ON THE CALENDAR

Today
- **College night**: 6:30-9 p.m. Lone Star Convention Center, 9055 Airport Road (FM 1484). Conroe, Montgomery and Willis school districts host the event for students and parents. More than 150 representatives from colleges, universities, technical and trade schools, and military and service academies will attend. Two general financial aid sessions will be from 6:30-7:15 p.m. and 7:30-8:15 p.m. For directions, visit www.thelonestar.org.

Saturday
- **Museum gala**: InterContinental Hotel. The Children's Museum of Houston will present "A Beautiful Evening in Venice" gala. For information, call 713-522-1138, ext. 216.

WINNING NUMBERS

**Texas**
- LOTTO (Oct. 2) 8-23-33-37-40 Bonus ball 15
- Estimated jackpot: $1 million
- Winning tickets: Next jackpot
- PICK 3 (Oct. 4) 7-0-8
- PICK 3 NIGHT (Oct. 4) 8-3-7
- CASH 5 (Oct. 4) 2-16-20-21-24
- TWO STEP (Oct. 4) 4-13-18-24 Bonus ball 22

**Louisiana**
- LOTTO (Oct. 2) 2-11-37-38-39-40 Bonus ball 15
- Estimated jackpot: $1 million
- Winning tickets: None
- PICK 3 (Oct. 4) 9-0-5
- CASH QUEST (Oct. 2) 1-2-15-37
- POWERBALL (Oct. 2) 2-13-29-32-35
- Powerball 4

**Mega Millions**
- MEGA (Oct. 1) 8-10-17-24-39
- Mega Ball 4
- Estimated jackpot: $10 million
- Winning jackpot tickets: None
- Jackpot tickets: $10 million

THE LINEUP

- **SUNDAY**: Communities & Neighborhoods
- **MONDAY**: Traffic & Transit
- **TODAY**: Environment, Science & Space
- **COMING WEDNESDAY**: Education: Students get hands-on civic lesson.
- **THURSDAY**: Health & Medicine: Local health
- **FRIDAY**: Your Government

OCTOBER STAR CHART

This is how the sky over Houston will look at 9 p.m. in mid-October. To use the map, hold it vertically before you with the direction you are facing positioned at the bottom. The outer circle represents the horizon; the zenith, the spot directly overhead, is at the center of the map.

STUMP THE SCHOLAR

**Q**: If you could place it on a scale, does the Earth get heavier or lighter as it passes?

- **Stan Hildebrand, Katy**

**A**: Your question was a good one, so I shared it with my children, who helped with the answer.

On a clear dark night, we may see a bright streak of light in the sky.

We say this light streak is a shooting star or falling star.

This light streak is caused by friction heat of pieces of space material coming into Earth's atmosphere.

Such pieces of space material, if seen on the ground, are called meteorites.

This happens every day whether we see it or not. Assuming the Earth does not lose material, then it should be heavier each day because of added meteorites.

ECO-WATCH

- **Industrial plant accidents**: Ozone levels exceeded
- **Harris County**: Highest one-hour reading at Houston regional office on Polk Street
- **Texas Gulf Coast**: Port Aransas - Gulf Reserve
- **Eagle Pass**: New trail
**STUMP THE SCHOLAR**

**Q**: If you could place it on a scale, does the Earth get heavier or lighter as time passes?

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**A**: Your question was a good one, so I shared it with my children, who helped with the answer.

On a clear dark night, we may see a bright streak of light in the sky.

We say this light streak is a shooting star or falling star. This light streak is caused by friction heat of pieces of space material coming into Earth’s atmosphere.

Such pieces of space material, if seen on the ground, are called meteors.

This happens every day whether we see it or not.

Assuming the Earth does not lose material, then it should be heavier each day because of added meteors.

However, the Earth is about six sextillion tons, and if we assume about 10 tons (likely much less than this) of meteors are added each day, there would be about 15 trillion tons of meteors added to the Earth over its 4.55-billion-year history.

In other words, the total meteoritic add to the Earth would be less than 0.0000003 percent of the Earth’s mass. This number is unhinkably small.

So, in theory, the Earth should be heavier with time if no Earth material was lost, but the best scales available today cannot precisely measure such a small increase in weight.

Additionally, there is no evidence that Earth material may have been lost or is being lost in any conceivable way (other than possible/probable gas loss in the very early Earth).

However, being scientists, we must be objective and logical.

That is, absence of evidence is not evidence of absence.

So, the answer is, to my knowledge or to our present knowledge, that we do not have data.

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**FIT OR FAT?**

The federal government recently published a list of states, and the percentage of adults who get recommended amounts of exercise, an important step in controlling obesity and its health and economic implications.

The exercise recommendations are 20 minutes a day, three days a week of vigorous activity, or 30 minutes, five days a week of moderate activity, such as brisk walking or gardening.

<table>
<thead>
<tr>
<th>Top 5 states</th>
<th>Bottom 5 states</th>
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</thead>
<tbody>
<tr>
<td>1. Wyoming</td>
<td>1. Kentucky</td>
</tr>
<tr>
<td>2. Washington</td>
<td>2. Nebraska</td>
</tr>
<tr>
<td>3. Vermont</td>
<td>3. Louisiana</td>
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<tr>
<td>4. Alaska</td>
<td>4. Tennessee</td>
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<tr>
<td>5. Idaho</td>
<td>5. Mississippi</td>
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</tbody>
</table>

Source: U.S. Centers for Disease Control and Prevention

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**B.C. OREN: CHRONICLE**

**WORST AIR**: Houston has taken the lead in the annual race for the city with the worst smog. The city has been increased by more than one billion tons of greenhouse gases since the mid-1990s.

On Wednesday, Houston was the only city in the nation where the U.S. Environmental Protection Agency is forecasting an unhealthy air quality day. A day later, 95 percent of the region’s air quality monitors reported unhealthy ozone levels, in part because ozone levels in the air coming into Houston were high. Bad smog levels haven’t been that widespread since 1998.

**NEW TRAIL**: Overcoming private property concerns, Congress passed legislation last week that would designate El Camino Real de los Tejas, which stretches from the Rio Grande near Eagle Pass to Natchitoches, La., as a National Historic Trail. El Camino Real was a corridor of trails used by settlers, immigrants, American Indians and the military.

**GULF RESERVE**: More than 200,000 submerged acres near Port Aransas were approved by the federal government last week for a National Estuarine Research Reserve, the first such reserve along the Western Gulf of Mexico. The University of Texas at Austin Marine Science Institute will develop a management plan for the site, which will open in early 2006.

**INCIDENT LOG**: There were two accidental releases of pollution last week, according to state records. BP Products North America in Texas City released 59 pounds of nitrile oxide, and Equistar Chemicals in Alvin released 606.2 pounds of 1,3-butadiene because of a leak.

Source: Chronicle research; Associated Press

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**Eco-Watch**

**Ozone levels exceeded**

**TEXAS**

**Port Aransas:**

**New trail**

**Eagle Pass:**

**Natchitoches, La.:**

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**FIT OR FAT?**

Local experts answer your common (or uncommon) questions about science. Please send them to: eric.berger@chron.com or Eric Berger, City Desk, Box 4260, Houston, TX 77210.