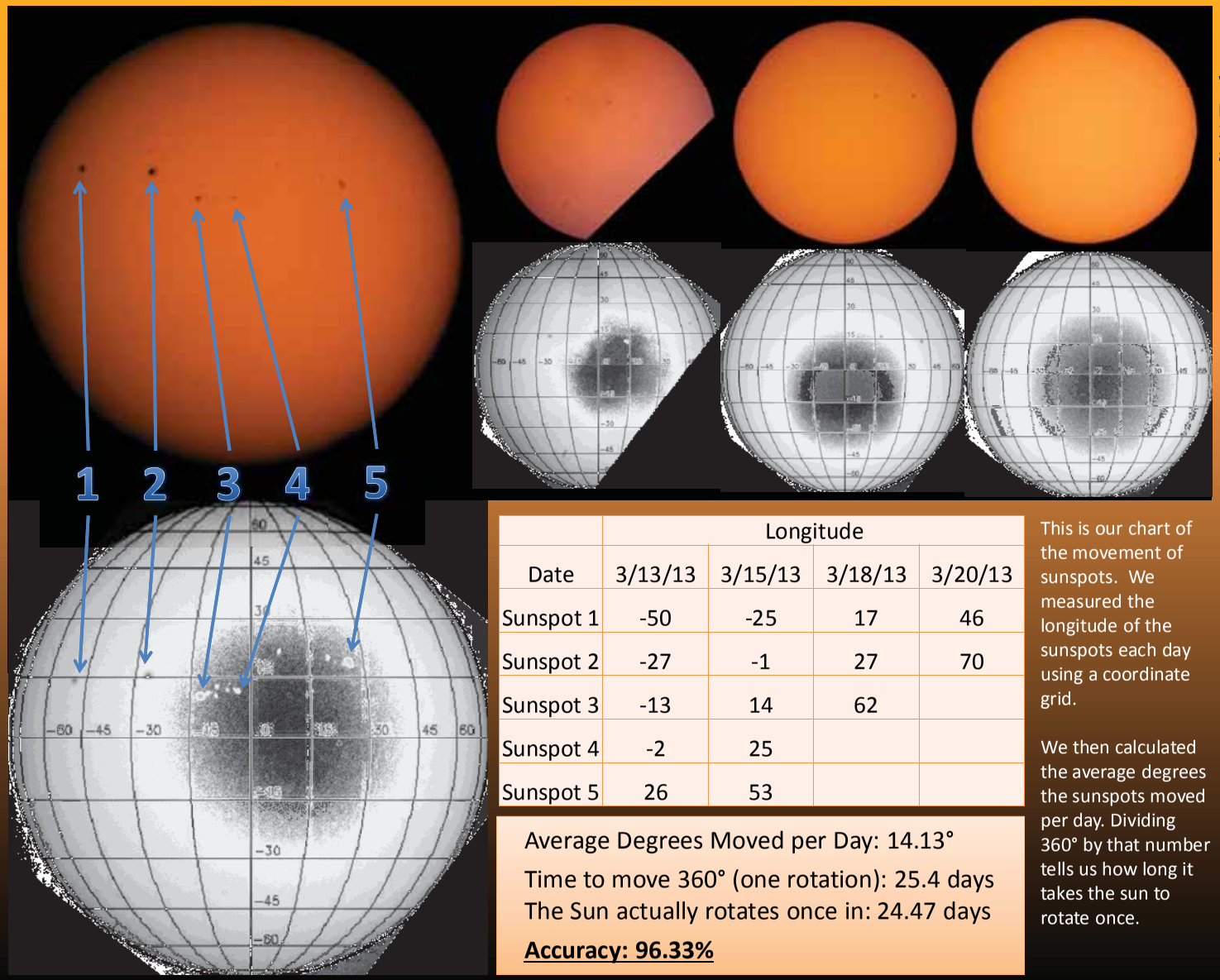
Sunny-Side Up: Observing Sunspots

Ms. Brown's 5th Grade Class
Derby Ridge Elementary

Fireball

The sun has spots on it. The spots are called sunspots. Sunspots are cooler spots On the sun. Over 7 days we observed the sunspots and how the sunspots moved.



	Longitude			
Date	3/13/13	3/15/13	3/18/13	3/20/13
Sunspot 1	-50	-25	17	46
Sunspot 2	-27	-1	27	70
Sunspot 3	-13	14	62	
Sunspot 4	-2	25		
Sunspot 5	26	53		

Average Degrees Moved per Day: 14.13°

Time to move 360° (one rotation): 25.4 days
The Sun actually rotates once in: 24.47 days

Accuracy: 96.33%

This is our chart of the movement of sunspots. We measured the longitude of the sunspots each day using a coordinate grid.

We then calculated the average degrees the sunspots moved per day. Dividing 360° by that number tells us how long it takes the sun to rotate once.

This is our telescope with a sun filter. The sun filter is like sunglasses for our telescope.

We need it because the sun is so bright it would damage our eyes and the telescope.

We took these pictures on 3/13, 3/15, 3/18, and 3/20.

We clarified the images so we could see the sunspots better.

We also put a grid of latitude and longitude so we could see how far the sunspots moved.

Sunspot size

By measuring the size of the sunspots and of the sun on our pictures and comparing it to the actual sizes of the sun and earth we calculated that sunspot 2 is 13,698 km wide while the earth is only 12,742 km wide.

This sunspot is bigger than the earth!