

DNA Extraction

There are two labs in the DNA Extraction Kit: Strawberry and Human Saliva
You can do one or both extractions. The advantage of completing both extractions (or doing one as a demo and one as a class) is students can see that the extracted DNA from plants and animals is the same.

Strawberry DNA Extraction Kit

Materials Teacher Must Supply

At least one strawberry per student

Materials in Kit at Check-out (enough for 1 class of 30 students each*)

15 ziplock bags for mashing strawberries
15 cups
15 large conical tubes (50 ml) for student samples
15 large conical tubes (50 ml) for soap solution
15 small conical tubes (15 ml) for ethanol
15 funnels
15 culture loops
30 coffee filters
30 microtubules for storing extracted DNA
Dish soap – 375 ml of 20% solution
75 ml of 95% ethanol
meat tenderizer
salt

*For multiple classes, include extra **ziplock bags, coffee filters, microtubules, dishsoap, and ethanol**. Everything else can be washed and reused

Human Saliva DNA Extraction Kit

Materials Teacher Must Supply

Test tube racks or egg cartons placed upside down to hold conical tubes and 1.7 ml microtubules
50 ml distilled water (or tap water is fine too) at each of the five stations

Materials in Kit at Check-out (enough for 1 class of 30 students in 5 stations of 6 students each*)

5 sets of 10 ml of 0.1M EDTA
5 sets of 10 ml of 8% NaCl (sodium chloride) solution
5 sets of 10 ml of 10% SDS solution
5 sets of 30 ml of 95% ethanol (EtOH)
30 disposable cups
30 large conical tubes (50 ml)
30 microtubules for storing extracted DNA
30 culture loops
20 transfer pipettes - kept with only ONE solution at each station to prevent contamination

*For multiple classes, include extra **EDTA, NaCl, SDS, ethanol, cups, and microtubules**. Everything else can be washed and reused.