KIDS BUILD THEIR KNOWLEDGE AND SKILLS ABOUT THE WORLD THROUGH STEAM

Topic: Who weighs how much?

Resources for each team: Instruction card 479, the materials for its construction; seven small balls in various colours; two different animals selected from the following: tiger, female deer, kitten, brown piglet, duck, hen, Dalmatian dog, calf, cat, rabbit, squirrel; activity card F-1-1; black, blue and red pencils.

F-1

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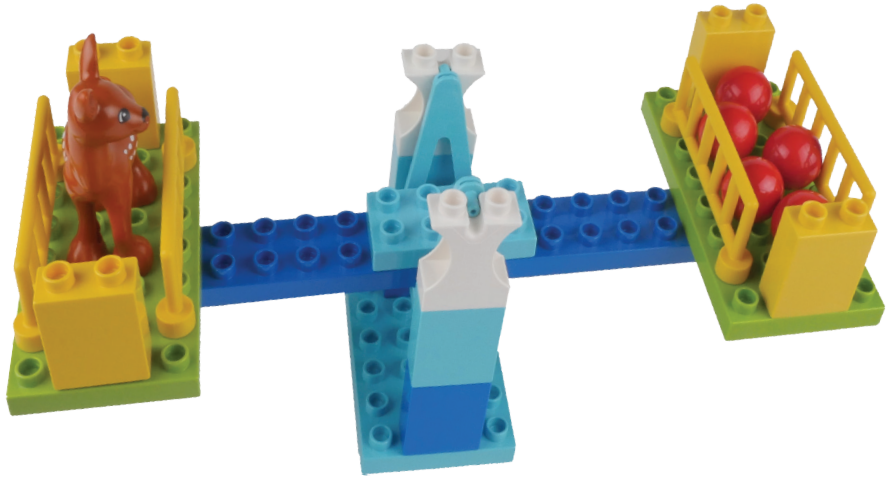
Activities:

1. The teacher gives the instruction card and construction materials to the teams and asks them to build the model.
2. The teacher tells the teams to check if their balance measures accurately, asking how they can do this (hint: use the balls). Children check the accuracy of the scale. They also check that the balls all weigh the same.
3. The teacher asks the children to look at the activity card (F-1-1). Each team must find their animals on it; estimate how many balls each one weighs; and 'record' their guess. They do this on the activity card by filling, in blue, the corresponding number of upper semicircles by the animal's silhouette.
4. After they have recorded their hypothesis on the cards, the children then conduct an experiment to find out the actual weight of the animal. They record the result by filling the appropriate number of lower semicircles in red.
5. The teacher asks the teams whether their hypotheses agreed with their measurements and summarises the number of correct and false hypotheses.
6. Then, with the help of the teacher, the teams exchange their animals.



7. The teacher tells the teams to weigh the new animals and then record the result on their card by filling, in black, the appropriate number of semicircles.

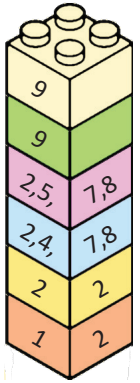
8. The teams again, with the teacher's help, exchange animals.

9. The teacher tells the teams to fill, in blue, as many of the upper semicircles as they think the new animals weigh. The children do this.

10. The teacher now tells the teams to check their hypotheses using the balance and balls. They record the results of their measurements on the card by colouring the equivalent number of lower semicircles in red.

11. Then, with the help of the teacher, the teams once more exchange animals and repeat the now familiar process of carrying out the experiment.

12. With the guidance of the teacher, the teams compare the data they obtained on the weights of the animals. They conclude that, regardless of who does the measurement and which balance is used, the weight of the same animals remains the same.

13. The teacher asks the teams to report on how many times they managed correctly to predict the weight of the animals in their last two attempts.

14. The teacher and children discuss the results of the experiments they conducted at the start and at the end of the lesson. Together, they conclude that prediction of the weight of an animal becomes more accurate when you already have experience in weighing other animals.