

## 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.