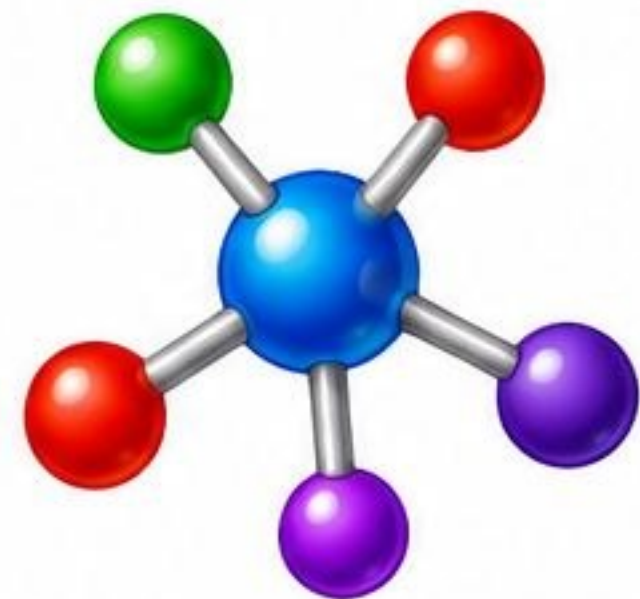
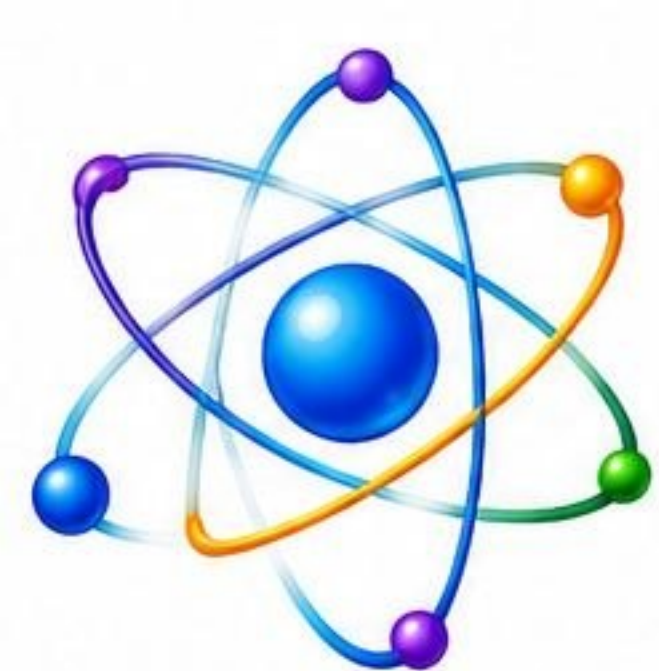
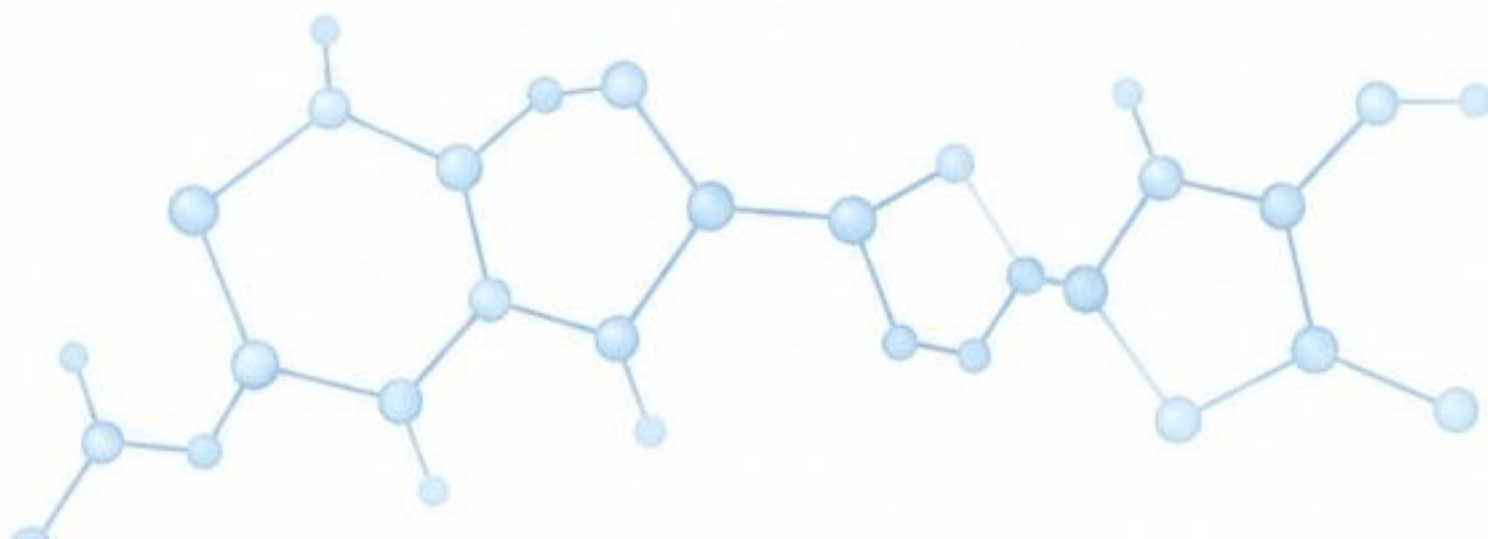




Mavzu:
Kimyo fani nimani
o'rganadi -?
Tadqiqotchilikka hos
xususiyatlar



Reja :

01

Kimyo fani haqida tushuncha

02

Kimyo fanining o'rganish obyekti

03

Kimyo fanining maqsad va vazifalari

04

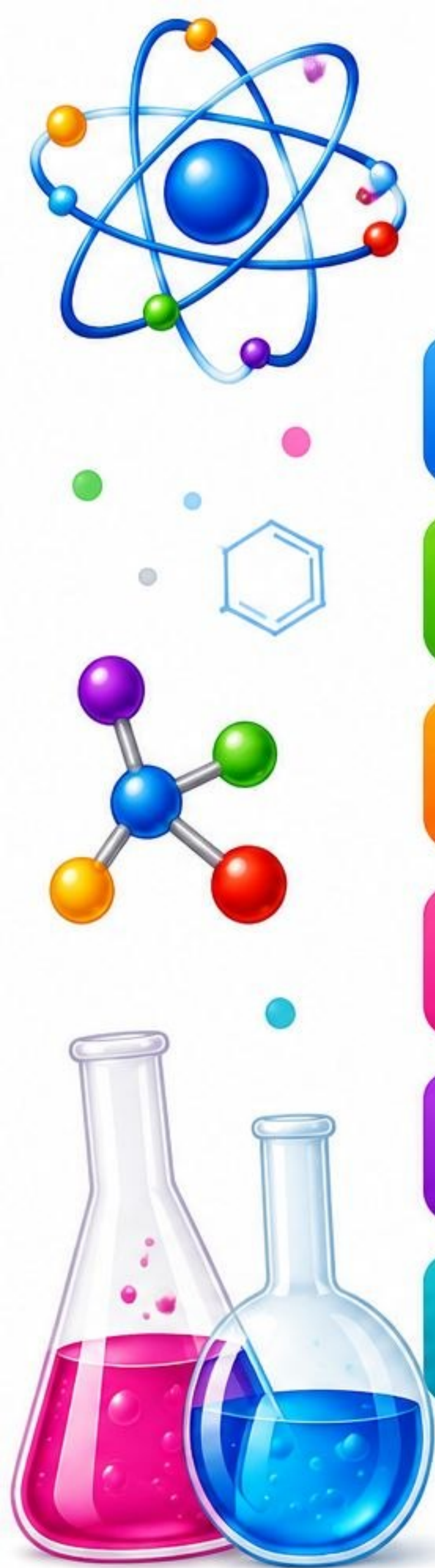
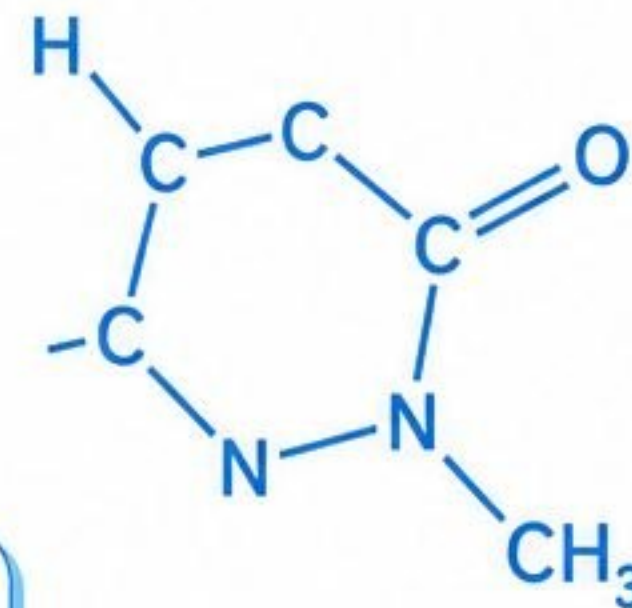
Kimyoning kundalik hayotdagi ahamiyati

05

Tadqiqotchilikka xos xususiyatlar

06

Kimyoviy tadqiqotning asosiy bosqichlari



DARSNING MAQSADLARI



TA'LIMIY MAQSAD

- O'quvchilarga **kimyo fani**, uning o'rganish obyekti, maqsad va vazifalari haqida tushuncha berish; **modda**, uning **tarkibi**, **tuzilishi**, **xossalari** va **o'zgarishlari** haqida dastlabki bilimlarni shakllantirish.



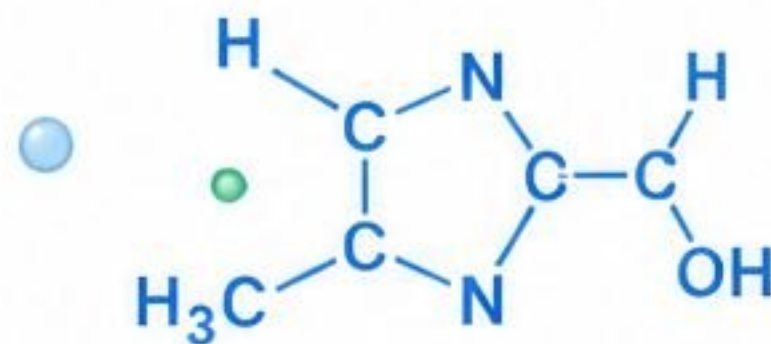
TARBIYAVIY MAQSAD

- O'quvchilarda **tabiatga** va **atrof-muhitga** mas'uliyatli munosabat, kimyoviy moddalar bilan ishlashda **ehtiyotkorlik**, **tartiblilik** va **jamoada ishlash** madaniyatini shakllantirish.



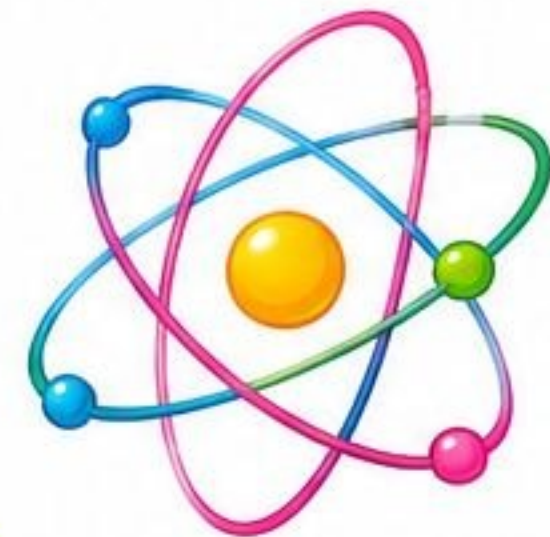
RIVOJLANTIRUVCHI MAQSAD

- O'quvchilarning **kuzatish**, **savol qo'yish**, **tahlil qilish**, **taqqoslash**, **xulosa chiqarish**, muammoni hal qilish hamda **tajriba** va **tadqiqot** olib borish ko'nikmalarini rivojlantirish.





B B B METODI



“Kimyo” deganda xayolingizga nimalar keladi -?

B

BILAMAN



Kimyo haqida nimalarni bilaman?

B

BILISHNI XOHLAYMAN



Kimyo haqida nimalarni
bilishni xohlayman?

B

BILIB OLDIM



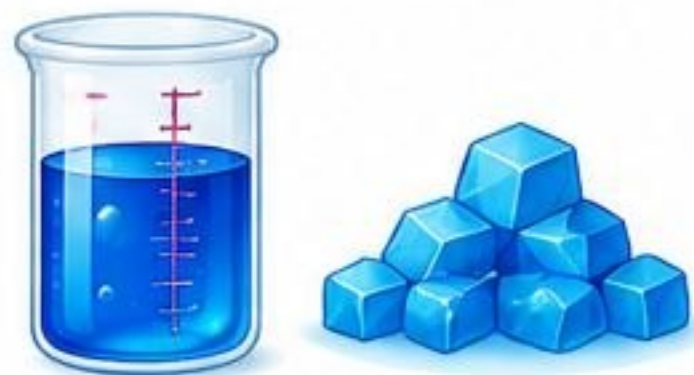
Dars yakunida nimalarni
bilib oldim?



KIMYO FANI HAQIDA TUSHUNCHA

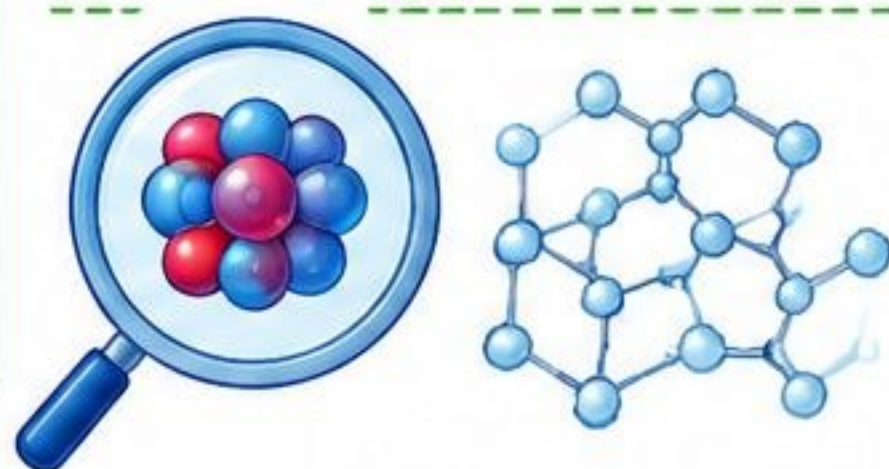
Kimyo — moddalar, ularning tarkibi, tuzilishi, xossalari va o'zgarishlarini, shuningdek, bu o'zgarishlar jarayonida sodir bo'ladigan hodisalarni o'rganadigan tabiiy fan.

MODDA



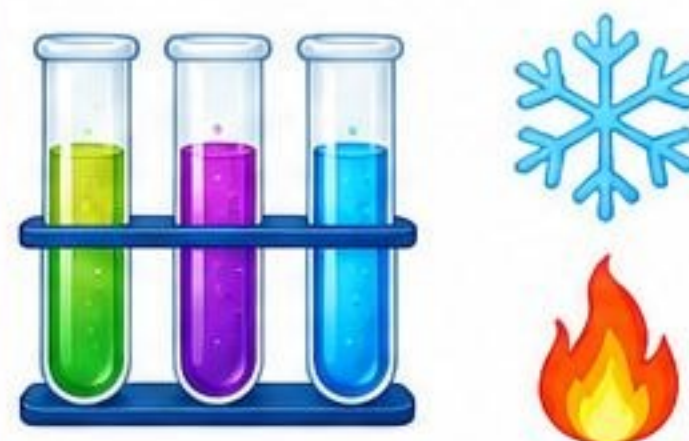
Atrofimizdagi jismlarni tashkil etuvchi moddalar.

TARKIB VA TUZILISH



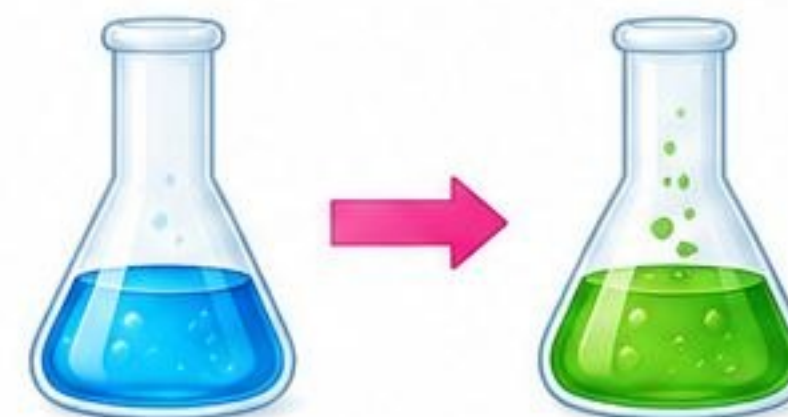
Moddalar nimalardan tashkil topgani va zarrachalarning qanday joylashgani.

XOSSALAR



Moddalarning fizik va kimyoviy xususiyatlari.

O'ZGARISHLAR



Moddalarning kimyoviy reaksiyalar natijasida yangi moddalarga aylanishi.

Kimyo — moddalar olami va ularda sodir bo'ladigan o'zgarishlarni o'rganadi.

2-REJA

KIMYO FANINING O'RGANISH OBYEKTI

Kimyo fanining asosiy o'rganish obyekti — **moddalar**
va ularda sodir bo'ladigan **kimyoviy o'zgarishlardir.**

1

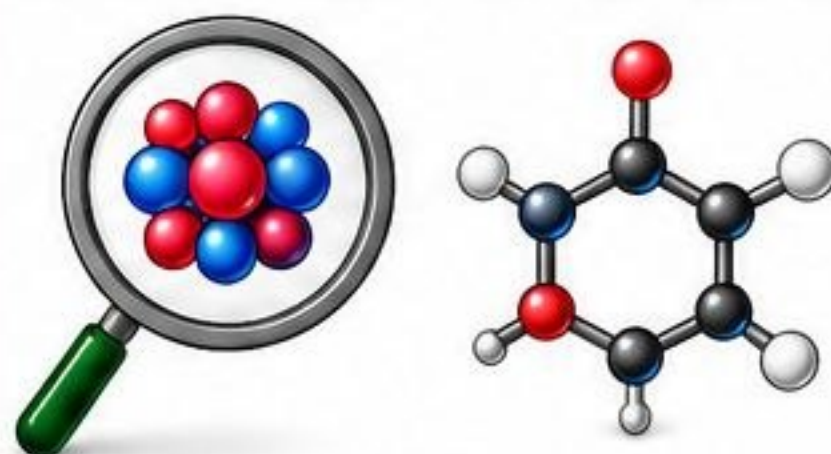
MODDALAR



Tabiatda va kundalik
hayotda uchraydigan
turli moddalar.

2

MODDALARNING TARKIBI VA TUZILISHI



Moddalar qanday
zarrachalardan tashkil
topgani va ularning o'zaro
bog'lanishi.

3

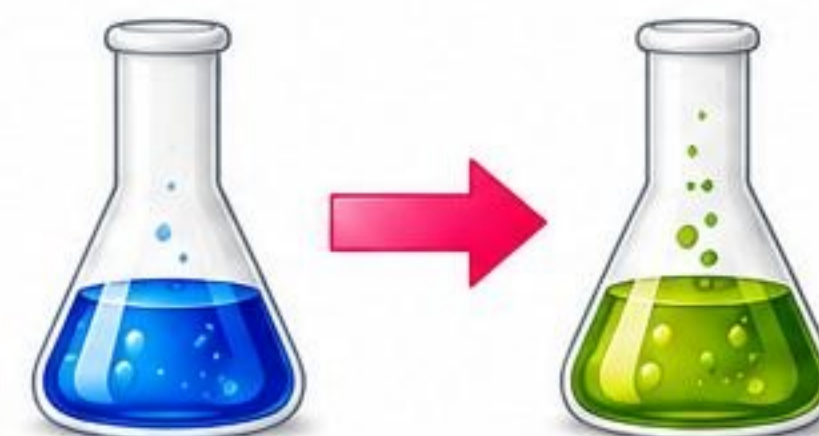
MODDALARNING XOSSALARI



Moddalarning fizik
va kimyoviy
xususiyatlari.

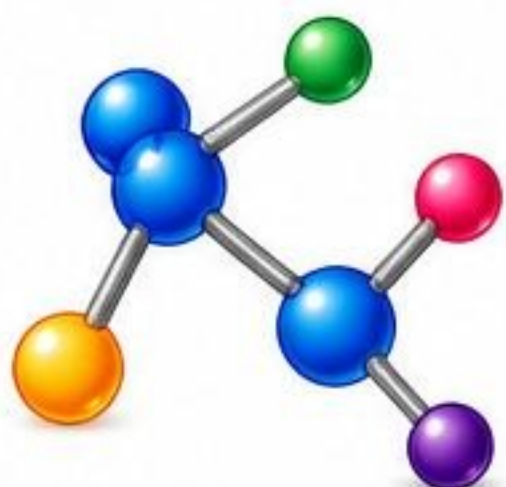
4

MODDALARNING O'ZGARISHI

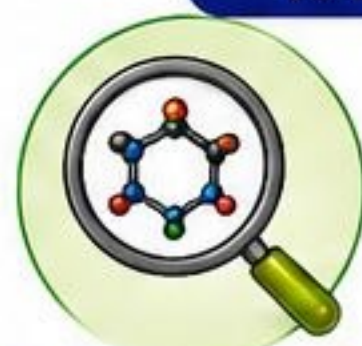


Kimyoviy reaksiyalar
davomida bir moddaning
boshqa moddaga
aylanishi.

TADQIQOT ZANJIRI



MODDA



TARKIB VA TUZILISH



XOSSALAR



O'ZGARISHLAR



TABIY MODDALAR

Tabiatda o'z holicha mavjud moddalar.



SUV



TUZ



OLTIN



KO'MIR



O'SIMLIK
MODDALARI

SUN'IY MODDALAR

Inson tomonidan yaratilgan moddalar.



PLASTMASSA



DORI
MODDALARI



YUVISH
VOSITALARI



REZINA

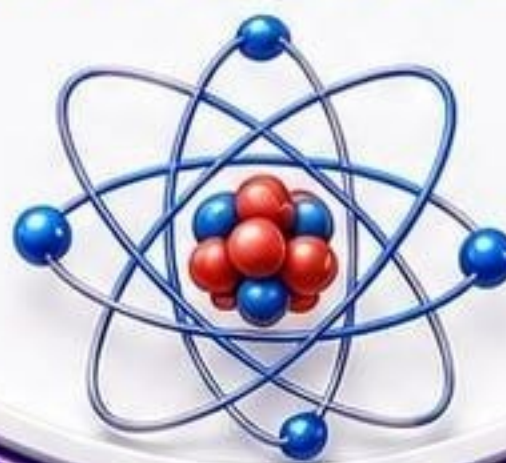


SHAISHA

KIMYO

FANINING PREDMETI

BARCHA **TABIY** VA
SUN'IY MODDALARDIR.



KIMYO O'RGANADI

Moddalarning tarkibini, tuzilishini, xossalarini, ularning o'zgarishini va bir-biriga aylanishini o'rganadi.



TARKIBI



TUZILISHI



XOSSALARI



O'ZGARISHI



BIR-BIRIGA
AYLANISHI



3-REJA KIMYO FANINING MAQSADI VA VAZIFALARI



MAQSADI

Moddalar va kimyoviy jarayonlarning **qonuniyatlarini o'rganish**, olingan bilimlardan **inson hayoti, tabiat** va **ishlab chiqarishda samarali foydalanish**.

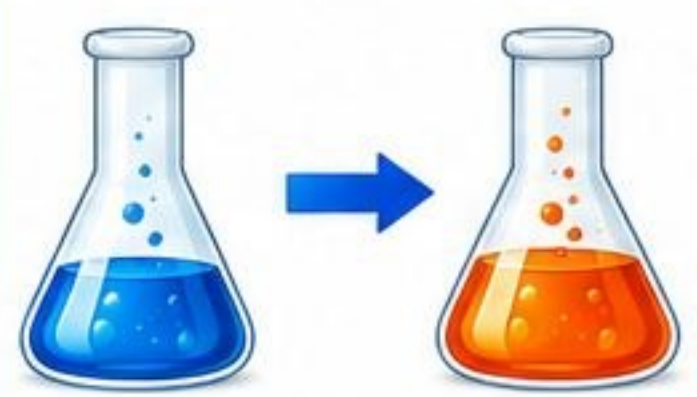
ASOSIY VAZIFALARI

1 MODDALARNI O'RGANISH



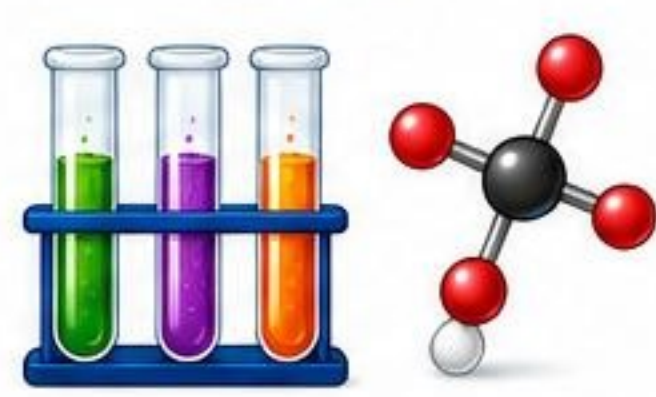
Moddalarning tarkibi, tuzilishi va xossalarini aniqlash.

2 KIMYOVIIY O'ZGARISHLARNI TUSHUNTIRISH



Reaksiyalar qanday va nima sababdan sodir bo'lishini o'rganish.

3 YANGI MODDALAR OLIH



Kerakli xossalarga ega yangi moddalar va materiallarni yaratish.

4 MODDALARDAN OQILONA FOYDALANISH



Tabiiy resurslar va kimyoviy mahsulotlardan samarali foydalanish yo'llarini aniqlash.

5 ATROF-MUHITNI MUHOFAZA QILISH



Kimyoviy jarayonlarning tabiatga ta'sirini o'rganish va zararli ta'sirlarni kamaytirish.



O'RGANISH



TUSHUNTIRISH



YARATISH



FOYDALANISH



MUHOFAZA QILISH

MODDALAR

Atrofimizda turli moddalar mavjud.

METALLAR



Fe Cu Al Zn

METALLMASLAR



S C I

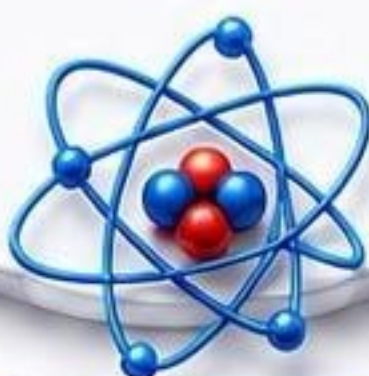
MURAKKAB MODDALAR



NaCl H₂O CaCO₃

KIMYO

Kimyo – **moddalar**,
moddalarning **xossalari**
va ularni **bir-biriga**
aylanishini o'rganuvchi
fan.



XOSSALARI

Har bir modda o'ziga xos
fizik va kimyoviy xossalarga ega.



Fizik holati



Erish
harorati



Elektr
o'tkazuvchanligi



Yonuvchanligi



Kislotalar bilan
reaksiyasi



Zanglashi

BIR-BIRIGA AYLANISHI

Moddalar turli reaksiyalar va jarayonlar orqali
bir-biriga aylanadi.



Uglerod
(C)



Yonish



Karbon(IV) oksid
(CO₂)



Suv
(H₂O)



Vodorod
(H₂)

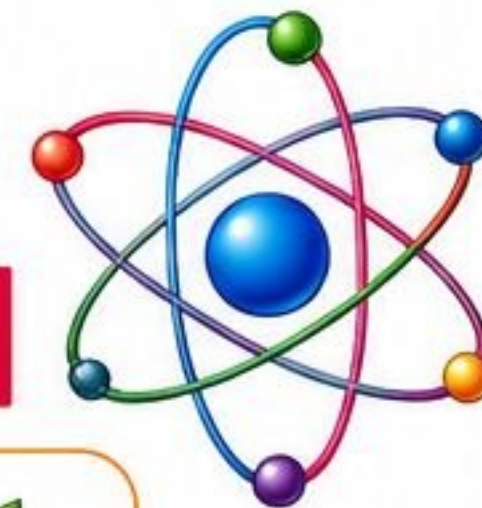


Temir
(Fe)

4-REJA

KIMYONING

KUNDALIK HAYOTDAGI AHAMIYATI



Kimyo hayotimizning deyarli barcha sohalarida uchraydi.
Kimyoviy bilimlar **moddalarni to'g'ri tanlash**, ulardan **xavfsiz**
va samarali foydalanishga yordam beradi.



1 TIBBIYOT



Dori vositalari, antiseptiklar va tibbiy materiallar yaratishda.

2 OZIQ-OVQAT



Oziq-ovqat mahsulotlarini tayyorlash, saqlash va sifatini nazorat qilishda.

3 GIGIYENA VA TOZALIK



Sovun, shampun, tish pastasi va tozalash vositalarini ishlab chiqarishda.

4 QISHLOQ XO'JALIGI



O'g'itlar, o'simliklarni himoya qilish vositalari va tuproq tarkibini o'rganishda.

5 KIYIM VA MATERIALLAR



Bo'yoqlar, sintetik tolalar, plastmassa va boshqa materiallar ishlab chiqarishda.

6 ATROF-MUHIT



Suv va havoni tozalash, chiqindilarni qayta ishlash hamda ifloslanishni kamaytirishda.



KIMYO



SOG'LIQ



OZIQ-OVQAT



TOZALIK



QISHLOQ XO'JALIGI



MATERIALLAR



EKOLOGIYA

1. TOZALIK VA GIGIYENA



2. OSHXONA



3. KIR YUVISH



4. HAVO



KIMYO FANI BIZGA NIMA UCHUN KERAK-?



5. ZARARKUNANDALARGA QARSHI



6. QURILISH VA TA'MIR



7. CHIROQ VA ELEKTR ENERGIYA

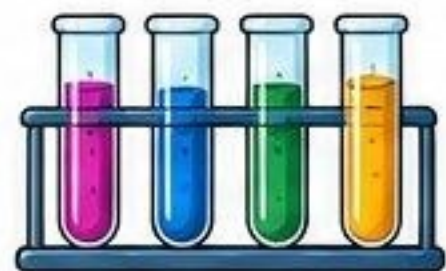
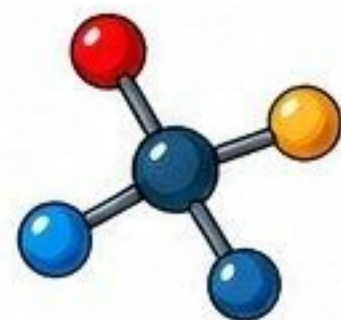


8. BOSHQA BUYUMLAR





XULOSA:



KIMYO MENING UYIMDA ...



Topshiriq: Kimyo fanining uyimizdagi o'rnini misollar bilan yozing.

1. TOZALIK VA GIGIYENA



2. OSHXONA



3. KIR YUVISH



4. HAVO



KIMYO MENING UYIMDA ...



6. QURILISH VA TA'MIR



7. CHIROQ VA ELEKTR ENERGIYA



5. ZARARKUNANDALARGA QARSHI



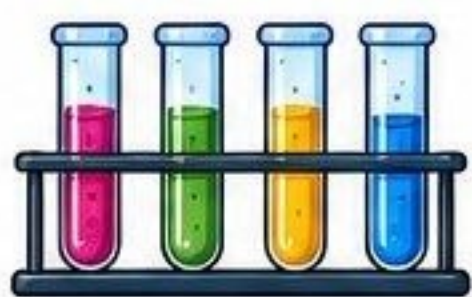
8. BOSHQA BUYUMLAR



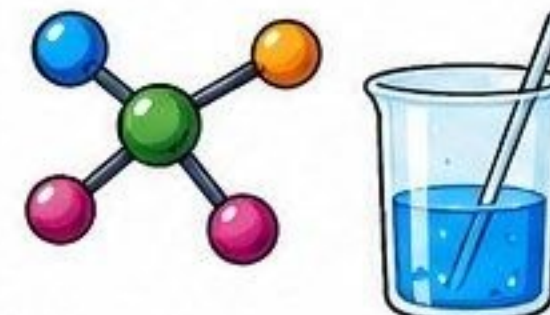


XULOSA:

Kimyo fanining uyimizdagi ahamiyati haqida yozing.



KIMYO MENING OSHXONAMDA...



Topshiriq: Kimyo fanining oshxonadagi o'rnini misollar bilan yozing.

1. TAOM TAYYORLASH



2. MAHSULOTLAR TARKIBI



3. TUZ VA ZIRAVORLAR



4. KISLOTALAR VA ASOSLAR



KIMYO MENING OSHXONAMDA...



5. KO'TARUVCHI MODDALAR



6. KARAMELLASH VA QOVURISH



7. KONSERVATLASH VA SAQLASH



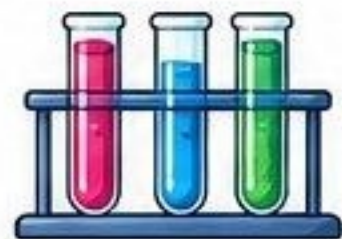
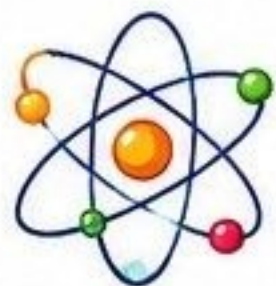
8. ISITISH VA FIZIK O'ZGARISHLAR



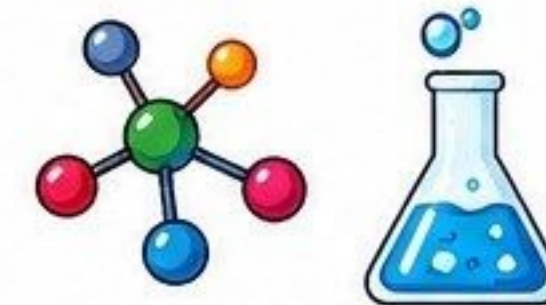


XULOSA:

Kimyo fanining oshxonadagi ahamiyati haqida yozing.



KIMYO MENING ORGANIZMIMDA...



Topshiriq: Kimyo fanining organizmimizdagi o'rnini misollar bilan yozing.

1. NAZORAT VA BOSHQARUV



2. ENERGIYA MANBAI



3. TARKIBIY MODDALAR



4. HIMOYA VA MUDOFAA



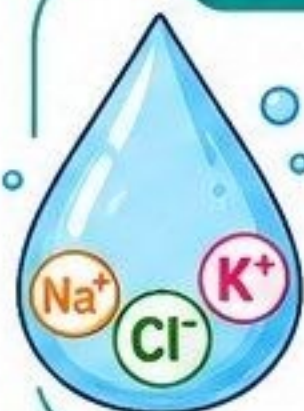
KIMYO MENING ORGANIZMIMDA...



5. MODDA ALMASHINUVI



6. SUYUQLIKLAR VA ELEKTROLITLAR



7. FERMENTLAR VA GORMONLAR



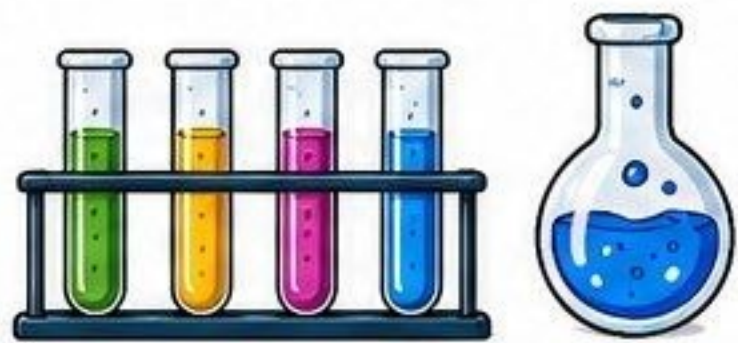
8. SEZGILAR VA MULOQOT



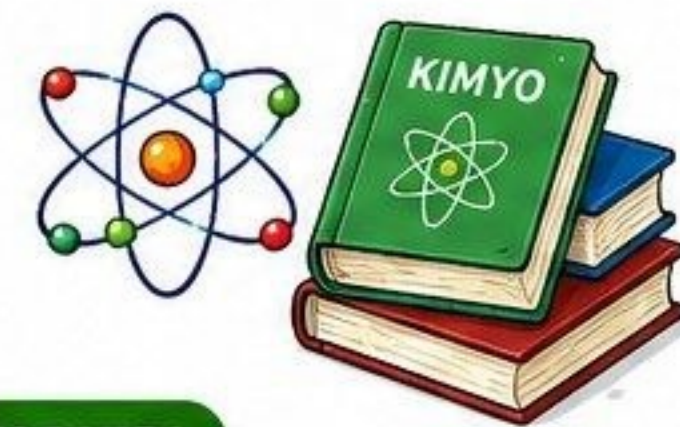


XULOSA:

Kimyo fanining organizmimizdagi ahamiyati haqida yozing.



KIMYO MENING MAKTABIMDA...



Topshiriq: Kimyo fanining maktabdagi o'рни va ahamiyatini misollar bilan yozing.

1. QALAM TARKIBI



2. SIYOH TARKIBI



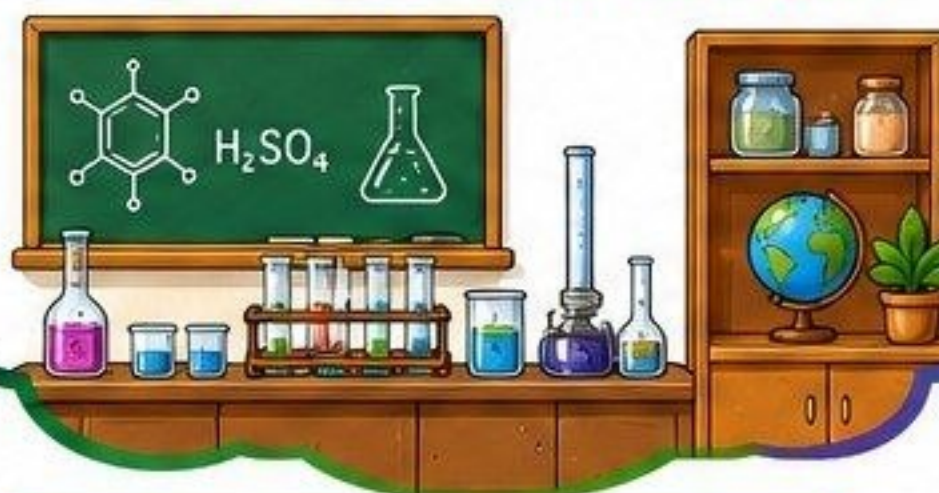
3. BOR (BO'R) TARKIBI



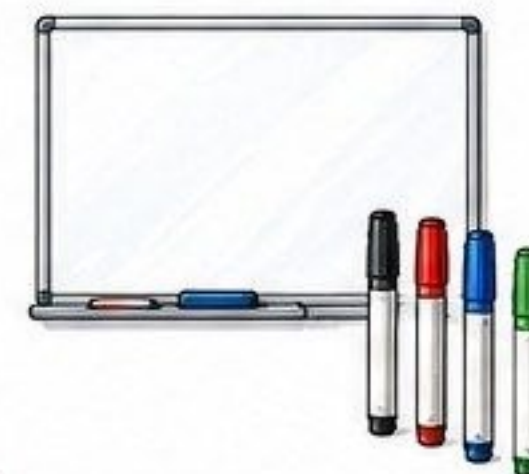
4. PARTA VA STULLAR



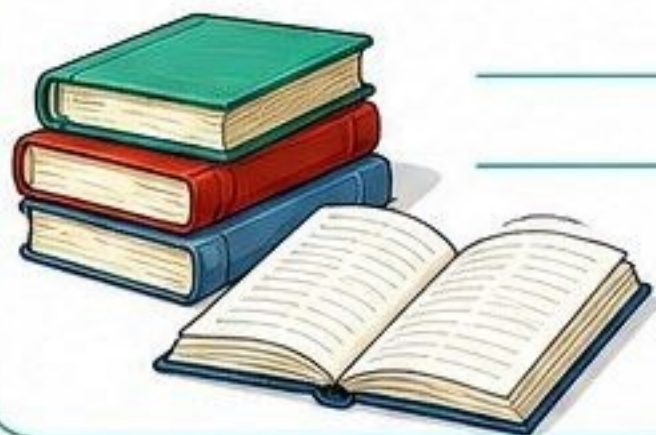
KIMYO MENING MAKTABIMDA...



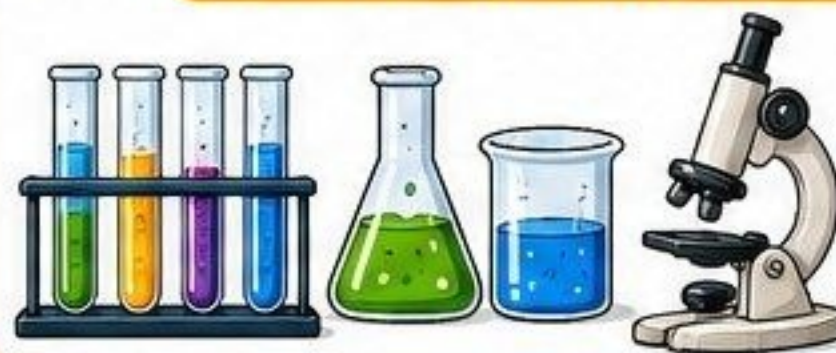
5. DOSKA VA MARKERLAR



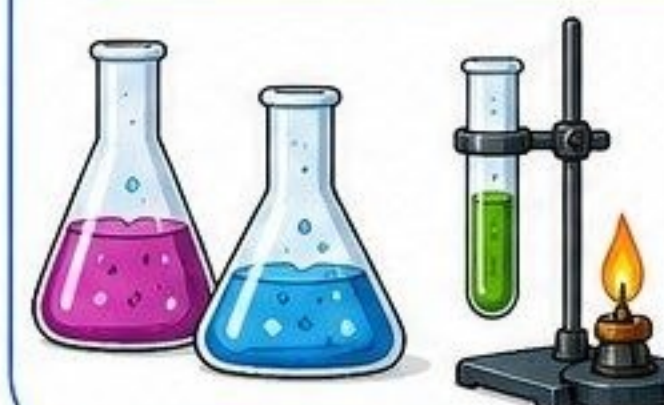
6. KITOB VA DAFTARLAR



7. LABORATORIYA JIHOZLARI



8. KIMYOVIY REAKSIYALAR NAMUNALARI





XULOSA:

Kimyo fanining maktabdagi ahamiyati haqida yozing.



KIMYO MENING HAYOTIMDA...



Topshiriq: Kimyo fanining hayotimizdagi o'rnini misollar bilan yozing.

1. UYDA



2. OSHXONADA



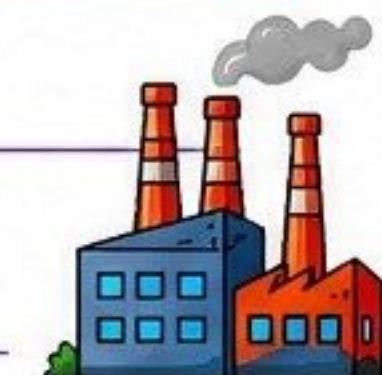
3. TIBBIYOTDA



4. QISHLOQ XO'JALIGIDA



5. SANOATDA



6. TABIATDA



7. SPORTDA



8. TEXNOLOGIYADA

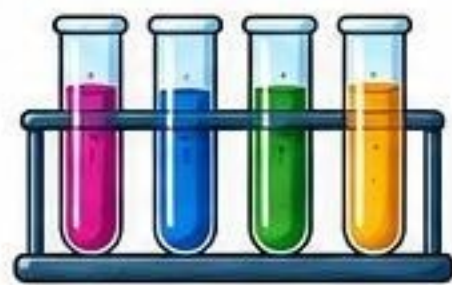
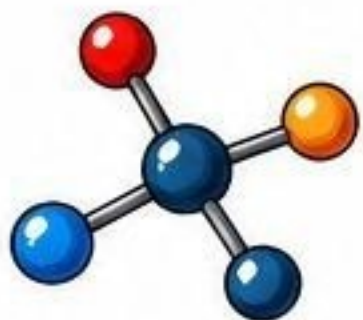


KIMYO
MENING HAYOTIMDA



XULOSA:

Kimyo fanining hayotimizdagi ahamiyati haqida yozing. _____



KIMYO VA DUNYO

Kimyo fanining dunyodagi o'рни va ahamiyati



1

SANOATDA



2

TIBBIYOTDA



3

QISHLOQ XO'JALIGIDA



4

KUNDALIK HAYOTDA



5

EKOLOGIYADA



6

KELAJAKDA VA INNOVATSIYALARDA





XULOSA:



5-REJA

TADQIQOTCHILIKKA
XOS XUSUSIYATLAR



Tadqiqotchi — kuzatadi, savol beradi,
dalillarni tekshiradi, tajriba o'tkazadi va
natijaga asosanib xulosa chiqaradi.






1 KUZATUVCHANLIK



Hodisa va
o'zgarishlarni
diqqat bilan
kuzatish.

2 QIZIQUVCHANLIK



"Nima uchun?",
"Qanday?" kabi
savollar berish.

3 MANTIQUIY VA
TANQIDIY FIKRLASH



Ma'lumotlarni
tahlil qilish,
taqqoslash va
dalillarga
asoslanish.

4 TAJRIBA O'TKAZISH



Tajribani
rejalashtirish,
bajarish va
natijalarni
qayd etish.

5 IJODKORLIK



Muammoga
yangicha
yondashish va
turli yechimlarni
izlash.

6 ANIQLIK VA
MAS'ULIYAT



O'lchashlarni aniq
bajarish, xavfsizlik
qoidalariga rioya
qilish va natijalarni
xolis baholash.



KUZATISH va TAJRIBA

Tadqiqotchilik ko'nikmalarini shakllantiramiz!

KUZATISH

Faqat kuzatish
uchun xos jihatlar:

- _____
- _____
- _____
- _____
- _____
- _____

IKKALASIGA XOS

Ikkalasiga ham xos
jihatlar:

- _____
- _____
- _____
- _____
- _____

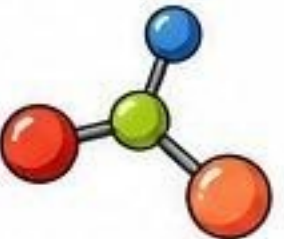
TAJRIBA

Faqat tajriba uchun
xos jihatlar:

- _____
- _____
- _____
- _____
- _____
- _____

Kuzatish va tajriba tadqiqotchiga
qanday yordam beradi -?





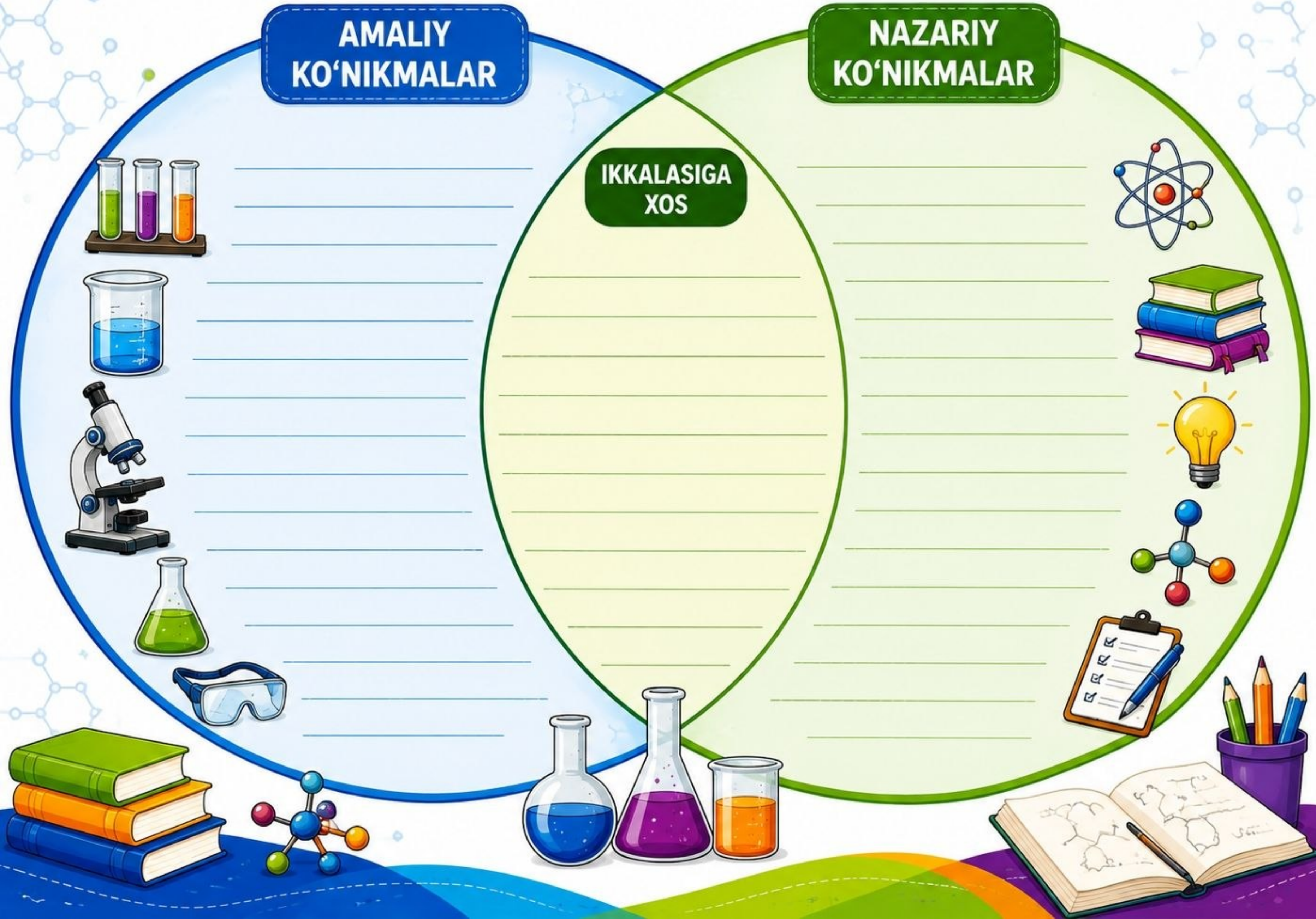
AMALIY KO'NIKMALAR VA NAZARIY KO'NIKMALAR

VEN DIAGRAMMA

AMALIY
KO'NIKMALAR

NAZARIY
KO'NIKMALAR

IKKALASIGA
XOS



1

Kuzatish



2

O'lchash



3

Tajriba



4

Xavfsizlik
qoidalariga amal qilish

5

Jihozlardan
foydalanish

7

Moddalarni
aralashtirish

6

Moddalarni ajratish
(filtrlash, bug'latish,
kristallash, distillash)

8

Moddalarni
tortish

9

Hajmni o'lchash



10

Haroratni o'lchash



11

Moddalarni
qizdirish

12

Eritma
tayyorlash

13

Reaksiya belgilarini
aniqlash

14

Laboratoriya jihozlarini
yig'ish

15

Natijalarni
qayd etish

16

Natijalarni taqqoslash
va tahlil qilish

KIMYO FANIDAN AMALIY KO'NIKMALAR



MEN TADQIQOTCHIMAN

Kimyogar qanday tadqiqot olib boradi-?

1

KUZATAMAN

Hodisani diqqat bilan kuzatib,
nimani ko'rdim-?



HODISA:

Temir mix vaqt o'tishi
bilan zanglaydi.



2

SAVOL BERAMAN

Kuzatilgan hodisa haqida
o'zinga savol beraman-?



6

XULOSA CHIQARAMAN

Tahlil natijasiga asoslanib,
xulosa chiqaraman-?



3

TAXMIN QILAMAN

Hodisa qanday sodir bo'lishi
mumkinligini taxmin qilaman-?



5

NATIJANI TAHLIL QILAMAN

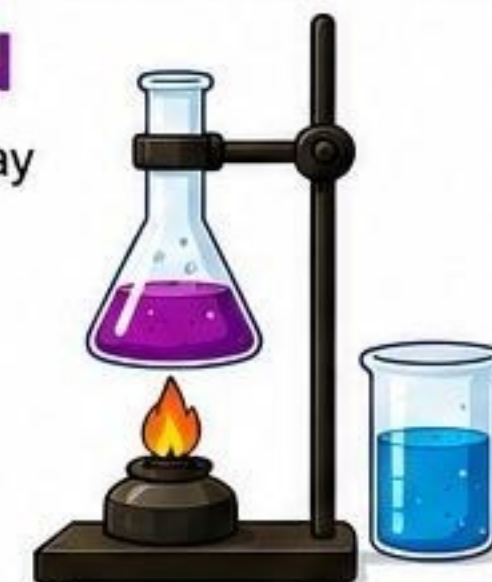
Tajriba natijasiini tahlil qilib,
nimalarni aniqladim-?



4

TAJRIBA QILAMAN

Hodisani tekshirish uchun qanday
tajriba o'tkazaman-?



MEN TADQIQOTCHIMAN

Kimyogar qanday tadqiqot olib boradi-?

1

KUZATAMAN

Hodisani diqqat bilan kuzatib,
nimani ko'rdim-?



HODISA:

Sirka va sodani aralashtirganda
ko'piklanish (gaz ajralishi)
kuzatildi.



2

SAVOL BERAMAN

Kuzatilgan hodisa haqida
o'zingga savol beraman-?



6

XULOSA CHIQARAMAN

Tahlil natijasiga asoslanib,
xulosa chiqaraman-?



3

TAXMIN QILAMAN

Hodisa qanday sodir bo'lishi
mumkinligini taxmin qilaman-?



5

NATIJANI TAHLIL QILAMAN

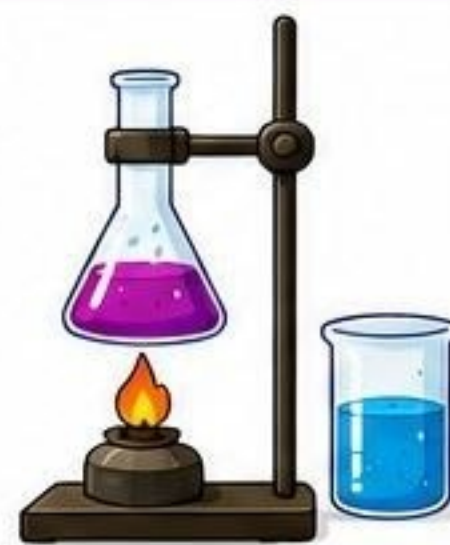
Tajriba natijasini tahlil qilib,
nimalarni aniqladim-?



4

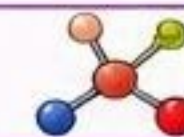
TAJRIBA QILAMAN

Hodisani tekshirish uchun qanday
tajriba o'tkazaman-?





Eslatma: Yaxshi tadqiqotchi kuzatuvchan, savol berishga qiziqadi, aniq fikrlaydi, sabrli va halol bo'ladi.



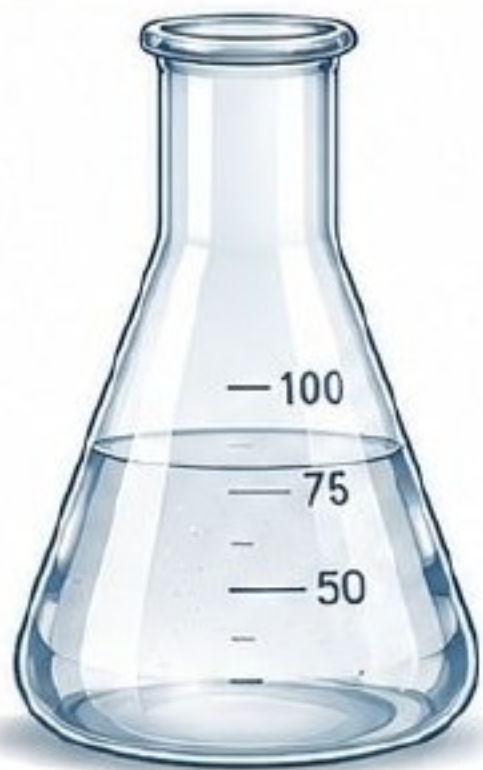


KUZATISH

Kuzatish – tajriba davomida sodir bo'layotgan o'zgarishlarni diqqat bilan aniqlash ko'nikmasidir.

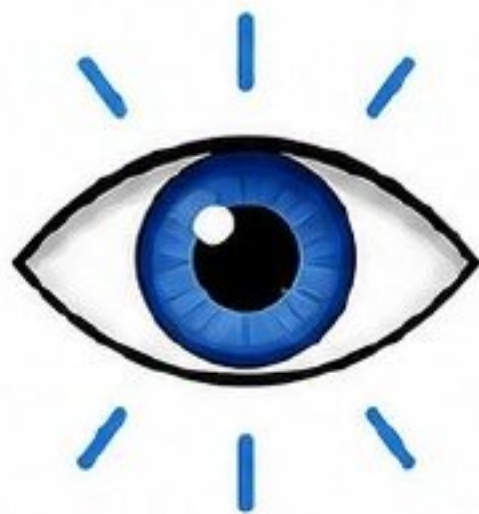


TAJRIBA BOSHLANISHIDA



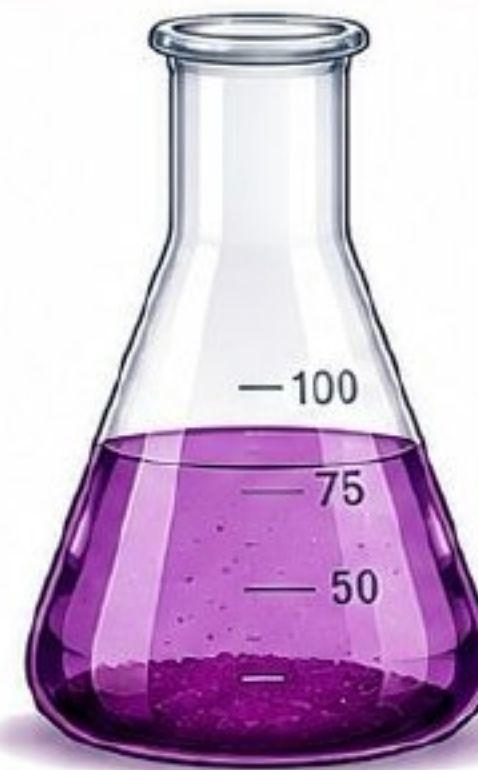
Nimani ko'ryapsiz-?

KUZATAMIZ



Nimalarga e'tibor berasiz-?

O'ZGARISH SODIR BO'LDI



Nimani kuzatdingiz-?

KUZATISHDA NIMALARGA E'TIBOR BERISH KERAK-?

- ✓ Rang o'zgardimi-? 
- ✓ Gaz ajraldimi-? 
- ✓ Cho'kma hosil bo'ldimi-? 
- ✓ Harorat o'zgardimi-? 
- ✓ Hid paydo bo'ldimi-? 
- ✓ Boshqa qanday o'zgarish bo'ldi-? 



SAVOLLAR



Nimani kuzatdim-?

.....
.....
.....



Rang qanday o'zgardi-?

.....
.....
.....



Gaz ajraldimi-?

.....
.....
.....



Cho'kma hosil bo'ldimi-?

.....
.....
.....



Harorat qanday o'zgardi-?

.....
.....
.....



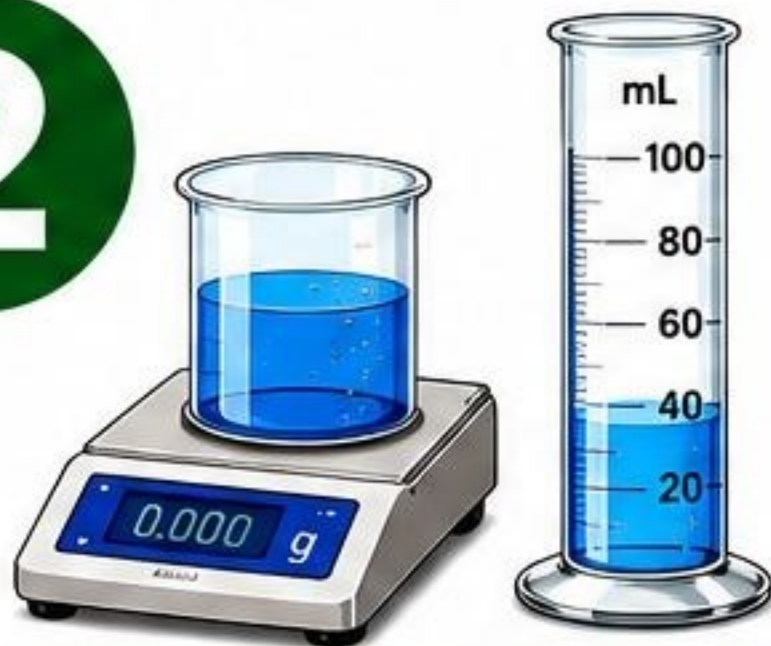
Boshqa qanday o'zgarishlarni kuzatdim-?

.....
.....
.....



Digqatli kuzatish to'g'ri xulosaga olib keladi va tajriba natijasini tushunishga yordam beradi-?

2



O'LCHASH

O'lchash – kattaliklarni (massa, hajm, harorat va boshqalar) maxsus asboblard yordamida aniqlash ko'nikmasidir.



NIMALARNI O'LCHAYMIZ



MASSA

Moddaning massasi aniqlanadi.



HAJM

Suyuqlik yoki gaz hajmi aniqlanadi.



HARORAT

Moddaning harorati aniqlanadi.



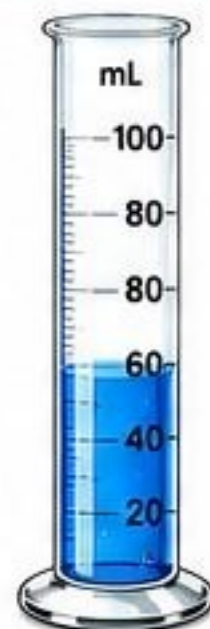
VAQT

Tajriba davomiyligi aniqlanadi.

ASOSIY O'LCHOV ASBOBLARI



Tarozi
(massa uchun)



Menzurka
(hajm uchun)



Pipetka
(hajm uchun)



Termometr
(harorat uchun)



Sekundomer
(vaqt uchun)

NIMA UCHUN MUHIM



Aniq natija olish uchun muhim.



Xatolikni kamaytiradi.



Natijalarni taqqoslash va tahlil qilish imkonini beradi.



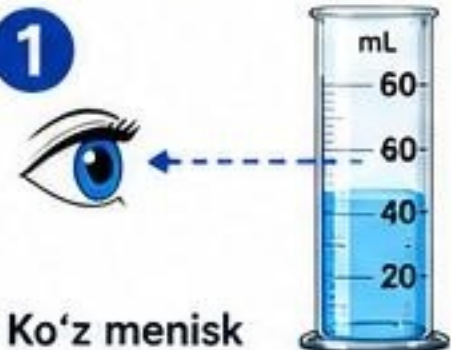
Tajribada xavfsizlikni ta'minlaydi.



To'g'ri xulosa chiqarishga yordam beradi.

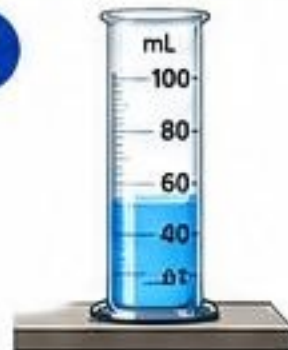
TO'G'RI O'LCHASH QOIDALARI

1



Ko'z menisk darajasida bo'lishi kerak.
(Suyuqlik hajmini ko'z bilan bir darajada o'qing.)

2



O'lchov idishi tekis joyda turishi kerak.

3



Pipetkani tik tutish kerak.

4



Tarozini ishlatishdan oldin nolga keltirish kerak.

5



Termometr shkalasini to'g'ri o'qish kerak.

6



Natijani darhol yozib qo'yish kerak.

7



Idish va asboblard toza hamda quruq bo'lishi kerak.

8



Moddalarni ehtiyotkorlik bilan ishlatish, to'kilmasligiga e'tibor berish kerak.



ESDA TUTING!

To'g'ri o'lchash – aniq natijaning asosi! → Aniq natija – to'g'ri xulosa demakdir!



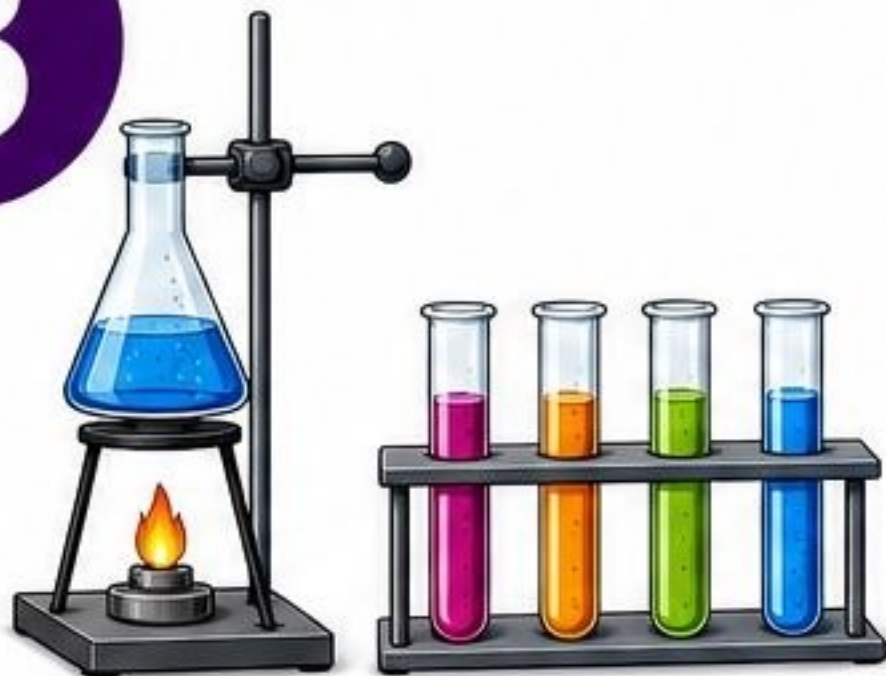
XAVFSIZLIKNI UNUTMANG!

Himoya vositalaridan foydalaning.



3

TAJRIBA



Tajriba – reja asosida amalga oshiriladigan amaliy ish bo‘lib, ma’lumot olish va xulosaga kelish uchun o‘tkaziladi.



TAJRIBA KO‘NIKMALARI

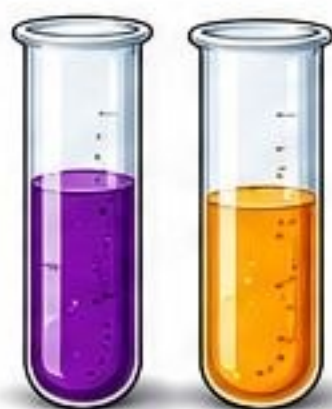
1



REJA TUZISH

Tajriba maqsadini aniqlang va ish rejasini tuzing.

2



TAYYORGARLIK

Kerakli jihoz va moddalarni tayyorlang.

3



TAJRIBANI O‘TKAZISH

Reja asosida tajribani bosqichma-bosqich bajaring.

4



KUZATISH VA QAYD ETISH

O‘zgarishlarni diqqat bilan kuzating va daftarga yozib boring.

5



NATIJALARNI TARTIBLASH

Olingan ma’lumotlarni tahlil qiling va tartiblang.

6



XULOSA CHIQARISH

Natijalarga asoslanib, to‘g‘ri xulosa chiqaring.



Maqsad aniqlanadi.



Jihoz va moddalar tayyorlanadi.



Tajriba bosqichma-bosqich bajariladi.



Kuzatishlar yozib boriladi.



Natijalar tahlil qilinadi.



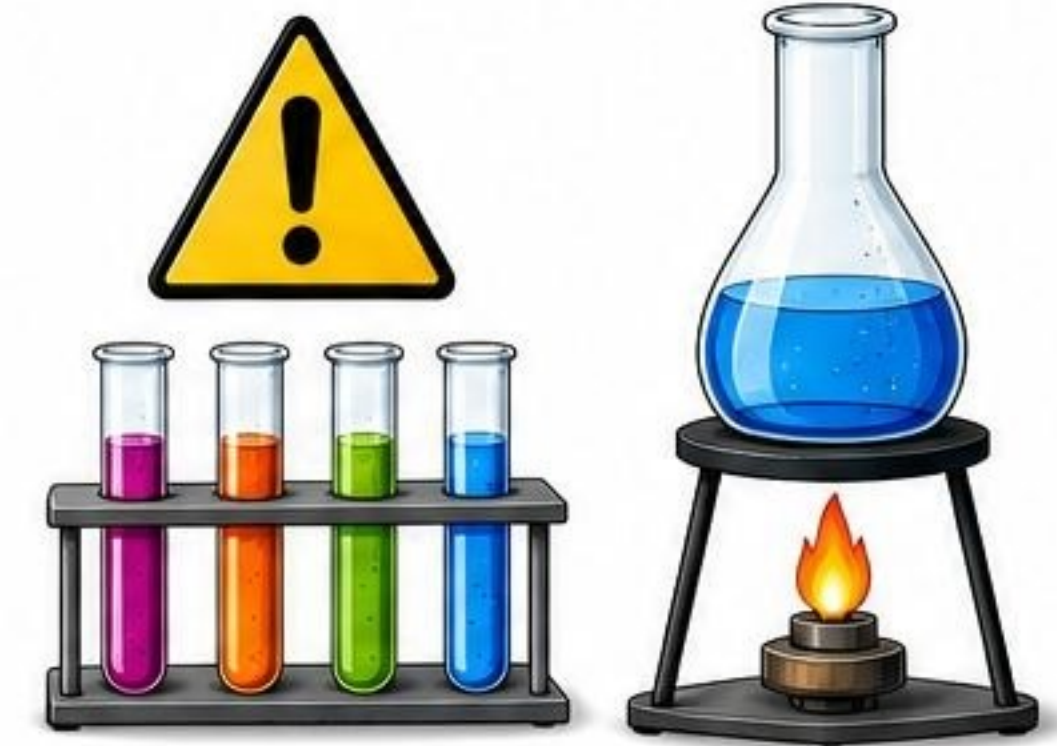
To‘g‘ri xulosa chiqariladi.

4



XAVFSIZLIK

Xavfsizlik – tajriba davomida o‘zingizni, boshqalarni va jihozlarni himoya qilish uchun qoidalarga rioya qilishdir.



XAVFSIZLIK KO‘NIKMALARI



HIMOYA KIIYIMINI KIIYISH

Maxsus xalat, qo‘lqop va ko‘zoynak taqing.



O‘ZINGIZNI HIMOYA QILING

Sochni yig‘ing, keng kiyim va taqinchoqlarni yeching.



ISH JOYINI TOZA SAQLANG

Ish joyini tartibli va toza holda saqlang.



MODDALARNI OG‘IZ YOKI TERI BILAN TEKSHIRMANG

Moddalarni tatib ko‘rmang, hidlamang va teriga tekizmang.



YONG‘IN XAVFSIZLIGIGA RIOYA QILING

Ochiq olovdan ehtiyot bo‘ling va keraksiz yondiruvchi narsalarni yaqin qo‘ymang.



ISHLASHDAN KEYIN QO‘LLARNI YUHING

Tajriba tugagach, qo‘llarni sovun bilan yaxshilab yuving.



Himoya kiyimini kiyish.



O‘zingizni himoya qilish.



Ish joyini toza saqlash.



Moddalarni og‘iz yoki teri bilan tekshirmaslik.



Yong‘in xavfsizligiga rioya qilish.



Ishlashdan keyin qo‘llarni yuvish.

5

JIHOZLARDAN FOYDALANISH

Jihozlardan foydalanish – tajribaning aniq, samarali va xavfsiz bo'lishini ta'minlaydi.



JIHOZLARDAN FOYDALANISH KO'NIKMALARI

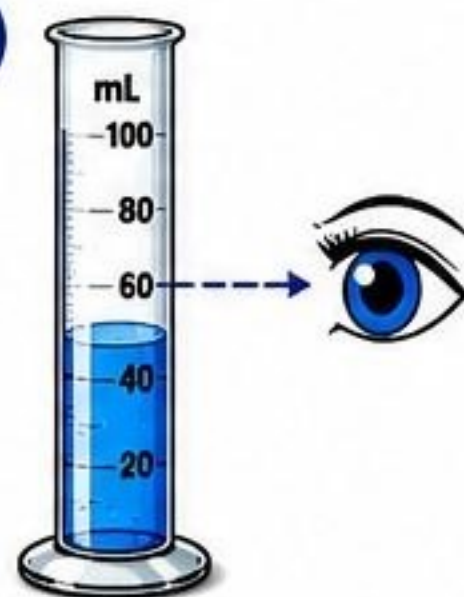
1



JIHOZNI TEKSHIRISH

Ishlatishdan oldin jihozning tozaligi va sozligini tekshiring.

2



TO'G'RI FOYDALANISH

Jihozning vazifasiga mos ravishda to'g'ri va ehtiyotkorlik bilan foydalaning.

3



KO'RSATMALARNI TO'G'RI O'QISH

Tarozi, termometr va boshqa jihozlarning ko'rsatmalarini to'g'ri o'qing.

4



BARQARORLIKNI TA'MINLASH

Idish va jihozlarni mustahkam o'rnatib, to'kilish va ag'darilishning oldini oling.

5



EHTIYOTKORLIK BILAN ISHLASH

Jihozlarni ehtiyotkorlik bilan ishlatib, zarba va shikastdan saqlang.

6

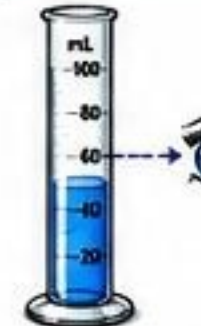


JIHOZNI TOZALASH VA JOYIGA QO'YISH

Ish tugagach, jihozlarni tozalang va belgilangan o'rniga qo'ying.



Jihozni tekshiring.



To'g'ri foydalaning.



Ko'rsatmalarni to'g'ri o'qing.



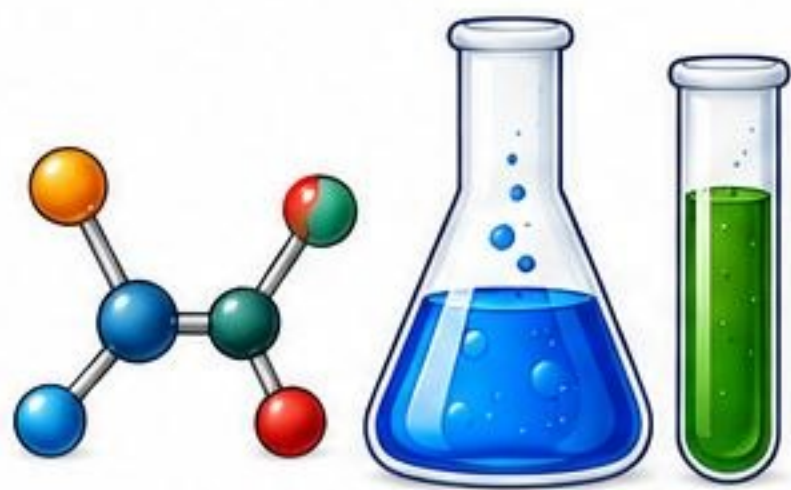
Barqarorlikni ta'minlang.



Ehtiyotkorlik bilan ishleng.

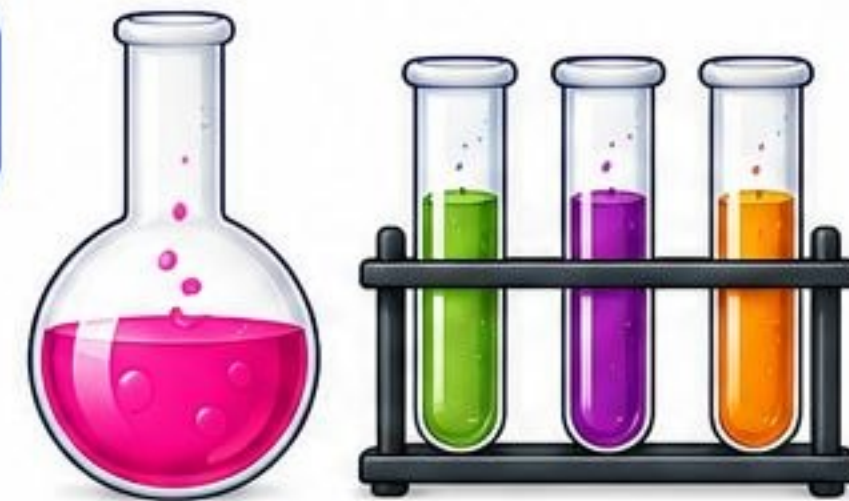


Jihozni tozalang va joyiga qo'ying.



MUSTAHKAMLASH

HA *yoki* **YO'Q**



1



Kimyo fani moddalar, ularning tarkibi, tuzilishi, xossalari va o'zgarishlarini o'rganadimi -?

HA

YO'Q

2



Kimyo fanining o'rganish obyekti faqat laboratoriyada uchraydigan moddalardan iboratmi -?

HA

YO'Q

3



Kimyoviy bilimlardan tibbiyot, oziq-ovqat, qishloq xo'jaligi va atrof-muhitni muhofaza qilishda foydalaniladimi -?

HA

YO'Q

4



Tadqiqotchi tajriba natijalarini tahlil qilmasdan xulosa chiqarishi to'g'rimi -?

HA

YO'Q

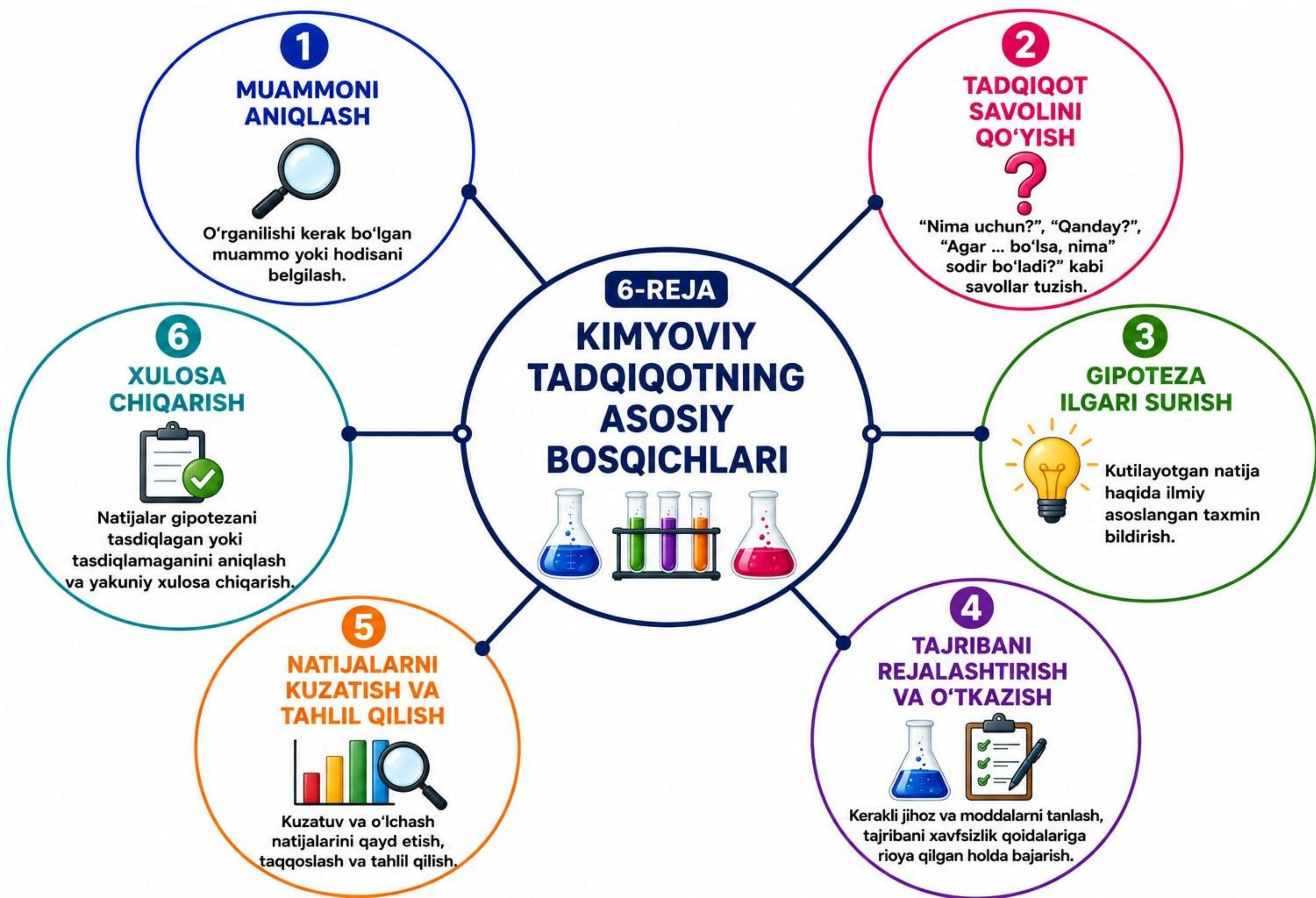
5



Kimyoviy tadqiqotda muammoni aniqlash, gipoteza ilgari surish, tajriba o'tkazish va xulosa chiqarish muhim bosqichlarmi -?

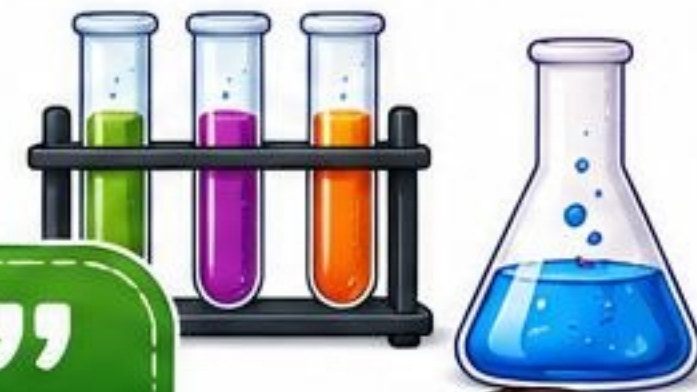
HA

YO'Q





UYGA VAZIFA



“UYIMDAGI KIMYO”

TOPSHIRIQ:

Uyingizdan kimyo bilan bog‘liq **3 ta mahsulot yoki jarayonni** tanlang va quyidagilarni aniqlang.



No	1. NOMI (mahsulot yoki jarayon nomi)	2. QAYERDA ISHLATILADI?	3. QANDAY XOSSAGA EGA?	4. KIMYO BILAN QANDAY BOG‘LIQ?	5. FOYDALANISHDA QANDAY XAVFSIZLIK QOIDASIGA RIOYA QILISH KERAK?
1					
2					
3					

QO‘SHIMCHA IJODIY TOPSHIRIQ:



Tanlagan misollardan bittasini **rasmga oling yoki rasmini chizing** va unga **2–3 jumladan iborat** izoh yozing.



RASM YOKI CHIZMA

IZOH:



Misol uchun:



sovun



tish
pastasi



osh tuzi



shakar



soda



kir yuvish
vositasi