



## MOON education

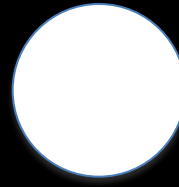
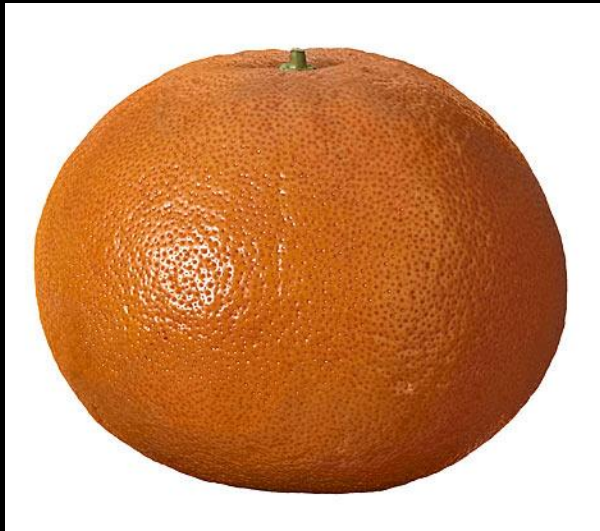
**Peter Barthel**



**rijksuniversiteit  
groningen**

Earth : Moon : Sun =

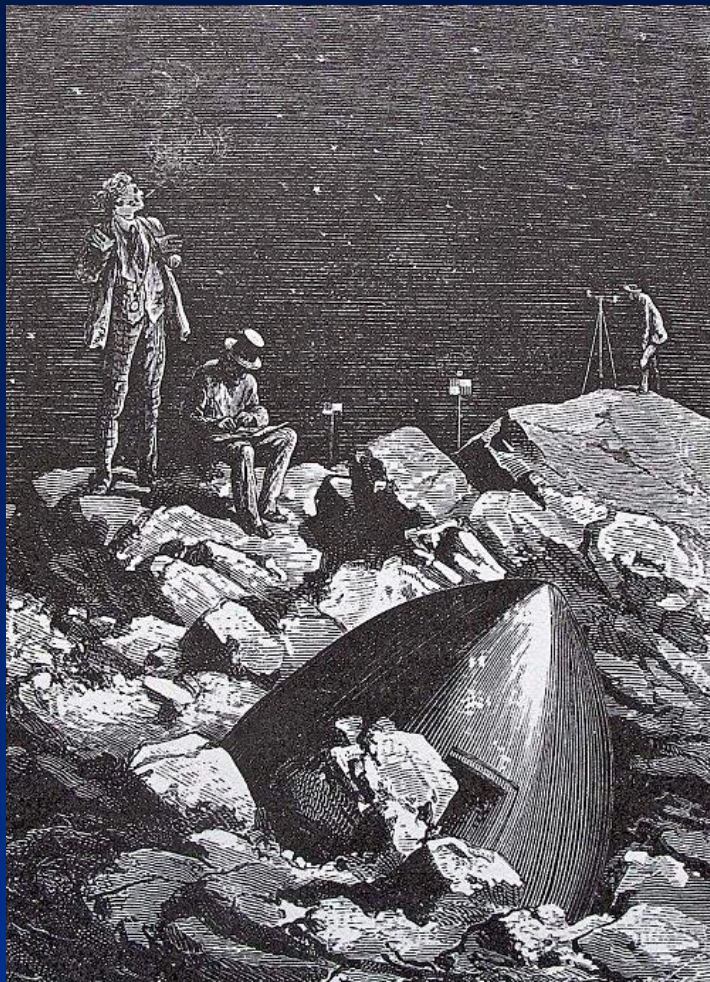
grape-fruit : ping-pong ball @ 3.5m :  
10m diameter 'sun' @ 1400m













**A MONth lasts  
29½ day's,**

**and**

**12 months  
therefore last  
354 day's .....**



# Solar eclips









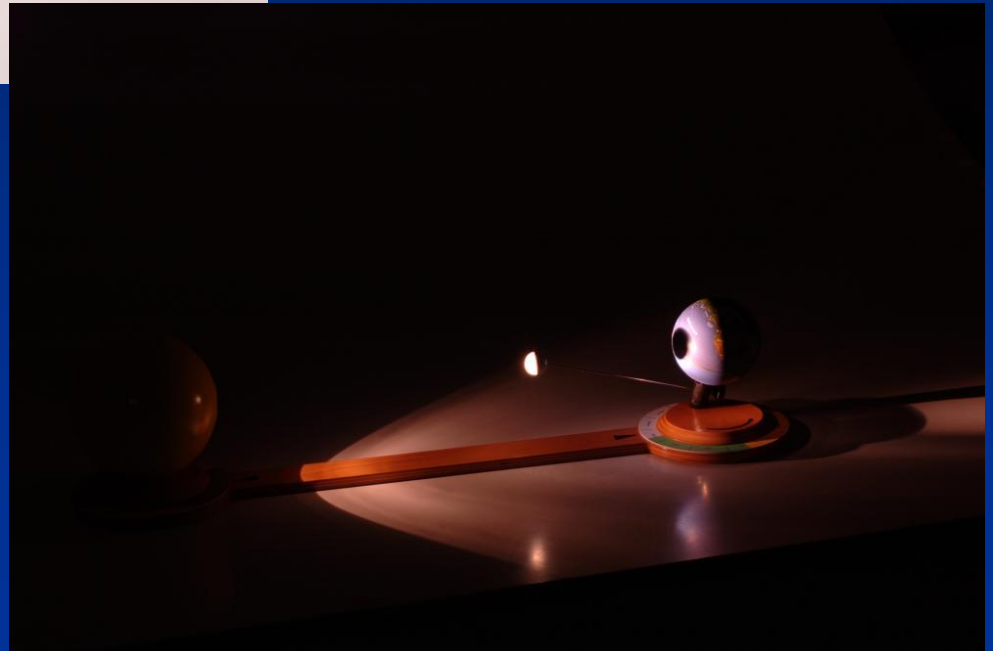
# Lunar eclips



... when the moon passes through  
the shadow cone of the earth



Tellurium, developed  
for Montessori-  
education







# Sun, moon and calendar



















*GREETINGS FROM THE MOON*





**Because the moon's mass is  $\frac{1}{6}$  of the earth mass, its gravity is  $\frac{1}{6}$  !!**





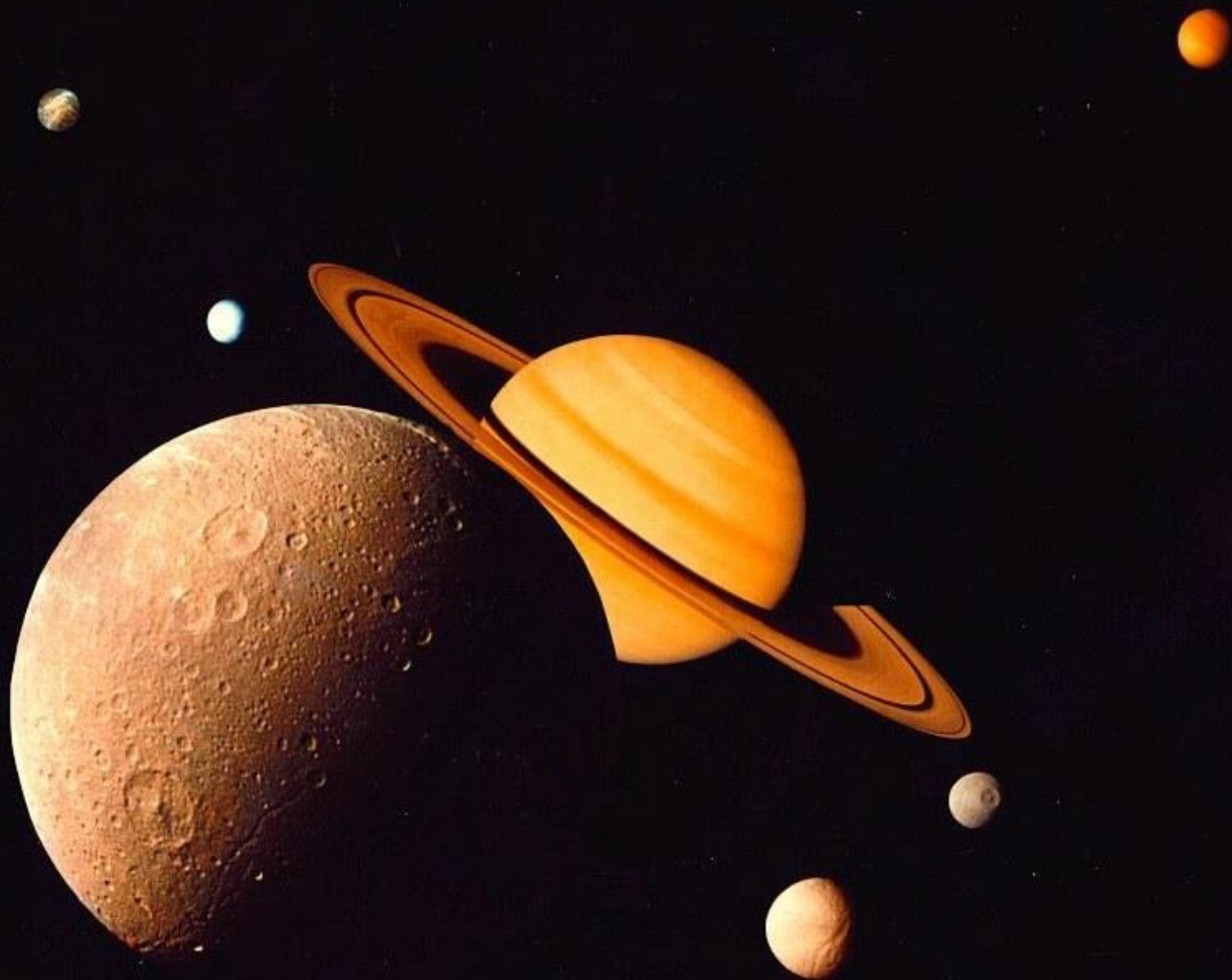




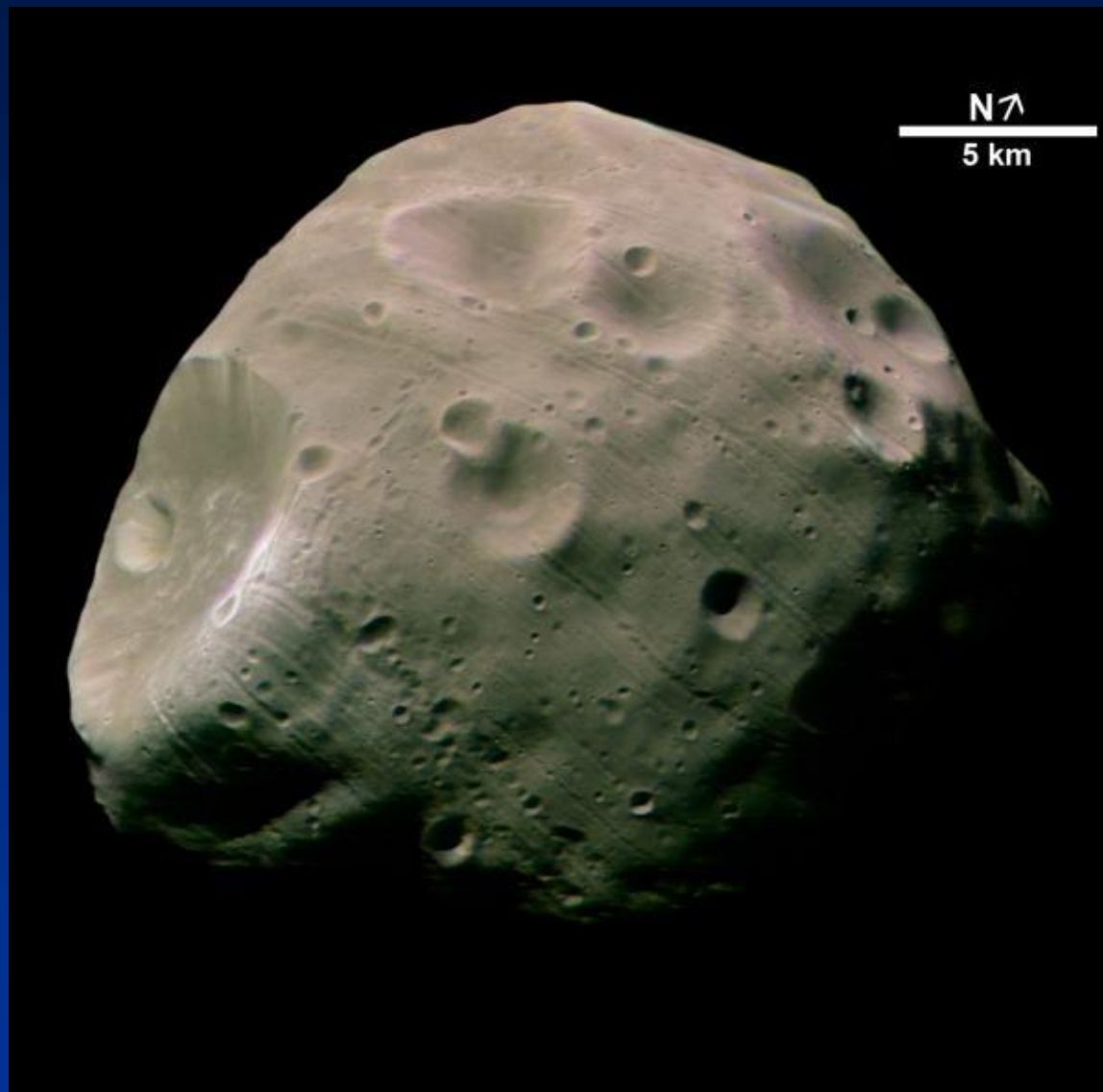






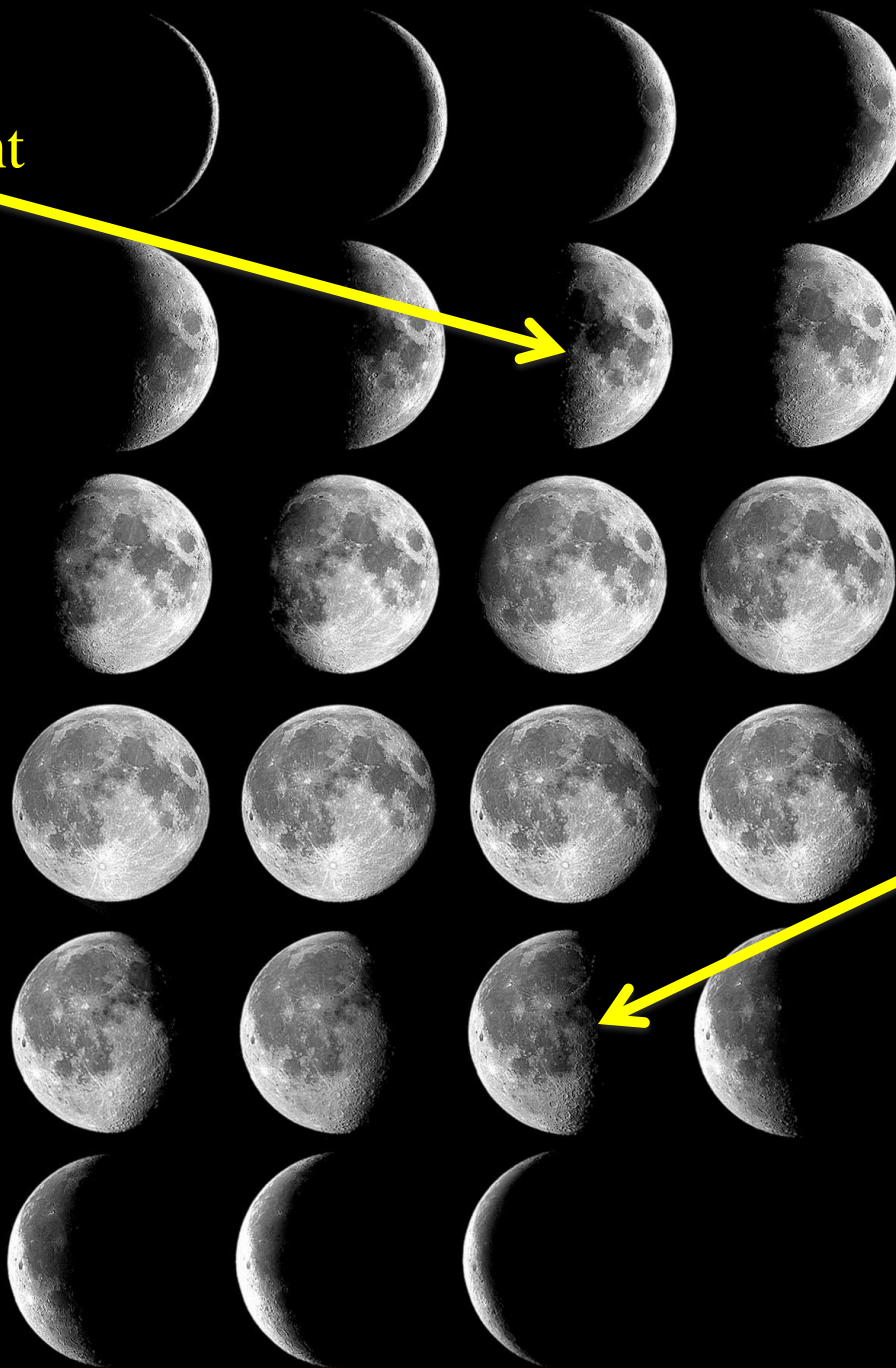
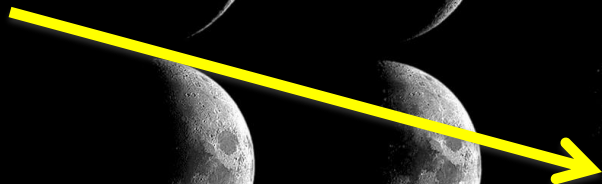








Sets at midnight

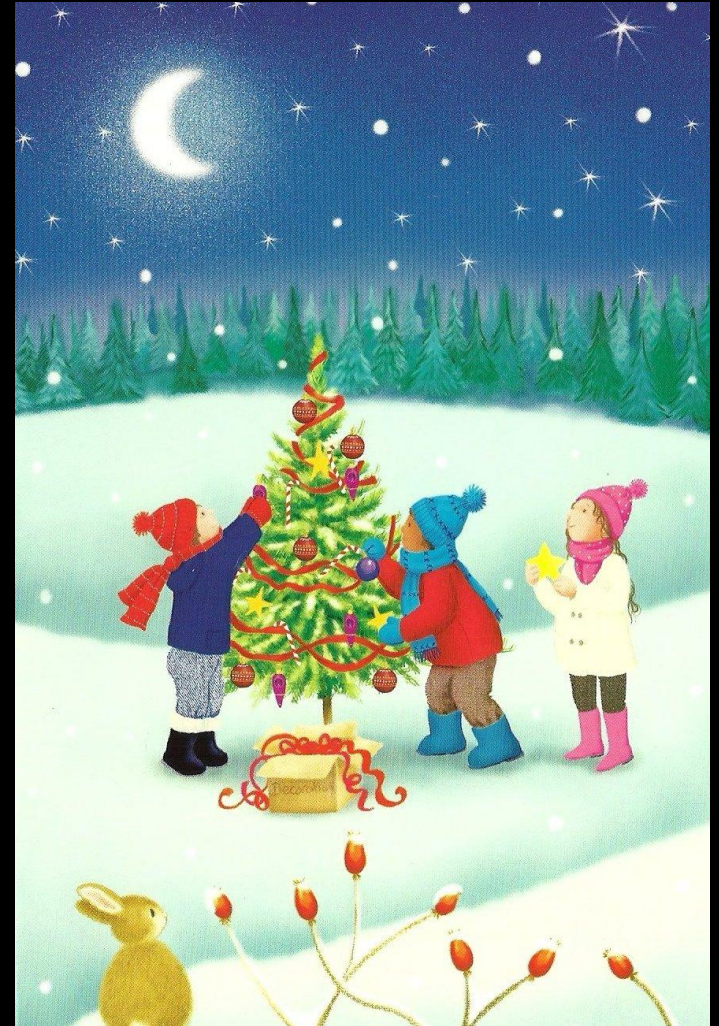


Rises at midnight

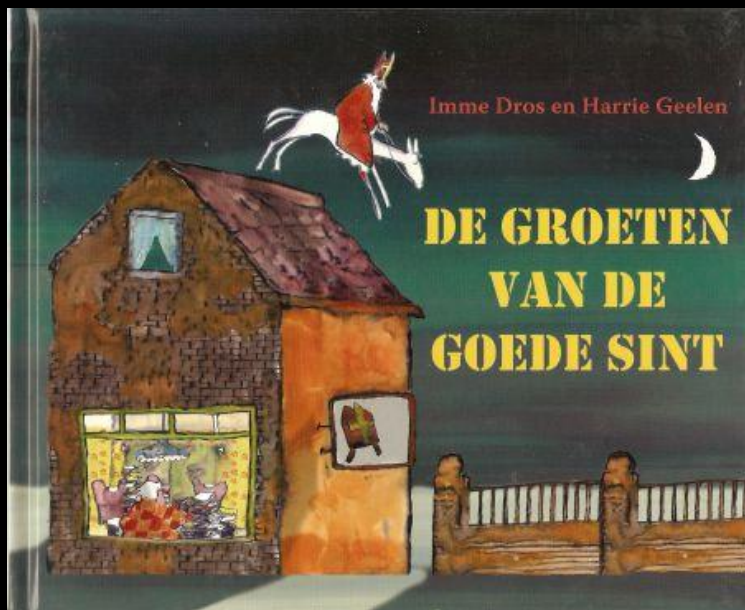




... after years of smiling  
and frowning

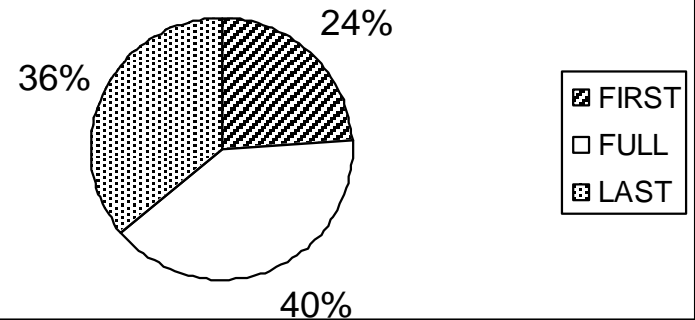




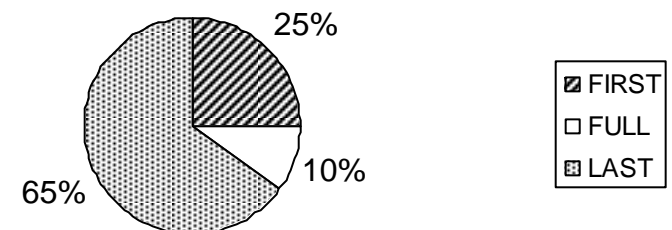


# NL research in winter 2010

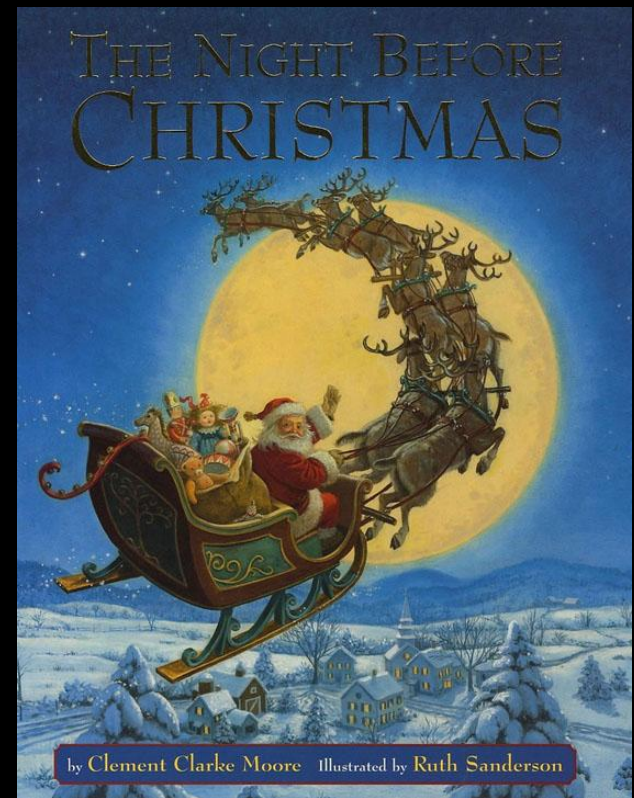
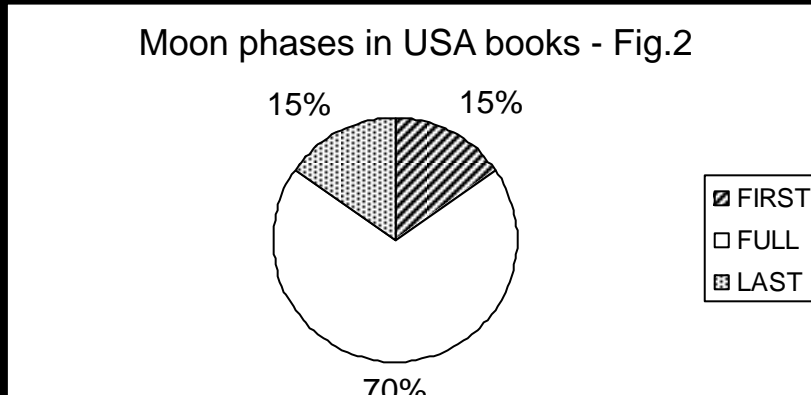
Moon phases in Dutch books - Fig.1



Moon phases Dutch gift wrap - Fig.3



# USA research in New England and California



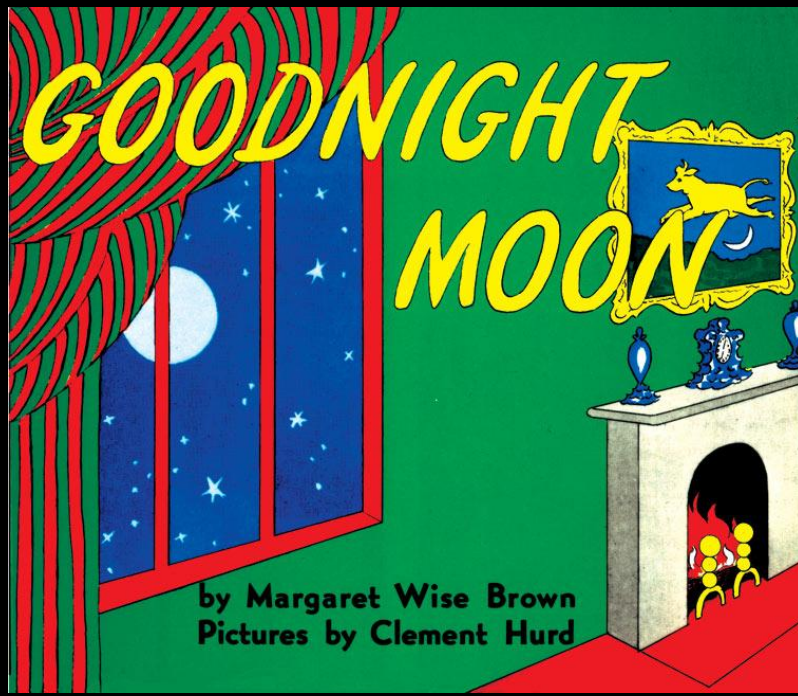
*'t Was the night before Christmas, when all through the house,  
not a creature was stirring, not even a mouse.  
The stockings were hung by the chimney with care  
in hopes that Saint Nicholas soon would be there.*

.....

*The moon on the breast of new-fallen snow  
gave a luster of midday to objects below.*

.....





1947 classic, displaying  
full moon throughout  
the night

Recent series, with  
kids suffering from  
insomnia ....



