Mother Goose is a well-known book of nursery rhymes in English. Do you think such a book can save Planet Earth from a Martian invasion? Read this play, set four centuries in the future, and find out.

Characters

HISTORIAN
GREAT AND MIGHTY THINK-TANK
APPRENTICE NOODLE
CAPTAIN OMEGA

LIEUTENANT IOTA
SERGEANT OOP
OFFSTAGE VOICE

SCENE 1

READ AND FIND OUT

• Why was the twentieth century called the ‘Era of the Book’?
• Who tried to invade the earth in the twenty-first century?

TIME : The twenty-fifth century
PLACE : The Museum of Ancient History: Department of the Twentieth Century on the Planet Earth

BEFORE RISE : Spotlight shines on Historian, who is sitting at a table down right, on which is a movie projector. A sign on an easel beside her reads: Museum of Ancient History: Department of the Twentieth Century. She stands and bows to audience.

HISTORIAN : Good afternoon. Welcome to our Museum of Ancient History, and to my department — curiosities of the good old, far-off twentieth century. The twentieth century was often called the Era of the Book. In those days, there were books about everything, from anteaters to Zulus. Books taught people how to, and when to, and where to, and why to. They illustrated, educated, punctuated, and even decorated. But the
strangest thing a book ever did was to save the Earth. You haven’t heard about the Martian invasion of 2040? Tsk, tsk. What do they teach children nowadays? Well, you know, the invasion never really happened, because a single book stopped it. What was the book, you ask? A noble encyclopedia? A tome about rockets and missiles? A secret file from outer space? No, it was none of those. It was — but here, let me turn on the historiscope and show you what happened many centuries ago, in 2040. (She turns on projector, and points it left. Spotlight on Historian goes out, and comes up down left on Think-Tank, who is seated on a raised box, arms folded. He has a huge, egg-shaped head, and he wears a long robe decorated with stars and circles. Apprentice Noodle stands beside him at an elaborate switchboard. A sign on an easel reads:"

MARS SPACE CONTROL

GREAT AND MIGHTY THINK-TANK, COMMANDER-IN-CHIEF

Bow low before entering)."

Noodle: (bowing) O Great and Mighty Think-Tank, most powerful and intelligent creature in the whole universe, what are your orders?

Think-Tank: (peevishly) You left out part of my salutation, Apprentice Noodle. Go over the whole thing again.

Noodle: It shall be done, sir. (in a singsong) O Great and Mighty Think-Tank, Ruler of Mars and her two moons, most powerful and intelligent creature in the whole universe — (out of breath) what-are-your-orders?

Think-Tank: That’s better, Noodle. I wish to be placed in communication with our manned space probe to that ridiculous little planet we are going to put under our generous rulership. What do they call it, again?

Noodle: Earth, your Intelligence.

Think-Tank: Earth — of course. You see how insignificant the place is? But first, something important. My mirror. I wish to consult my mirror.
Noodle : It shall be done, sir. *(He hands Think-Tank a mirror.)*

Think-Tank : Mirror, mirror, in my hand. Who is the most fantastically intellectually gifted being in the land?

Offstage Voice : *(after a pause)* You, sir.

Think-Tank : *(smacking mirror)* Quicker. Answer quicker next time. I hate a slow mirror. *(He admires himself in the mirror.)* Ah, there I am. Are we Martians not a handsome race? So much more attractive than those ugly Earthlings with their tiny heads. Noodle, you keep on exercising your mind, and someday you’ll have a balloon brain just like mine.

Noodle : Oh, I hope so, Mighty Think-Tank. I hope so.

Think-Tank : Now, contact the space probe. I want to invade that primitive ball of mud called Earth before lunch.

Noodle : It shall be done, sir. *(He adjusts levers on switchboard. Electronic buzzes and beeps are heard as the curtains open.)*

**SCENE 2**

READ AND FIND OUT

- What guesses are made by Think–Tank about the books found on Earth?

Time : A few seconds later

Place : Mars Space Control and the Centerville Public Library

At Rise : Captain Omega stands at centre, opening and closing card catalogue drawers in a confused fashion. Lieutenant Iota is up left, counting books in a bookcase. Sergeant Oop is at right, opening and closing a book, turning it upside down, shaking it and then riffling the pages and shaking his head.

Noodle : *(adjusting knobs)* I have a close sighting of the space crew, sir.

*(Think-Tank puts on a pair of enormous goggles and turns towards the stage to watch.)* They seem to have entered some sort of Earth structure.

Think-Tank : Excellent. Make voice contact.
Noodle: (speaking into a microphone) Mars Space Control calling the crew of Probe One. Mars Space Control calling the crew of Probe One. Come in, Captain Omega, and give us your location.

Omega: (speaking into a disk which is on a chain around her neck) Captain Omega to Mars Space Control. Lieutenant Iota, Sergeant Oop, and I have arrived on Earth without incident. We have taken shelter in this (indicates room) — this square place. Have you any idea where we are, Lieutenant Iota?

Iota: I can’t figure it out, Captain. (holding up a book) I’ve counted two thousand of these peculiar items. This place must be some sort of storage barn. What do you think, Sergeant Oop?

Oop: I haven’t a clue. I’ve been to seven galaxies, but I’ve never seen anything like this. Maybe they’re hats. (He opens a book and puts it on his head.) Say, maybe this is a haberdashery!

Omega: (bowing low) Perhaps the Great and Mighty Think-Tank will give us the benefit of his thought on the matter.
Think-Tank: Elementary, my dear Omega. Hold one of the items up so that I may view it closely. (Omega holds a book on the palm of her hand.) Yes, yes, I understand now. Since Earth creatures are always eating, the place in which you find yourselves is undoubtedly a crude refreshment stand.

Omega: (to Iota and Oop) He says we're in a refreshment stand.
Oop: Well, the Earthlings certainly have a strange diet.
Think-Tank: That item in your hand is called a sandwich.
Omega: (nodding) A sandwich.
Iota: (nodding) A sandwich.
Oop: (taking book from his head) A sandwich?
Think-Tank: Sandwiches are the main staple of Earth diet. Look at it closely. (Omega squints at book.) There are two slices of what is called bread, and between them is some sort of filling.
Omega: That is correct, sir.
Think-Tank: To confirm my opinion, I order you to eat it.
Omega: (gulping) Eat it?
Think-Tank: Do you doubt the Mighty Think-Tank?
OMEGA : Oh, no, no. But poor Lieutenant Iota has not had her breakfast. Lieutenant Iota, I order you to eat this — this sandwich.

IOTA : *(dubiously)* Eat it? Oh, Captain! It's a very great honour to be the first Martian to eat a sandwich, I'm sure, but — but how can I be so impolite as to eat before my Sergeant? *(handing Oop the book and saying brightly)* Sergeant Oop, I order you to eat the sandwich immediately.

OOP : *(making a face)* Who, Lieutenant? Me, Lieutenant?

IOTA and OMEGA : *(saluting)* For the glory of Mars, Oop!

OOP : * (unhappily) Immediately. *(He opens his mouth wide. Omega and Iota watch him breathlessly. He bites down on a corner of the book, and pantomimes chewing and swallowing, while making terrible faces.)*

OMEGA : Well, Oop?

IOTA : Well, Oop? *(Oop coughs. Omega and Iota pound him on the back.)*

THINK-TANK : Was it not delicious, Sergeant Oop?

OOP : *(saluting)* That is correct, sir. It was *not* delicious. I don't know how the Earthlings can get those sandwiches down without water. They're dry as Martian dust.

NOODLE : Sir, sir. Great and Mighty Think-Tank. I beg your pardon, but an insignificant bit of data floated into my mind about those sandwiches.

THINK-TANK : It can't be worth much, but go ahead. Give us your trifling bit of data.

NOODLE : Well, sir, I have seen surveyor films of those sandwiches. I noticed that the Earthlings did not *eat* them. They used them as some sort of communication device.

THINK-TANK : *(haughtily)* Naturally. That was my next point. These are actually communication sandwiches. Think-Tank is never wrong. Who is never wrong?

ALL : *(saluting)* Great and Mighty Think-Tank is never wrong.

THINK-TANK : Therefore, I order you to listen to them.
OMEGA : Listen to them?
IOTA AND OOP : (to each other, puzzled) Listen to them?
THINK-TANK : Do you have marbles in your ears? I said, listen to them. (Martians bow very low.)
OMEGA : It shall be done, sir. (They each take two books from the case, and hold them to their ears, listening intently.)
IOTA : (whispering to Omega) Do you hear anything?
OMEGA : (whispering back) Nothing. Do you hear anything, Oop?
OOP : (loudly) Not a thing! (Omega and Iota jump in fright.)
OMEGA AND IOTA : Sh-h-h! (They listen intently again.)
THINK-TANK : Well? Well? Report to me. What do you hear?
OMEGA : Nothing, sir. Perhaps we are not on the correct frequency.
IOTA : Nothing, sir. Perhaps the Earthlings have sharper ears than we do.
OOP : I don’t hear a thing. Maybe these sandwiches don’t make sounds.
THINK-TANK : What? Does somebody suggest the Mighty Think-Tank has made a mistake?
OMEGA : Oh, no, sir; no, sir. We’ll keep listening.
NOODLE : Please excuse me, your Brilliance, but a cloudy piece of information is twirling around in my head.
THINK-TANK : Well, twirl it out, Noodle, and I will clarify it for you.
NOODLE : I seem to recall that the Earthlings did not listen to the sandwiches; they opened them and watched them.
THINK-TANK : Yes, that is quite correct, I will clarify that for you, Captain Omega. Those sandwiches are not for ear communication, they are for eye communication. Now, Captain Omega, take that large, colourful sandwich over there. It appears to be important. Tell me what you observe.

(Omega picks up a very large volume of Mother Goose, holding it so that the audience can see the title. Iota looks over her left shoulder, and Oop peers over her right shoulder.)
OMEGA : It appears to contain pictures of Earthlings.
IOTA : There seems to be some sort of code.
THINK-TANK : (sharply interested) Code? I told you this was important. Describe the code.
OOP : It's little lines and squiggles and dots — thousands of them alongside the pictures.
THINK-TANK : Perhaps the Earthlings are not as primitive as we have thought. We must break the code.
NOODLE : Forgive me, your Cleverness, but did not the chemical department give our space people vitamins to increase their intelligence?
THINK-TANK : Stop! A thought of magnificent brilliance has come to me. Space people, our chemical department has given you vitamins to increase your intelligence. Take them immediately and then watch the sandwich. The meaning of the code will slowly unfold before you.
OMEGA : It shall be done, sir. Remove vitamins. (Crew takes vitamins from boxes on their belts.) Present vitamins. (They hold vitamins out in front of them, stiffly.) Swallow
vitamins. \(\text{They pop the vitamins into their mouths and gulp simultaneously. They open their eyes wide, their heads shake, and they put their hands to their foreheads.}\)

**Think-Tank**: Excellent. Now, decipher that code.

**All**: It shall be done, sir. \(\text{They frown over the book, turning pages.}\)

**Omega**: \(\text{brightly}\) Aha!

**Iota**: \(\text{brightly}\) Oho!

**Oop**: \(\text{bursting into laughter}\) Ha, ha, ha.

**Think-Tank**: What does it say? Tell me this instant. Transcribe, Omega.

**Omega**: Yes, sir. \(\text{She reads with great seriousness.}\)

Mistress Mary, quite contrary,
How does your garden grow?
With cockle shells and silver bells
And pretty maids all in a row.

**Oop**: Ha, ha, ha. Imagine that. Pretty maids growing in a garden.

**Think-Tank**: \(\text{alarmed}\) Stop! This is no time for levity. Don’t you realise the seriousness of this discovery? The Earthlings have discovered how to combine agriculture and mining. They can actually grow crops of rare metals such as silver. And cockle shells. They can grow high explosives, too. Noodle, contact our invasion fleet.

**Noodle**: They are ready to go down and take over Earth, sir.

**Think-Tank**: Tell them to hold. Tell them new information has come to us about Earth. Iota, transcribe.

**Iota**: Yes, sir. \(\text{She reads very gravely.}\)

Hey diddle diddle! The cat and the fiddle,
The cow jumped over the moon,
The little dog laughed to see such sport,
And the dish ran away with the spoon.

**Oop**: \(\text{laughing}\) The dish ran away with the spoon!
Think-Tank: Cease laughter. Desist. This is more and more alarming. The Earthlings have reached a high level of civilisation. Didn’t you hear? They have taught their domesticated animals musical culture and space techniques. Even their dogs have a sense of humour. Why, at this very moment, they may be launching an interplanetary attack of millions of cows! Notify the invasion fleet. No invasion today Oop, transcribe the next code.

Oop: Yes, sir. (reading)

Humpty Dumpty sat on the wall,  
Humpty Dumpty had a great fall;  
All the King’s horses and all the King’s men,  
Cannot put Humpty Dumpty together again.

Oh, look, sir. Here’s a picture of Humpty Dumpty. Why, sir, he looks like — he looks like — (turns large picture of Humpty Dumpty towards Think-Tank and the audience)

Think-Tank: (screaming and holding his head) It’s me! It’s my Great and Mighty Balloon Brain. The Earthlings have seen me, and they’re after me. “Had a great fall!” — That means they plan to capture Mars Central Control and me! It’s an invasion of Mars! Noodle, prepare a space capsule for me. I must escape without delay. Space people, you must leave Earth at once, but be sure to remove all traces of your visit. The Earthlings must not know that I know. (Omega, Iota, and Oop rush about, putting books back on shelves.)

Noodle: Where shall we go, sir?

Think-Tank: A hundred million miles away from Mars. Order the invasion fleet to evacuate the entire planet of Mars. We are heading for Alpha Centauri, a hundred million miles away. (Omega, Iota, and Oop run off right as Noodle helps Think-Tank off left and the curtain closes. Spotlight shines on Historian down right.)
HISTORIAN: (chuckling) And that’s how one dusty old book of nursery rhymes saved the world from a Martian invasion. As you all know, in the twenty-fifth century, five hundred years after all this happened, we Earthlings resumed contact with Mars, and we even became very friendly with the Martians. By that time, Great and Mighty Think-Tank had been replaced by a very clever Martian — the wise and wonderful Noodle! Oh, yes, we taught the Martians the difference between sandwiches and books. We taught them how to read, too, and we established a model library in their capital city of Marsopolis. But as you might expect, there is still one book that the Martians can never bring themselves to read. You’ve guessed it — *Mother Goose!* (She bows and exits right.)

CURTAIN

CLAIRE BOIKO

GLOSSARY

easel: wooden frame to support a blackboard or a picture
Zulus: an African ethnic group belonging to South Africa
apprentice: learner of a trade who has agreed to work for a certain period of time in return for being taught
peeishly: irritably
riffling: quickly turning over the pages of a book
barn: covered building for storing hay
haberdashery: shop which sells clothing, small articles of dress, pins, cotton, etc.
squiggles: scrawls; illegible writing or markings
decipher: find the meaning of something which is puzzling or difficult to understand
transcribe: write in full form from short-hand
levity: tendency to treat serious matters without respect; lack of seriousness
Think about it

1. Noodle avoids offending Think-Tank but at the same time he corrects his mistakes. How does he manage to do that?
2. If you were in Noodle's place, how would you handle Think-Tank's mistakes?
3. Do you think books are being replaced by the electronic media? Can we do away with books altogether?
4. Why are books referred to as a man's best companion? Which is your favourite book and why? Write a paragraph about that book.

Talk about it

1. In what ways does Think-Tank misinterpret innocent nursery rhymes as threats to the Martians? Can you think of any incidents where you misinterpreted a word or an action? How did you resolve the misunderstanding?
2. The aliens in this play speak English. Do you think this is their language? What could be the language of the aliens?

Suggested reading

- 'Diamond Cuts Diamond' by J.H. Parker
- 'The Cindrella Story' by Kenneth Lillington
- 'The Fun They Had' by Isaac Asimov

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Answers given by Professor Yash Pal and Dr Rahul Pal

(see questions on page 38)

(i) DNA exists as strands of bases that carry genetic information specific to each living thing. The sequence of bases of DNA in each of our cells is the same, but differs from that of any other living thing except possibly an identical twin. This difference makes the DNA break at different places when certain proteins called enzymes are added to it, resulting in smaller DNA fragments of different sizes. These fragments migrate at different rates in an electric field, resulting in a unique pattern; this pattern is referred to as a DNA fingerprint.

Our DNA is inherited from our parents. Some parts come from the father and some from the mother. DNA fingerprinting can help identify parentage, since a son or a daughter would always exhibit a pattern identifiable as coming from both parents. DNA fingerprinting analysis is very useful in forensic science; from a single hair or a tiny spot of blood, it is possible to prove the innocence or guilt of a murder suspect. Similarly, it is also possible to identify human remains after violent accidents have caused disfigurement.

It has been suggested that in the not so distant future, a DNA fingerprinting profile of the individual will have to accompany applications for an ID card, a bank account and a driving license. Human right groups say this type of "genetic profiling" constitutes an invasion of privacy. As with a lot of new technology, DNA fingerprinting also has a potential for abuse.

(ii) Honeybees are very sophisticated at position location and navigation. It is known that they use the sun as a guide. They also appear to have a good memory. They convey the information of a new find of food to the hive through an amazingly clever dance language. The dance indicates the direction and distance of the food source with respect to the direction of the sun in the sky! If it is dark inside the hive and a light bulb is switched on, the dance is modified to include the light bulb as a new reference direction! Since bees have pictorial memory of some sort, a direction-finding mechanism and a way of reckoning distance, they are probably better equipped for getting back home than any of us!

(iii) Rain is the result of condensation of vapour when the air is cooled below the dew point. All the vapour in a cloud cannot condense at the same time and turn into a large pool of water. Pockets of air move up independently and slowly cool till condensation begins and water droplets form. It is believed that most raindrops start out as tiny ice crystals — so tiny that they float down, slowly accreting more moisture on the way; at lower altitudes, the crystals melt into water droplets. In colder climates, the crystals reach the ground as snowflakes.