Primary Education Curriculum Development Team

Hello! Thank you for your interest in the Primary Education Curriculum Developer position at Bit Project! At Bit Project, we look for curriculum developers who are passionate about STEM education, curious, creative, collaborative, and able to work with K-5th graders. This case prompt is designed to allow you to demonstrate just how well you embody these characteristics.

You are a curriculum developer tasked with developing a hands-on STEM activity of your choice of 2-3rd graders based on one of the Next Generation Science Standards (NGSS) listed below. You can learn more about NGSS and familiarize yourself with NGSS using this <u>link</u>.

NGSS or topic to choose from for STEM curriculum:

- K-PS2-1 Motion and Stability: Forces and Interactions
 - Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.
- 2-LS2-1 Ecosystems: Interactions, Energy, and Dynamics
 - Plan and conduct an investigation to determine if plants need sunlight and water to grow.
- 3-PS2-4 Motion and Stability: Forces and Interactions
 - Define a simple design problem that can be solved by applying scientific ideas about magnets.
- 4-PS3-2 Energy
 - Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents
- (Additional choice for Computer Science curriculum developer applicants): Teach 2-3rd graders how to develop a gaming algorithm using Scratch.

Submit a one to two page PDF outline of your activity based on one of the choices described above. Make sure your activity is comprehensible to the age group you are targeting, in this case, 2-3rd graders. To help you write your activity, you can refer to our <u>curriculum template</u>.

Your lesson outline should include:

- Introduction of relevant concepts and vocabulary
- Definition or explanation of relevant concepts and vocabulary
 - o Please **bold** the relevant concept and vocabulary terms.
- Related hands-on STEM activity
 - o Materials needed per student or per class
 - o Procedure
- Discussion questions/critical thinking questions
- NGSS