

# 1. Estimation Games


**Numeric Challenges:** Encourage youth to estimate the number of items in a container.

Tips for creating numeric estimation challenges:

- A clear container will provide a better opportunity to make a good estimation.
- Start with a known quantity. Use a pre-counted number of objects – for example: a packaged bag of marbles states “30 marbles per bag.”
- Add several pre-counted objects together to make a larger challenge.



## 4-H Twists

-  Ear tags – After youth submit estimations and before the winning guess is revealed use the opportunity to discuss details of an upcoming animal weigh-in.
- Pennies – Rolls of pennies (or other coins) can be purchased from a bank or you can ask to have a jar of pennies mechanically counted. Use the money jar to talk about the annual 4-H fee, fundraising campaigns or scholarships.
- Film canisters – Use this object to remind 4-H'ers to take pictures of project work and 4-H involvement throughout the year. Encourage them to use the pictures in their record books.

**Weight Challenges:** Estimating the weight of an object can be an interesting challenge for all ages.

Tips for creating weight estimation challenges:

- Use a non-breakable container youth can easily lift and move.
- Start with a known quantity. Use a pre-weighed material – for example: a label on a package of rice states 1lb. 15oz.
- Use a kitchen scale to measure items which aren't pre-weighed.



## 4-H Twists

- Water – After youth submit estimations and before the winning guess is revealed a variety of items could be discussed. The importance of water for good health, amount of water various species of animals need daily, importance of fresh clean non-frozen water for animals (pets, livestock, wildlife, etc.)
- Feed – Animal nutrition, ingredients, pounds per day, and a wide variety of discussions could be generated for a variety of project areas.
- Bag or basket of fruit/vegetables - (All one kind or a variety could be used) Nutritional guidelines, serving sizes, daily servings, preparation methods, storage, purchasing tips or a wide variety of nutrition topics could be discussed – food could be used as club refreshments or the basket could be given to the local food pantry.



**The Price is Right:** Estimating cost is dynamic as markets change.

Tips for creating price estimation challenges:

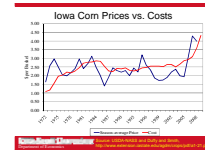
- Tag items with the date and location of the purchase – for example: one gallon ethanol purchased today at Casey's in Jefferson, Iowa.
- Use items which the group would be familiar.
- Use items purchased locally or on the internet – places easily available.
- Similar items of differing cost to be ranked from lowest to highest price.



## 4-H Twists

- Great introduction into Consumer Management and Consumer Judging. Explain what Consumer Judging is and share opportunities to take part in Consumer Judging events.
- Thank you cards – Discussion could include the cost of making homemade verses premade, citizenship opportunities, who have members of the group helped or who has helped them. The cards could be sent to volunteers or supporters who have provided assistance to the whole group or individual members.

- Juice – Cost comparisons could be made between single serving size and larger containers, nutrition choices, carbon foot print and packaging, discretionary dollars, etc.
- Bushel of Grain – Market trend and charts of past grain prices could be discussed as well as futures markets, effect of grain prices on other commodities, etc.



**What is it? Identification Games:** Multiple senses are often necessary to determine exact identification. Tips for creating object identification games:

- Use extreme caution with chemicals or possible toxins.
- Consider possible allergies.
- Comparisons or look-alike items can make an interesting challenge.
- Decide ahead of time which or how many of the five senses may be used to identify the item.
- Increase difficulty of the challenge by limiting the number of senses which can be used when trying to identify items.
- Pictures using a glimpse of a small portion of the whole object.

#### 4-H Twists



- Leaves - Discussion on identification of poisons plants (poison ivy or oak) prior to a nature hike; leaves which may be poisonous if ingested; leaf identification prior to a field trip to an apple orchard, u-pick strawberry farm or arboretum; wildlife and habitat; etc.
- Colored liquid – Is it drinkable or toxic...antifreeze or Gatorade....cough medicine or Kool-aid? Generate a discussion about potentially dangerous chemicals prior to a roadside clean-up project or talk about keeping dangerous substances out the of the reach of children.
- Salt – Measurement methods of dry ingredients for food preparation, processing and preservation of food, salt and health, topics for discussion are unlimited.