Sister, Sister, Why Don’t Things Fall Up?

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Sister, sister, I wonder...
What do you wonder, little brother,
What do you wonder?
I wonder, I wonder, why things don’t fall up.
What do you think, little brother,
What do you think?

I think, I think...
Tell me, little brother, what do you think?
I think
That long ago, things did fall up
That the sky was full of toffee wrappers
And ice cream sticks
That stars slipped on banana peels
That sometimes, the moon cut her dainty feet
On bits of broken glass
Or caught her trailing silver skirts
On a rusty nail.
I think
The old woman who lives in the sky
Got so tired of cleaning the mess
That she put a curse on the earth;
And things have fallen down ever since.

I think that’s why things don’t fall up
Because the old woman in the sky
Was fed up of living in a smelly pigsty.
I’m clever, aren’t I, sister?
Oh yes, you are, little brother,
And maybe you’re right, too...
But in the books that I have read
That is not what they said.
Then what did they say, sister,
What did they say?
What do you think, little brother,
What do you think?
I think, I think...
Tell me, little brother, what do you think?
I think
That long ago, things did fall up
And drove Mother mad.
Father's keys,
The screw of her nose-stud,
The coins you were tossing from hand to hand (even though you knew Mother would scold if she knew)
On your way back from the market;
All fell up and disappeared.
Mother prayed to all her Gods.  
One of them took pity on her, 
And things fell down and vanished no more. 
Mother was happy (for a while) 
Now she complains about the mess on the floor. 
I think that’s why things don’t fall up 
All thanks to a woman’s pleas 
For fewer lost coins, and screws, and keys. 
I’m clever, aren’t I, sister?
I know you are, little brother,
And maybe you’re right, too...
But in the books that I have read
That is not what they said.
Then what did they say, sister,
What did they say?
What do you think, little brother,
What do you think?
I think, I think...
Tell me, little brother, what do you think?
I think
There is a big greedy demon inside the earth
All day he waits, his mouth a gaping hole
Sucking in mighty lungfuls of air...
And nothing can fall up
As long as he keeps sucking in —
Everything heads towards that greedy hole.
I think
Many things go right in.
My marbles, your hairclips,
The yummy laddoos Mother makes
Which I don’t eat and you don’t eat
But which disappear somehow.
I think that is why things don’t fall up
Because they hurtle earthwards to feed
An underground demon’s greed.
I’m clever, aren’t I, sister?
Of course you are, little brother,
Of course you are
And maybe you’re right, too...
But in all the books that I have read
That is not what they said.
Then what did they say, sister,
What did they say?
Come here, little brother,
I’ll tell you what they said.
They said, they said...
Tell me what they said, sister,
Tell me what they said.
They said
That everything, just everything
In the great big universe
Pulls everything, just everything else
In the great big universe
Towards itself.
They said
That BIG things can pull much harder
At small things
Than small things can pull
At BIG things.
But why don’t things fall up, sister,
Why don’t things fall up?
Be patient, little brother, be patient now.
They said
The earth, our home,
Is a very BIG thing
And all of us,
and everything else on earth—
Our aeroplanes, our blue whales,
even our oceans—
Are very small things.
And that's why
The earth pulls us towards itself
MUCH, MUCH harder
Than we can pull the earth
Towards us.
SO HARD
That we, or our keys, or our screws,
or our coins,
Cannot escape, float away, disappear,
Or fall up.
This GREAT force, this GIGANTIC force  
With which the earth pulls us  
All of us,  
Even the penguins at the edge of the earth,  
Towards itself  
Is called GRA-VI-TY.  
Can it be true, sister, can it be true?  
I can’t say, little brother, I can’t say.  
But in all the books that I have read  
That is what they said.
Why don’t things fall up?
About 350 years ago, a famous English scientist called Isaac Newton was relaxing under an apple tree when an apple fell and hit him SMACK! on the head. Rubbing his sore head, Newton wondered why things never fell up. Finally, he came up with the theory that the earth was like a giant magnet, which attracted everything around it with great force. He called this invisible force ‘gravity’.

He also concluded that everything in the universe attracts everything else. Bigger objects attract each other with greater force than smaller ones. Also, as the distance between two objects increases, the force of attraction between them decreases.
Gravity, however, does not just make apples fall down from trees. It also keeps the moon in orbit around the earth and all the planets in orbit around the sun. The force of the earth’s gravity keeps the moon from flying away into space.

But why doesn’t the moon fall towards the earth? Because the moon has its own gravity, with which it attracts the earth. It is because the earth’s gravity is greater, that the moon goes around the earth. If the moon’s was greater, the earth would have gone around the moon instead!
Try this experiment!

You need:
A few rubber bands
A small rubber ball
A length of string

What to do:
Put the rubber bands around the ball in such a way that they grip it tightly. Tie the string to one of the rubber bands around the ball. Stand somewhere where there is plenty of room and swing the ball around your head. If you swing it hard enough, the ball will go around your head in a horizontal circle. Now let go of the string. What happens? The ball flies away in a straight line.
Why does this happen?

Because there is a tension force in the string, which keeps the ball turning around your head. When you let go of the string, the tension force disappears and the ball goes flying.

Now imagine the ball is the moon and you are the earth. The earth's gravity is like the tension force in the string! If this tension force did not exist, the moon would fly away into space!
Sister, Sister, Why Don’t Things Fall Up?
(English)

Little Brother’s inquisitive mind is always full of questions for Big Sister. He knows Big Sister has all the answers, because she is always reading one big fat book or another. In this book, Little Brother wonders why things don’t ‘fall up’? At least Mother wouldn’t grumble about the mess he was always making on the floor! Of course, Big Sister has the right answer in the end, but before you start reading this fun book to find out, tell us: why do YOU think things fall down?