

POLUSVILLE

CENTER FOR DISEASE CONTROL



PATIENT REPORT

PATIENT NAME: *Gunther*

PATIENT OCCUPATION: *Teacher*

PATIENT LOCATION: *Polusville, ROCU*

Description: A male, 20-year old patient suddenly developed a large, sparkly unicorn horn on top of his head in the middle of his class. The patient also reported feeling “unbelievably happy” and seeing brightly colored spots. According to the patient, the classroom was littered with sparkles that were assumed to be remnants of the kids’ playtime. We have reason to believe that these sparkles caused the symptoms but further testing needs to be done. The patient is being closely monitored in an isolated chamber

Recommendations: Now that you know how vaccines work, help us with Phase 1 of SUS vaccine development. For Phase 1, we will give the vaccine to healthy volunteers to test if it’s safe and induces an immune response against the virus. Nine companies have sent us information on their vaccines but you need to find the right vaccine for the job. My clumsy assistant scrambled the files so you will have to sort through it yourself. When going through these files, keep in mind how expensive they are, whether they trigger the immune system and whether the response is stronger than the immune system. Report back to me once you have **eliminated three vaccines**. I am counting on you!

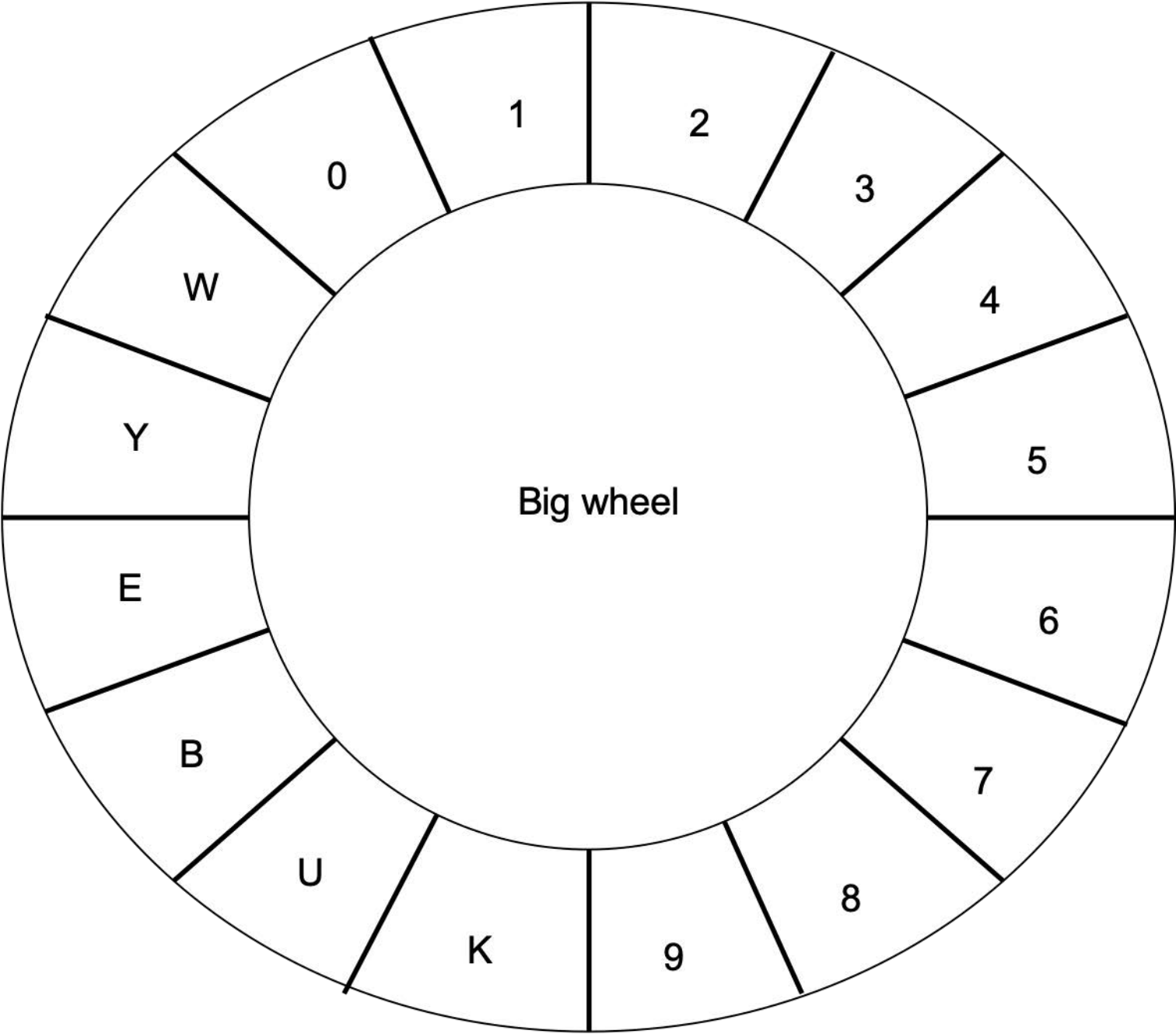
A handwritten signature in black ink, appearing to read 'Sph'.

Dr. Skeld
Polusville Center for Disease Control

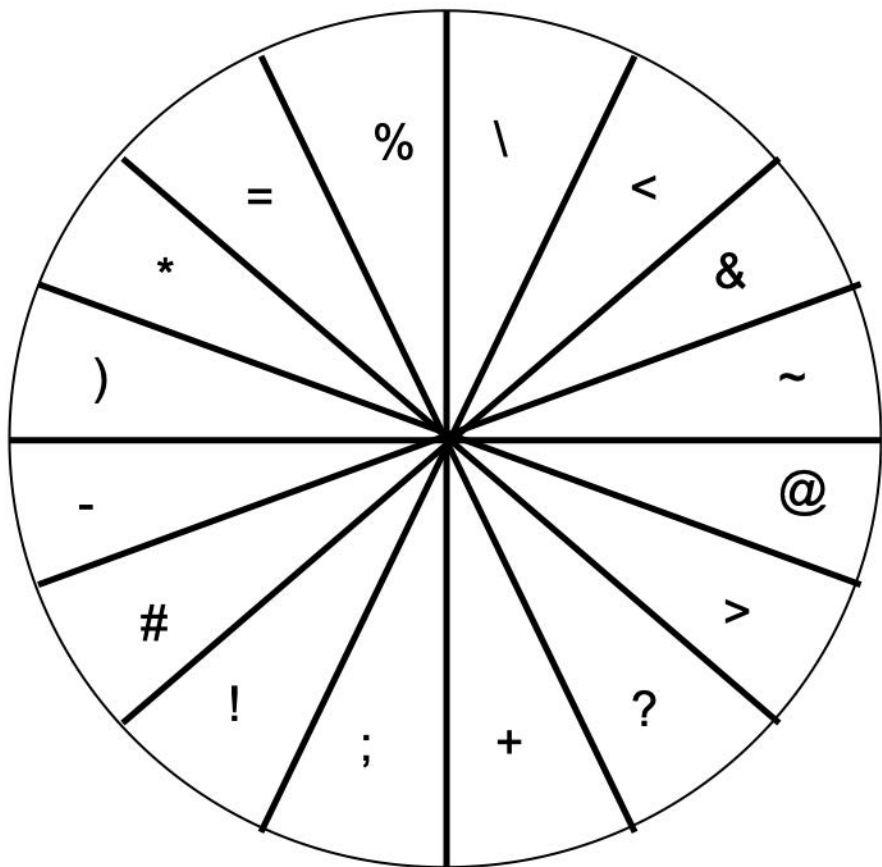
We have received the top-secret budget files from each of the vaccine companies. The numbers are in code so you will need to use your cipher discs. Line up the smaller disc to the larger disc to crack the code. The KEY is to smile ;-)

Remember, if the budget for the vaccine is lesser than the total cost (labor + equipment + vaccine trials + miscellaneous), then it's too expensive to use and we will need to reject that vaccine. Good luck!

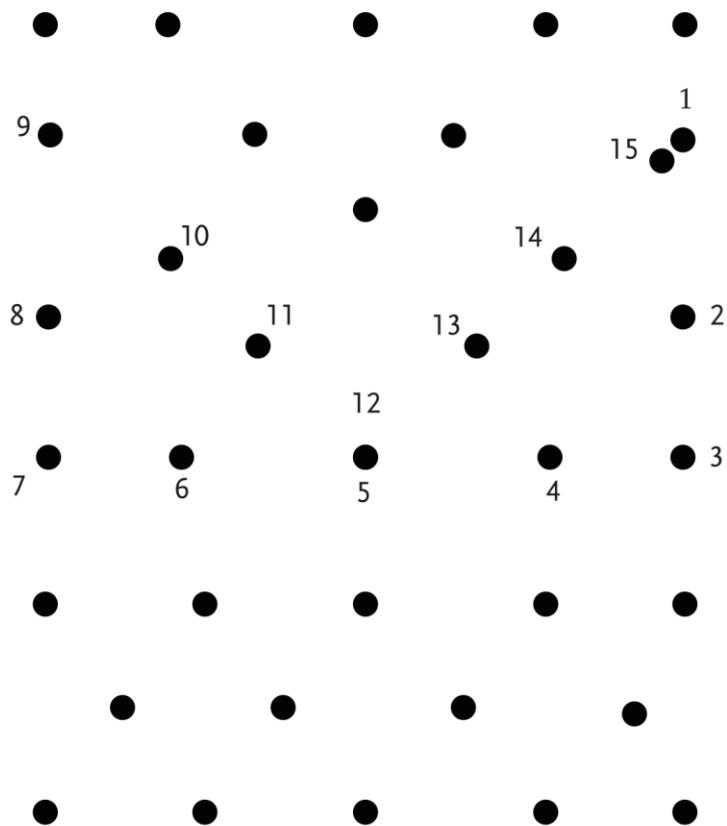
Vaccine number	1	2	3	4	5	6	7	8	9
Budget	\$+~==	\$%====	\$@>==	\$%@==	\$++==	\$<&==	\$>~==	\$%+==	\$~===
Labor cost	+~>=	>~ =	<===	@==	&===	~@=	+==	+==	%===
Equipment cost	~==	~ =	\<=	%==	@~ =	=	~===	=	<~ =
Vaccine trials	%===	?~	?@=	~~ =	\==	%===	<&=	~==	%&=
Miscellaneous	<&==	=	=	<~ =	\===	=	?@=	~==	?+=



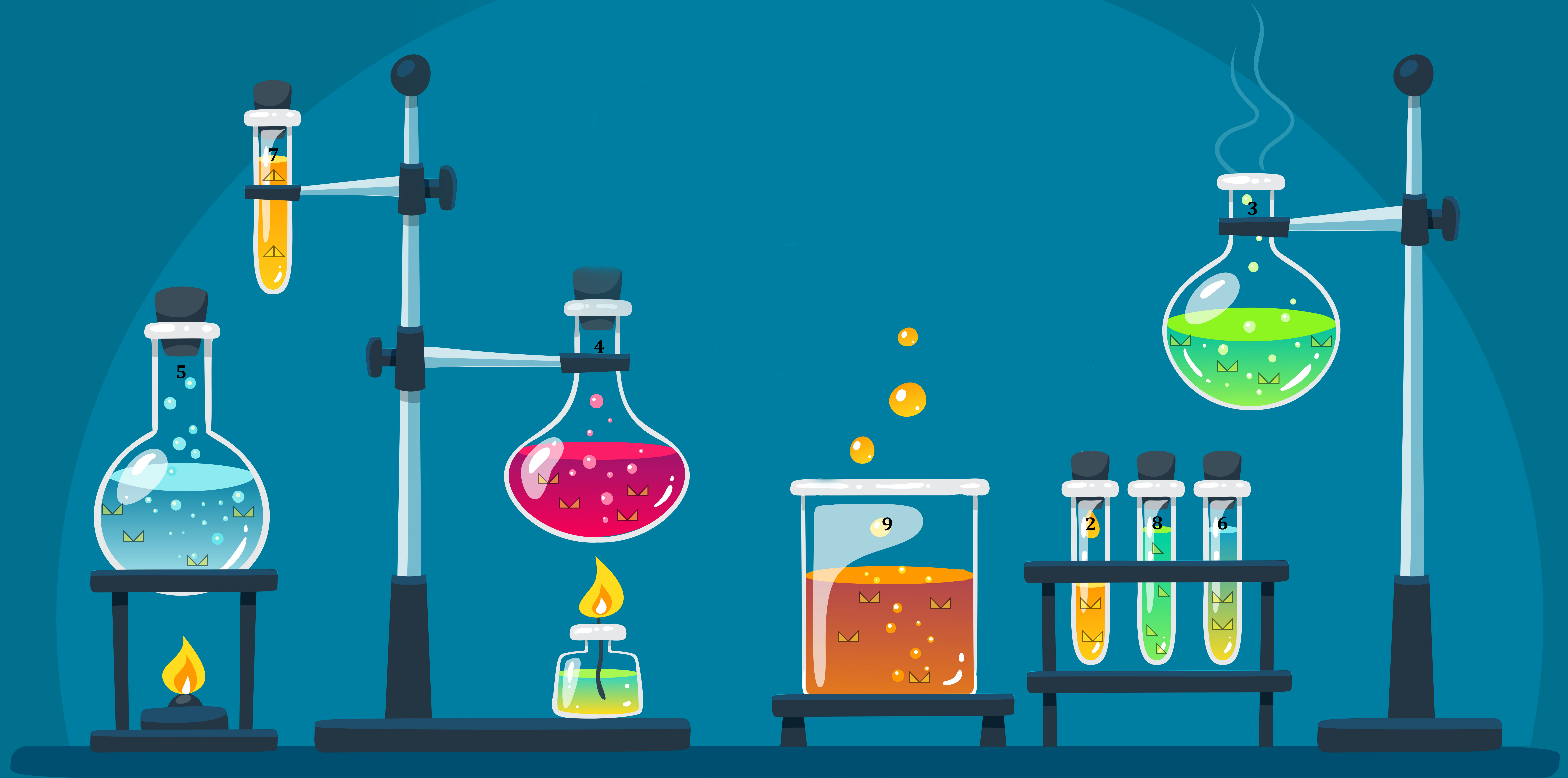
Little wheel



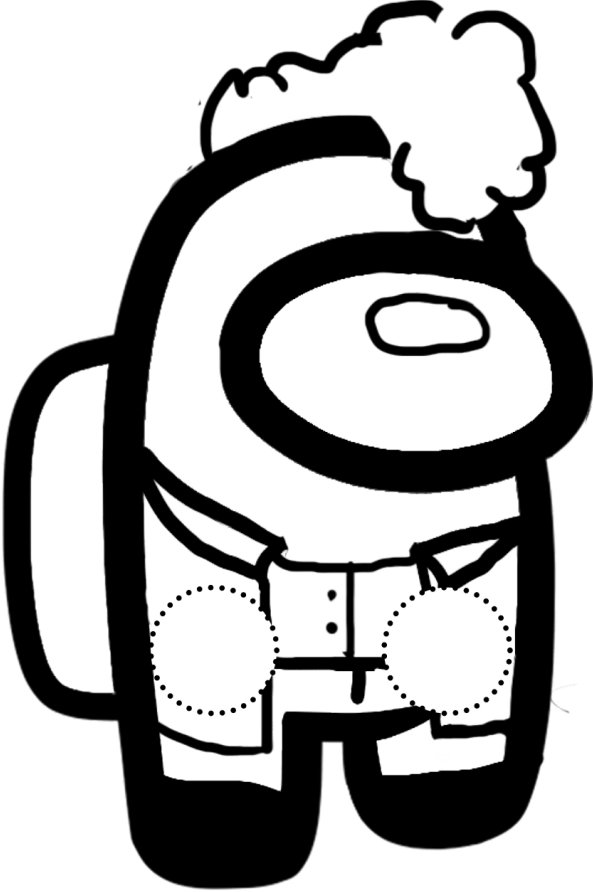
To design a good vaccine, we need to ensure that the antibodies that are made can inactivate the SUS virus. Our scientists believe that the unicorn horn is the best target for the antibodies. Join the dots to figure out which antibody shape fits the virus the best.



Scientists have been studying the antibodies created by each potential vaccine. Can you find which potential vaccines make the correct antibodies.

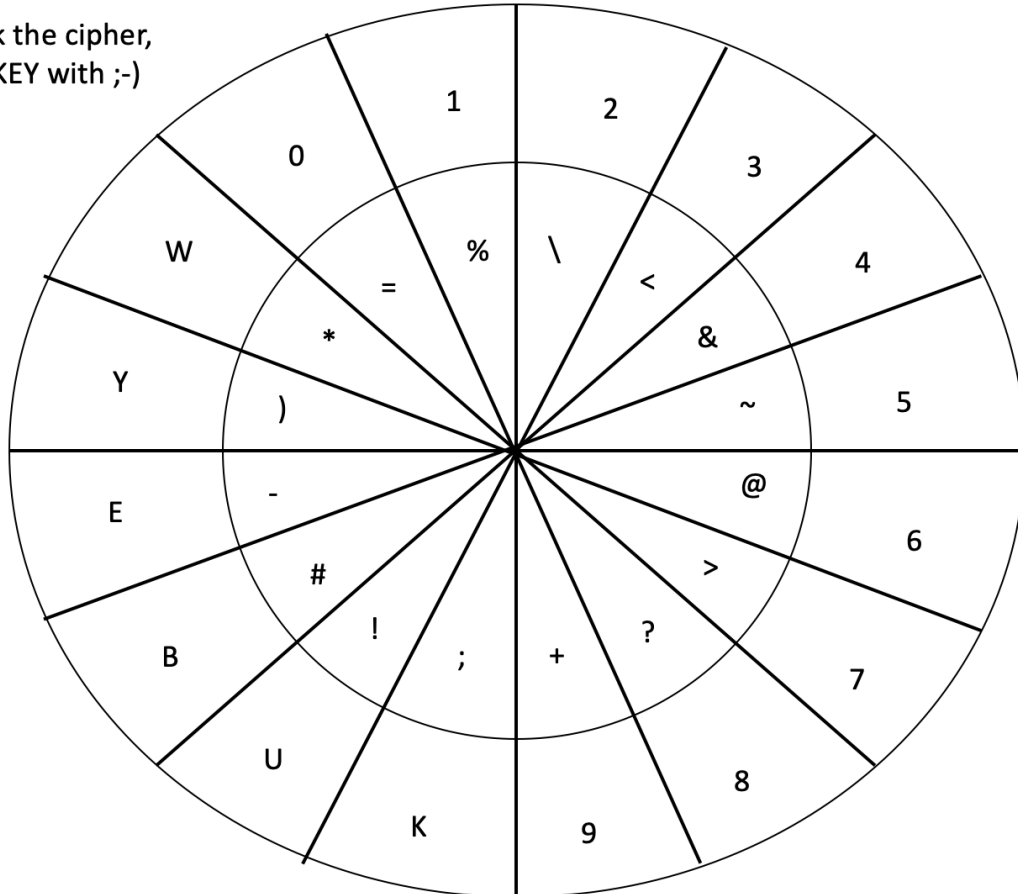


Build your own Dr. Skeld! Cut out the outline and put your fingers through the holes to see what he looks like when he's working in the lab.



ANSWER KEY

To break the cipher,
line up KEY with ;-)



Reject vaccine 1

Vaccine number	1	2	3	4	5	6	7	8	9
Budget	\$9500	\$1000	\$6700	\$1600	\$9900	\$3400	\$7500	\$1900	\$5000
Labor cost	9570	750	3000	600	4000	560	900	900	1000
Equipment cost	500	50	230	100	650	0	5000	0	350
Vaccine trials	1000	85	860	550	200	1000	340	500	140
Miscellaneous	3400	0	0	350	2000	0	860	500	890