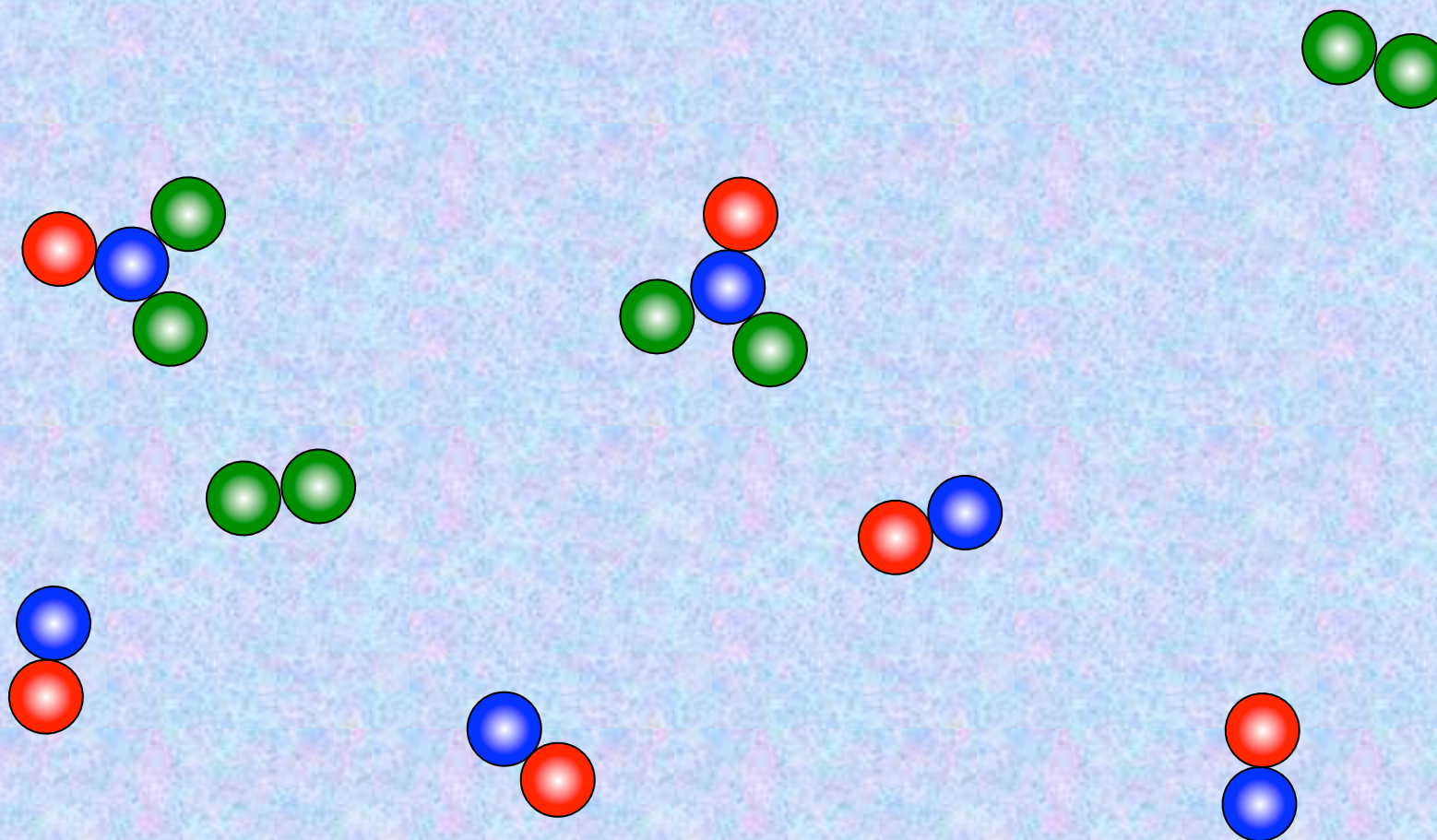


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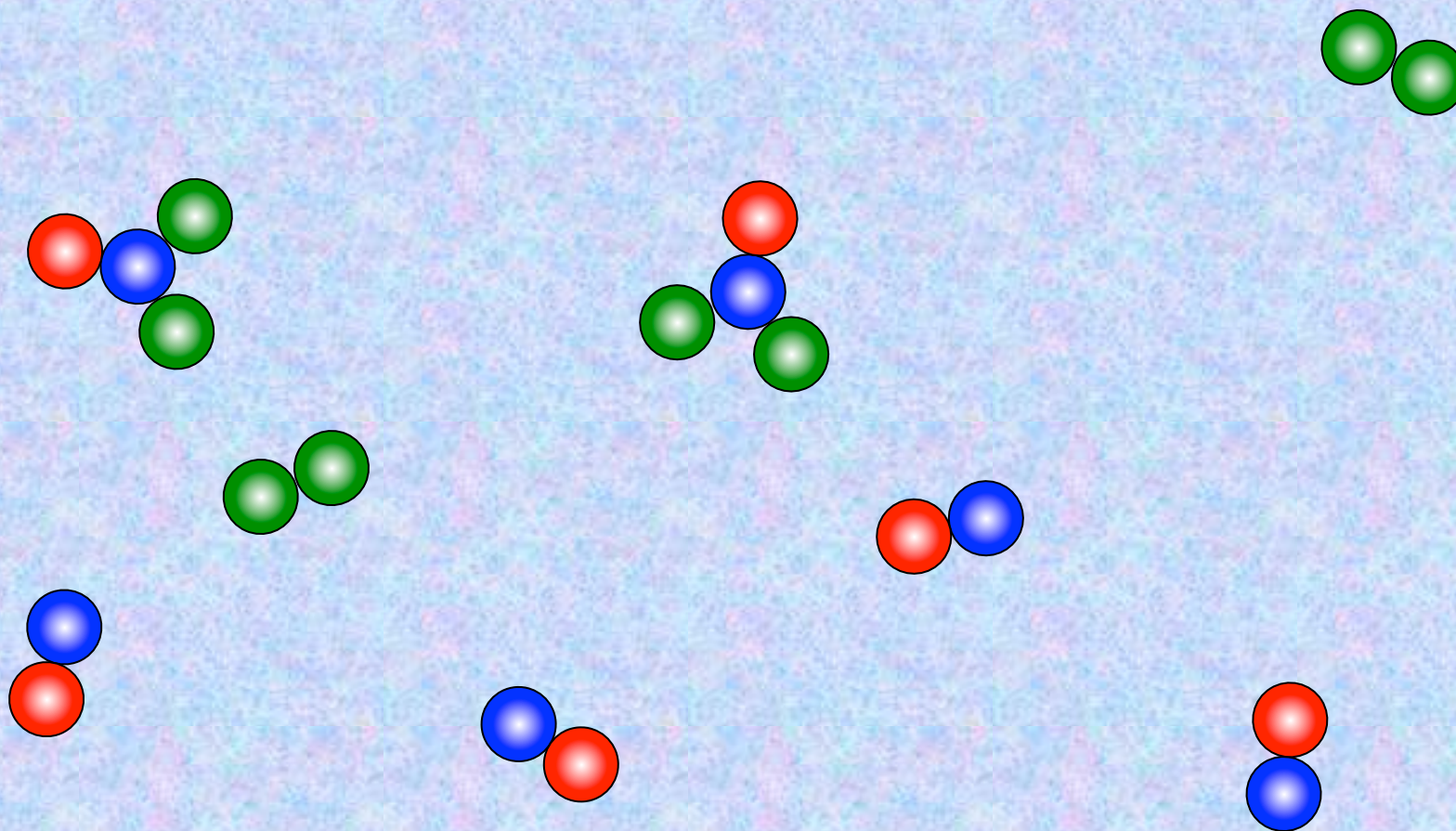


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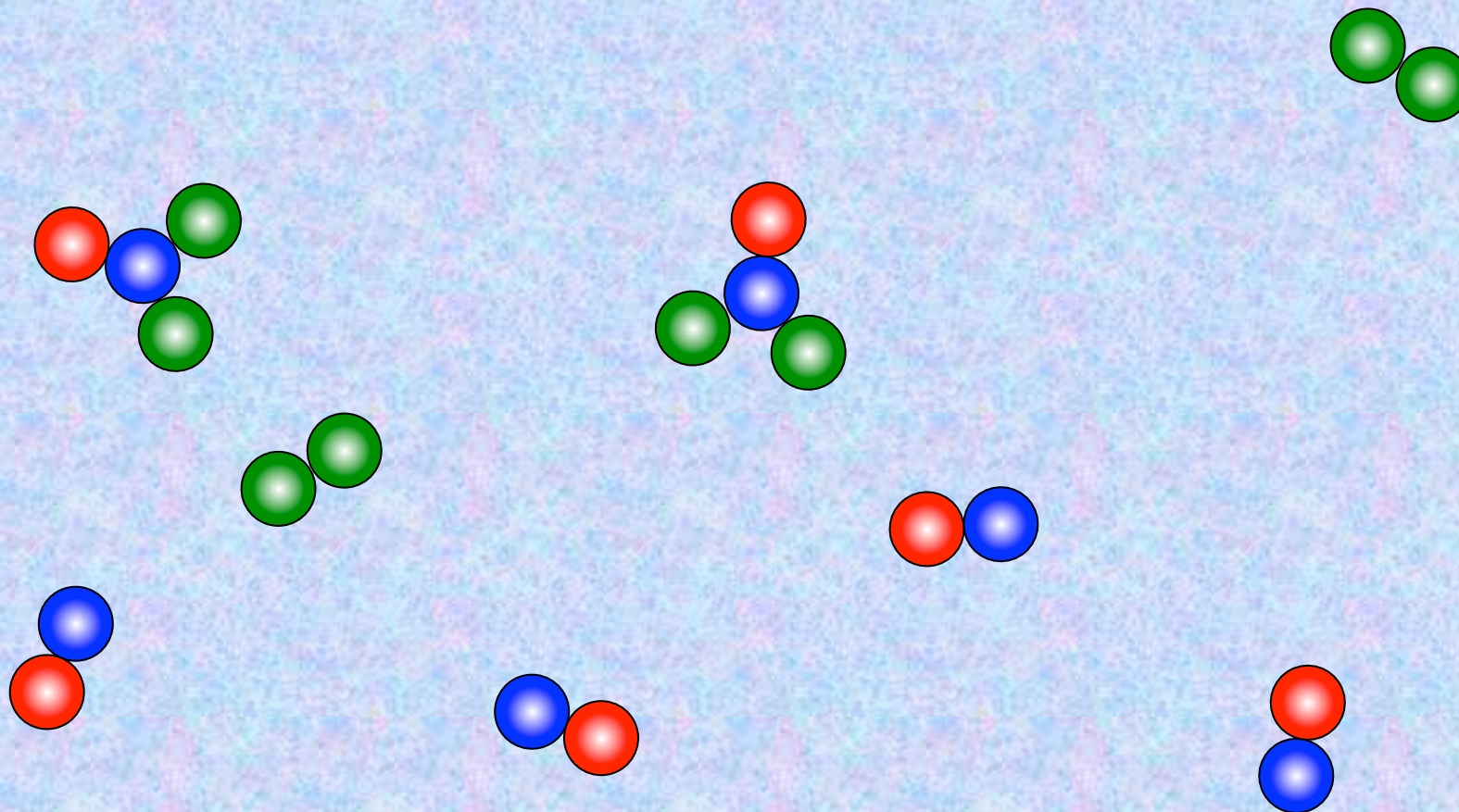


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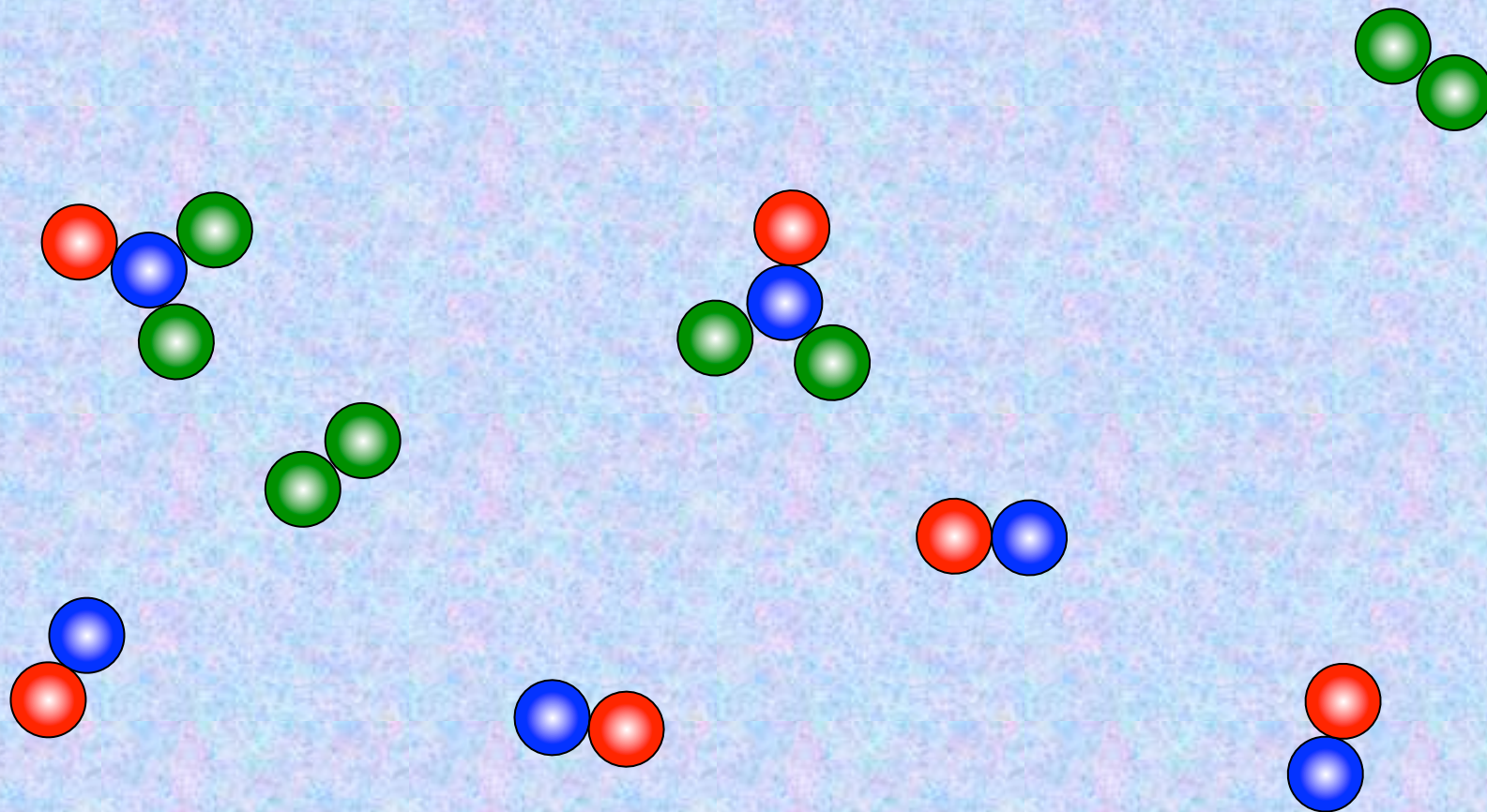


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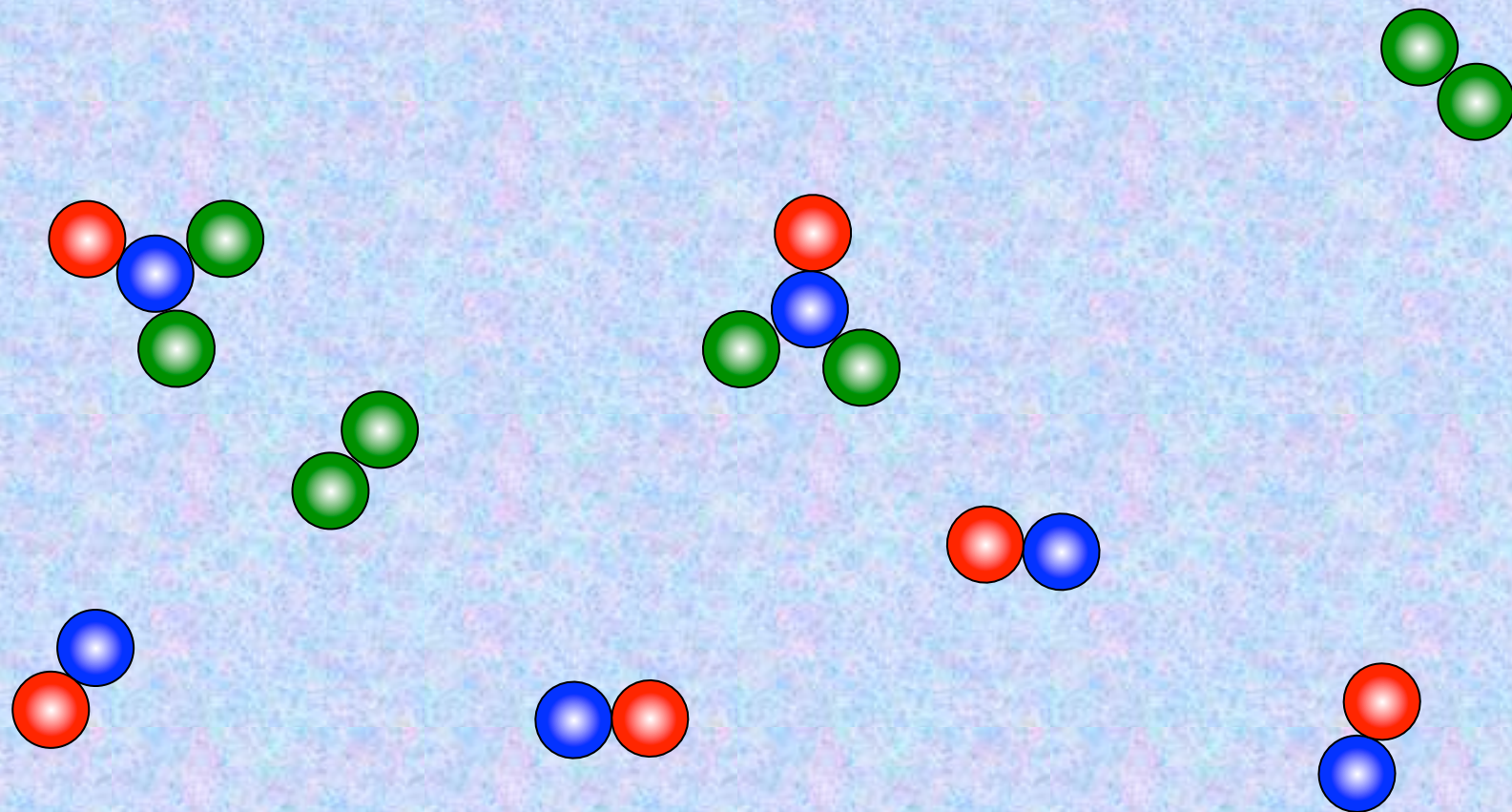
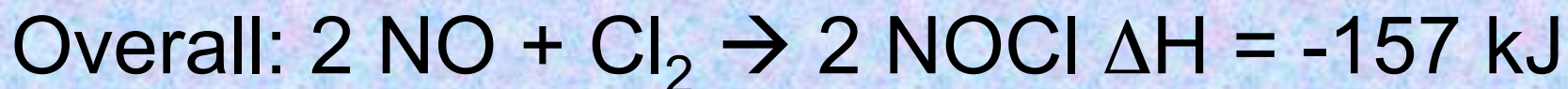
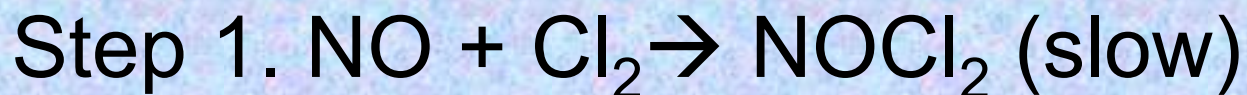
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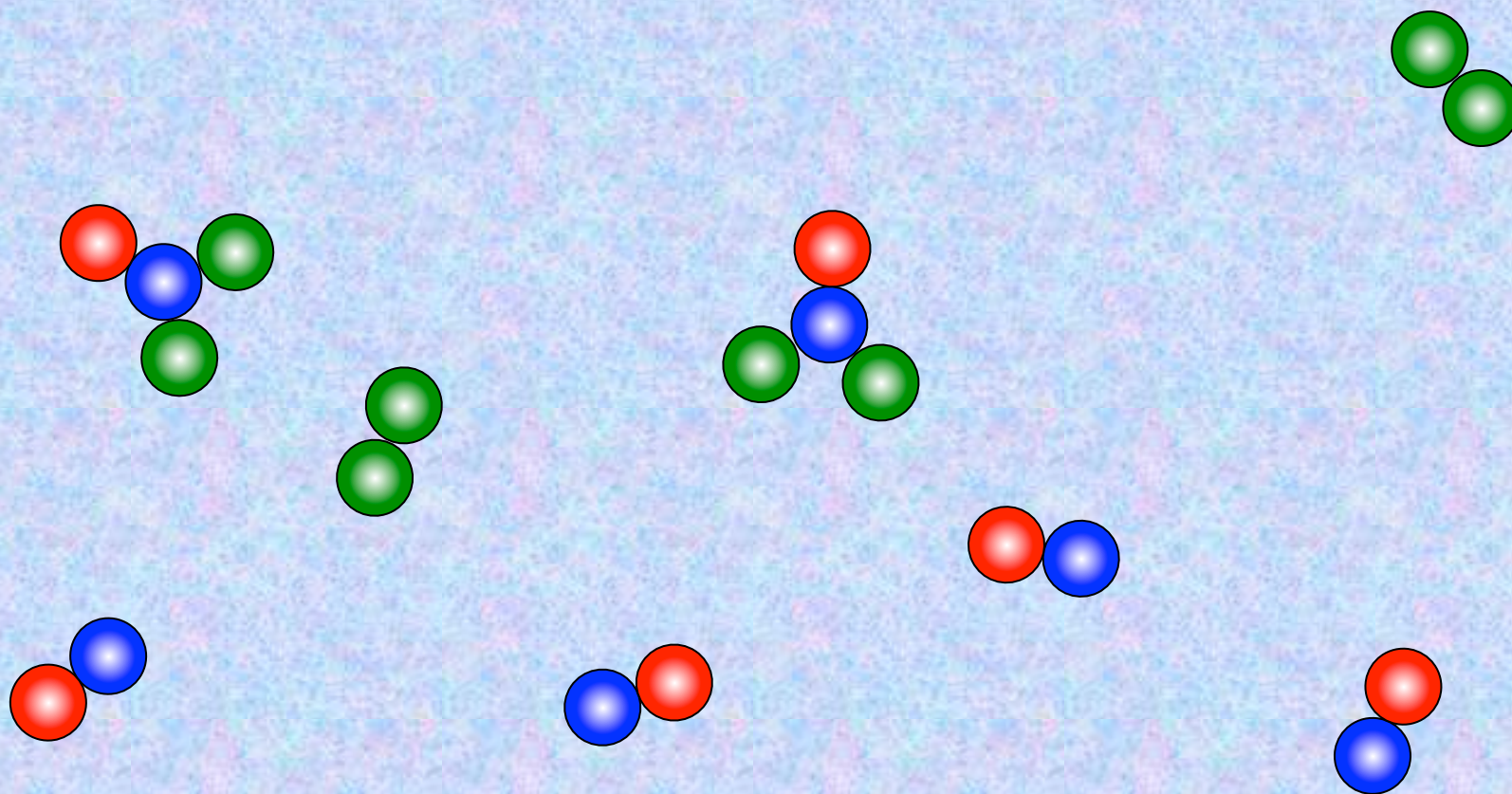
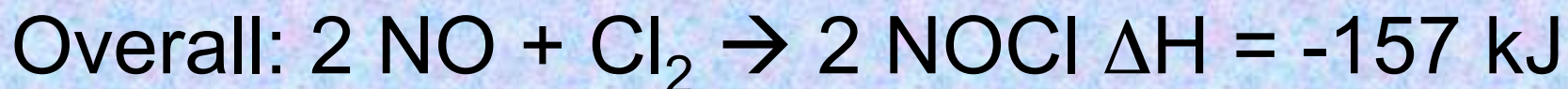
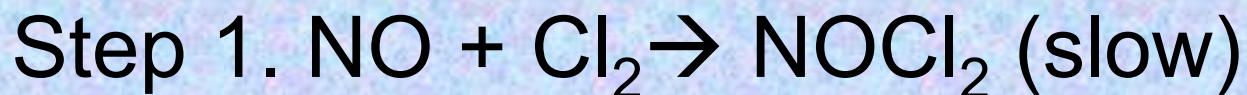
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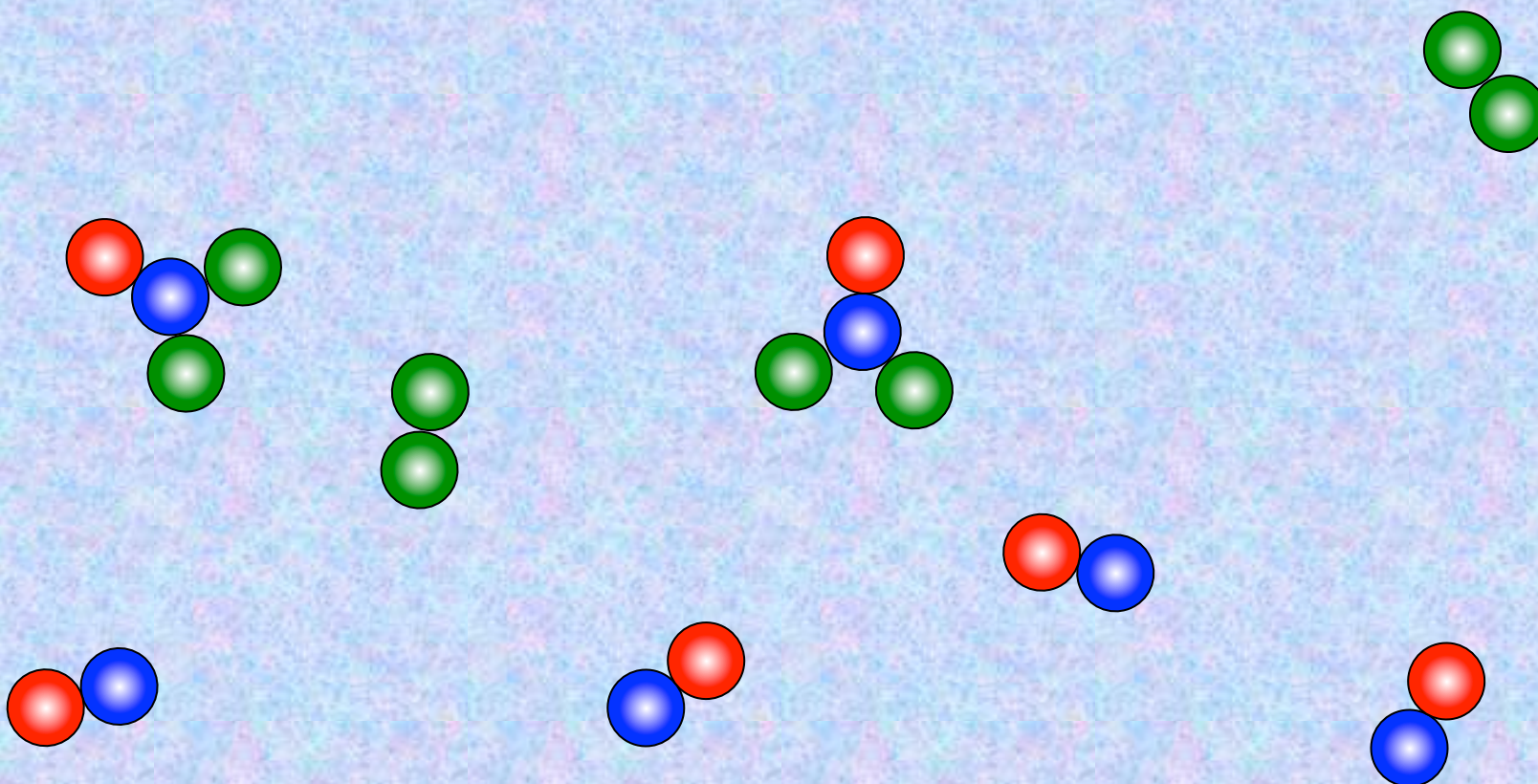
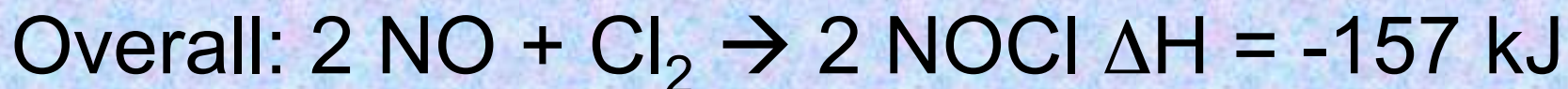
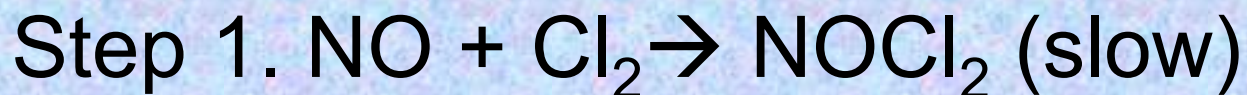
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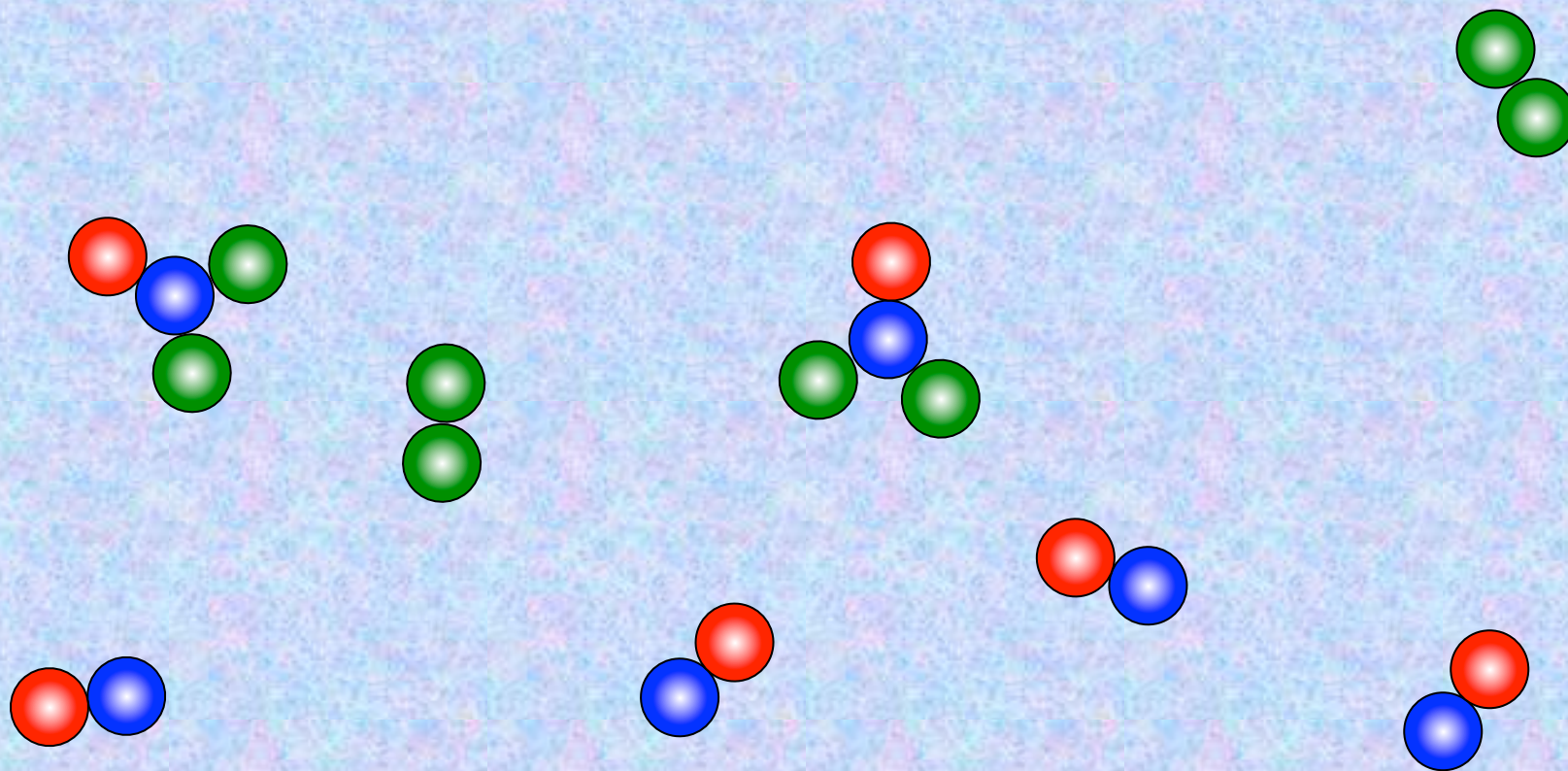
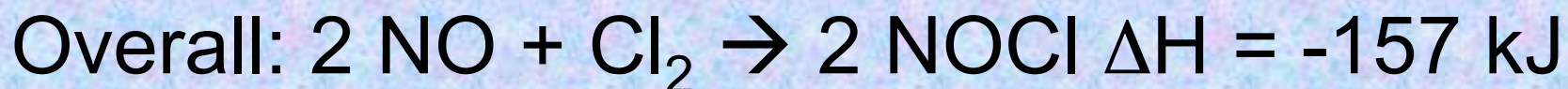
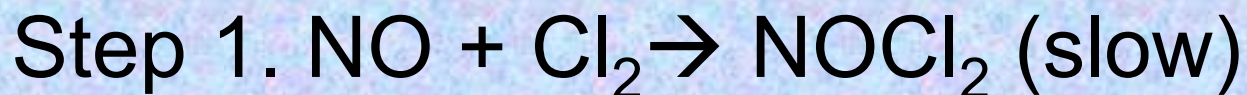
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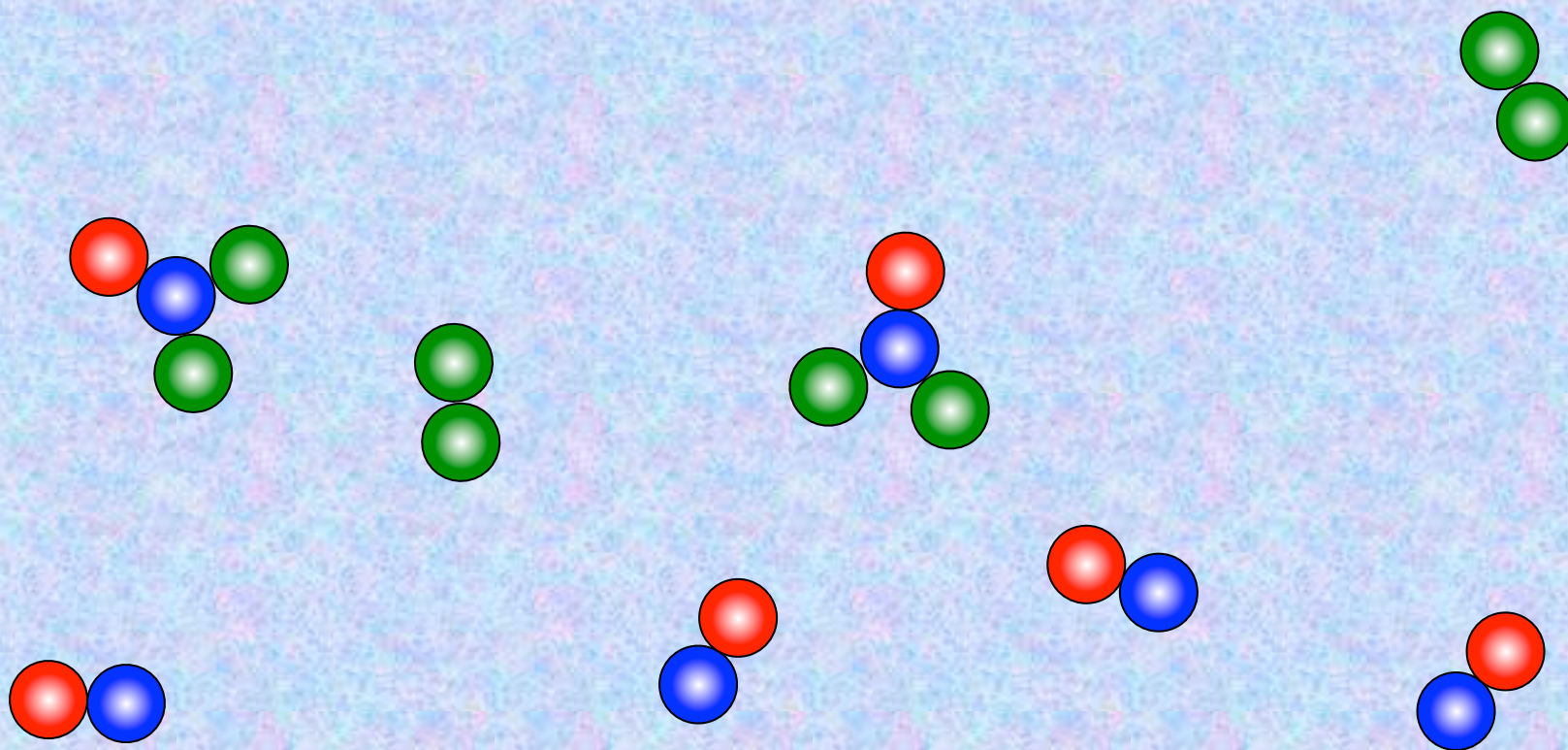
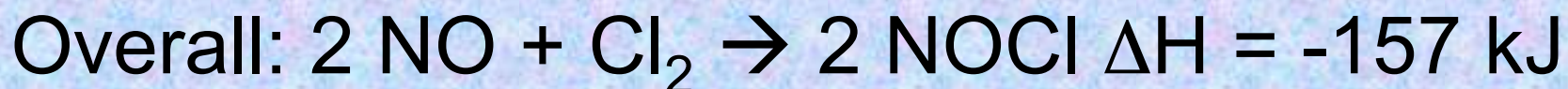
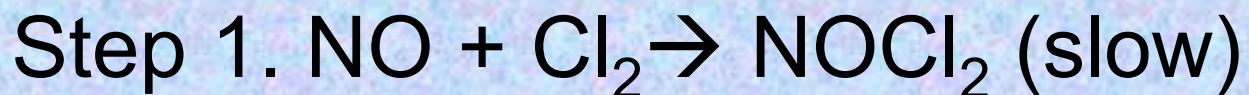
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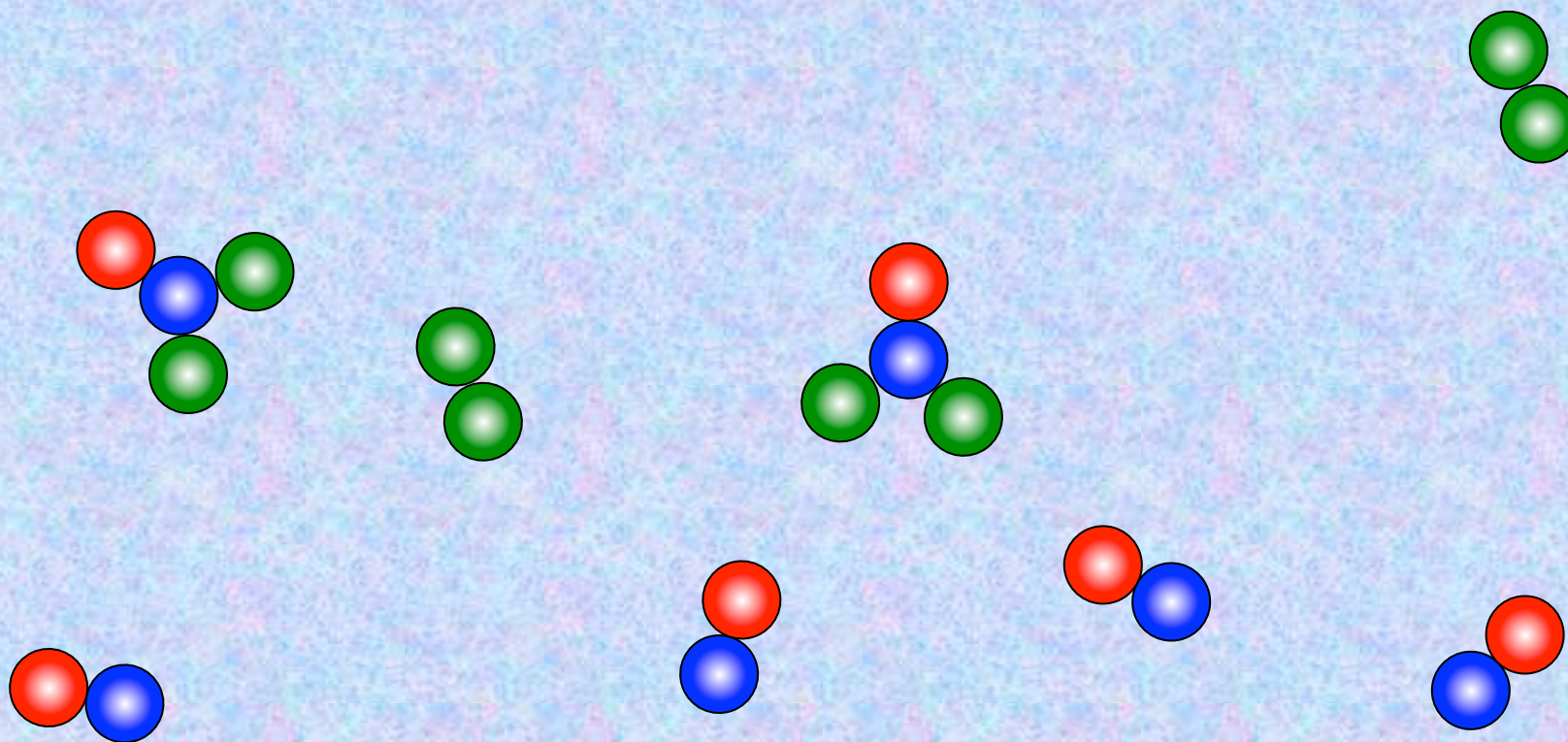
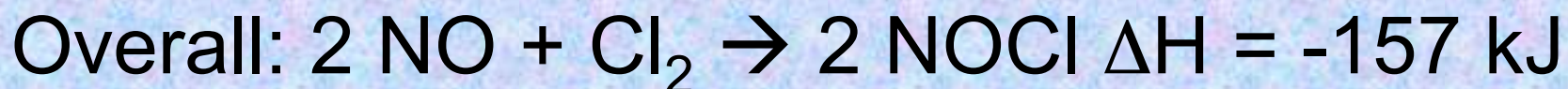
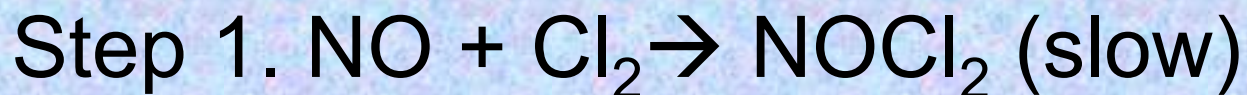
Project 7.



Project 7.



Project 7.

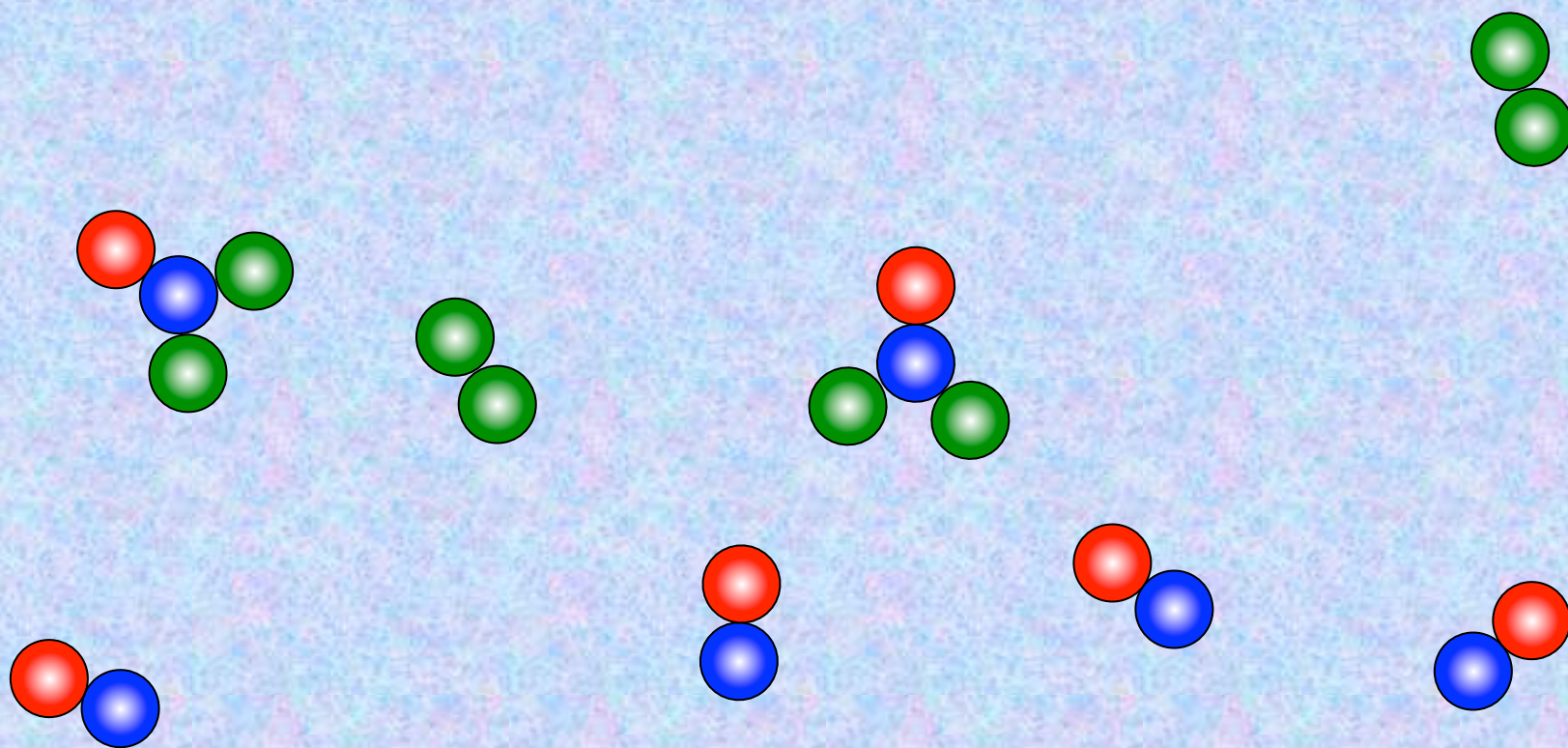


Project 7.

Step 1. $\text{NO} + \text{Cl}_2 \rightarrow \text{NOCl}_2$ (slow)

Step 2. $\text{NOCl}_2 + \text{NO} \rightarrow 2 \text{NOCl}$ (fast)

Overall: $2 \text{NO} + \text{Cl}_2 \rightarrow 2 \text{NOCl}$ $\Delta H = -157 \text{ kJ}$

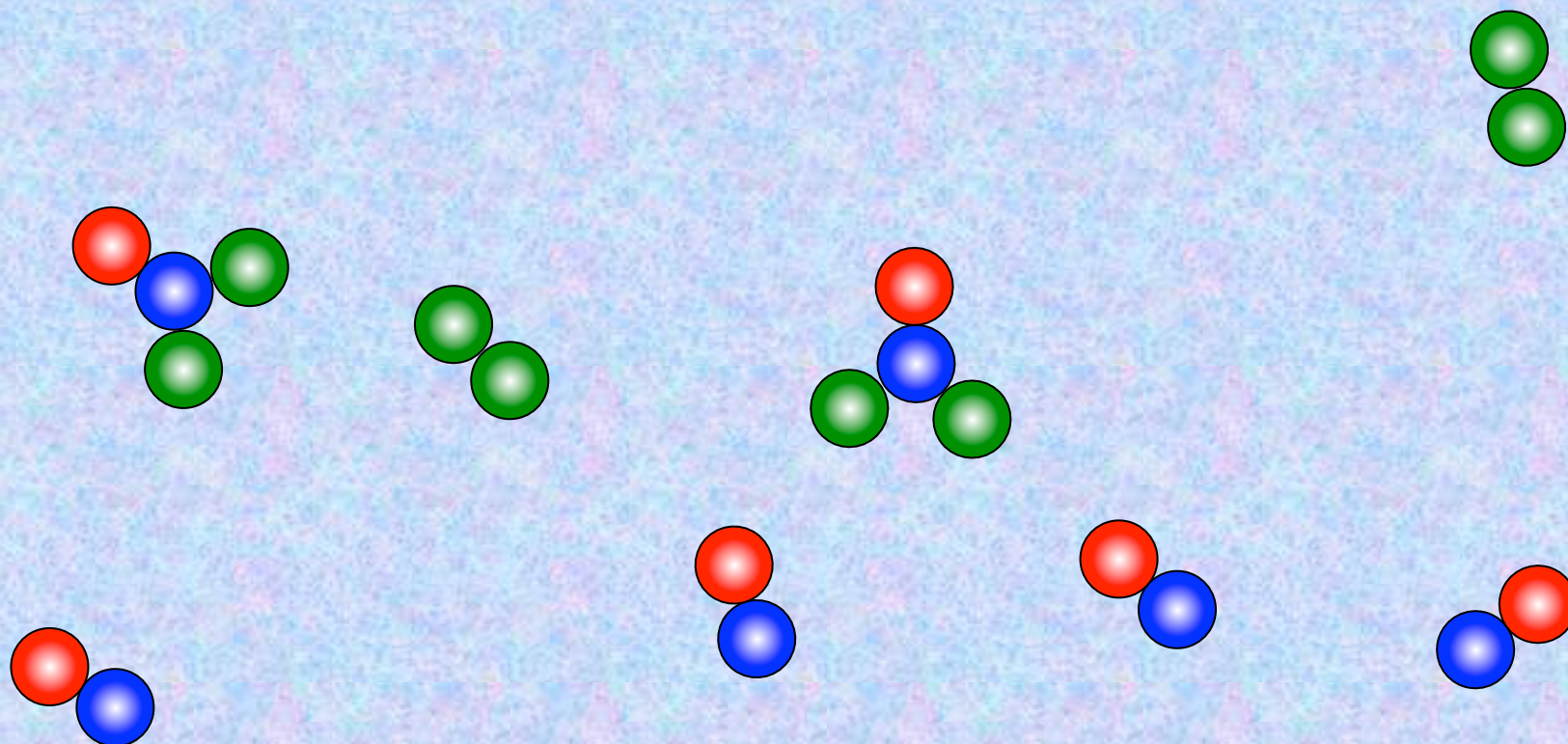


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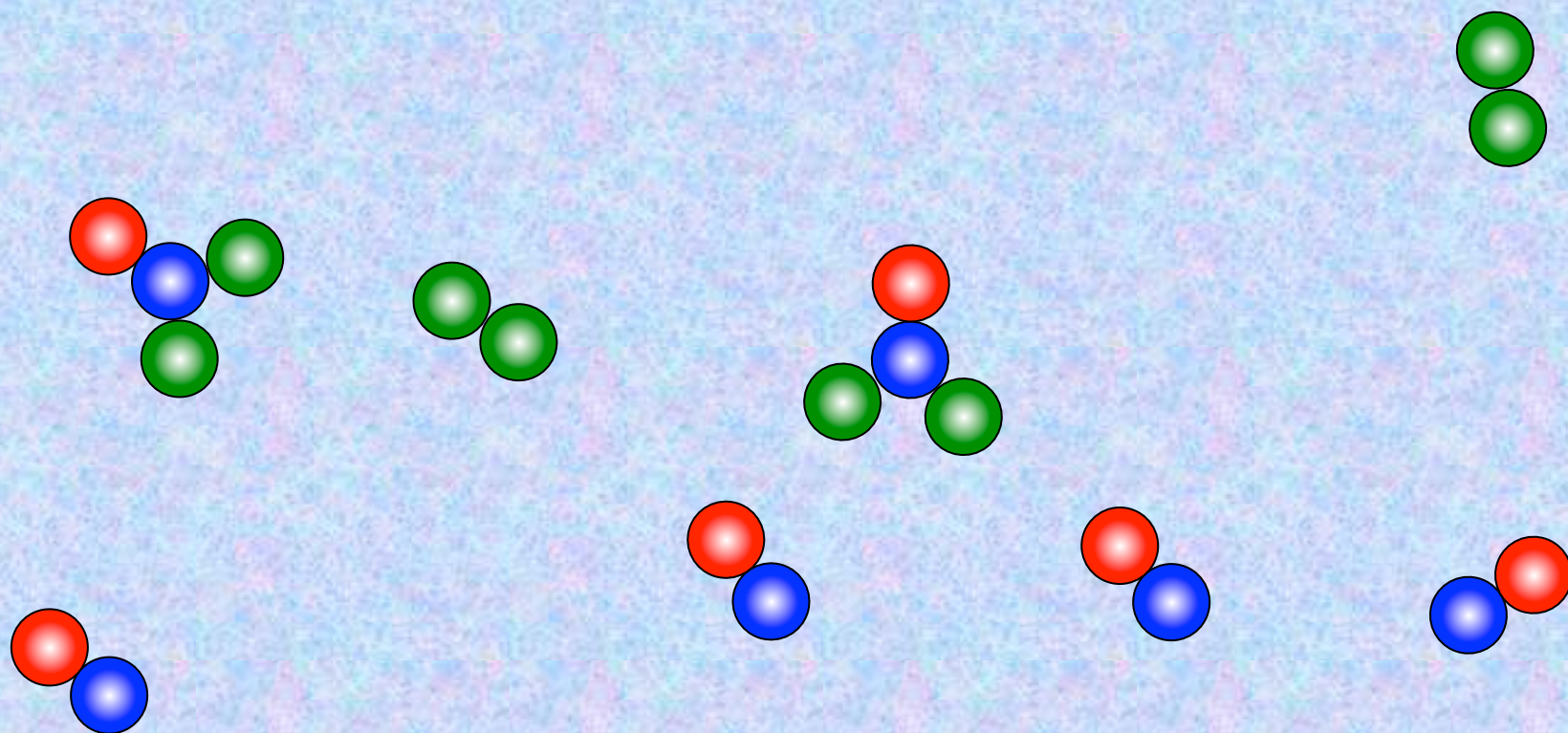


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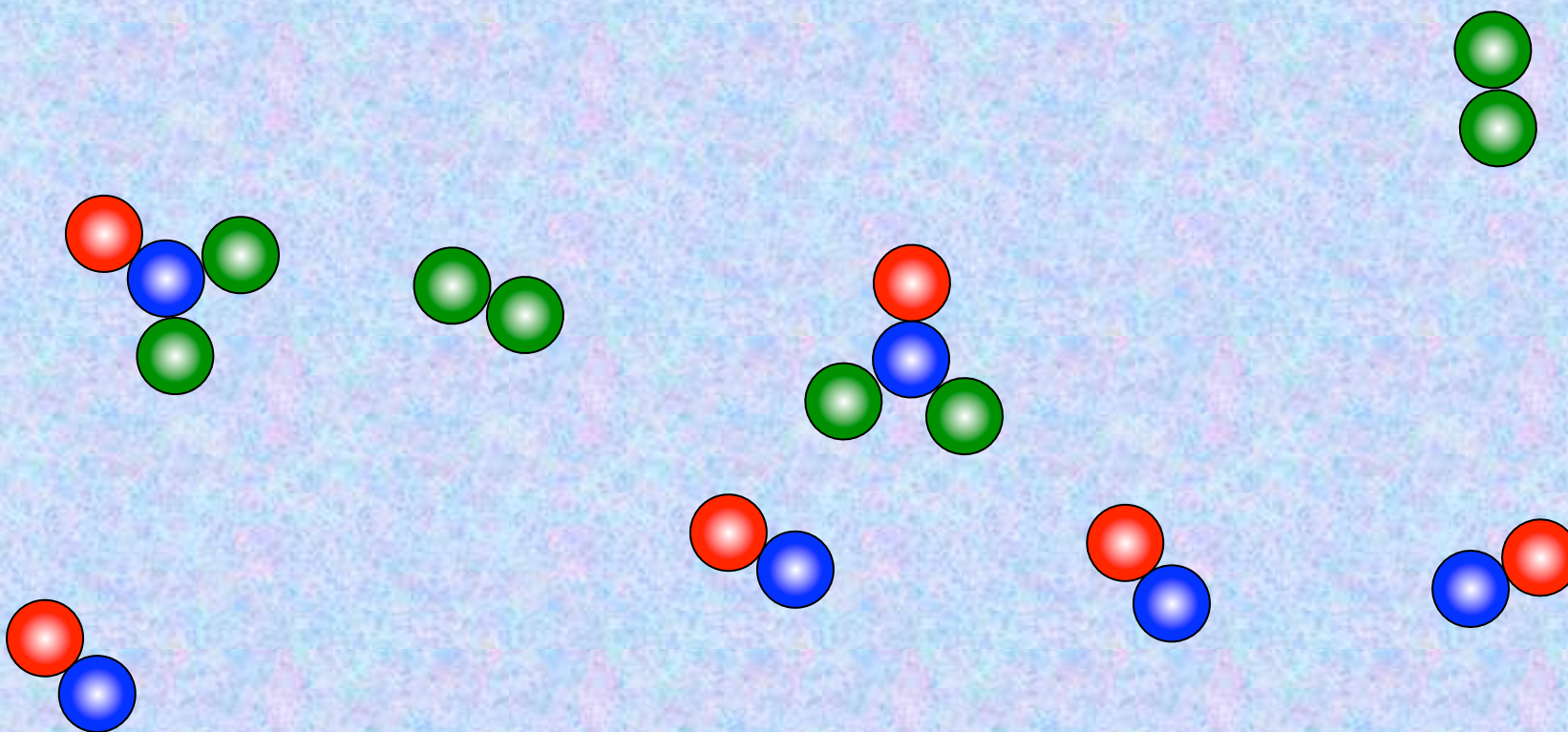


Project 7.

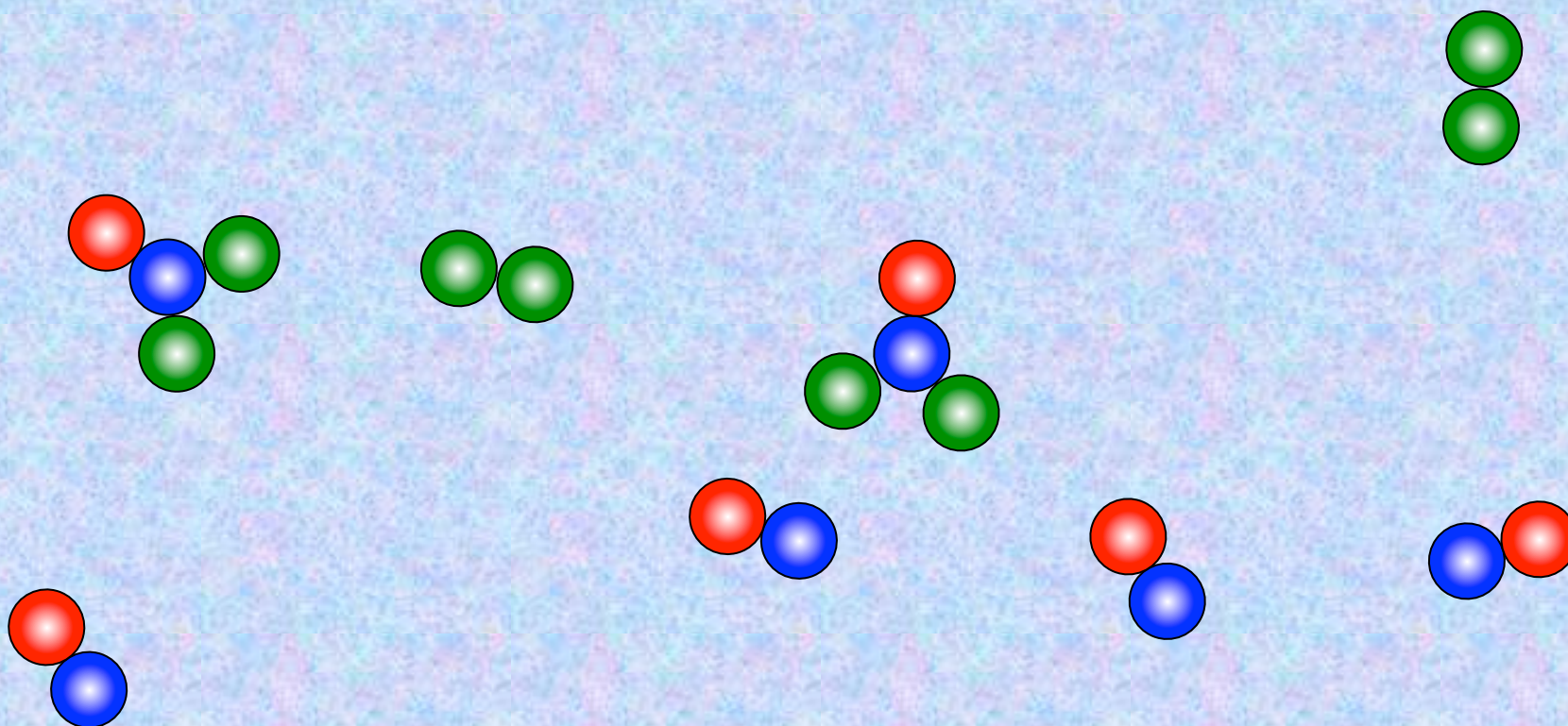
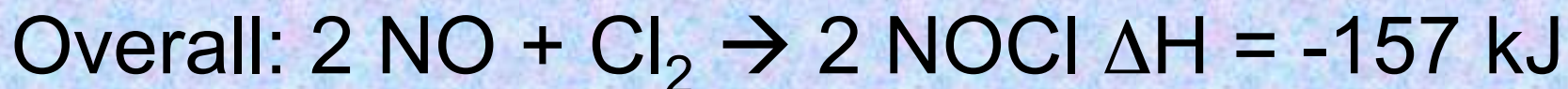
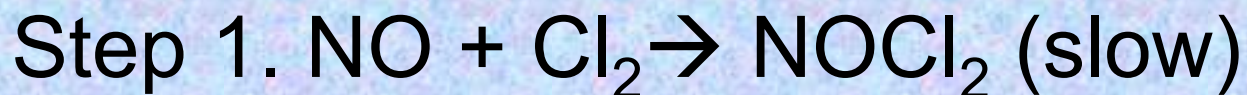
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Project 7.

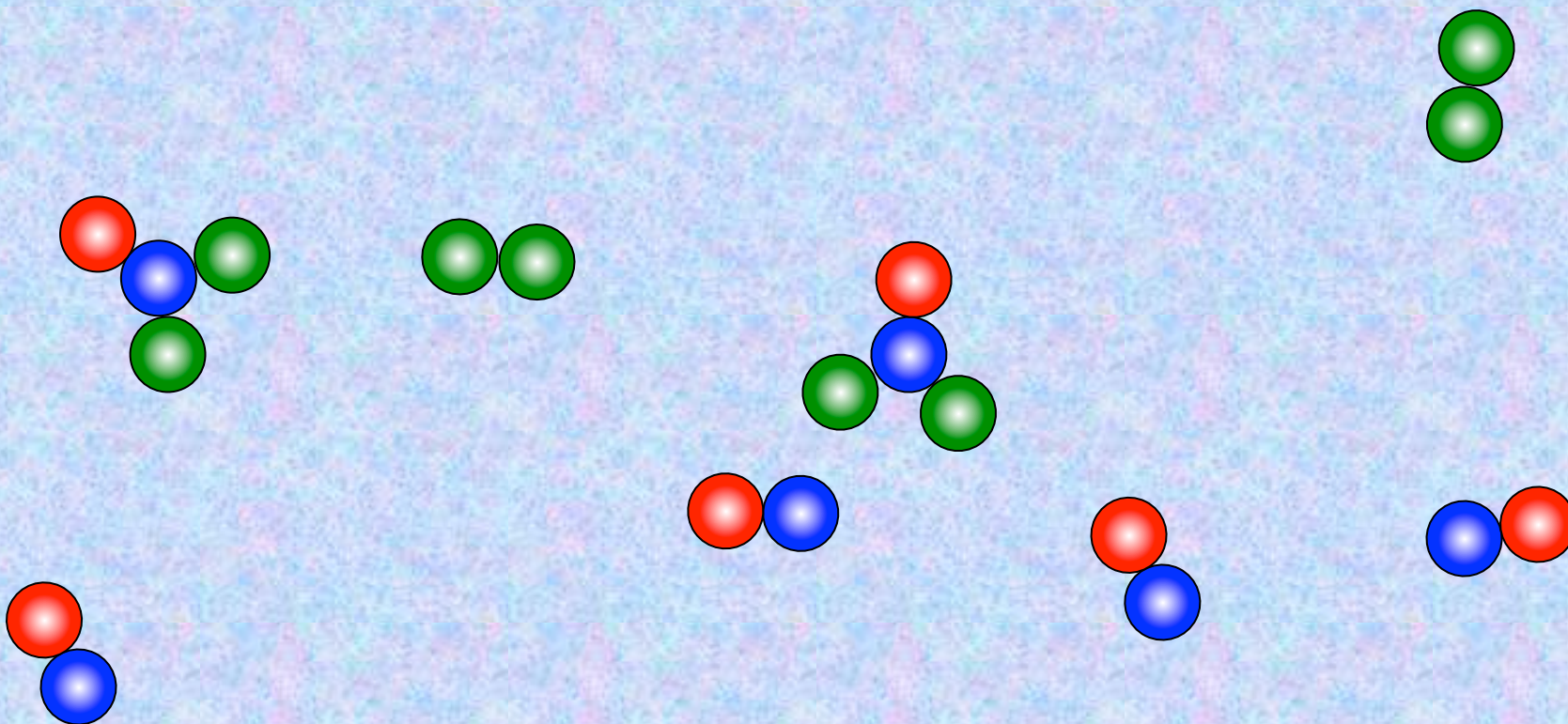


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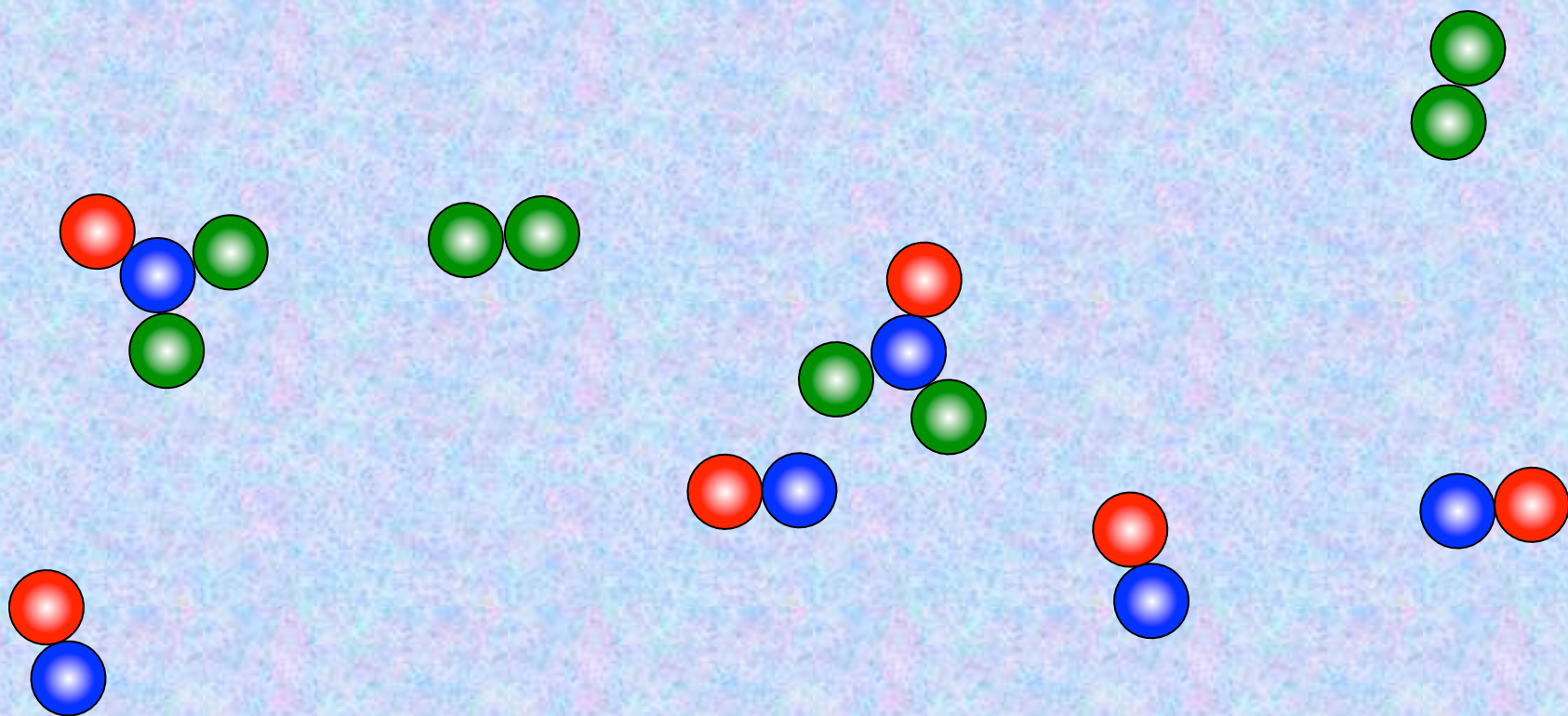


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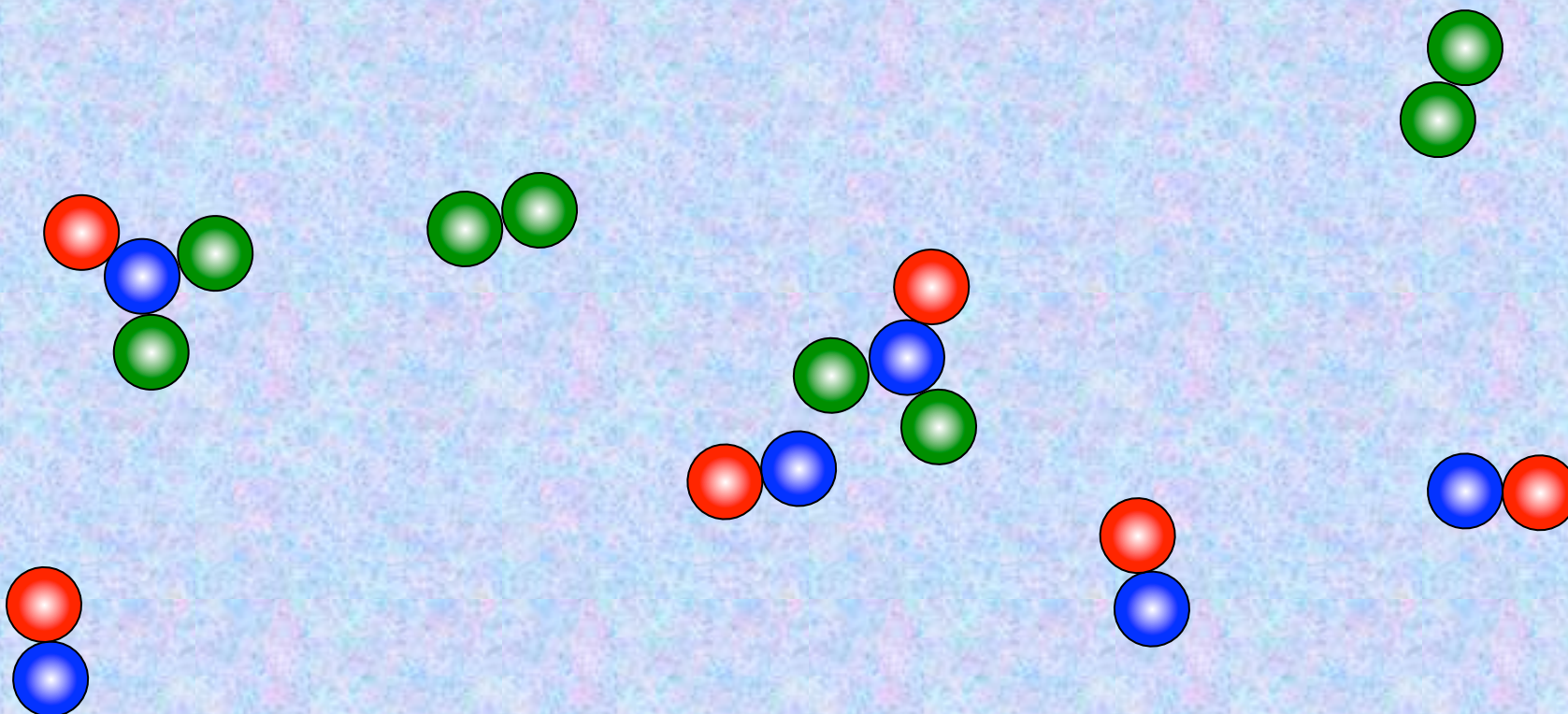


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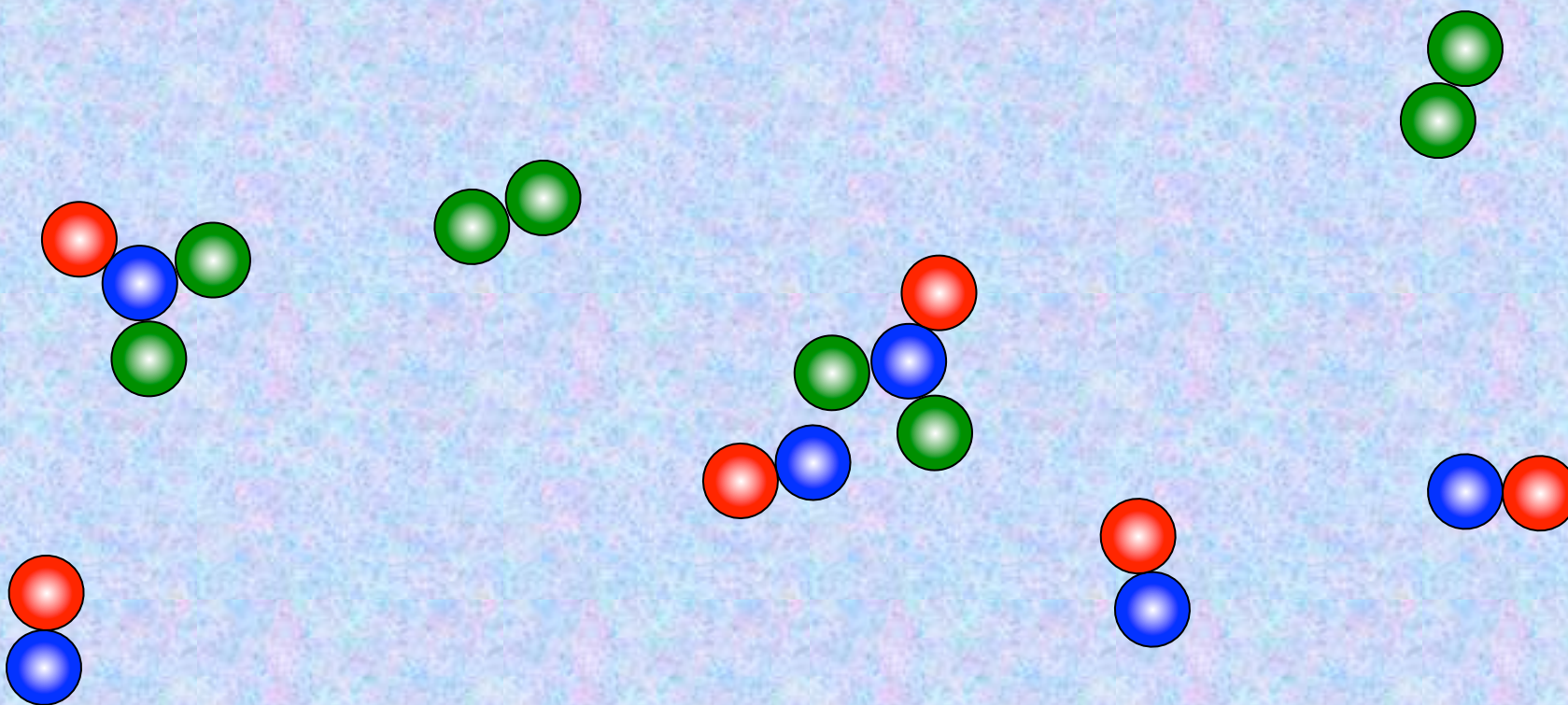


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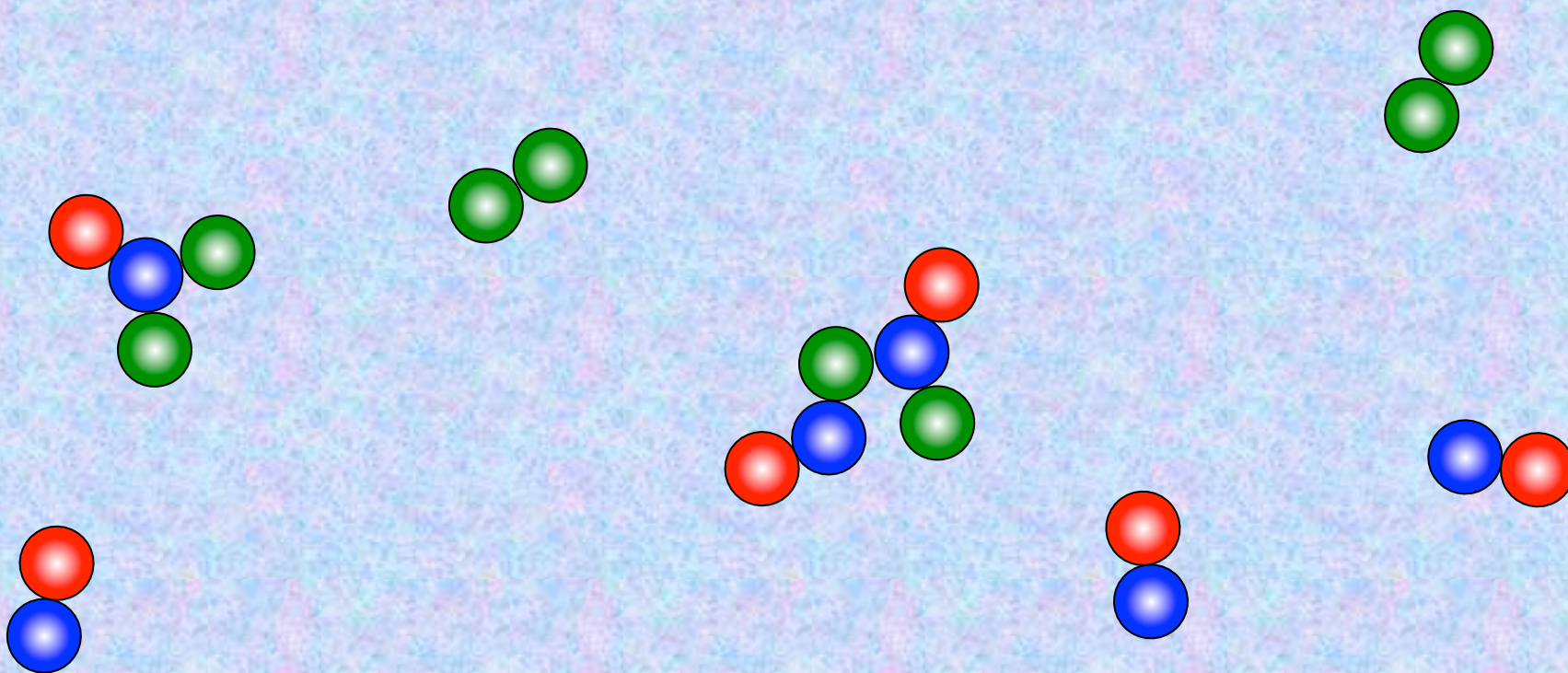


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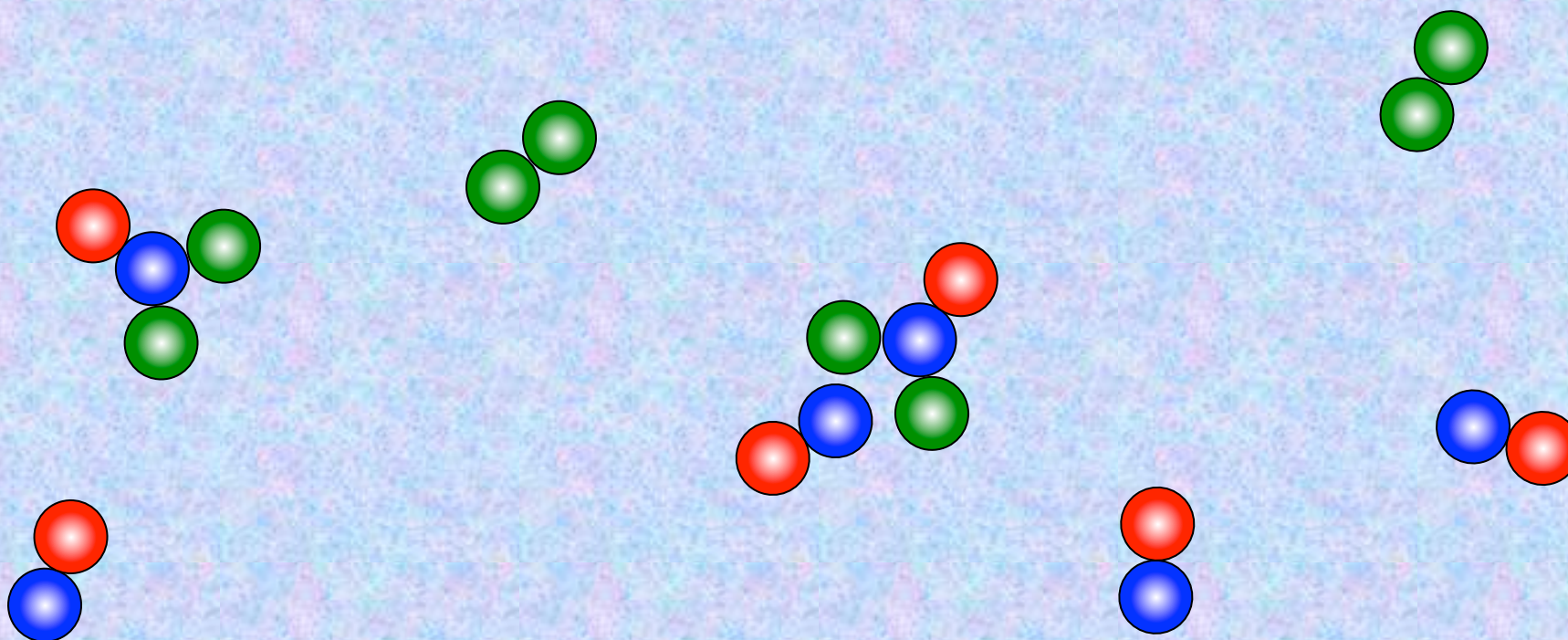


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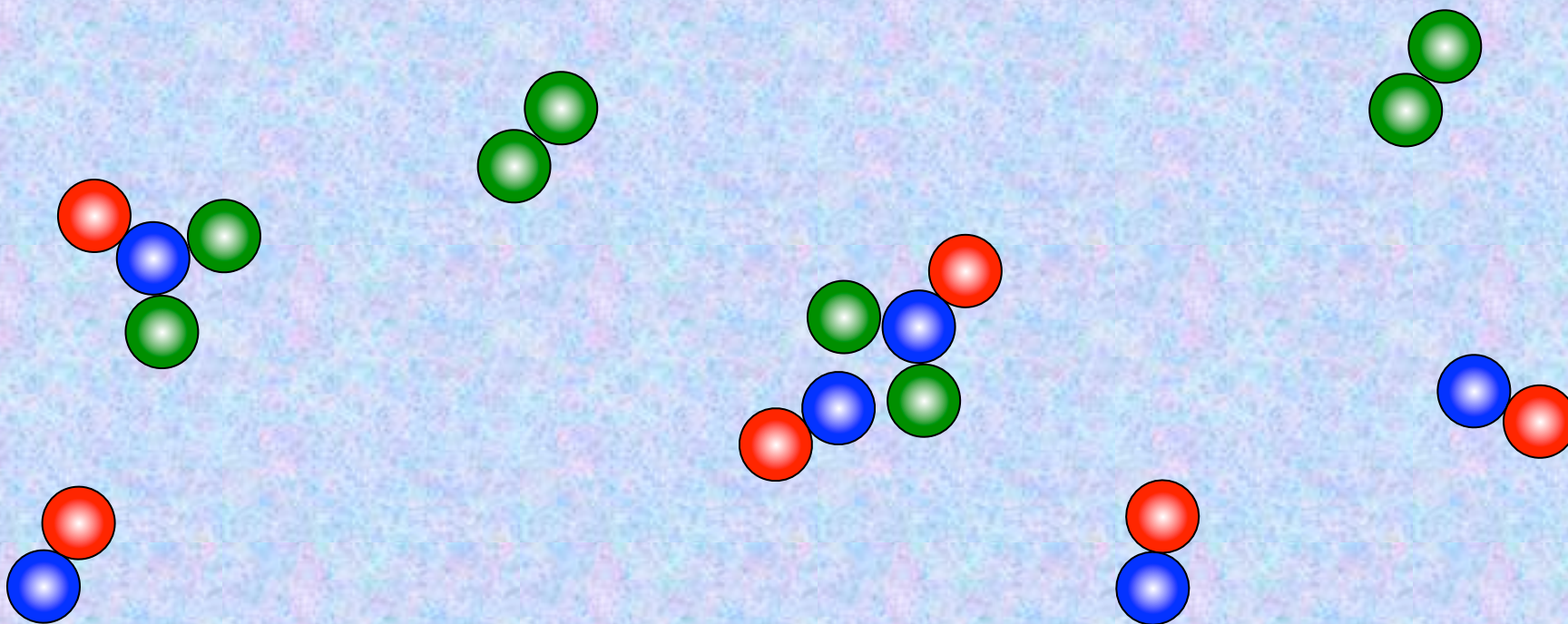


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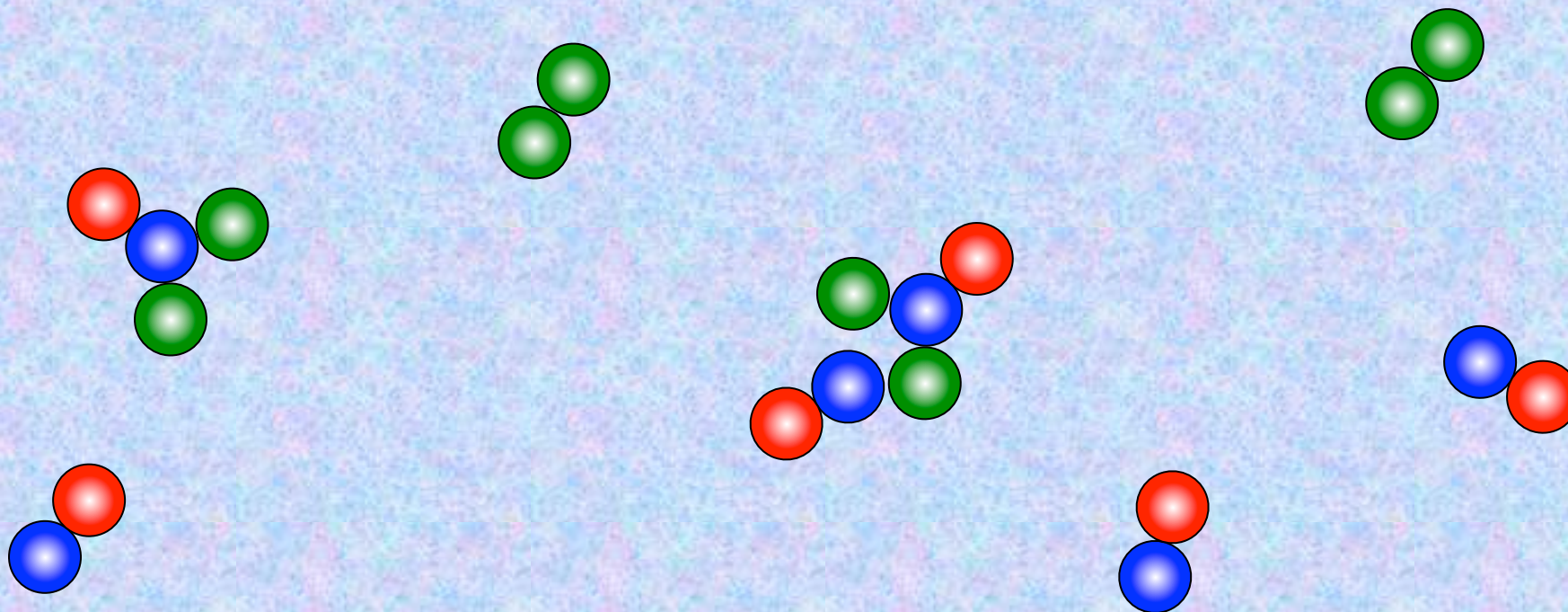
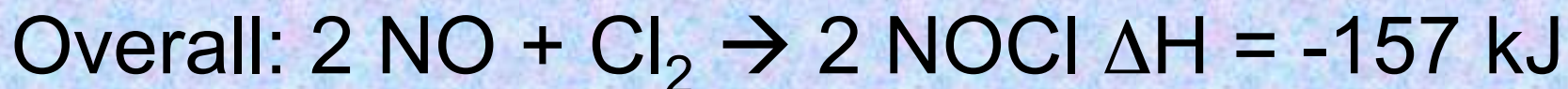
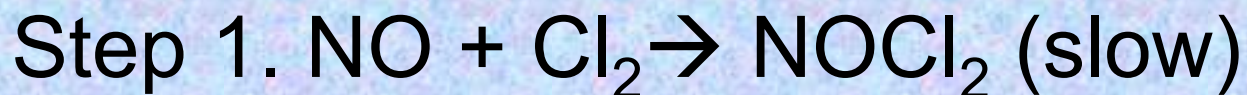
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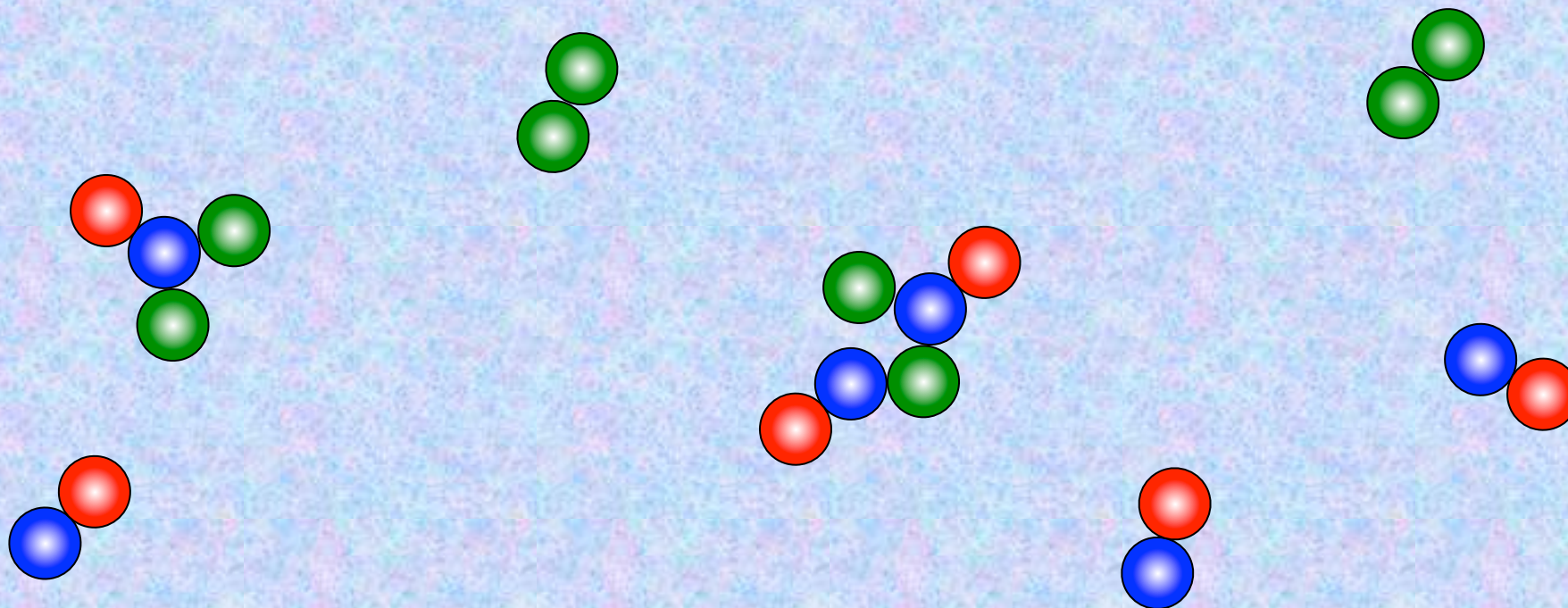


Project 7.

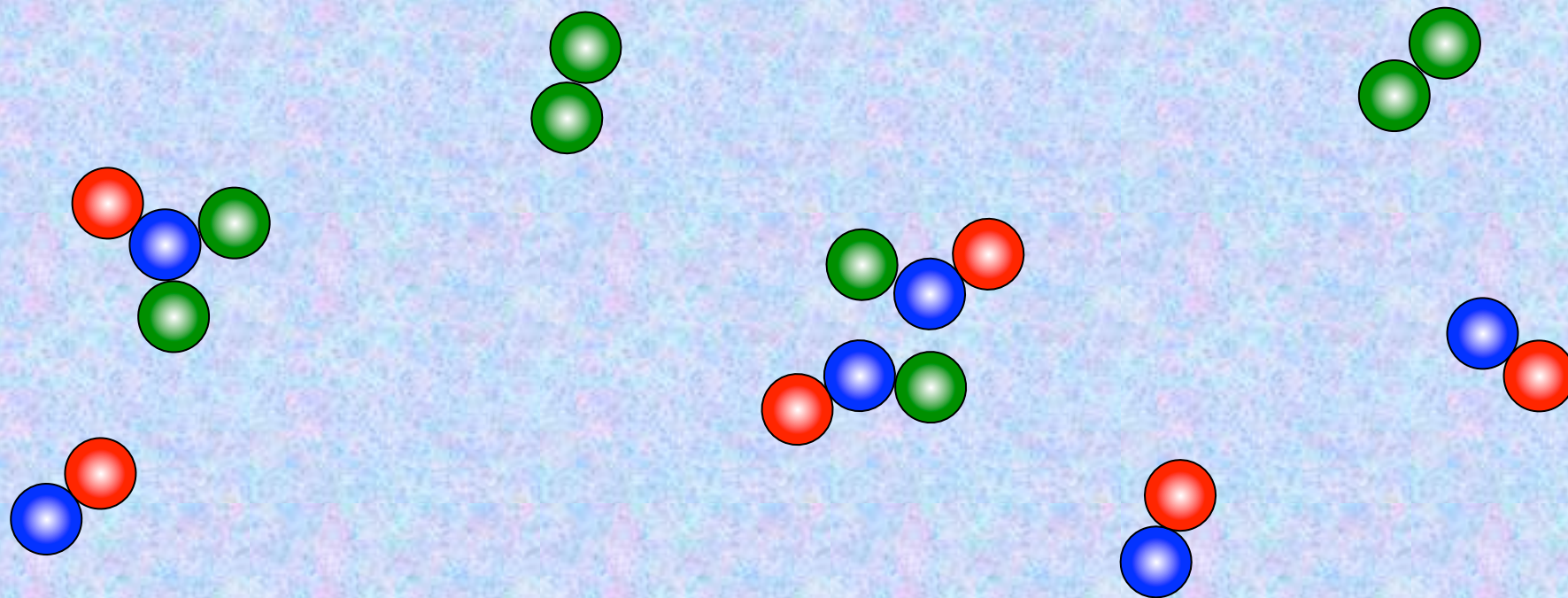
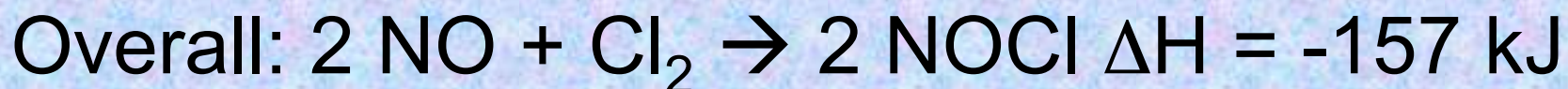
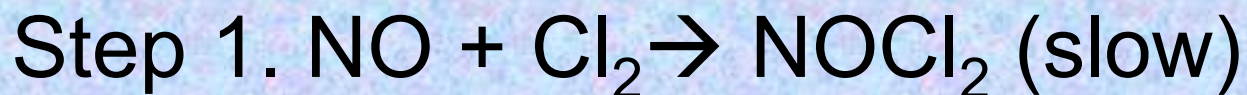
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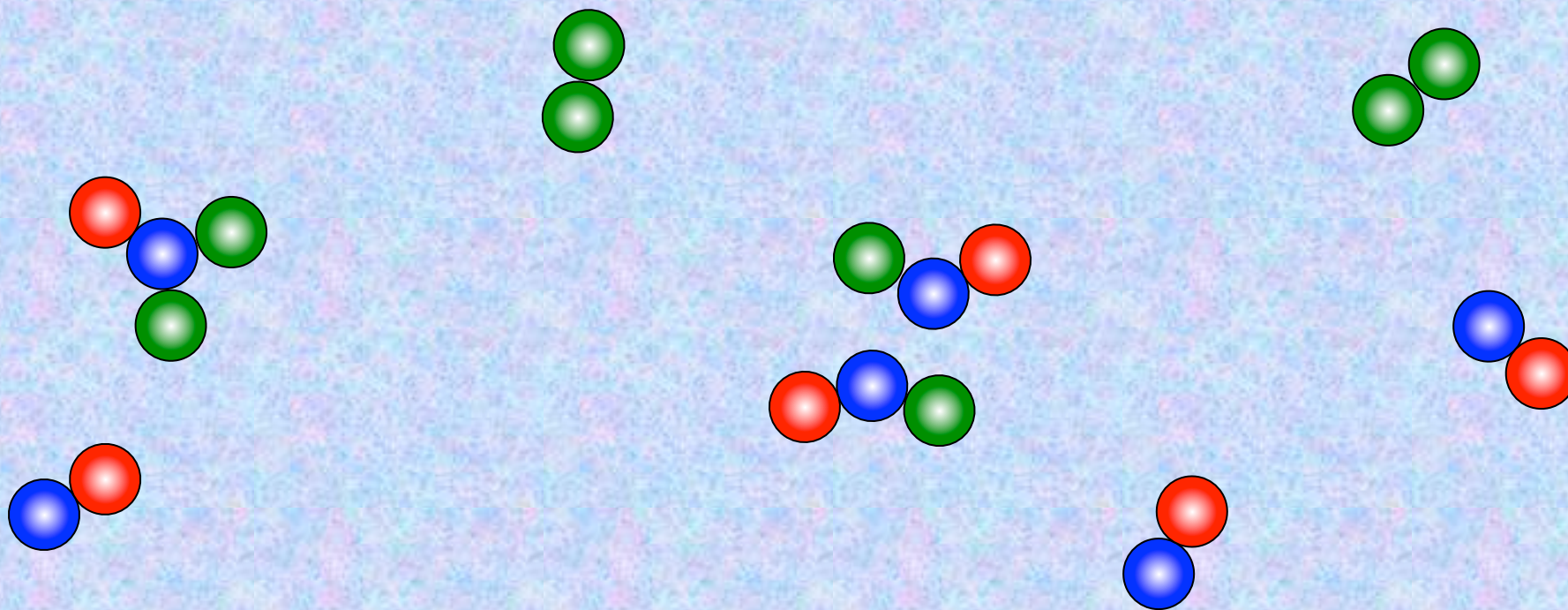


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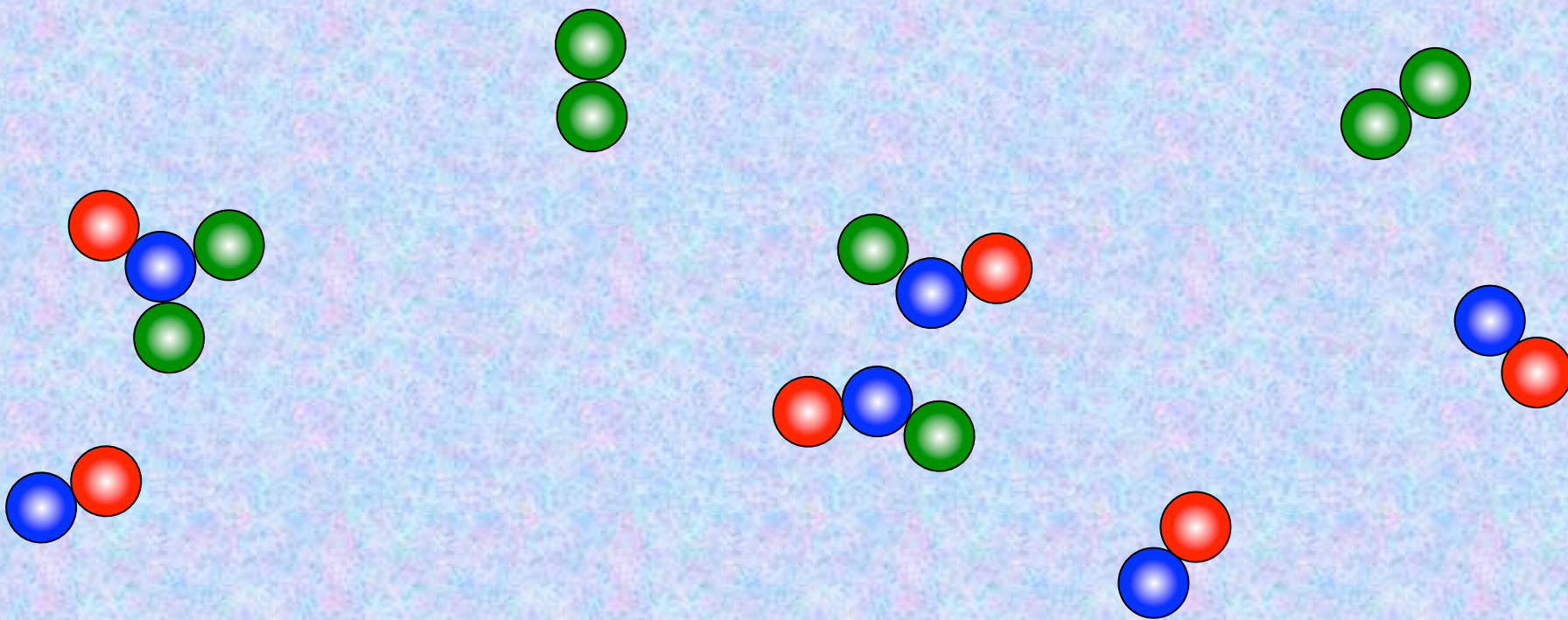


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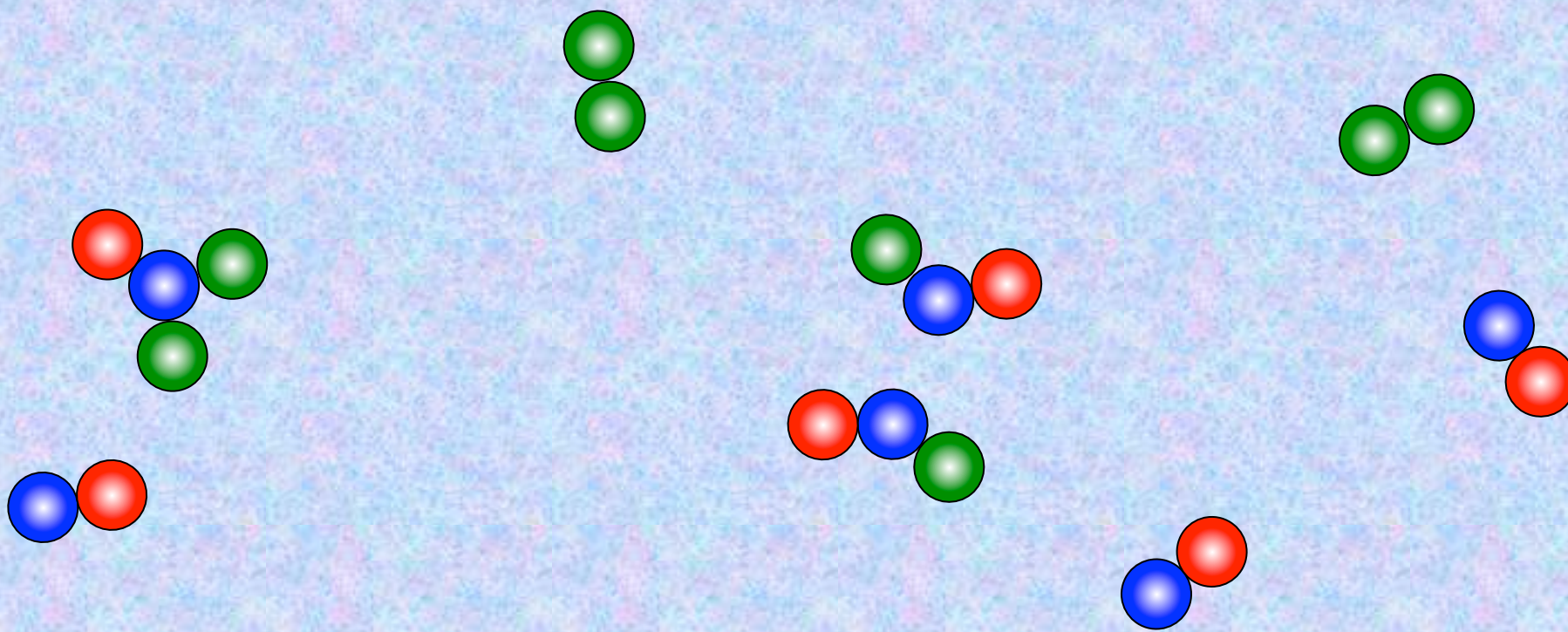


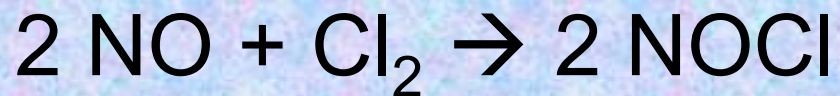
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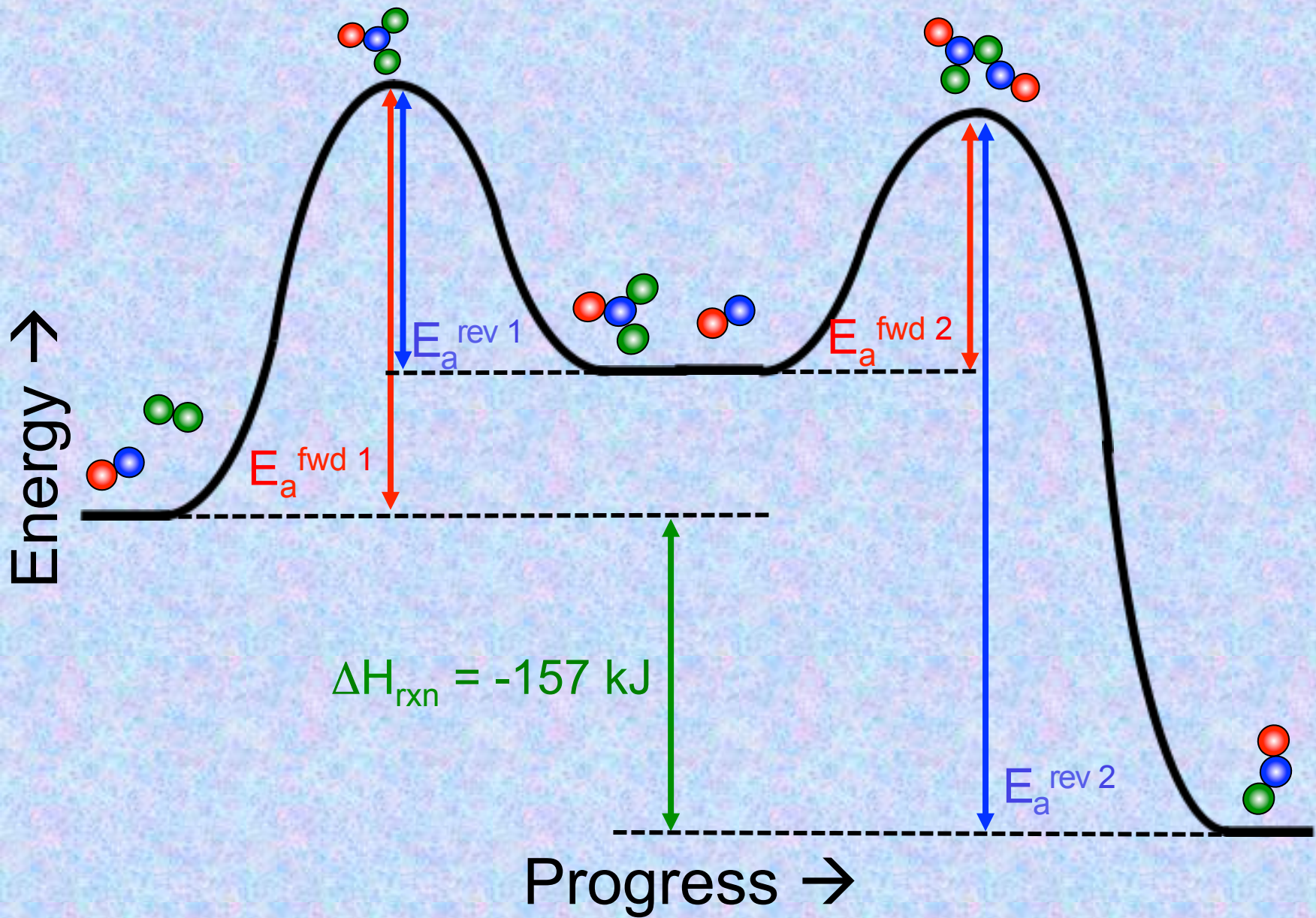
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$$\Delta H_{\text{rxn}} = E_a^{\text{fwd}} - E_a^{\text{rev}}$$



$$\text{Rate} = k[\text{NO}]^2[\text{Cl}_2]^1$$