

Times Table Quiz

<http://bit.do/AlexaTimesTableQuiz>



Custom Skill for Amazon Alexa devices
By @chooMantra's @RajeevGM

Learn. Play. Create

chooMantra.

Its Magical !

Times Table Quiz

Alexa VUI based **Quiz Game**. Questions are based on times tables 1 to 12. Everytime, a new set of 10 questions are asked.

Suitable and appropriate for use by **kids below 13 years**.

Multi-modal. Supports **Echo Show, Echo Spot & FireTV**.

Gamification – Quick first response. Competitive scoring

Repeat Function. Ability to request questions again.



Times Table Importance

The Telegraph

Times Tables 1 to 12

1 times table	2 times table	3 times table	4 times table	5 times table	6 times table	7 times table	8 times table	9 times table	10 times table	11 times table	12 times table
1 x 1 = 1	1 x 2 = 2	1 x 3 = 3	1 x 4 = 4	1 x 5 = 5	1 x 6 = 6	1 x 7 = 7	1 x 8 = 8	1 x 9 = 9	1 x 10 = 10	1 x 11 = 11	1 x 12 = 12
2 x 1 = 2	2 x 2 = 4	2 x 3 = 6	2 x 4 = 8	2 x 5 = 10	2 x 6 = 12	2 x 7 = 14	2 x 8 = 16	2 x 9 = 18	2 x 10 = 20	2 x 11 = 22	2 x 12 = 24
3 x 1 = 3	3 x 2 = 6	3 x 3 = 9	3 x 4 = 12	3 x 5 = 15	3 x 6 = 18	3 x 7 = 21	3 x 8 = 24	3 x 9 = 27	3 x 10 = 30	3 x 11 = 33	3 x 12 = 36
4 x 1 = 4	4 x 2 = 8	4 x 3 = 12	4 x 4 = 16	4 x 5 = 20	4 x 6 = 24	4 x 7 = 28	4 x 8 = 32	4 x 9 = 36	4 x 10 = 40	4 x 11 = 44	4 x 12 = 48
5 x 1 = 5	5 x 2 = 10	5 x 3 = 15	5 x 4 = 20	5 x 5 = 25	5 x 6 = 30	5 x 7 = 35	5 x 8 = 40	5 x 9 = 45	5 x 10 = 50	5 x 11 = 55	5 x 12 = 60
6 x 1 = 6	6 x 2 = 12	6 x 3 = 18	6 x 4 = 24	6 x 5 = 30	6 x 6 = 36	6 x 7 = 42	6 x 8 = 48	6 x 9 = 54	6 x 10 = 60	6 x 11 = 66	6 x 12 = 72
7 x 1 = 7	7 x 2 = 14	7 x 3 = 21	7 x 4 = 28	7 x 5 = 35	7 x 6 = 42	7 x 7 = 49	7 x 8 = 56	7 x 9 = 63	7 x 10 = 70	7 x 11 = 77	7 x 12 = 84
8 x 1 = 8	8 x 2 = 16	8 x 3 = 24	8 x 4 = 32	8 x 5 = 40	8 x 6 = 48	8 x 7 = 56	8 x 8 = 64	8 x 9 = 72	8 x 10 = 80	8 x 11 = 88	8 x 12 = 96
9 x 1 = 9	9 x 2 = 18	9 x 3 = 27	9 x 4 = 36	9 x 5 = 45	9 x 6 = 54	9 x 7 = 63	9 x 8 = 72	9 x 9 = 81	9 x 10 = 90	9 x 11 = 99	9 x 12 = 108
10 x 1 = 10	10 x 2 = 20	10 x 3 = 30	10 x 4 = 40	10 x 5 = 50	10 x 6 = 60	10 x 7 = 70	10 x 8 = 80	10 x 9 = 90	10 x 10 = 100	10 x 11 = 110	10 x 12 = 120
11 x 1 = 11	11 x 2 = 22	11 x 3 = 33	11 x 4 = 44	11 x 5 = 55	11 x 6 = 66	11 x 7 = 77	11 x 8 = 88	11 x 9 = 99	11 x 10 = 110	11 x 11 = 121	11 x 12 = 132
									11 x 9 = 99	11 x 10 = 110	11 x 11 = 121
									12 x 9 = 108	12 x 10 = 120	12 x 11 = 132
											12 x 12 = 144

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Times tables key to good maths, inspectors say

Primary schools which fail to teach times tables by heart are condemning children to a lifetime struggling with numbers, inspectors have warned.

KUMON
 Maths Programme


The importance of learning

15 March, 2017

Last month Schools Minister Nick Gibb confirmed that all pupils leaving primary school in the UK will have to sit a times tables test by 2019; therefore it is more important than ever young students have a good grasp of multiplication.


Times tables are a very important part of mathematical knowledge and pupils who struggle with them in primary school are likely to fall behind when they begin secondary school.

Why is "INSTANT RECALL" of the 12 times table so important & key to numeracy?




A study published by OFSTED, the schools watchdog, found: "Pupils WITHOUT instant recall of multiplication table STRUGGLE in maths" and that "Many LOW-ATTAINING secondary pupils STRUGGLE with instant recall of tables".

(Ofsted, 2011)



... Therefore, the Department for Education have declared a 'War on Innumeracy': "Every child in Britain will have to know their times tables OFF BY HEART by 11" ahead of new tough testing on this starting next year.

(DfE, 2015)



Innumeracy is linked to poor education, unemployment, crime, poor mental & physical health, poverty, inequality and general social deprivation.

(National Numeracy)

school will have to sit a times tables test by 2019

How to Enable Skill & Play

Enable Skill.

- Open Alexa app, go to the menu, and select **Skills**. Search “**Times Table Quiz RajeevGM**”. Click on the skill displayed and click on “**Enable Skill**”. You will also need to enable **Kid Skills**



OR visit <http://bit.do/AlexaTimesTableQuiz>

(<https://www.amazon.com/gp/product/B078WFJ9CK>) and click on “**Enable Skill**”. You will need to be logged into Alexa account

Suitable and appropriate for use by **kids below 13 years**.

Open Skill / Play Game. Supports **Echo Show & Echo Spot**.

Turn on your Alexa and when ready say “**Alexa, open Times Table Quiz**”

Skill Background & Usage

Inspiration

- Help primary school students master maths times tables through quiz in a simple and fun way
- Help busy parents by assisting them to ask times table questions
- Also help adults hone their mental maths & multiplication skill

Voice commands that can be used

Action	What you need to say	You can also say
To get help	help	
To restart quiz	Start new quiz	Restart OR new quiz OR start over again
To hear the question again	repeat	Say again OR once more OR what is it
To say you don't know the answer	Don't know	
To end quiz	End quiz	Stop OR quit OR exit

Demo & Trailer

- Demo – <http://vimeo.com/250362037>
- Trailer – <http://vimeo.com/250274960>

Technology Stack Used

AWS

- **Lambda**
- **IAM**
- **Cloudwatch**
- **DynamoDB**
- **S3**
- **CloudFront**

Nodejs

- **Alexa SDK**
- **ASK CLI**



Roadmap

Parametrization - Quiz rounds, no of questions per round and number of rounds.

Negative Marking for wrong answers

Tiered points

Hint Function and **Answer Comments**

Teach techniques for quick recall without memorization

Full Multi Model support

Question level **multimedia** image, audio, video support

Gamification enhancement – Add difficulty levels

About @RajeevGM



Rajeev is founder and CEO of **chooMantra LTD**. He has put together easy methods for recollecting times tables in easy, quick and fun way. He will be publishing worksheets for kids as well as concepts manual for kids, parents, teachers and tutors. This quiz will be an enabler as well as a method for validating the mastery of the same. The next versions will emphasize these techniques during the quiz as well. The Google Home version is also getting ready. He is winner of Asha for EdTech HACKATION in 2018.

While he was in secondary school he was told that there is no divisibility test for prime numbers like 7, 13, etc. He devised a methodology for the same and was published in Mathematics Today, Bal Vijnana [published by IISc (Indian Institute of Science, Bengaluru)] and also his college magazine Anveshana. He has also taught these methods to his juniors at high school on request of his teachers.

While he was in 10+2 he had passed college, district and state level Olympiads and represented his Karnataka State in Indian Mathematics Olympiad. He was first one to represent the state from outside of 4 main districts.

He completed all the exercises in Excellent Mathematics textbook within 2 months and won the second prize in the State Level competition.

He devised Infinite Years Julian cum Gregorian calendar on a single sheet of paper. He also wrote a computer program to calculate the day of any given date while he was studying 2nd year of engineering at KREC, Surathkal.

Over 2 decades of work at Global Banks & FinTech firms, he devised programs for Technology and Business people to learn each other domains and work effectively to deliver solutions

About @RajeevGM's Team

Team. Rajeev GM (Lead & developer), Shweta Nayak (design), Rishita Mavinkurve (testing) & Rajendra Mavinkurve (content & promotion).

Other assistance and support by Sudha GM, Raghav GM, Renuka, Shreyas, Rajashree and Niharika.

The team is inspired by philanthropist, guide and polygot guru late Dr.G.H.Mavinkurve

Rajeev won Asha 4 Education Hackathon Prize in 2018.



Other Alexa Skills by @RajeevGM

Country Capital Quiz.



Open Alexa app, go to the menu, and select **Skills**. Search “**Country Capital Quiz RajeevGM**”. Click on the skill displayed and click on “**Enable Skill**”. You will also need to enable **Kid Skills**



OR visit <http://bit.do/AlexaCountryCapitalQuiz>

(<https://www.amazon.co.uk/RajeevGM-Country-Capital-Quiz/dp/Bo1M9B9R3I>) and click on “**Enable Skill**”. You will need to be logged into Alexa account

Suitable and appropriate for use by **kids below 13 years**.

Animal Kingdom Game.



Open Alexa app, go to the menu, and select **Skills**. Search “**Animal Kingdom Game RajeevGM**”. Click on the skill displayed and click on “**Enable Skill**”. You will also need to enable **Kid Skills**



OR visit <http://bit.do/AlexaAnimalKingdomGame>

(<https://www.amazon.co.uk/dp/Bo7JCSZG5J>) and click on “**Enable Skill**”. You will need to be logged into Alexa account

Suitable and appropriate for use by **kids below 13 years**.

More on Times Table by @RajeevGM (coming soon)

Times Table Quiz on Google Home



- Work on Google Home is in progress and will be released soon

Spreadsheet for Times Table on 1-100 Number Grid

- This helps students to visualise times table pattern on 1-100 number grid
- Teachers can use this in the classroom

Techniques for quick recall & books.

- Techniques to recall Times table quickly without memorising
- Text Books for Teachers/tutors, parents, self learning students
- Workbooks to master times table.

Times Table on Number Grid									
								Highlight Times Table of	9
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

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chooMantra – Its Magical !

About chooMantra

chooMantra aims to **make this world a better place for you, and for me, and for the entire world**. Our philosophy is **Learn, Play, Create**.

We believe that **If you feed a man a bowl of rice you feed him for a day. If you teach him farming you feed him for life.**

Working to **Make learning simple, easy, fun, quick, entertaining, effective, productive, creative and fruitful** using techniques, methods and tools. We are experimenting with Gamification, Vedic Maths, gurukul methods, technologies like AR/VR/MR, VUI, AI/ML etc.

Watch out for more things coming soon on our website <http://choomantra.com> and <http://www.choomantra.com/rajeevGM-notes/create/>

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