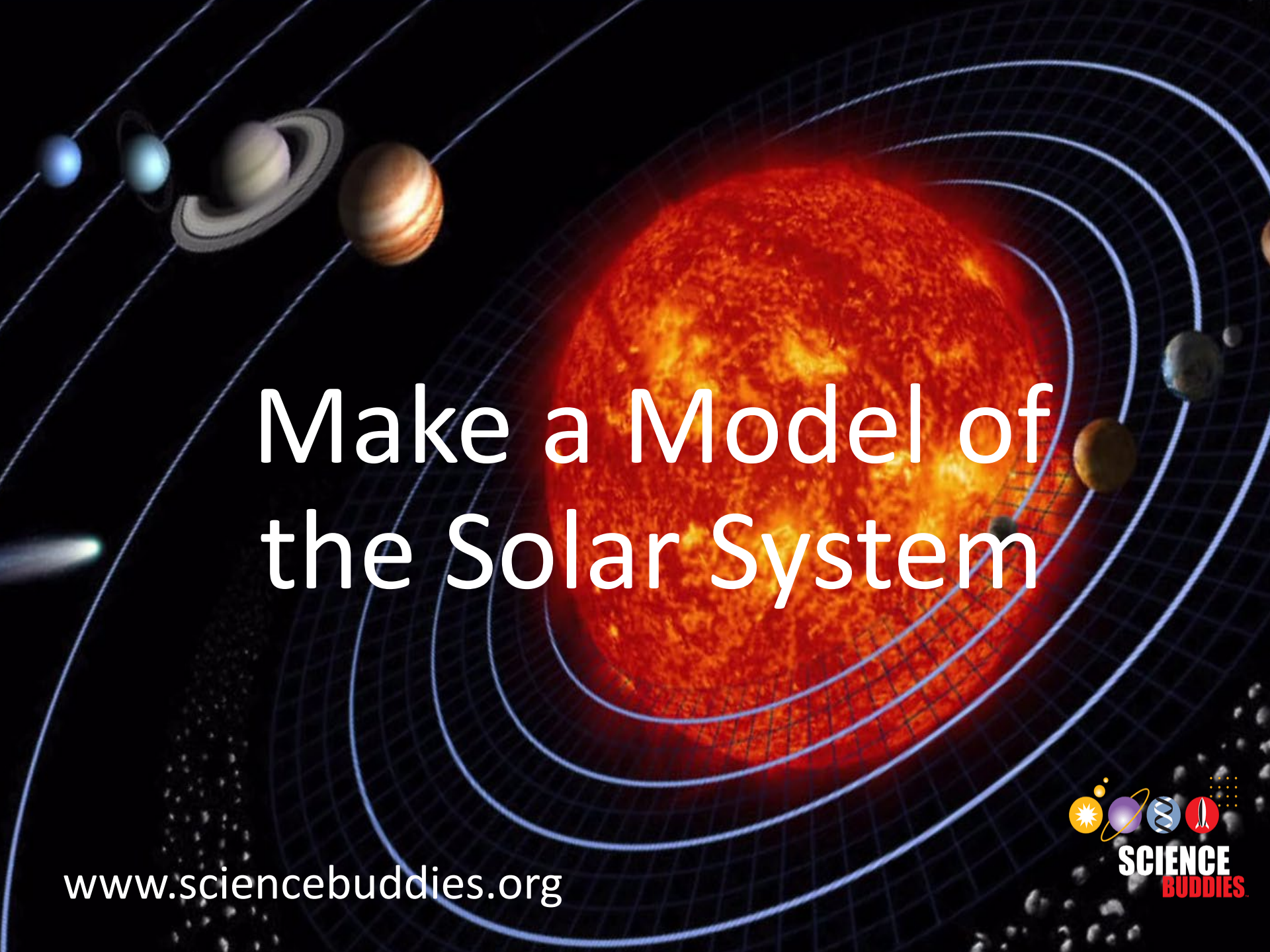
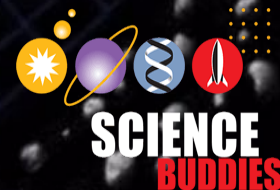




Make a Model of the Solar System

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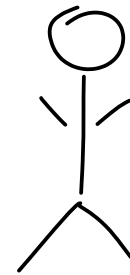
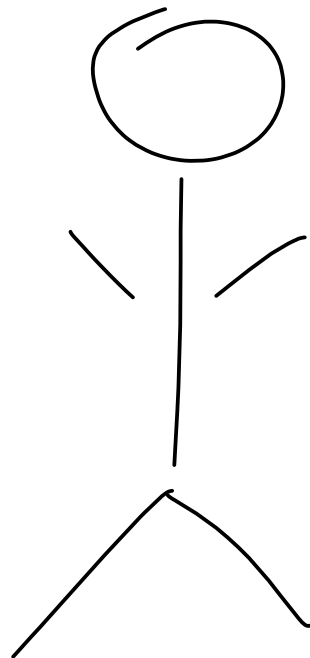
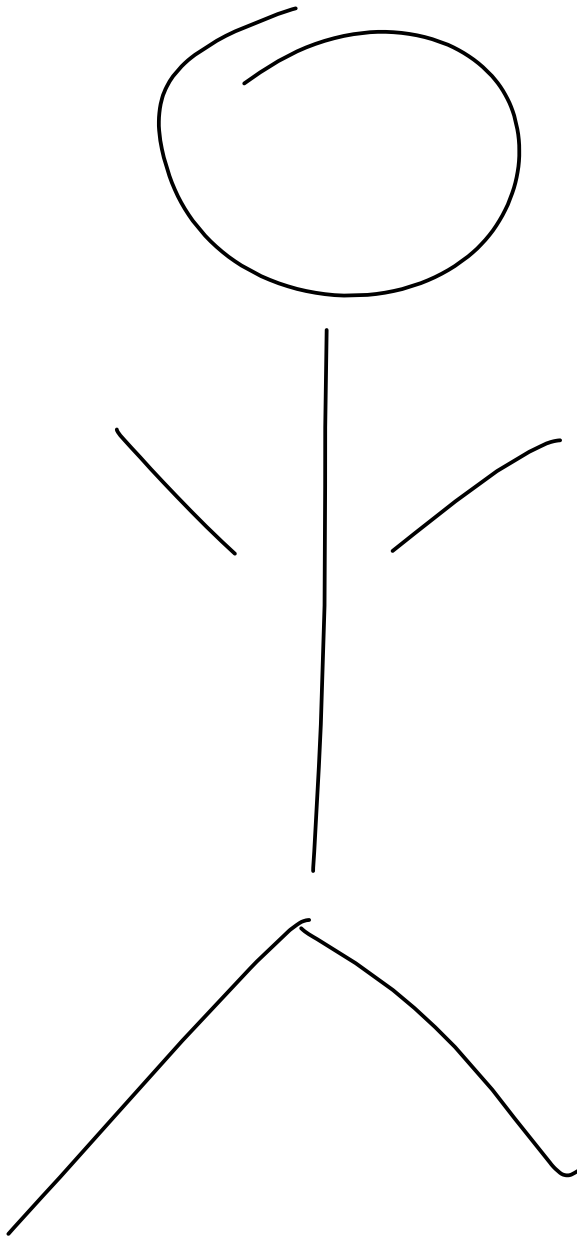


PLANETS	Radius (km)	Orbital distance (AU)
Mercury	2,440	0.387
Venus	6,052	0.723
Earth	6,378	1.000
Mars	3,387	1.524
Jupiter	71,492	5.203
Saturn	60,268	9.537
Uranus	25,559	19.191
Neptune	24,764	30.069

$$\text{Scale factor} = \frac{\text{Model distance}}{\text{Actual distance}}$$

$$\begin{aligned} & \text{Model distance} \\ &= \text{Actual distance} \times \text{Scale factor} \end{aligned}$$

Scaled Figures



Model Soccer Game
Scale Factor: 1 cm/2 m

Object	Actual Dimension (m)	Scaled Dimension (cm)
Soccer ball circumference	0.7	0.35
Soccer goal width by height	7.3 by 2.4	3.65 by 1.2
Soccer field dimensions	90 by 120	45 by 60