

_____ 's
Little Book of Big Dreams



by Jean Fan &
Curry Chern

pictures by
Jean Fan

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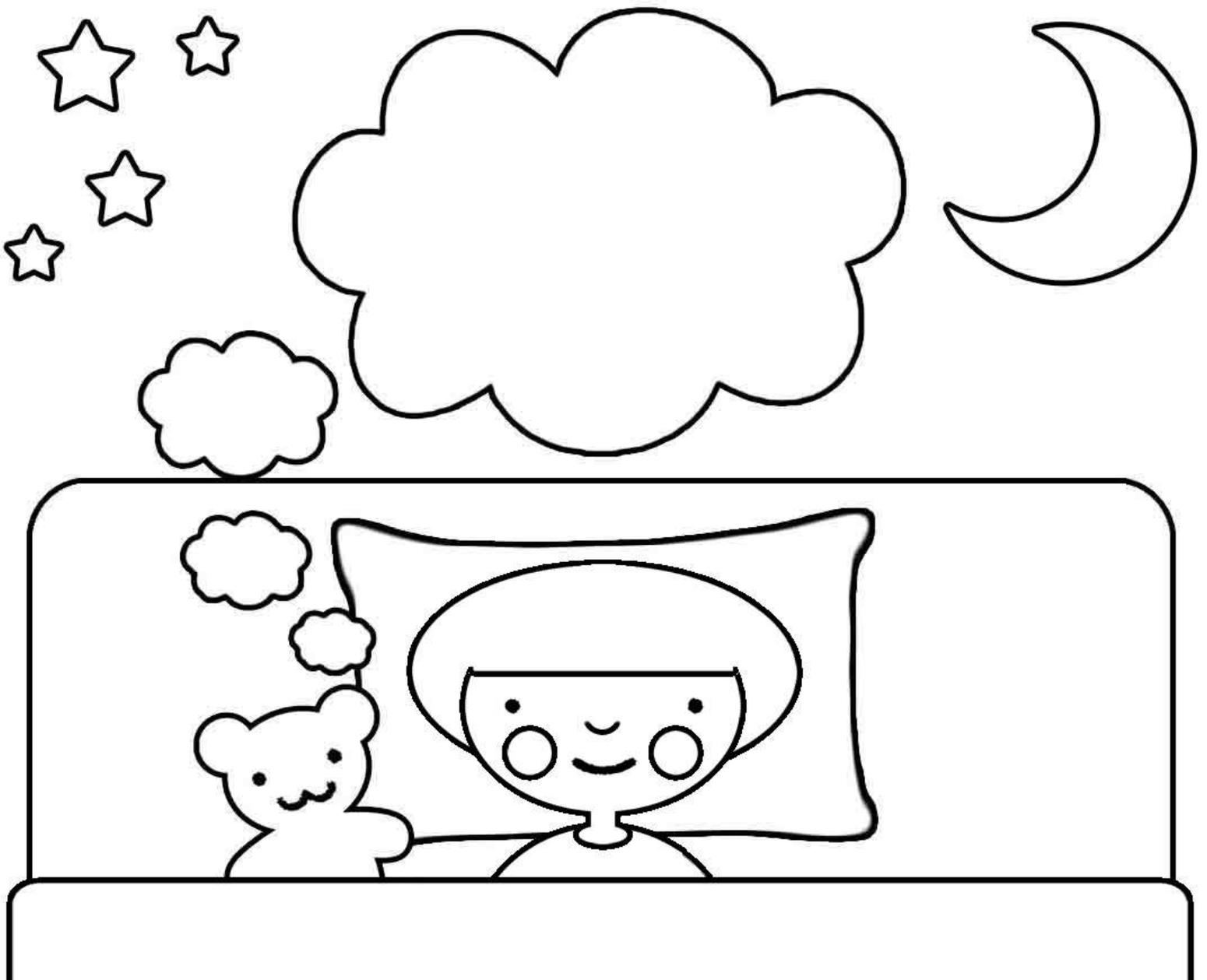
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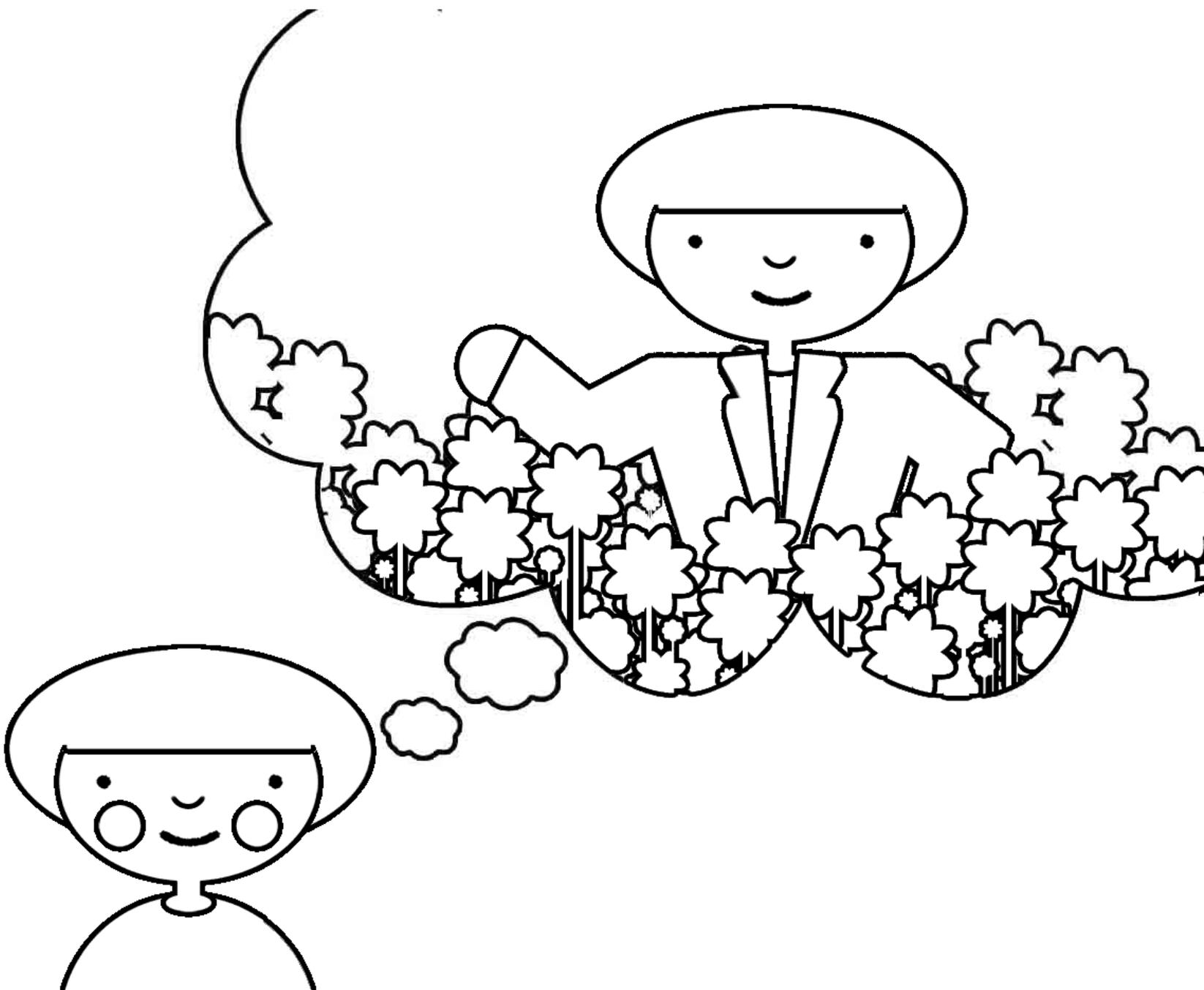
c u S T E M  z e d

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As _____ gets ready for bed tonight,
after winding down and being tucked in tight,
he dozes off into his nightly snooze,
and a magical transformation ensues.



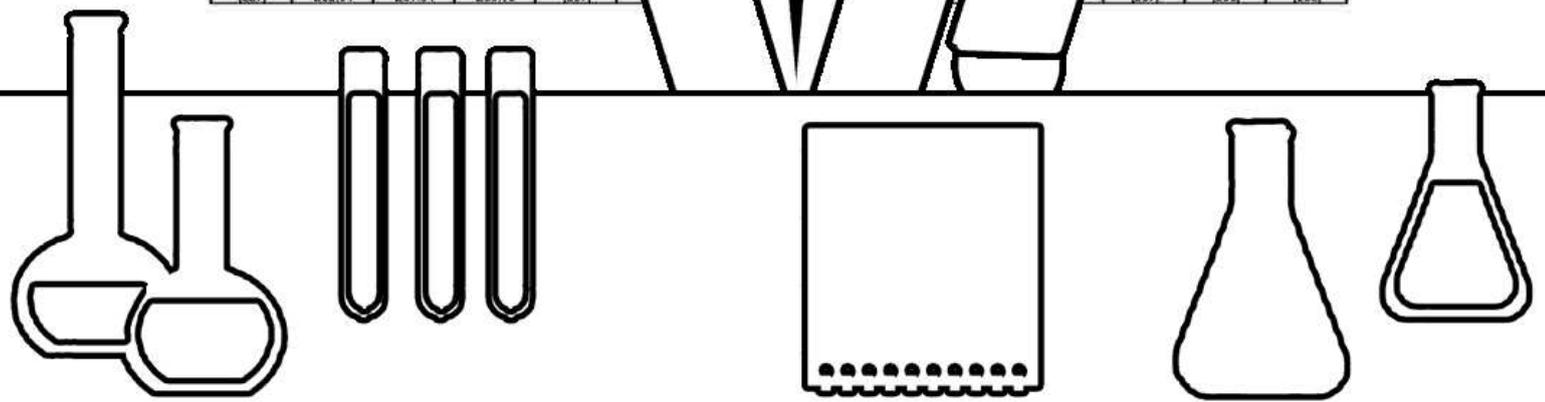
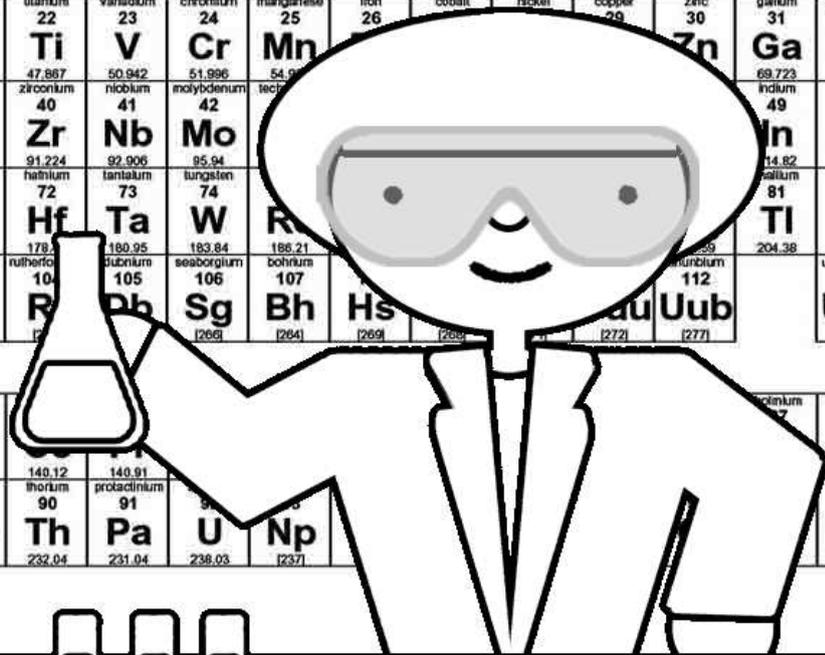
_____ is all grown up with much to do,
with big shoes, big thoughts, and big plans too.
So as _____ sleeps, he begins to see,
what he can do and what he can be.



_____ is a chemist. He is a master of potions.
 He makes crayons, insulin, and nice smelling lotions.
 He mixes chemicals so that they bond or collapse,
 to study their reactions and make explosions perhaps.

_____ 's
 Chemistry Lab

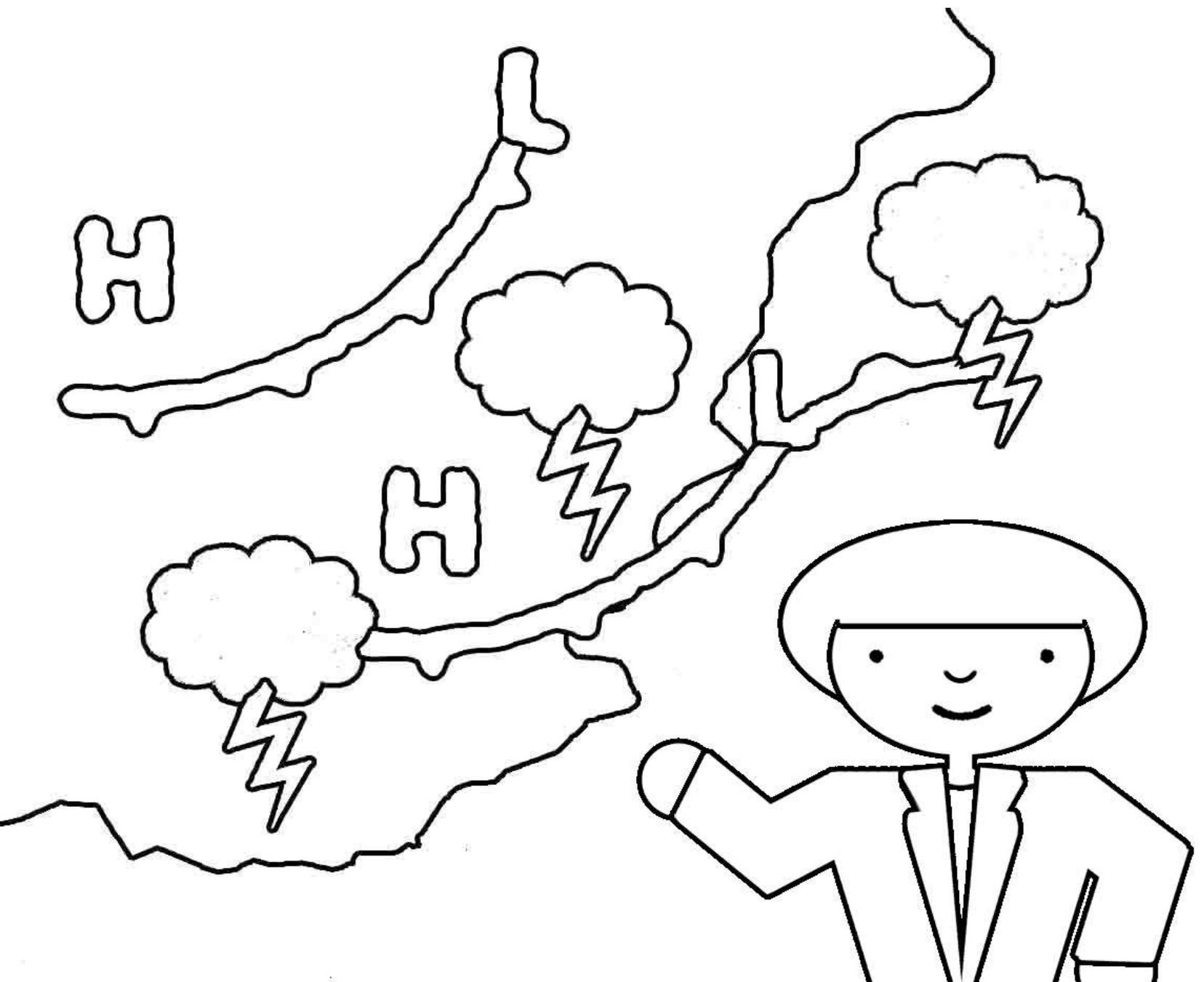
hydrogen 1 H 1.0079	beryllium 4 Be 9.0122																	helium 2 He 4.0026																													
lithium 3 Li 6.941		boron 5 B 10.811	carbon 6 C 12.011	nitrogen 7 N 14.007	oxygen 8 O 15.999	fluorine 9 F 18.998	neon 10 Ne 20.180																	argon 18 Ar 39.948																							
sodium 11 Na 22.990	magnesium 12 Mg 24.305	aluminum 13 Al 26.982	silicon 14 Si 28.086	phosphorus 15 P 30.974	sulfur 16 S 32.065	chlorine 17 Cl 35.453	krypton 36 Kr 83.80																	radon 86 Rn [222]																							
potassium 19 K 39.098	calcium 20 Ca 40.078	scandium 21 Sc 44.956	titanium 22 Ti 47.887	vanadium 23 V 50.942	chromium 24 Cr 51.996	manganese 25 Mn 54.938	iron 26 Fe 55.845	cobalt 27 Co 58.933	nickel 28 Ni 58.693	copper 29 Cu 63.546	zinc 30 Zn 65.38	gallium 31 Ga 69.723	germanium 32 Ge 72.61	arsenic 33 As 74.922	selecnium 34 Se 78.96	bromine 35 Br 79.904	iodine 53 I 126.90	xenon 54 Xe 131.29																	radon 86 Rn [222]												
rubidium 37 Rb 85.468	strontium 38 Sr 87.62	yttrium 39 Y 88.906	zirconium 40 Zr 91.224	niobium 41 Nb 92.906	niobium 42 Mo 95.94	technetium 43 Tc [98]	tungsten 74 W 183.84	rhodium 45 Rh 101.07	rhodium 46 Pd 106.42	silver 47 Ag 107.868	cadmium 48 Cd 112.411	indium 49 In 114.818	tin 50 Sn 118.710	antimony 51 Sb 121.757	tellurium 52 Te 127.60	polonium 84 Po [209]	astatine 85 At [210]	radon 86 Rn [222]																	radon 86 Rn [222]												
caesium 55 Cs 132.91	barium 56 Ba 137.33	57-70 *	lutetium 71 Lu 174.97	hafnium 72 Hf 178.49	tantalum 73 Ta 180.95	rhenium 75 Re 186.21	bohrium 107 Bh [264]	hassium 108 Hs [265]	meitnerium 109 Mt [266]	darmstadtium 110 Ds [271]	roentgenium 111 Rg [272]	copernicium 112 Cn [277]	ununnium 113 Uu [288]	ununquadium 114 Uuq [289]																	ununnium 113 Uu [288]																
francium 87 Fr [223]	radium 88 Ra [226]	89-102 **	lawrencium 103 Lr [262]	rutherfordium 104 Rf [261]	dubnium 105 Db [269]	seaborgium 106 Sg [269]	bohrium 107 Bh [264]	hassium 108 Hs [265]	meitnerium 109 Mt [266]	darmstadtium 110 Ds [271]	roentgenium 111 Rg [272]	copernicium 112 Cn [277]	ununnium 113 Uu [288]	ununquadium 114 Uuq [289]																	ununnium 113 Uu [288]																
lanthanum 57 La 138.91	cerium 58 Ce 140.12	praseodymium 59 Pr 140.91	neodymium 60 Nd 144.24	promethium 61 Pm [145]	samarium 62 Sm 150.36	europium 63 Eu 151.964	gadolinium 64 Gd 157.25	terbium 65 Tb 158.925	dysprosium 66 Dy 162.50	holmium 67 Ho 164.930	erbium 68 Er 167.26	thulium 69 Tm 168.934	ytterbium 70 Yb 173.04	lutetium 71 Lu 174.967	actinium 89 Ac [227]	thorium 90 Th 232.04	protactinium 91 Pa 231.04	uranium 92 U 238.03	neptunium 93 Np [237]	plutonium 94 Pu [244]	americium 95 Am [243]	curium 96 Cm [247]	berkelium 97 Bk [247]	californium 98 Cf [251]	lawrencium 103 Lr [262]	actinium 89 Ac [227]	thorium 90 Th 232.04	protactinium 91 Pa 231.04	uranium 92 U 238.03	neptunium 93 Np [237]	plutonium 94 Pu [244]	americium 95 Am [243]	curium 96 Cm [247]	berkelium 97 Bk [247]	californium 98 Cf [251]	lawrencium 103 Lr [262]	actinium 89 Ac [227]	thorium 90 Th 232.04	protactinium 91 Pa 231.04	uranium 92 U 238.03	neptunium 93 Np [237]	plutonium 94 Pu [244]	americium 95 Am [243]	curium 96 Cm [247]	berkelium 97 Bk [247]	californium 98 Cf [251]	lawrencium 103 Lr [262]



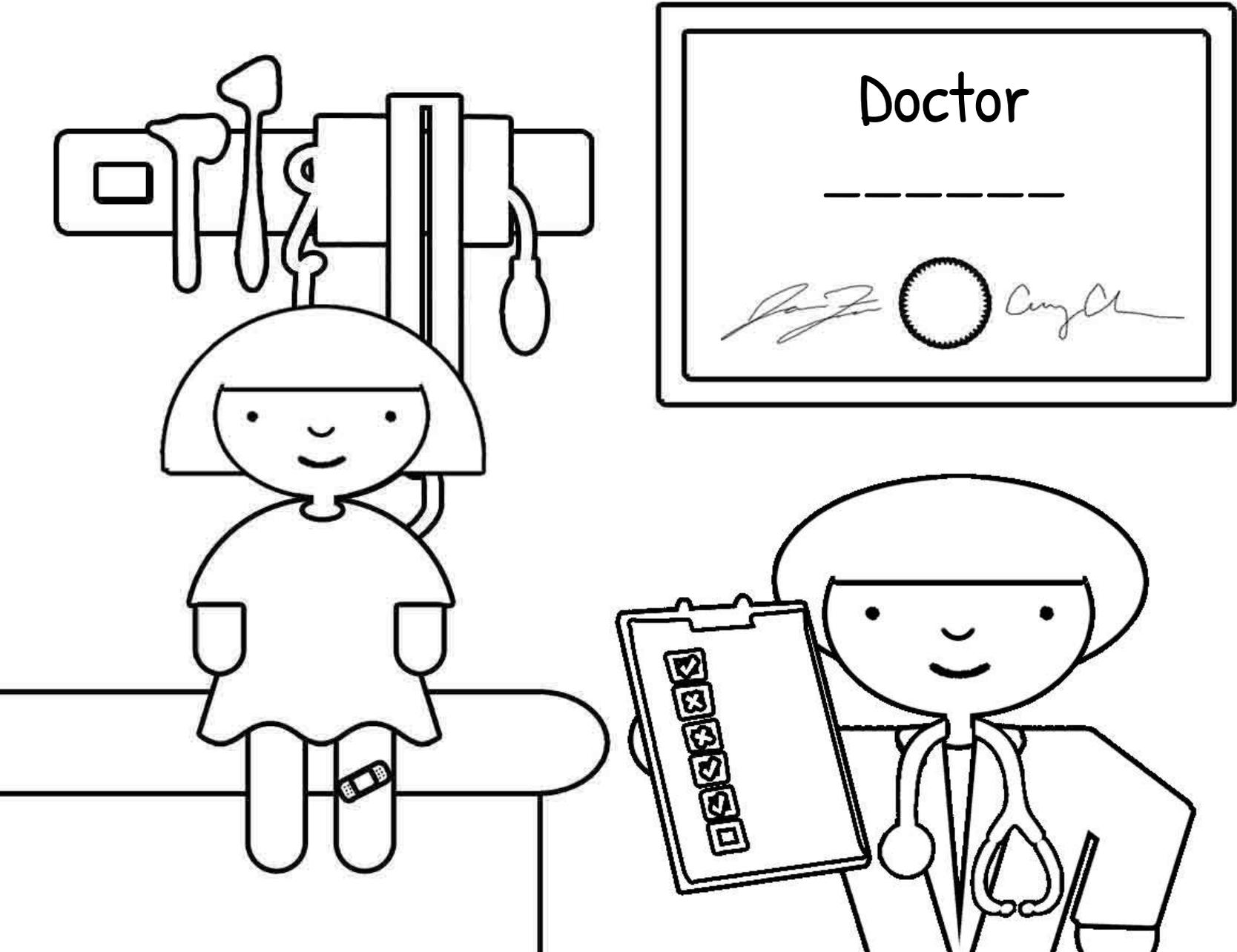
_____ is a programmer. He writes in code,
to create awesome games for us to download.
He makes browsing and searching online a breeze,
and even designs apps for phones and TVs.



_____ is a meteorologist. He studies the sky,
to see if the weather will be wet or dry.
He tracks the paths of storms and hurricanes,
and reminds us to bring umbrellas when it rains.



_____ is a doctor. He cures what is feeling wrong,
using science to make sure we are healthy and strong.
He checks our eyes, nose, mouth, and ears,
and tracks our height for years and years.



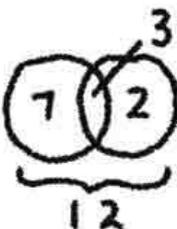
_____ is a mathematician. He loves to count.
 He helps shops decide how much money to discount.
 He studies numbers and patterns and their properties,
 to better understand the world and its commodities.

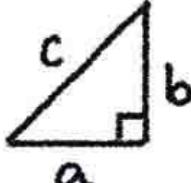
Derivation of _____'s Formula

$$1 + 1 = 2$$

$$1 + 1 + 1 = 3$$

$$2 + 1 = 3$$



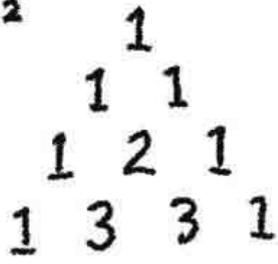
$$a^2 + b^2 = c^2$$


$$2x + y = 3$$

$$x + y = 2$$

$$x = 1$$

$$y = 1$$

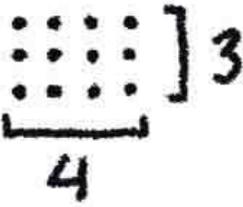


$$\dots$$

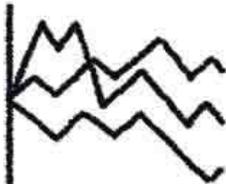
$$\dots$$

$$\text{if } (x+y)^n = \sum_{k=0}^n \binom{n}{k} x^{n-k} y^k$$

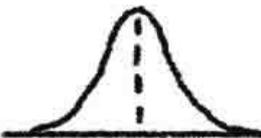
$$\text{then } \binom{n}{k} = \binom{n-1}{k-1} + \binom{n-1}{k}$$



$$\frac{x^4}{12}$$



$$S_n = \sum_{i=1}^n z_i$$



$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$$



$$A = \pi r^2$$

$$C = 2\pi r$$

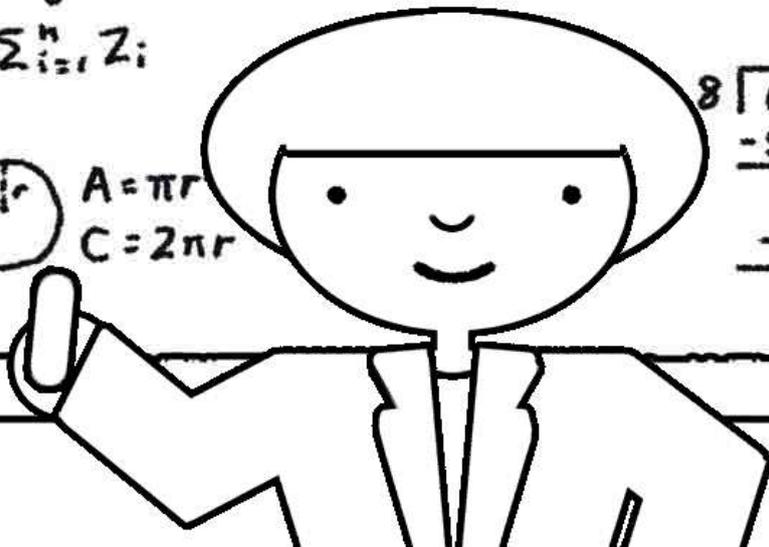
$$8 \overline{) 76r4}$$

$$\underline{-56}$$

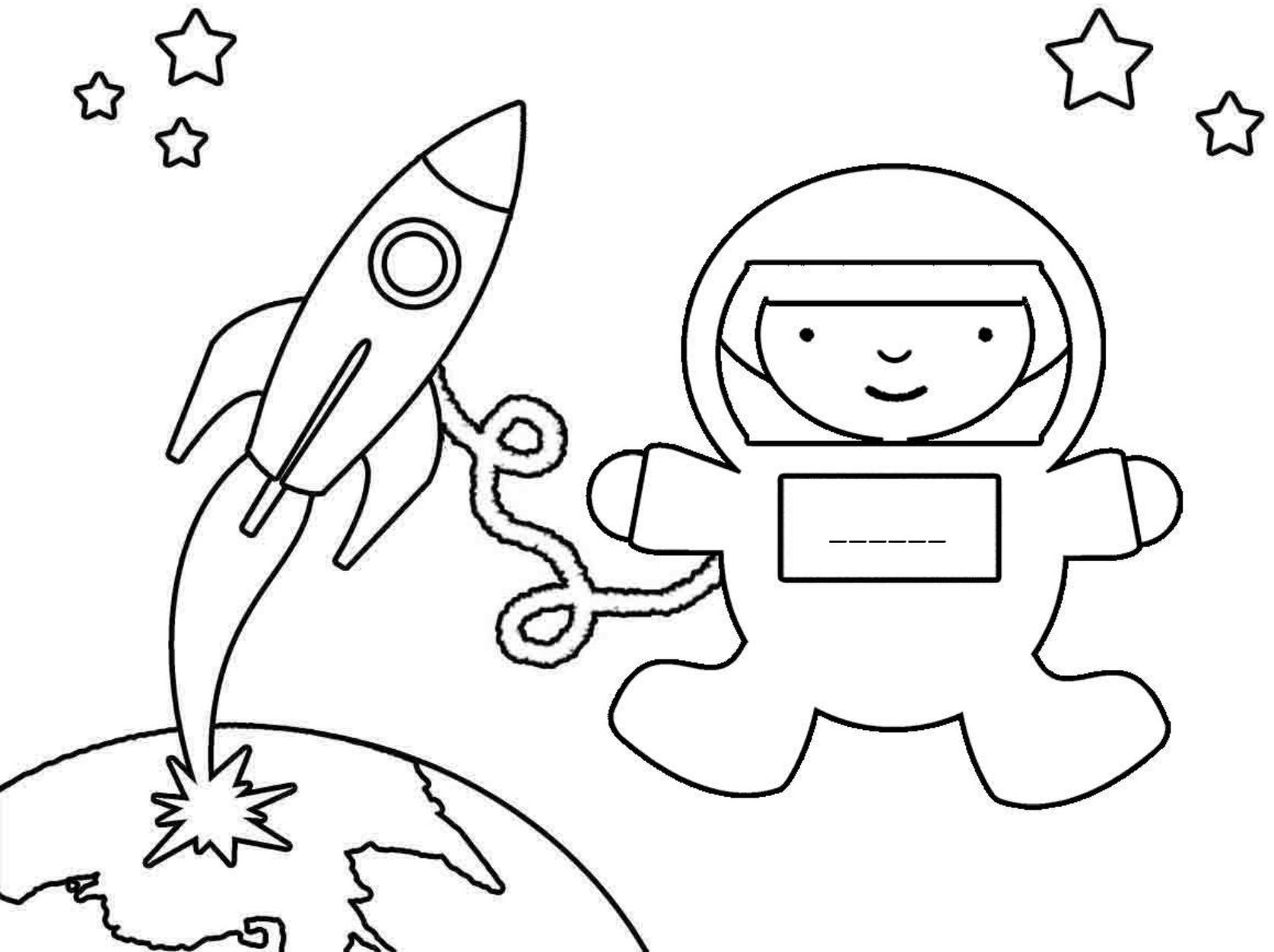
$$20$$

$$\underline{-16}$$

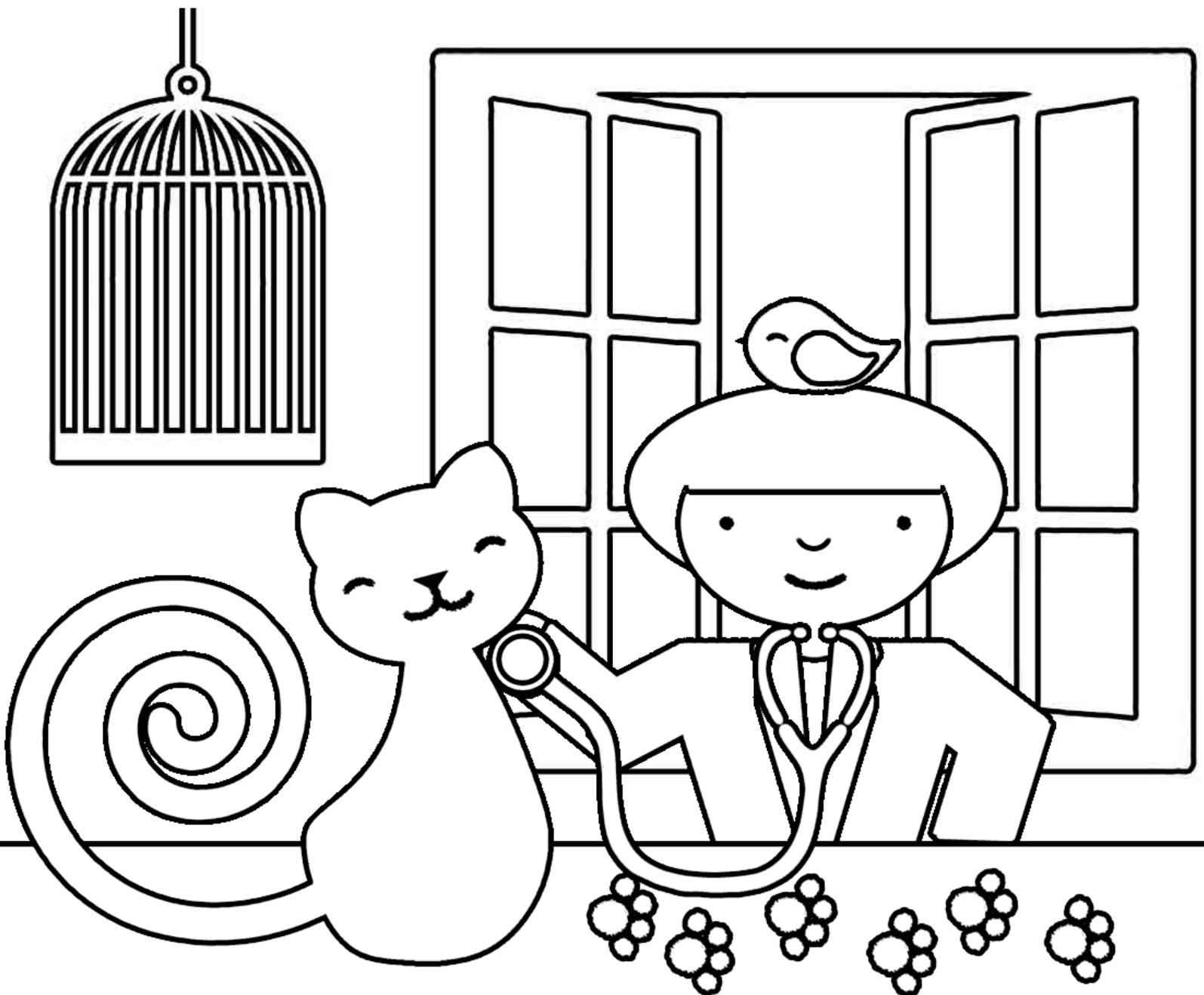
$$4$$



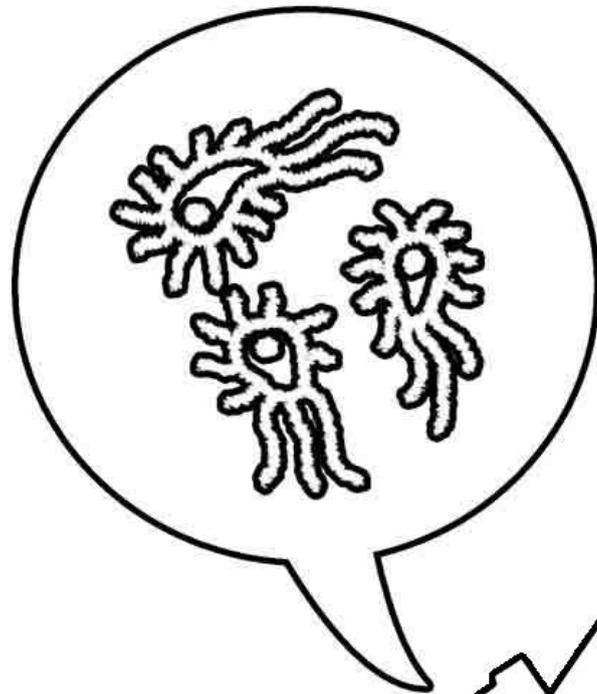
_____ is an astronaut. He flies into space,
searching for the presence of an alien race.
He floats among the planets, moons, and stars,
to become the first person to land on Mars.



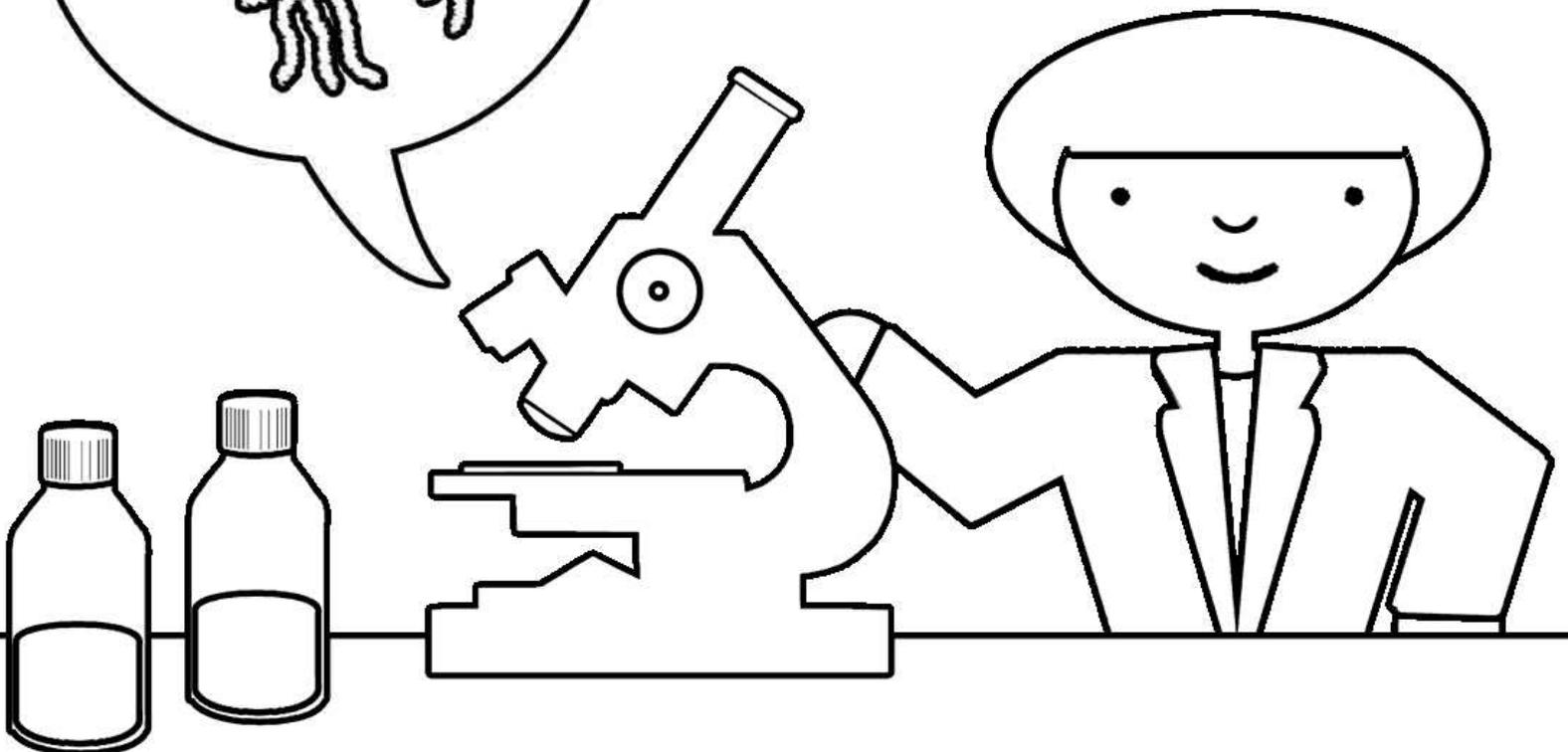
_____ is a veterinarian. He cares for cats and dogs,
and birds, lizards, rabbits, and even hedgehogs.
He rids our fuzzy friends of pesky ticks and fleas,
making all pets healthy by curing disease.



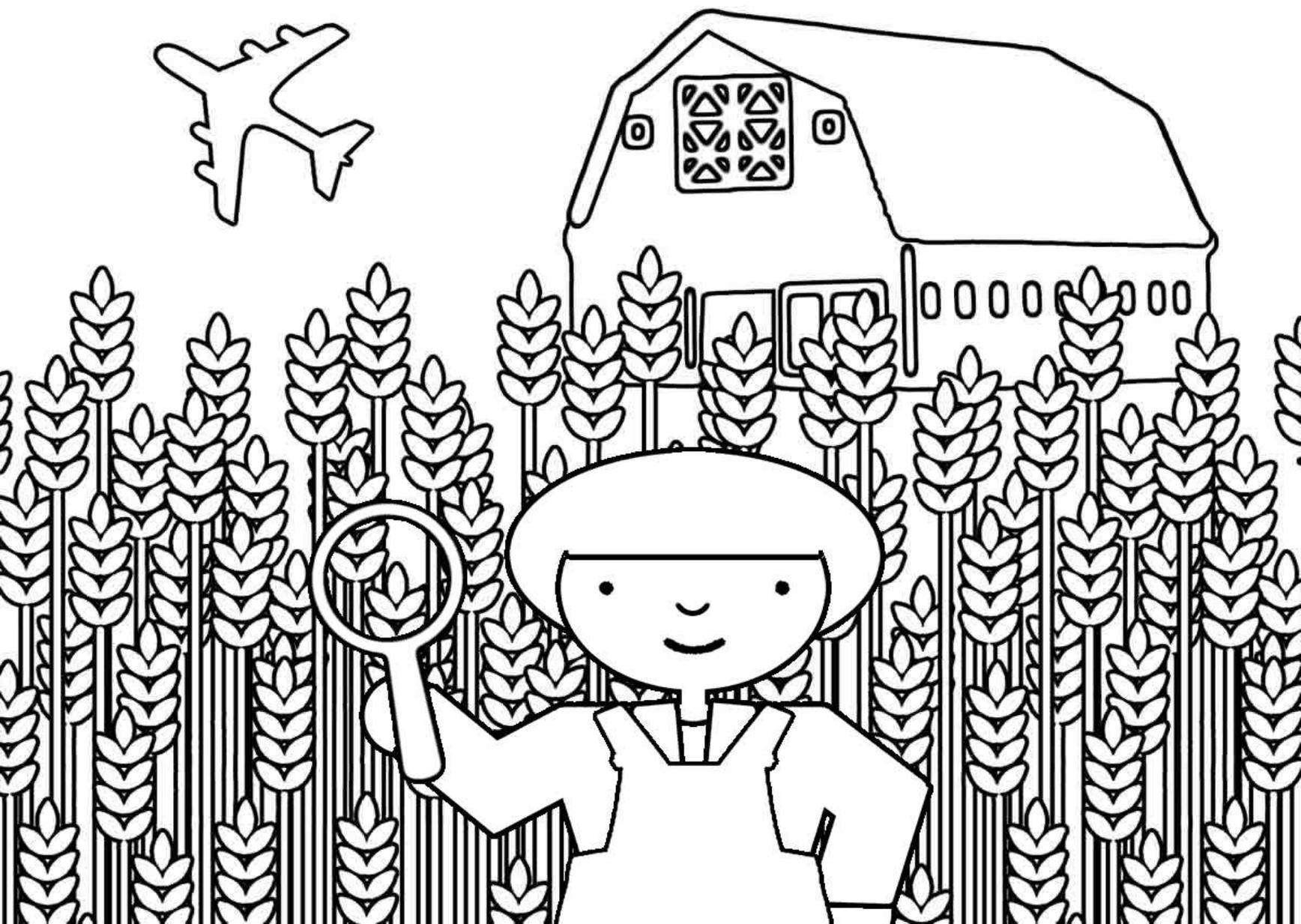
_____ is a biologist. He studies living things,
asking why fish have gills and why birds have wings.
He looks at the blueprint of life called DNA,
to understand why mother nature made us this way.



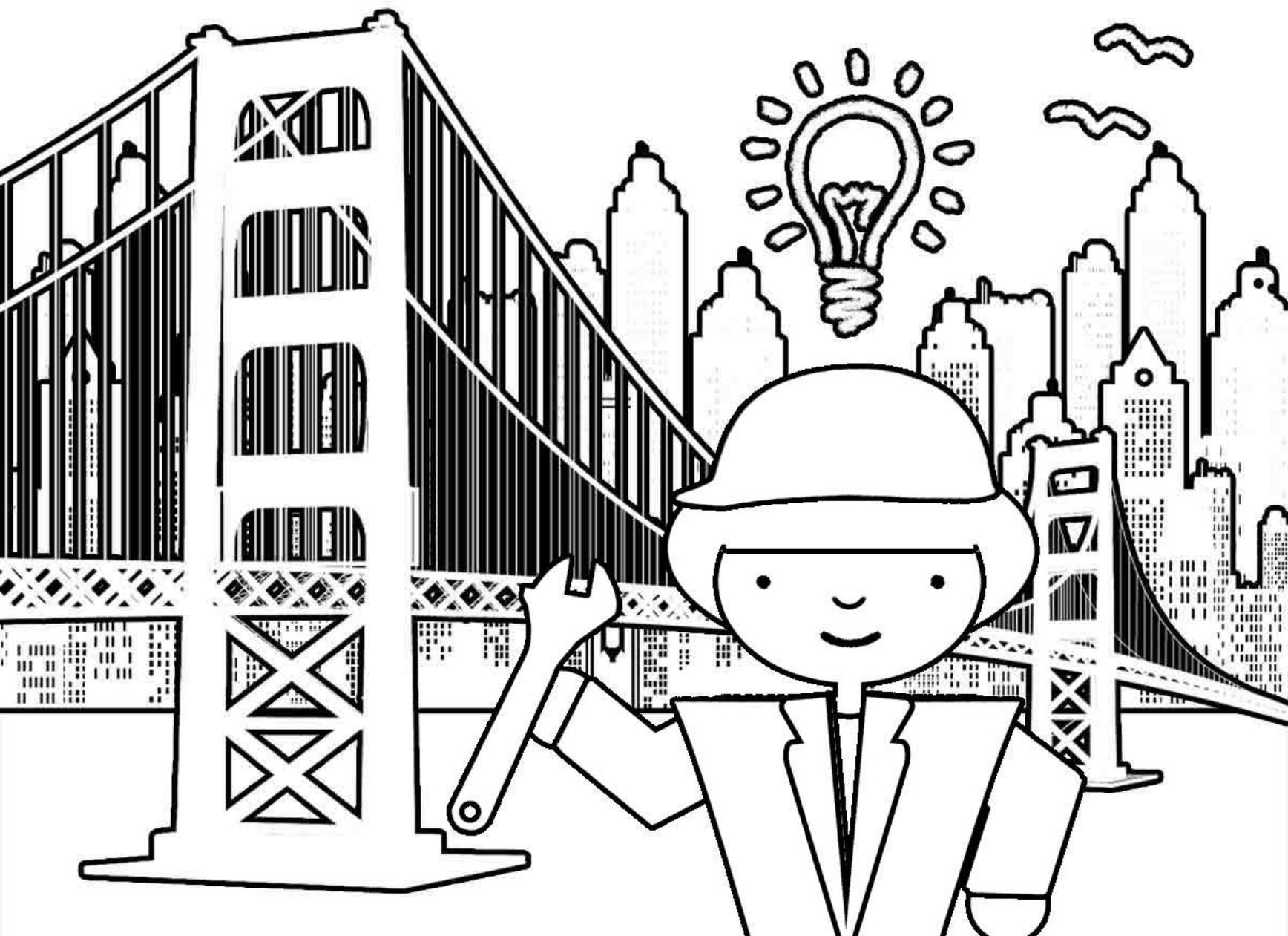
Discovery of
_____020a



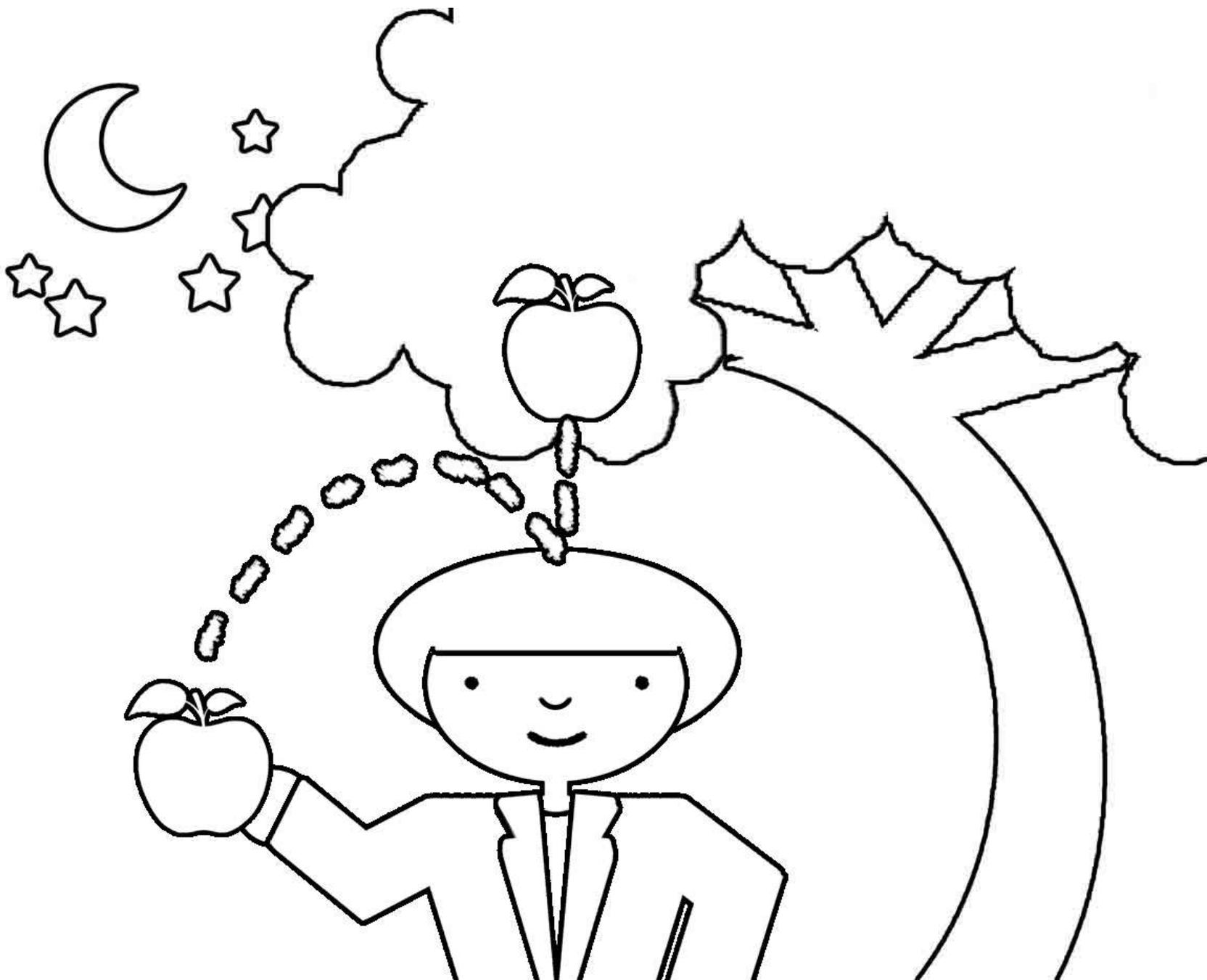
_____ is an agronomist. He is interested in crops,
to grow the sweetest corn to sell to all the shops.
He carefully chooses the seeds, lands, and soils,
to produce healthier foods and sustainable oils.



_____ is an engineer. He aims to find a solution,
to everyday problems like smog and pollution.
He designs buildings, bridges, cars and planes.
Whatever the challenge, he uses his brains.



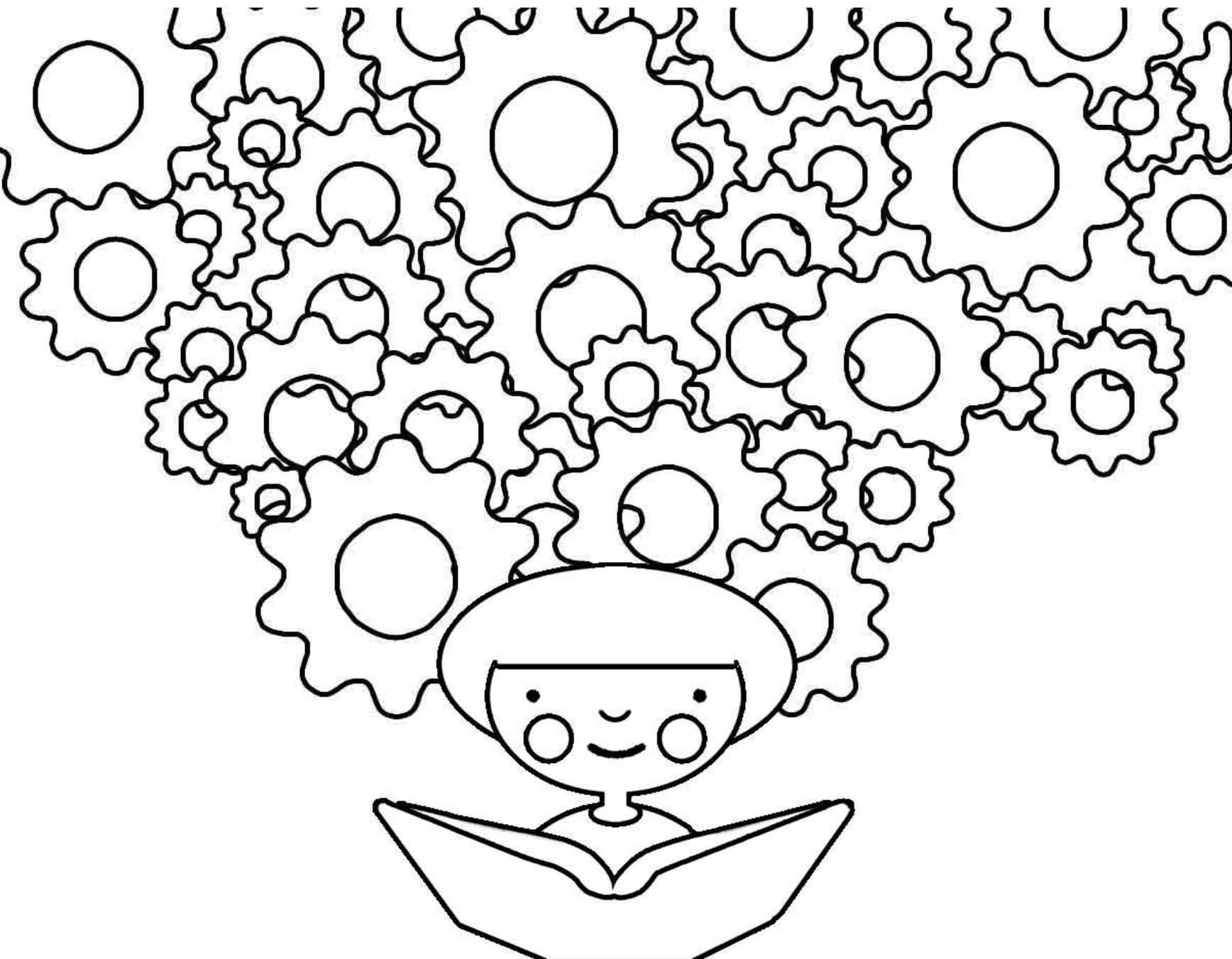
_____ is a physicist. He studies it all,
from galaxies to atoms, from humongous to small.
He wants to discover how the world came to be,
and just why an apple falls from a tree.



All of these choices, what will _____ explore?

What will he learn? What is waiting in store?

Tomorrow, when _____ wakes to a brand new day,
he will tackle the world in a brand new way.



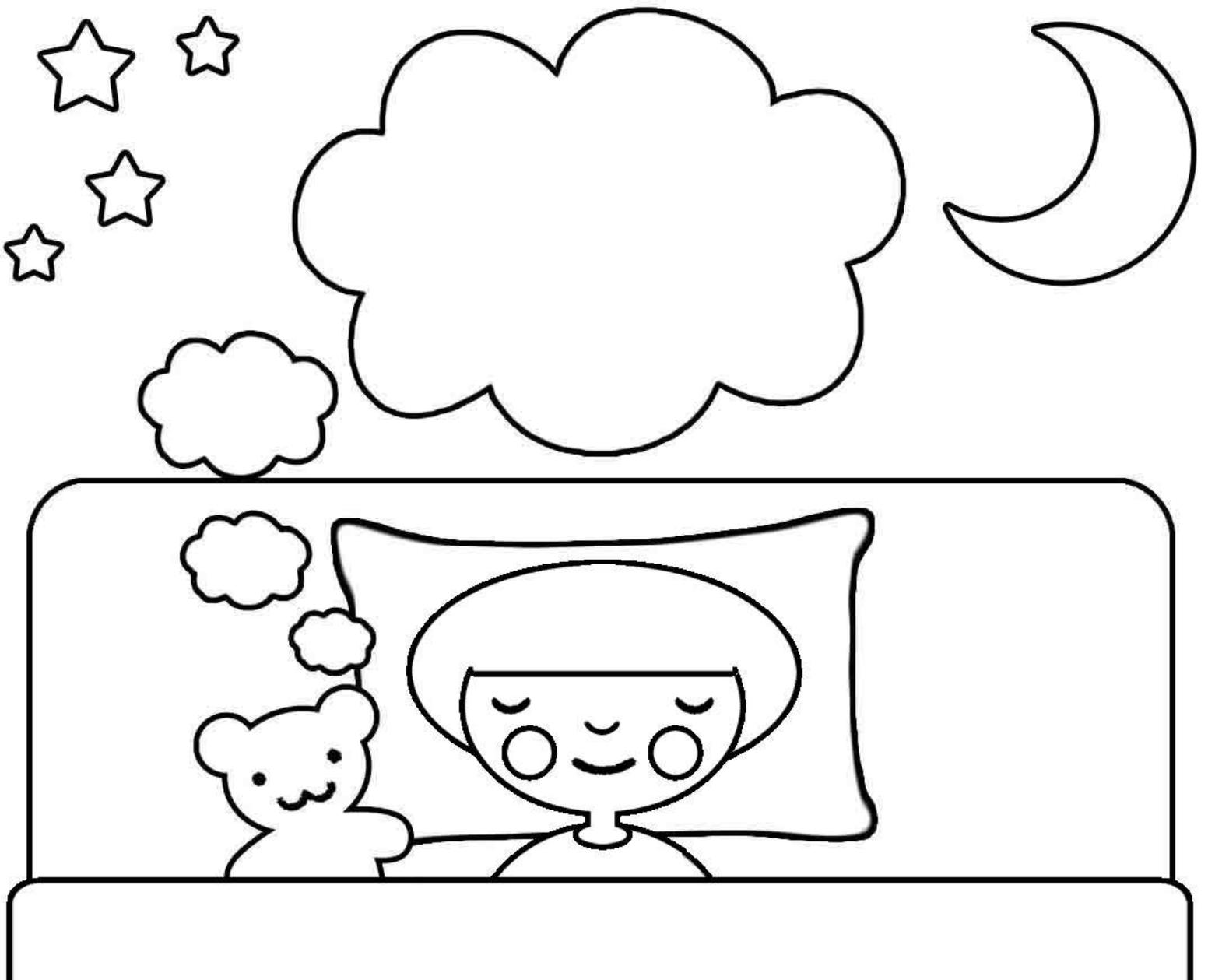
Sometimes it is tough, sometimes it is rough,
sometimes it may feel like enough is enough,
though he may first fail, though he may stumble,
though he may doubt, though he may fumble,



_____ will try again! And he will make it through!
These big dreams he will chase! These big dreams he will pursue!
With hard work _____ big dreams will someday,
Surely change the world in a really big way!



Dream big, _____!



cuSTEMized is a not-for-profit initiative
that encourages kids to envision themselves
in Science, Technology, Engineering, and Math (STEM).

This book was made for

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