

Re: Newbie: Why does venus have crescents

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From: Sam Wormley (*swormley1_at_mchsi.com*)

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Edith Head wrote:

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> *Sam Wormley wrote:*

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> > *George wrote:*

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> > > *I know very little about space! My 14 year old son asked why venus has*

> > > *crescents but other planets don't seem to. He has seen venus in a*

> > > *scope with a crescent but not like jupiter. Why is this? I searched*

> > > *the groups and web but no match was found.*

> > >

> > > *Mary*

> >

> > *As the Moon gets closer to the Sun than the Earth,.....*

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> ???

> *I wasn't aware the Moon ever left its orbit around the Earth and got closer*

> *to the Sun than the Earth! Oh I get it! You mean "between the Sun and*

> *the Earth". In relative terms of course. But the Moon never gets as close*

> *to the Sun as Venus or Mercury, or does it? Maybe when the Moon gets*

> *close to Venus, Venus takes on some traits of the Moon and shows a*

> *crescent? Is that how astrology works?*

> *Edith -*

The Moon doesn't leave its orbit, but its orbit is such that it spends about half of its time closer to the Sun and half of its time further from the Sun than the Earth.

What's the difference between astronomy and astrology? – Astronomy is based on the laws of physics (and therefore mathematics) and aims at describing what is happening to the universe based on what we observe today. Because the laws of physics are constant (as far as we can tell), astronomy can also explain how the universe behaved in the past and can propose a limited number of possible scenarios for its future (see FAQ entry about Big Bang). Everyday life applications of astronomy include calculations/predictions of sunrise/sunset times, moon phases, tides, eclipse locations, comet visibility, encounters between various celestial bodies (e.g., SL9 comet crash onto Jupiter

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in 1994), spacecraft trajectories, etc.

Astrology on the other hand claims it can predict what will happen to individuals (or guess what is happening to them), or to mankind, based on such things as solar system configurations and birth dates. Common applications include horoscopes and such. Regardless of whether there is scientific support for astrology, its goal and methods are clearly distinct from those of astronomy.