

# FEBRUARY STEM CHALLENGE

*Contributed by Rita Ao, instructor at Shenzhen Dalton School*

**CHALLENGE:** Chinese New Year is coming in February. As you may know: in Chinese tradition, there are 12 animals in every year: rat, ox, tiger, rabbit, dragon, snake, horse, goat, monkey, rooster, dog, pig. This year is ox year! To celebrate the New Year, let's design and construct a "Chinese New Year Balanced Ox."



**CONSTRAINTS:** The Ox must balance on a sharp stick like a balanced bird.

## MATERIALS TO CHOOSE FROM:

Whatever you can get from your home, and turning waste into treasure.



## BUILD, TEST, ANALYZE:

Did it work how you expected?

Did you find the center of the gravity of the ox?

What changes could you make to improve the design?

## Tips for Teachers:

🐮 Have students work in small teams to improve communication and collaboration skills.

🐮 Share some balanced bird pictures or videos to your students. Share some Chinese New Year tradition cultures.

## Student Challenge Worksheet

**Design Challenge:** Design and construct a "Chinese New Year Balanced Ox".



**Draw the design in the space below and label the materials:**

**Build your design based on your plan.**

**Test: Balance your ox on a sharp stick**

	Trial			
Ox Balance Data	1	2	3	4
Did your ox balanced on a sharp stick?				
Change needed				