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SPRING
Strengthening Partnerships, Results,
and Innovations in Nutrition Globally

India Nutrition-Sensitive Agriculture Training

Training Aids



September 2017

India Nutrition-Sensitive Agriculture
Training
Training Aids

ABOUT SPRING

The Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project is a seven-year USAID-funded cooperative agreement to strengthen global and country efforts to scale up high-impact nutrition practices and policies and improve maternal and child nutrition outcomes. The project is managed by JSI Research & Training Institute, Inc., with partners Helen Keller International, The Manoff Group, Save the Children, and the International Food Policy Research Institute.

RECOMMENDED CITATION

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DISCLAIMER

This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the Cooperative Agreement AID-OAA-A-11-00031, (SPRING), managed by JSI Research & Training Institute, Inc. (JSI). The contents are the responsibility of JSI, and do not necessarily reflect the views of USAID or the U.S. Government.

The original training package, developed by SPRING, was updated for use by the Upscaling Participation and Videos for Agriculture and Nutrition (UPAVAN) project, funded by the Bill & Melinda Gates Foundation and the UK Department for International Development (award number OPP1136656). Substantial co-funding is also provided by the USAID-funded project Digital Integration to Scale Gender-Sensitive Nutrition Social and Behavior Change Communication, implemented by Digital Green (Cooperative Agreement No. AID-386-A-15-00008). Additional technical inputs are being provided by the SPRING project contributing funds from USAID's Bureau for Food Security (BFS) and Bureau for Global Health (GH) (under Cooperative Agreement No. AID-OAA-A-11-00031) to support this research. None of the funders had any role in the study design once the grant was awarded or in the write-up of the study protocol.

COVER PHOTOS: Illustration by SPRING

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UPAVAN: UPSCALING PARTICIPATORY ACTION AND VIDEOS FOR AGRICULTURE AND NUTRITION

PARTNERS



Digital Green



FUNDERS

BILL & MELINDA
GATES foundation



Acknowledgments

The nutrition-sensitive agriculture training package was developed by the Strengthening Partnerships, Results, and Innovations in Nutrition Globally Project (SPRING), managed by the JSI Research & Training Institute, Inc., and with generous financial support from the United States Agency for International Development (USAID). This training package was developed in response to a request for technical assistance for a five-year study to evaluate the impact and cost effectiveness of several approaches to both nutrition-specific social and behavior change communications and nutrition-sensitive agriculture using participatory learning and action and community video. Now known as *Upscaling Participation and Videos for Agriculture and Nutrition (UPAVAN)*, the project, *Community-driven and digital technology-enabled agriculture intervention for nutrition: A cluster randomized controlled trial in Odisha, India*, is a partnership between SPRING, Digital Green (DG) and local organizations, Voluntary Association for Rural Reconstruction & Appropriate Technology (VARRAT), and Ekjut India. It is led by the London School of Hygiene and Tropical Medicine (LSHTM), with funding from the Bill & Melinda Gates Foundation and the United Kingdom's Department for International Development (DFID). The package was adapted from a number of existing nutrition training materials and communication tools, as well as previous nutrition-sensitive agriculture trainings conducted by SPRING staff.

SPRING would like to thank the various project partners, including Digital Green, VARRAT, and LSHTM for their support throughout the project design phase, formative research, and materials development. The SPRING graphic artists deserve special thanks for their work in creating the numerous illustrations for the training package and Victor Nolasco for the cover illustration.

Although these materials were created specifically for the SPRING nutrition-sensitive agriculture training in Odisha, India, any part of this package may be printed, copied, or adapted for related projects to meet local needs with the express written permission of SPRING. Please direct any requests to reproduce or adapt these materials to info@spring-nutrition.org, with the understanding that the source of the materials will be fully acknowledged and the materials will be distributed at no cost.

Training Aids Key Day 1

DAY 1 (7 hours and 45 minutes) How can agriculture better work for nutrition?		
Session #	Title	Training Aids
Session 1	Introduction: Why are we here?	<i>None</i>
Session 2	Connecting agriculture and nutrition	16 images: <ol style="list-style-type: none"> Caregiving Carrying water Eating Family Food Growing and raising Handwashing Hazards Health Income and expenditure Joint decision-making Latrine Processing Selling Storing Working in the field
Tea Break		<i>None</i>
Session 3	Seasonal changes that affect nutrition	Seasonal Calendar—7 categories, 15 images: <ol style="list-style-type: none"> Holidays (candle) Food availability (full and empty food baskets) Women’s labor (house, working in the field, carrying bricks, carrying water on head) Men’s labor (working in field, building, at market) Income (hands with money) Health (person coughing, defecating, feverish) Shocks (drought)
Energizer		<i>None</i>
Session 4	Daily activities that affect nutrition	3 daily activity charts: <ol style="list-style-type: none"> Fathers Grandmothers Mothers
Lunch Break		<i>None</i>
Session 5	Communication styles, relationships, and household decision-making	5 images: <ol style="list-style-type: none"> Elder man Elder woman Family group Husband Wife
Session 6	Planning exercise: Making spending decisions together	<i>None</i>
Tea Break		<i>None</i>
Session 7	Wrap up, Q&A, and summary of day 1	<i>None</i>

Training Aids Key Day 2

DAY 2 (7 hours and 50 minutes) How can individual agricultural practices support nutrition?		
Session #	Title	Training Aids
Session 8	Opening day 2 and recap exercise	None
Session 9	Getting enough good food all year	44 images: <ul style="list-style-type: none"> • Grow/raise • Harvest/process/store • Sell/buy • Food basket • Money jar • 16 food images: carrots (4), eggs (6), fish (4), papaya (2) • 15 money images
Tea Break		None
Session 10	Problem solving, from producing through buying and selling	None
Session 11	Men's and women's roles from producing through selling and buying	53 images: <ul style="list-style-type: none"> • 15 images of rice production stages: <ol style="list-style-type: none"> 1. Land preparation 2. Nursery preparation 3. Seeding 4. Uprooting of seedlings 5. Transplanting 6. Transplanting 7. Weeding 8. Harvesting 9. Carrying paddy 10. Threshing 11. Winnowing 12. Drying 13. Storing 14. Milling 15. Marketing • 12 female images • 12 male images • 14 heavy labor images
Lunch Break		None
Session 12	Making staple crops farming better for nutrition	None
Session 13	Safe composting, healthy farmer	8 images of compost preparation
Tea Break		None
Session 14	Summary/Q&A, and wrap-up	None

Session 2: Training Aids



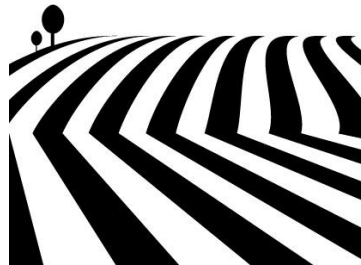
Care giving



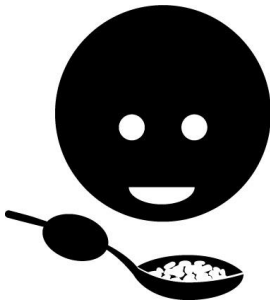
Food



Carrying water



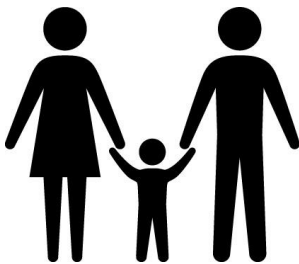
Growing and raising



Eating



Handwashing

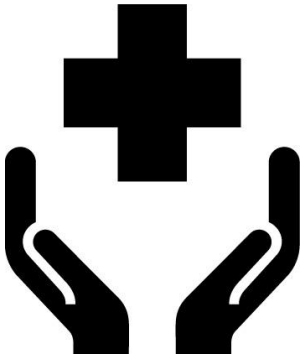


Family



Hazards

Session 2: Training Aids



Health care



Processing



Income
Expenditure



Selling



Joint decision-
making



Storing



Latrine



Working in the field



Care giving



Carrying water



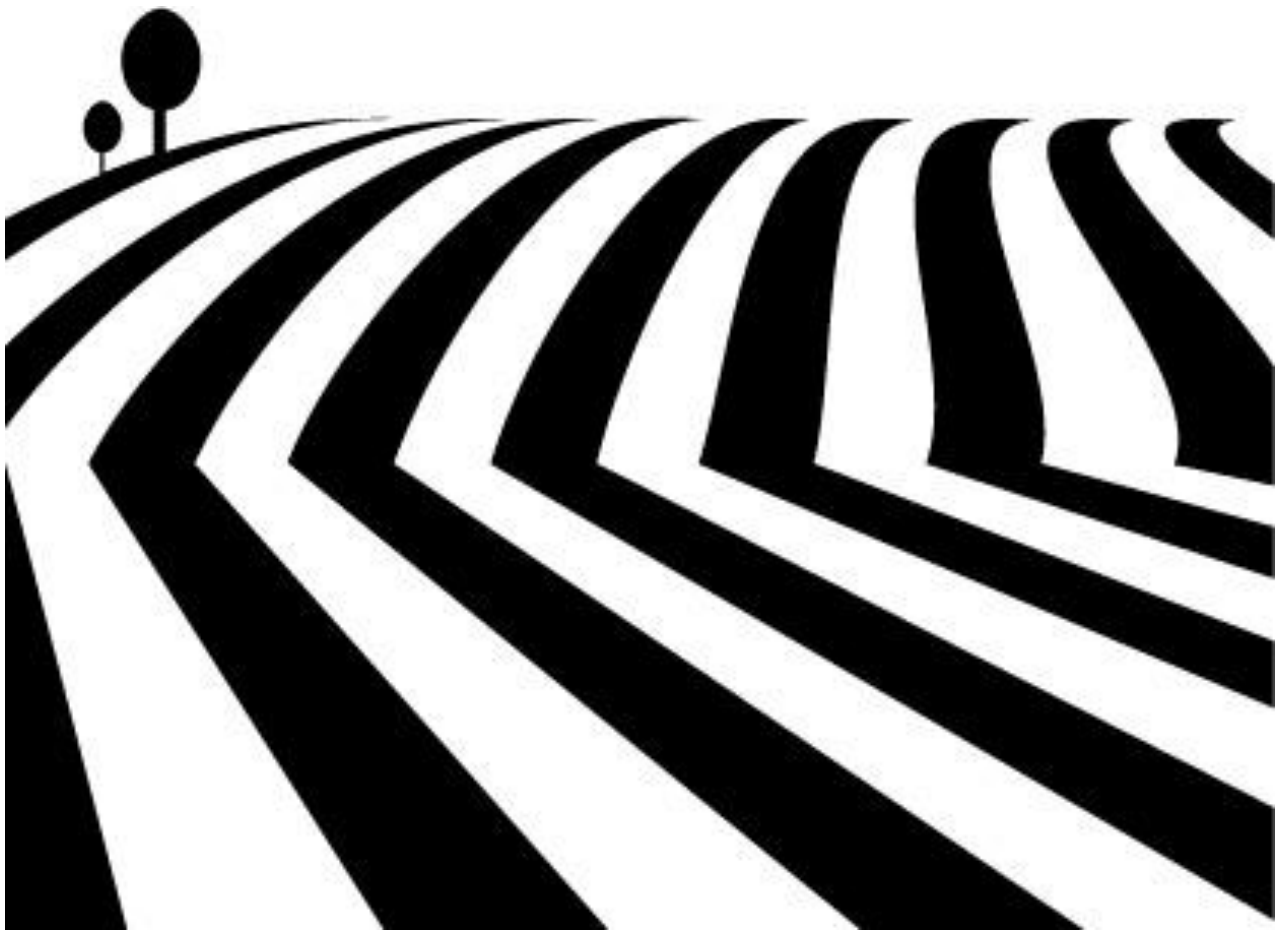
Eating



Family



Food



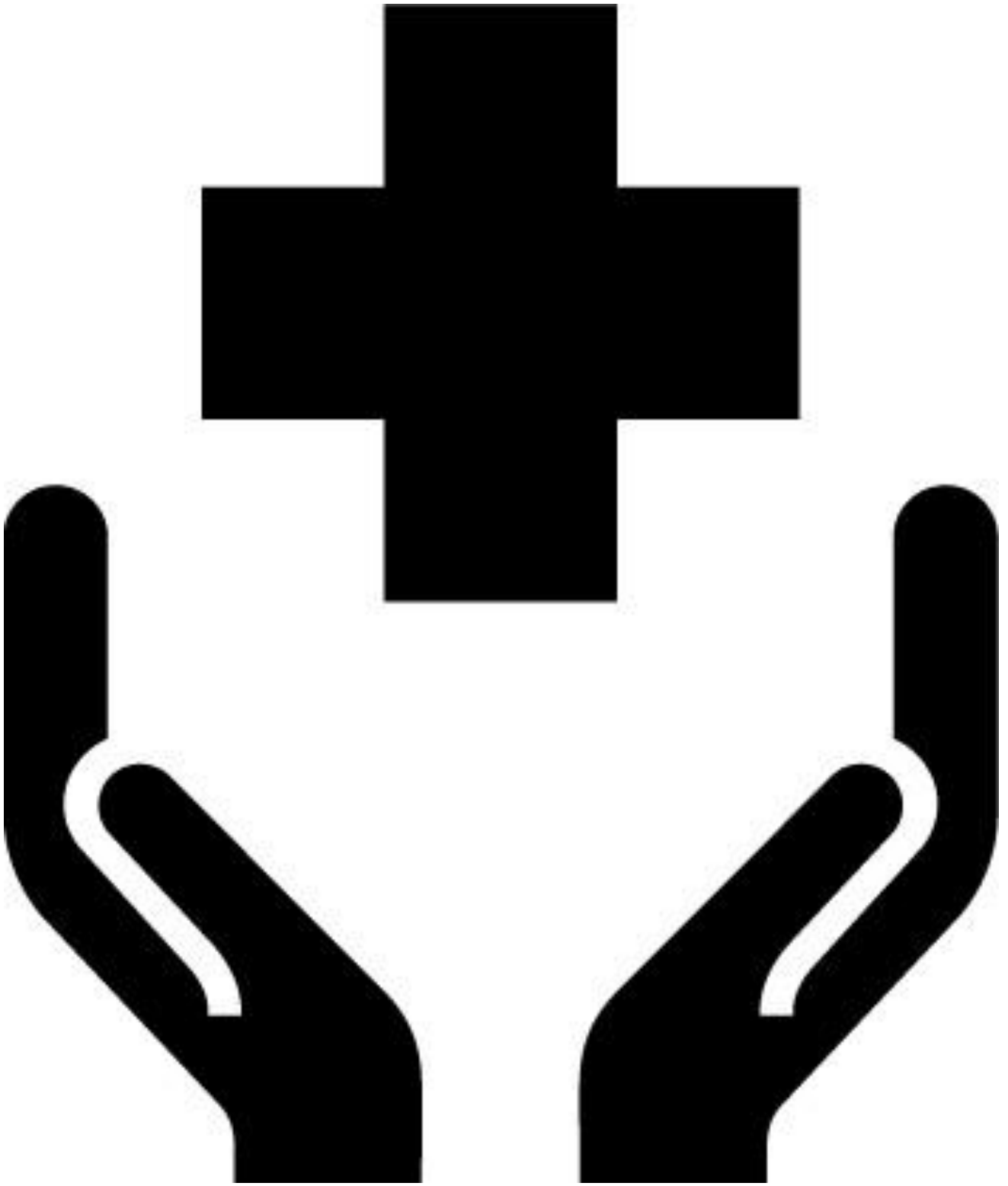
Growing and raising



Handwashing



Hazards

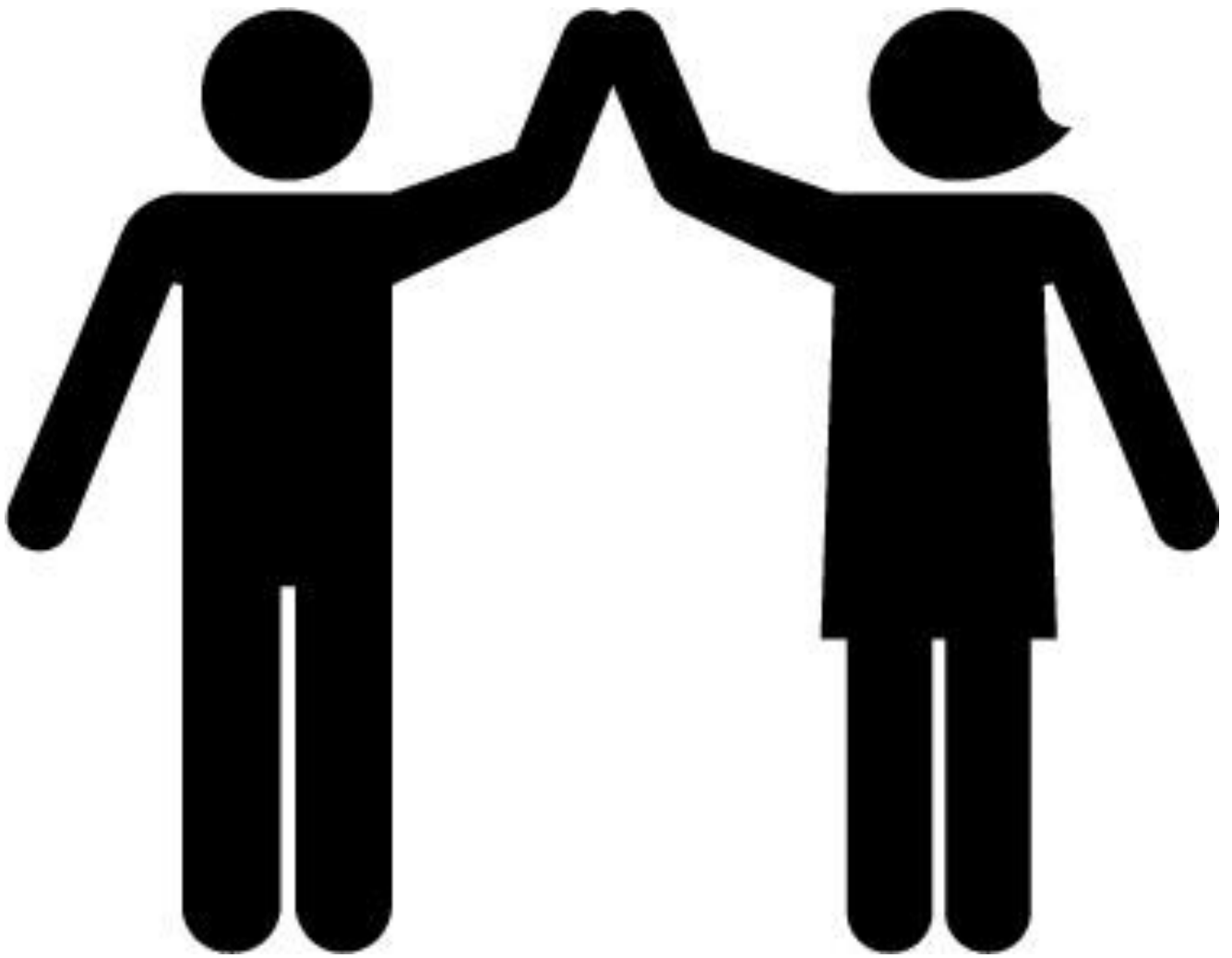


Health care



Income

Expenditure



Joint decision-making



Latrine



Processing



Selling






































































Storing



Working in the field

Session 3: Training Aids

Seasonal Calendar

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Holidays												
Food availability												
Labor, women												
Labor, men												
Income												
Health												
Environmental shocks												

This is an example seasonal calendar. Use the following icons to create your own full-sized seasonal calendar.

Holiday



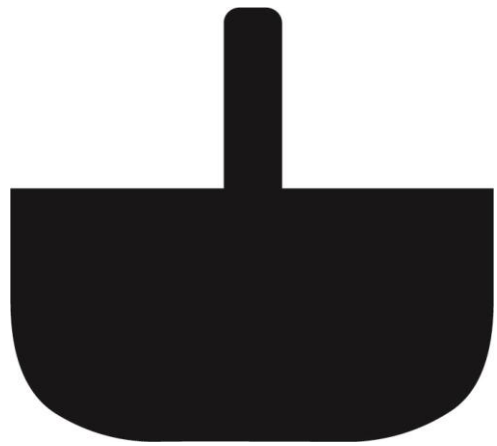
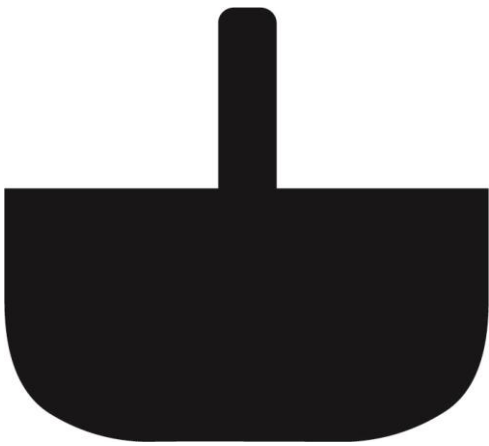
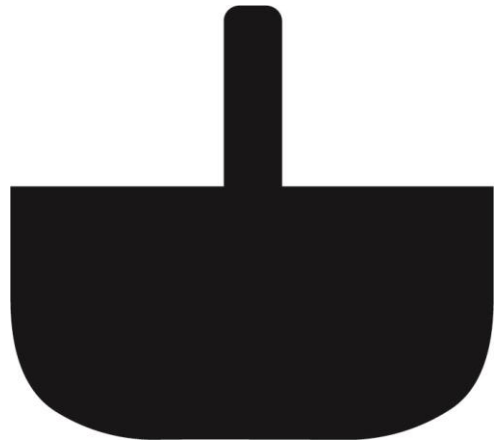
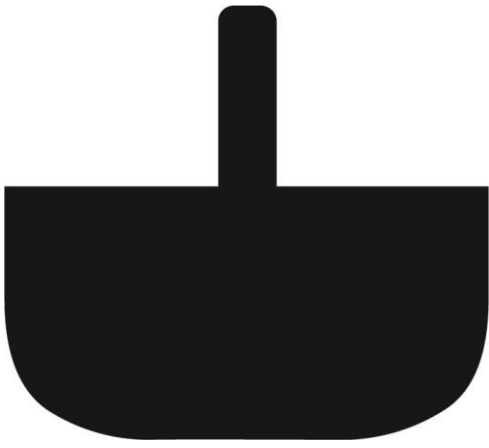
Holiday



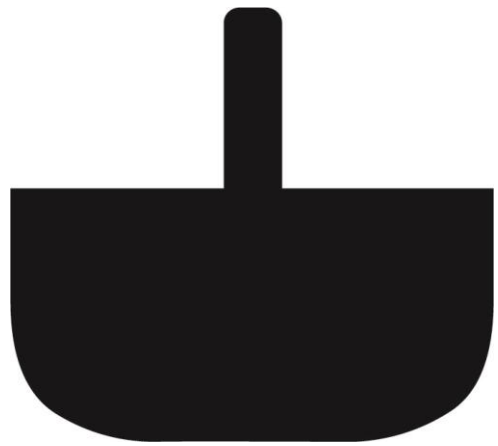
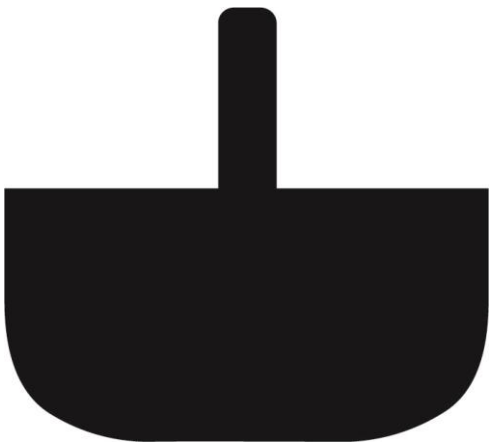
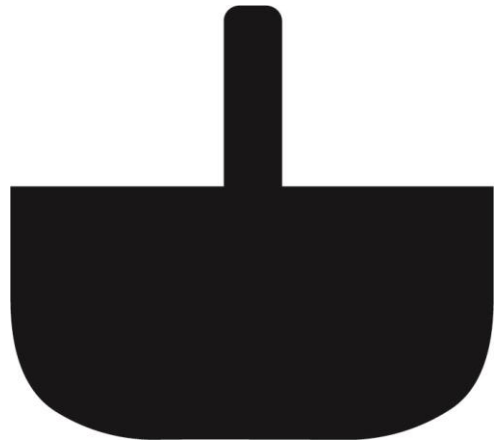
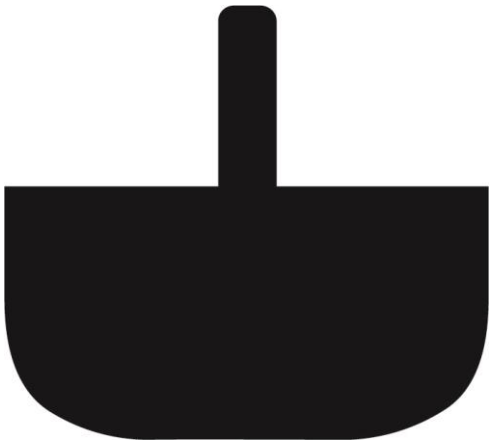
Holiday



Food availability



Food availability



Food availability



Food availability



Labor



Labor



Labor



Labor



Labor



Labor



Labor



Labor



Labor



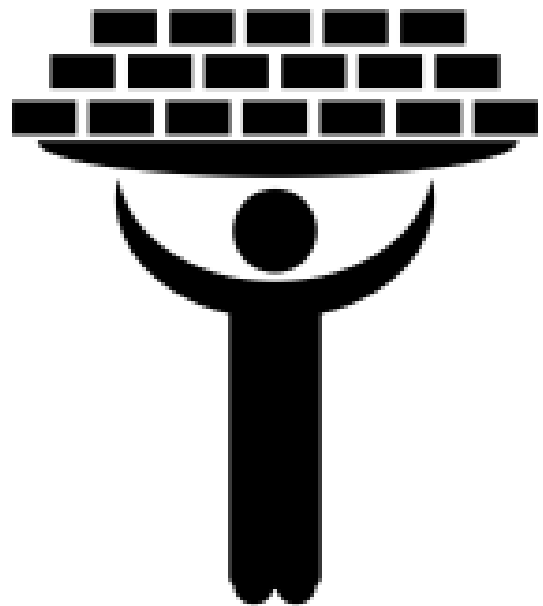
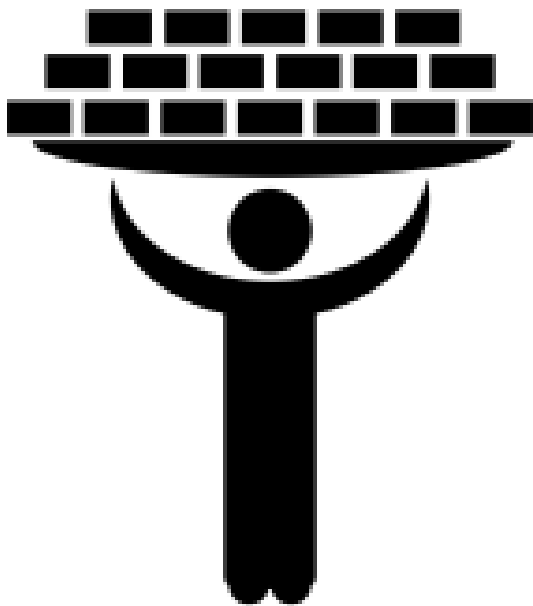
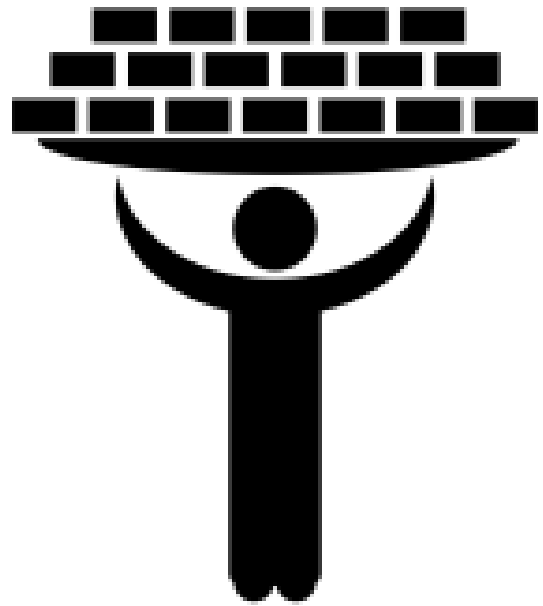
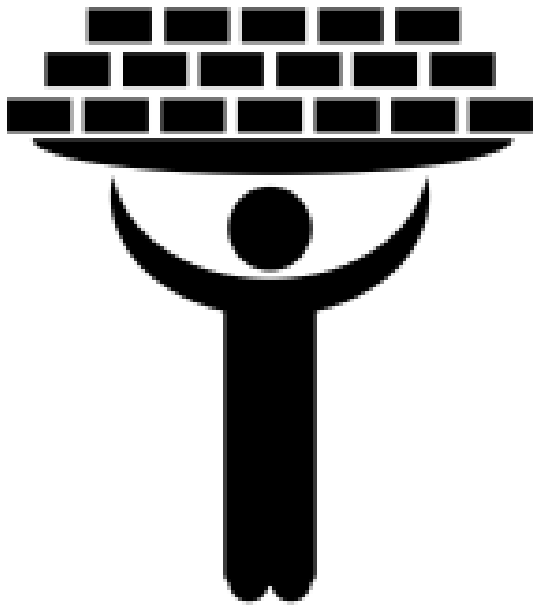
Labor



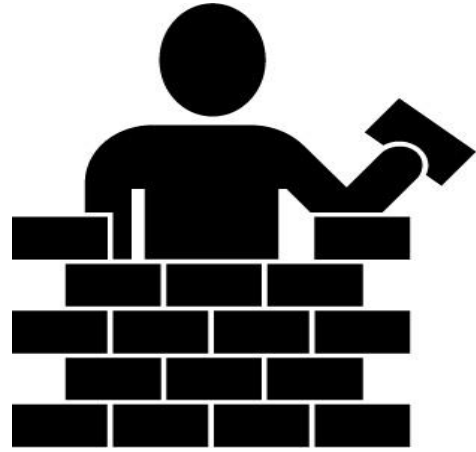
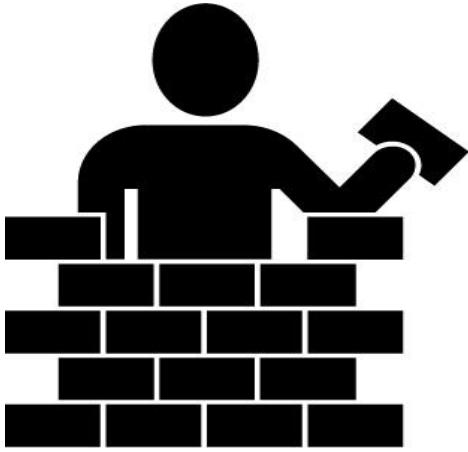
Labor



Labor



Labor



Labor



Labor



Labor



Labor



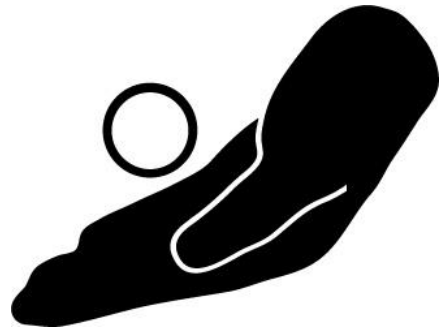
Labor



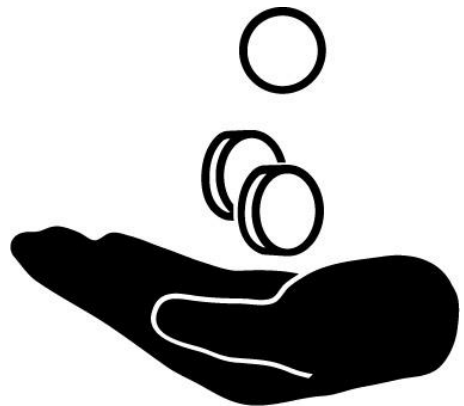
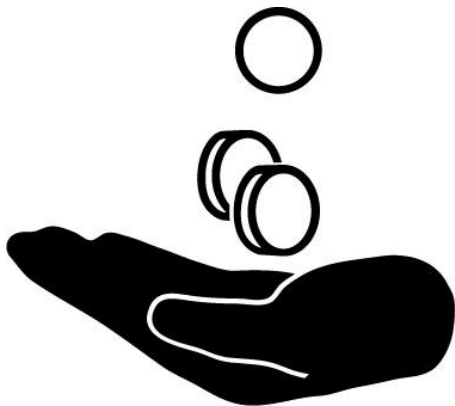
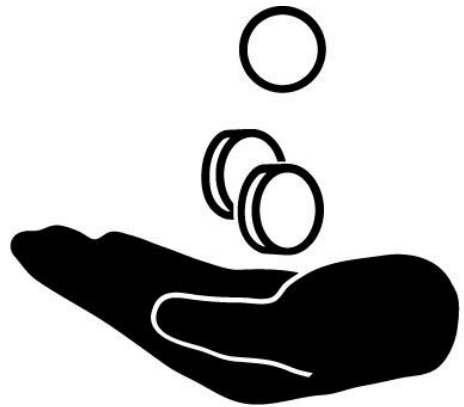
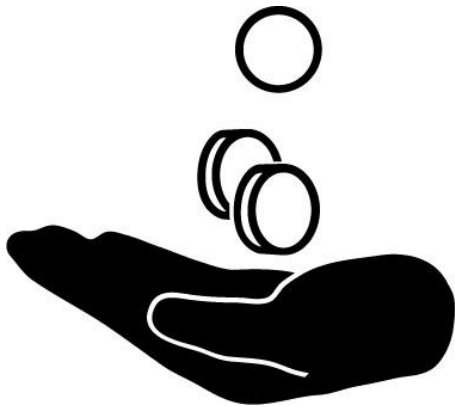
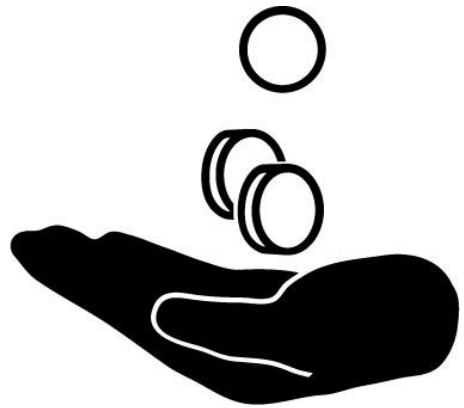
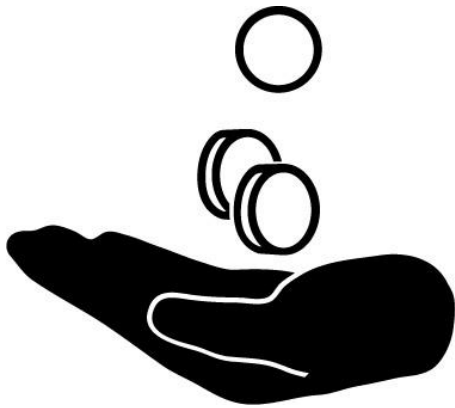
Labor



Income



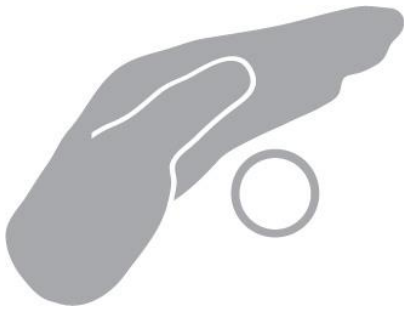
Income



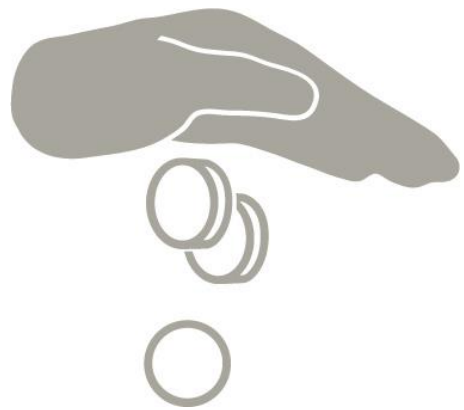
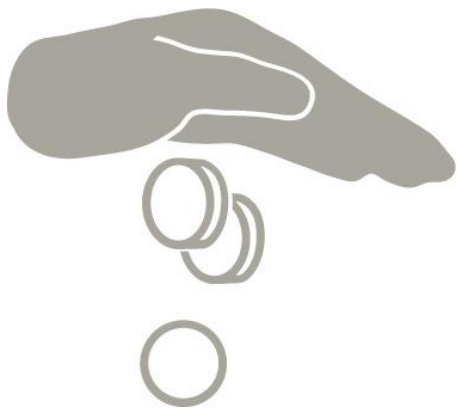
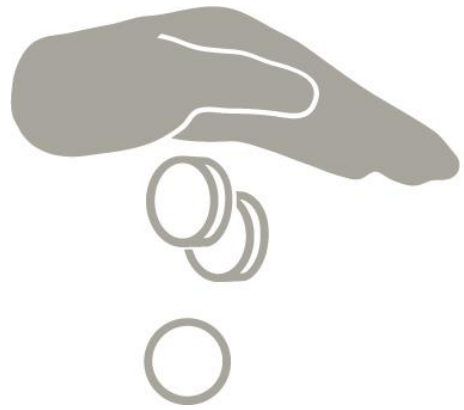
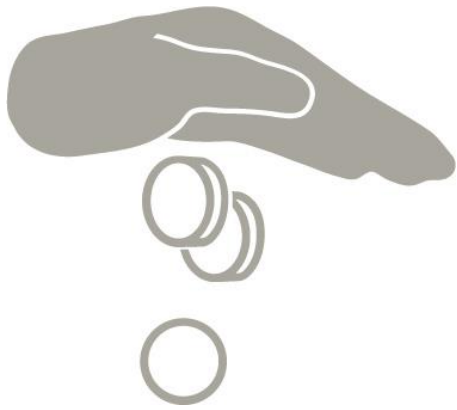
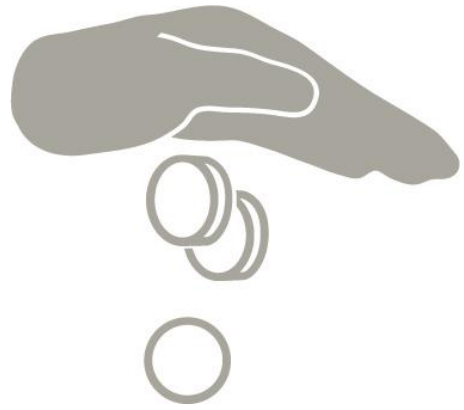
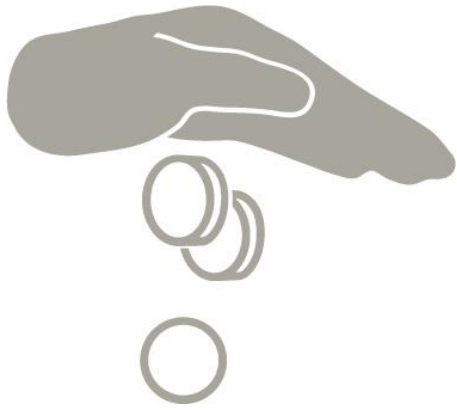
Income



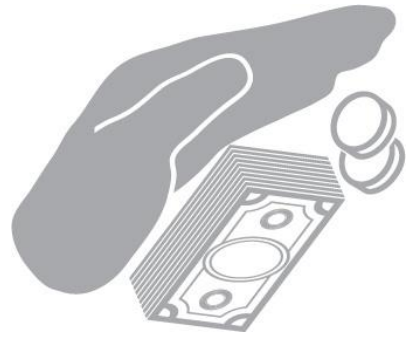
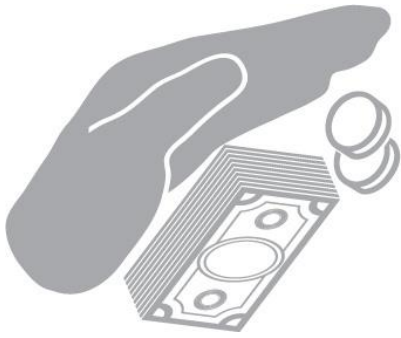
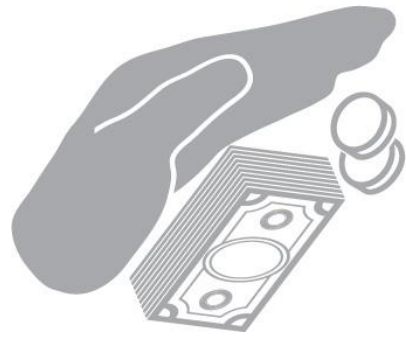
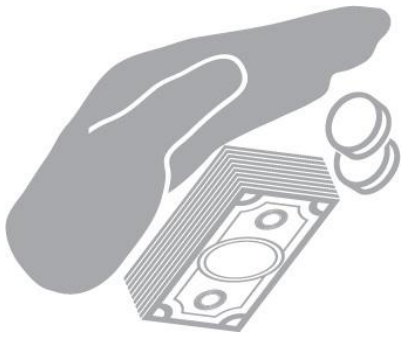
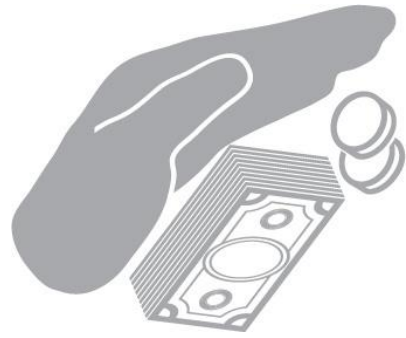
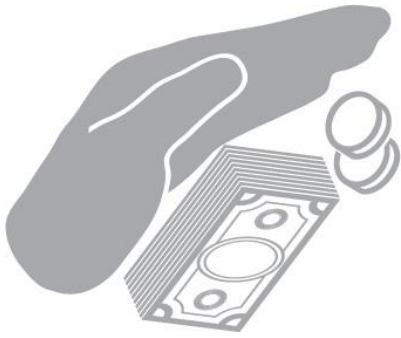
Expenditure



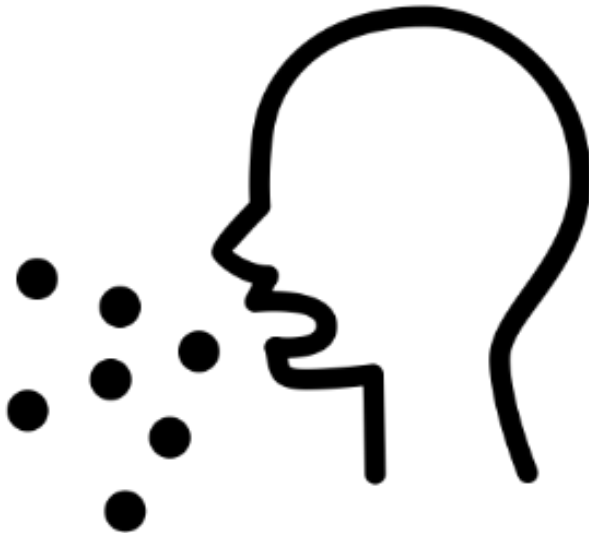
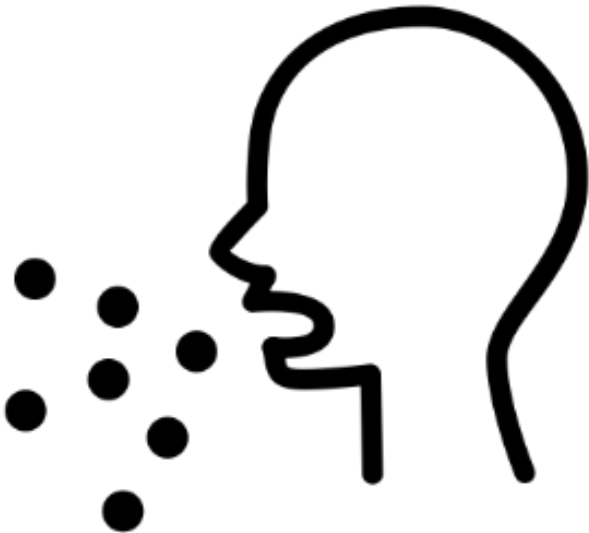
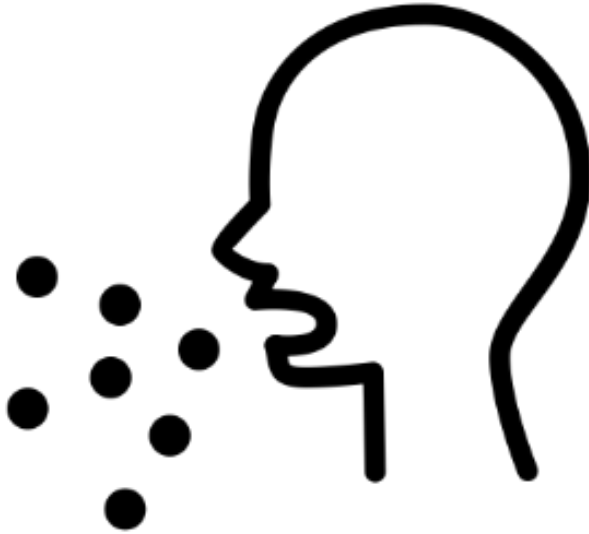
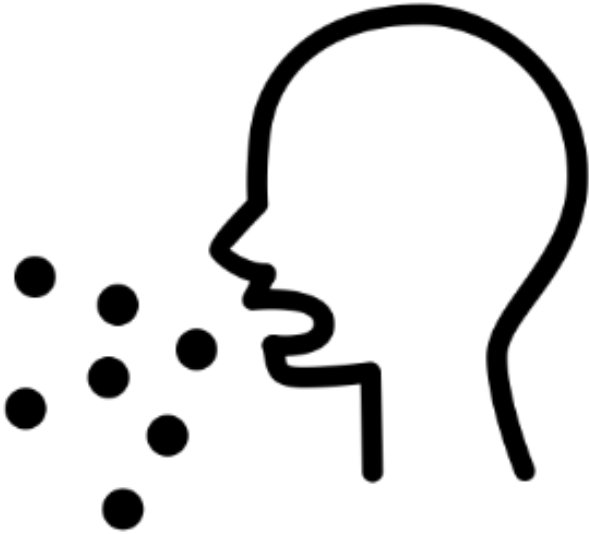
Expenditure



Expenditure



Health



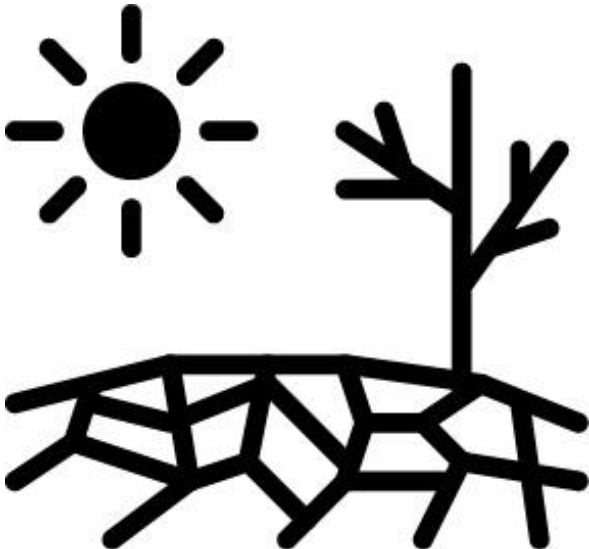
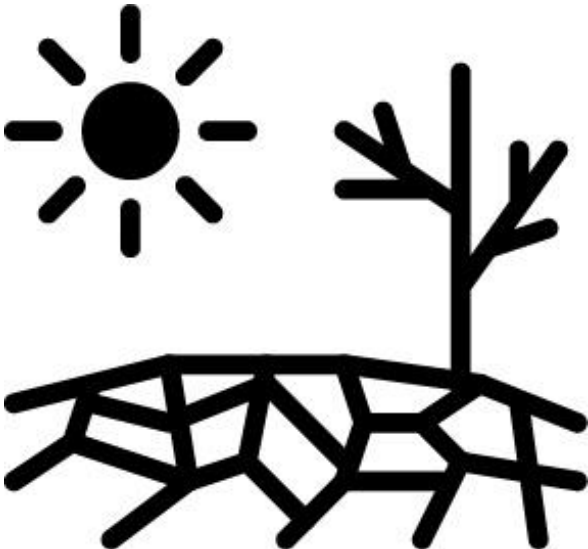
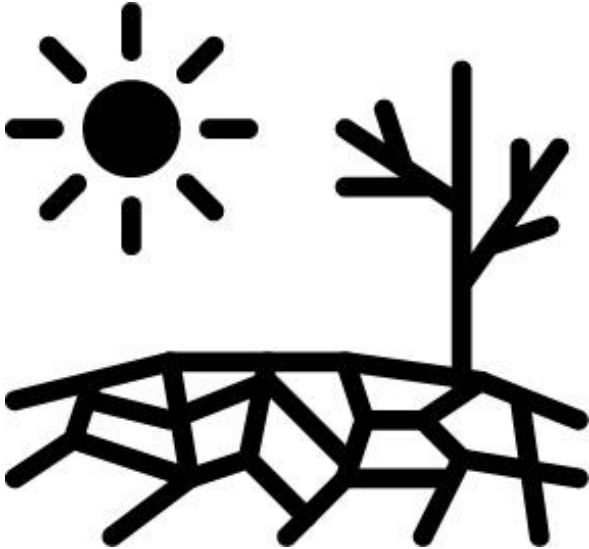
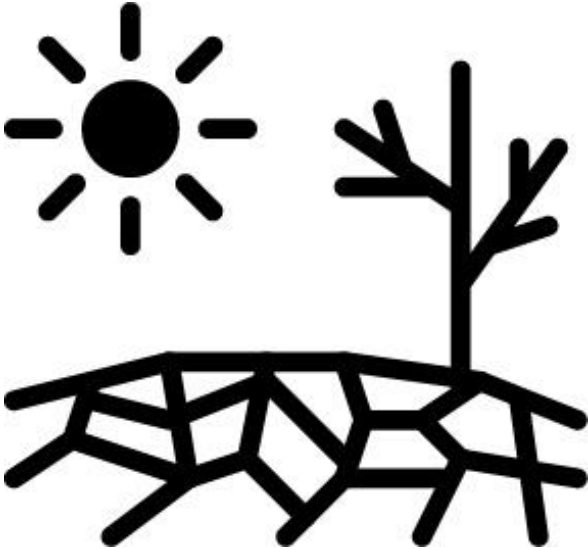
Health



Health



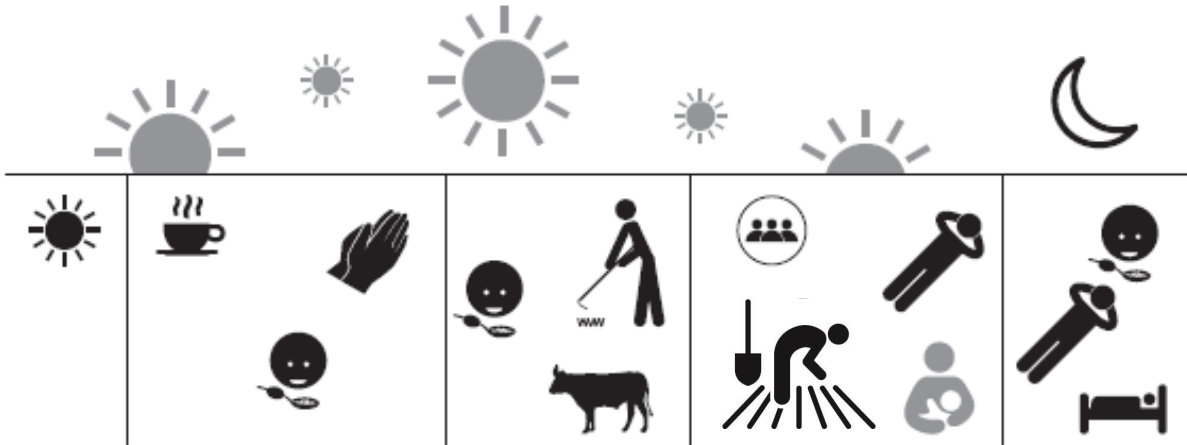
Environmental shocks



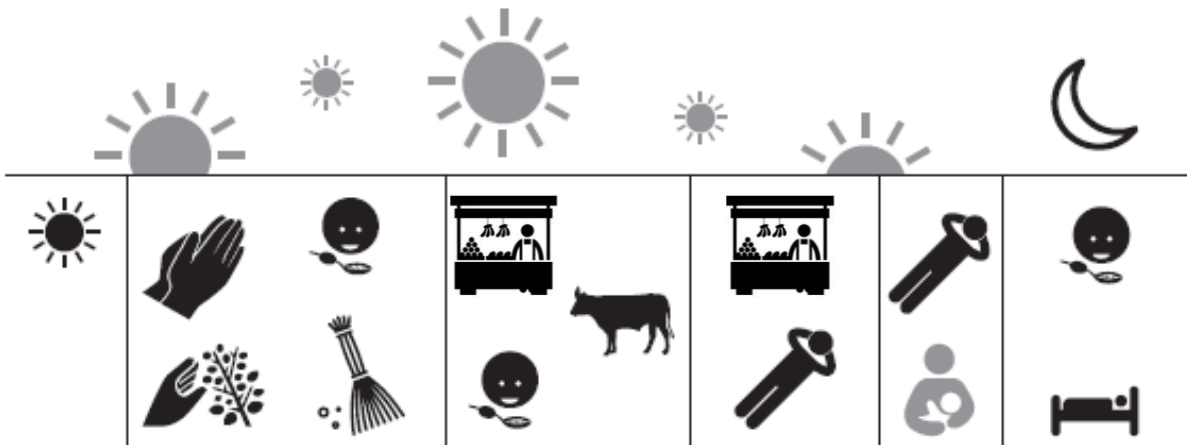
Session 4: Training Aids

Daily Activity Chart

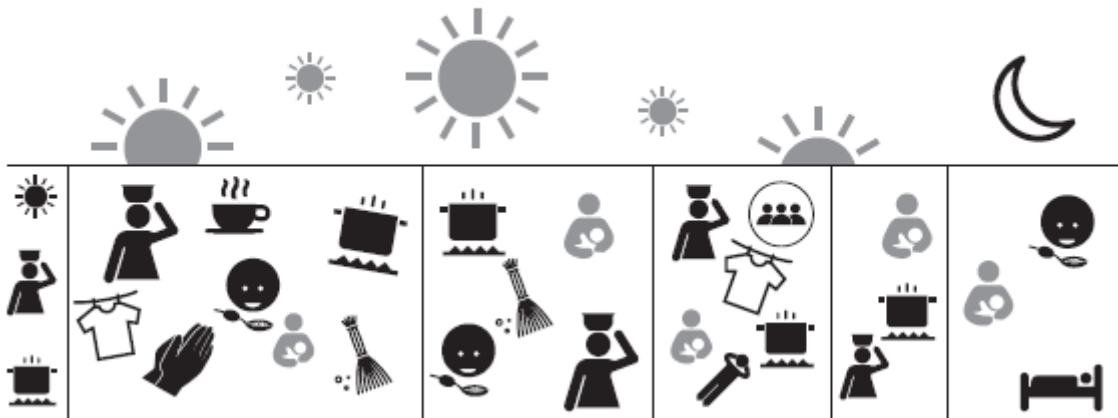
Fathers



Grandmothers



Mothers

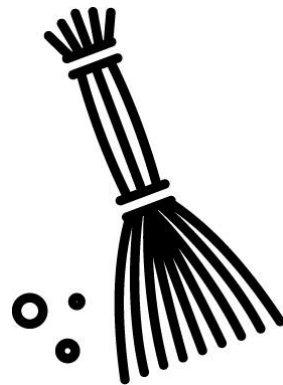
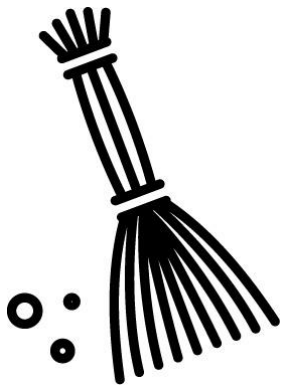
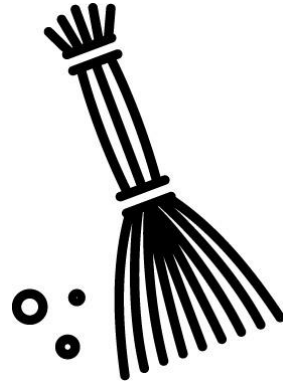
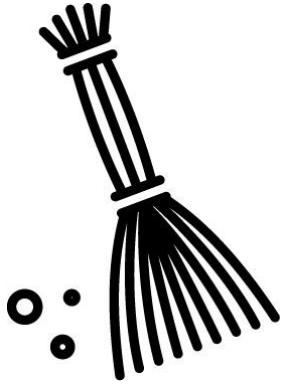
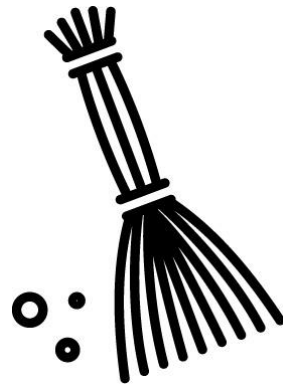
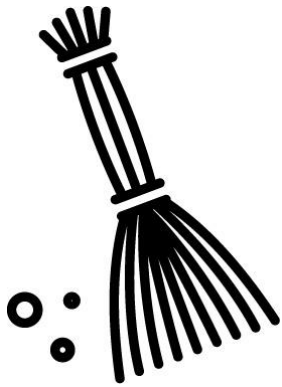
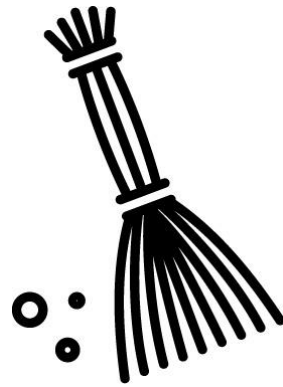
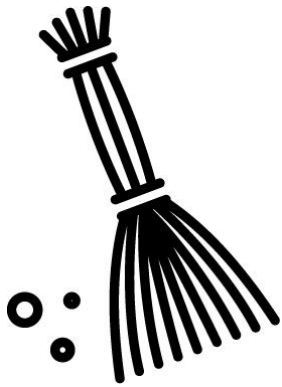


These are example daily activity charts. Use the following icons to create your own full-sized activity charts.

Care giving



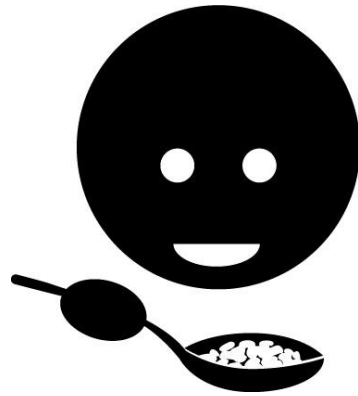
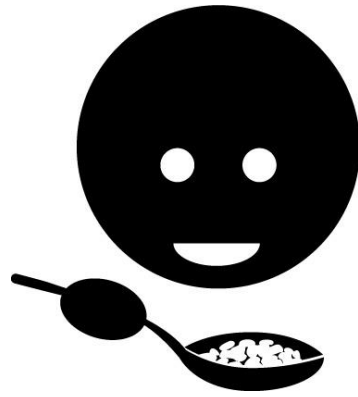
Cleaning home



Drinking tea



Eating



Farming



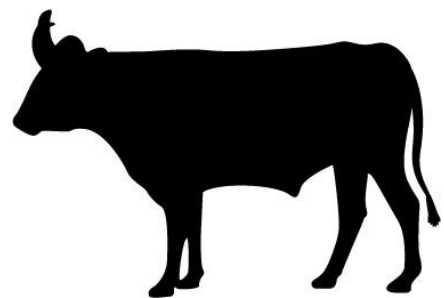
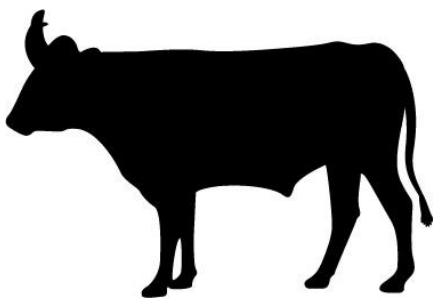
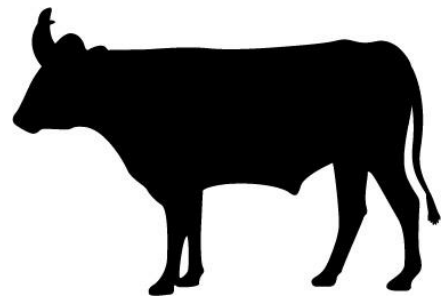
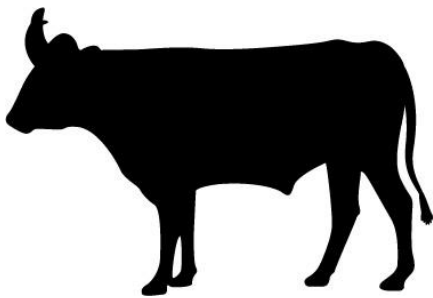
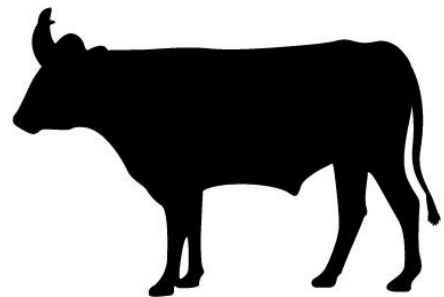
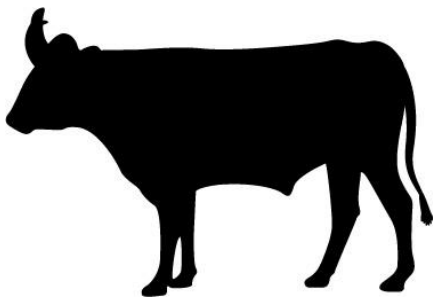
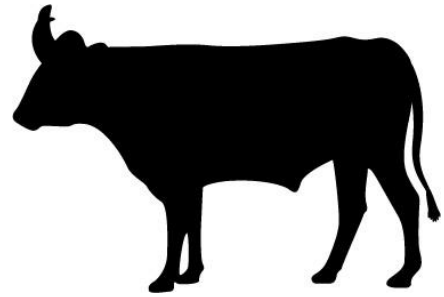
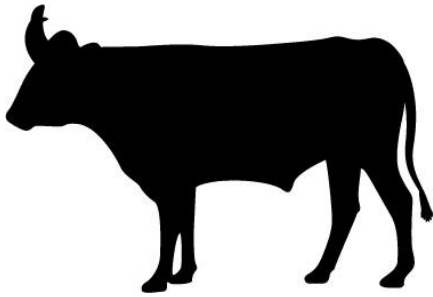
Gathering wild foods



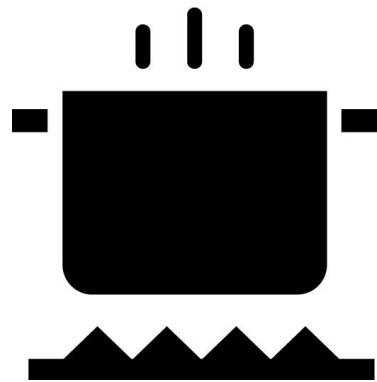
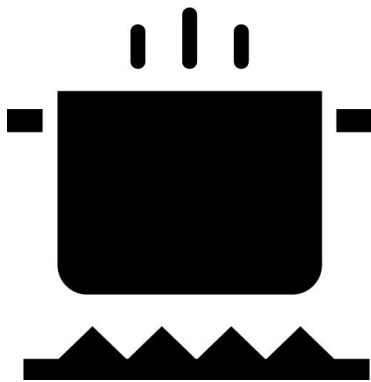
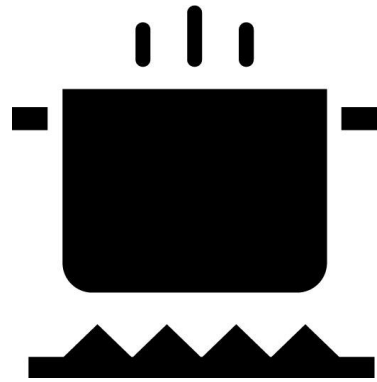
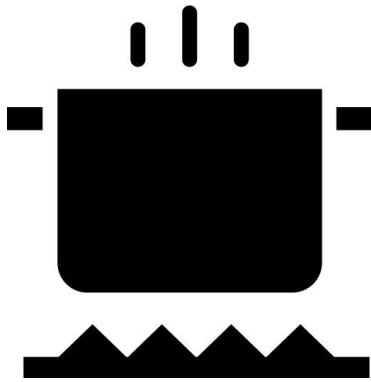
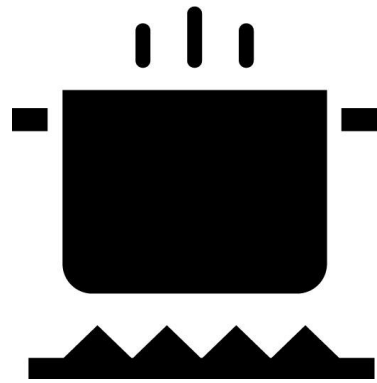
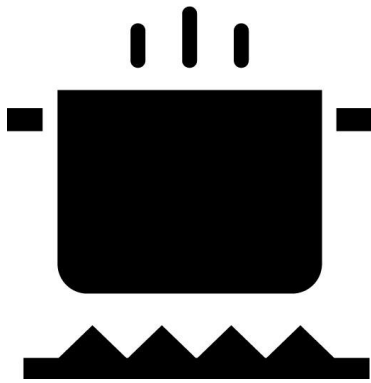
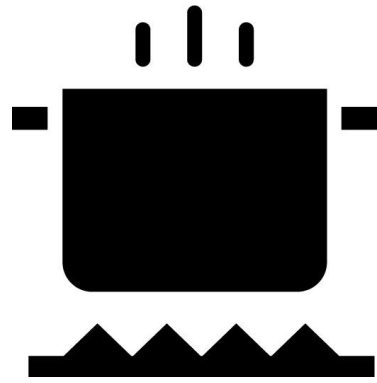
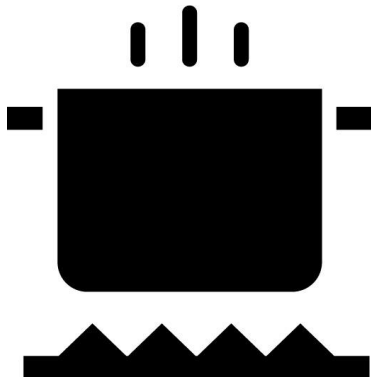
Group meeting



Managing livestock



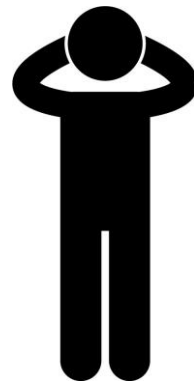
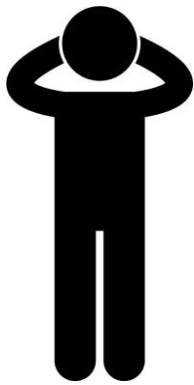
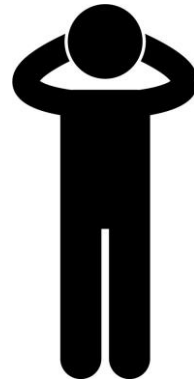
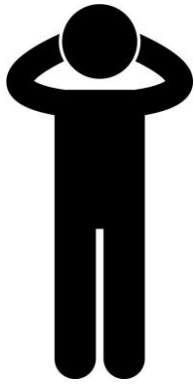
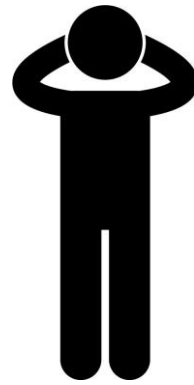
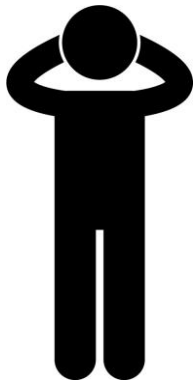
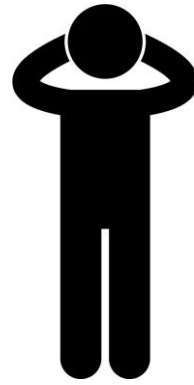
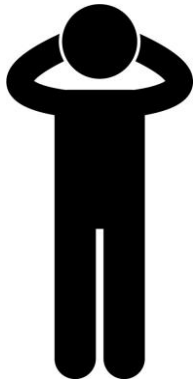
Preparing food



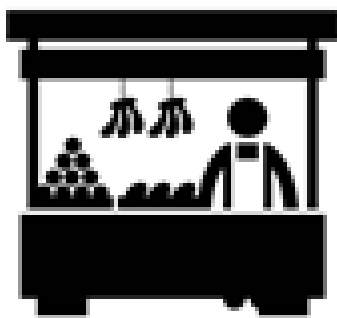
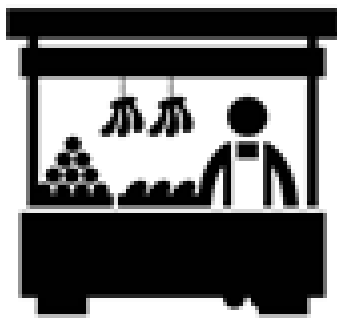
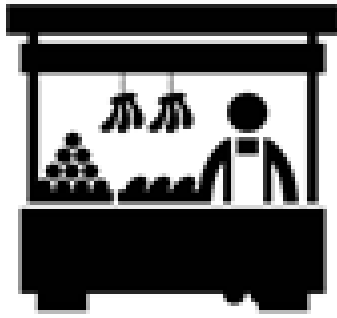
Religious activity



Resting



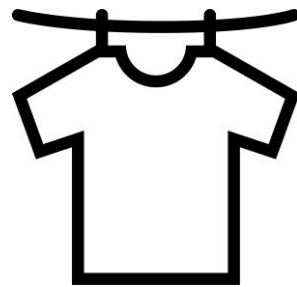
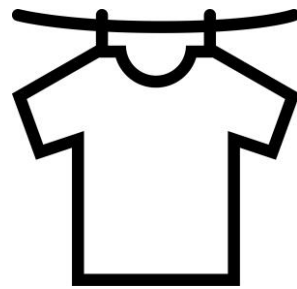
Selling products at the market



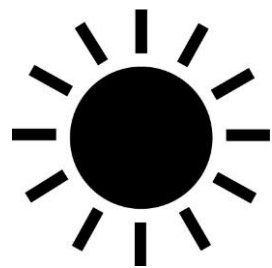
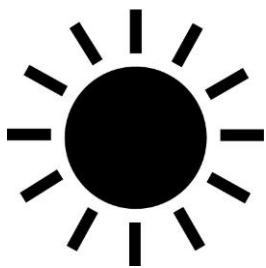
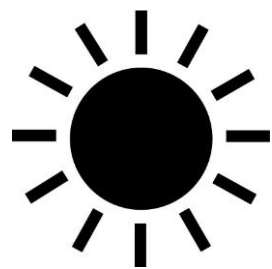
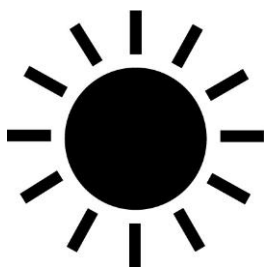
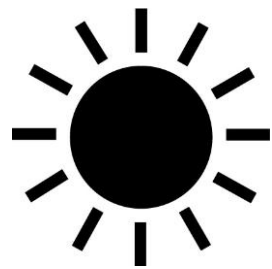
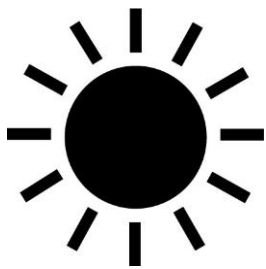
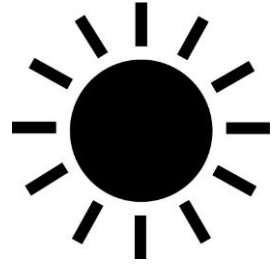
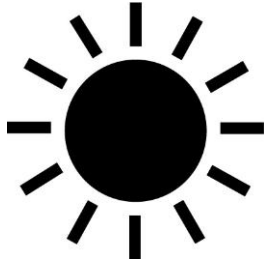
Sleeping



Washing clothes



Waking up



Session 5: Training Aids

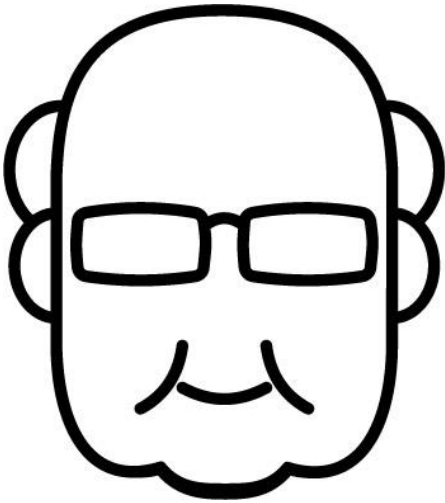
Who Decides What exercise (10 minutes)

1. **Explain:** We just saw how family dynamics can affect family members' ability to contribute to decisions. Now, we will examine the many types of decisions that households make about farming, income, health, and caring practices. We are also going to discuss who makes the final decision about these issues. This exercise is *not* about who SHOULD make these decisions, but about who usually MAKES the decision.
2. **Place the five picture pockets with pictures of family members on the wall for participants to see.** *Explain that these images are adults in an extended family: the mother, father, grandmother, grandfather, and the family unit. They live together and the grandmother and grandfather are still active.*
3. **Explain:** We will read a question; raise your hand to volunteer to place the strip into the folder of the family member who makes the **FINAL** decision. If others disagree, let's discuss it, and the person who has the paper will decide.
4. **Follow this process for each of the question strips (15 minutes), which are—**
 - Who should do the physical labor or time-consuming labor related to farming?
 - Should we purchase this farming asset or input?
 - Should we borrow money for this growing season?
 - How much of this crop should we sell?
 - How will we use this piece of land?
 - How is cash earned from selling crops or forest products spent?
 - Should income be used to save money for improved farming tools, or to purchase additional vegetables and eggs each week?
 - Who will keep the compound clean and ensure our food and water is safe?
 - Who will purchase the additional food we need and other things, like soap?
 - What foods are purchased each week?
 - Who does the cooking?
 - Who feeds the children?
 - Who takes care of sick family members?
 - Should the family participate in a savings and loan scheme?
 - Who decides it is time for a daughter to get married?
 - When should a sick family member go to the health facility?
 - Who decides what the main meal of the day will be?
 - Who decides when it is time to plant new crops or start raising new animals?
5. **Ask:** Reflect on the exercise and discuss the following questions (**10 minutes**):
 - Who makes most of the decisions? Who is left out?
 - Who is involved in the big decisions about the children? Who is left out?
 - Who decides about money? Who is left out?
 - What does this say about the position of the wife in the household?
 - What if a woman has a lot of knowledge or skills about something, but is not included in the decision making?
 - What happens in situations where women want to change practices related to the nutritional needs and health care of themselves and their children, but they do not participate in these decisions?

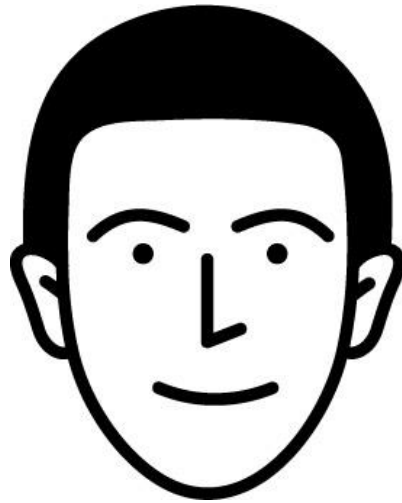
Wrap-up (5 minutes)

6. **Explain:** some key takeaways from the session include—

- There are links between household decisions about farming, income earning, and spending; accessing food, health, and care; and the health and nutrition of different family members
- There is a link between who has power in the family and who makes decisions.
- Women's increased participation in household decision making has been proven to improve health and nutrition.
- It is possible to change how decisions are made in households, including changing communication styles so all members feel free to participate in decision making; and so that family members with more power listen to those with less power, who may have different knowledge and skills.



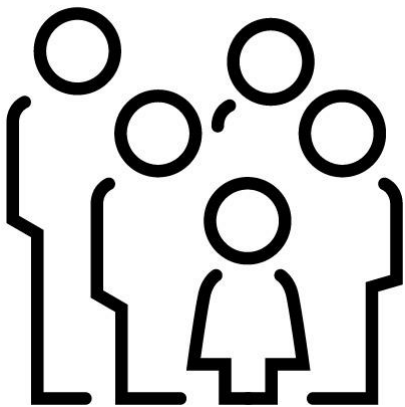
Elder man



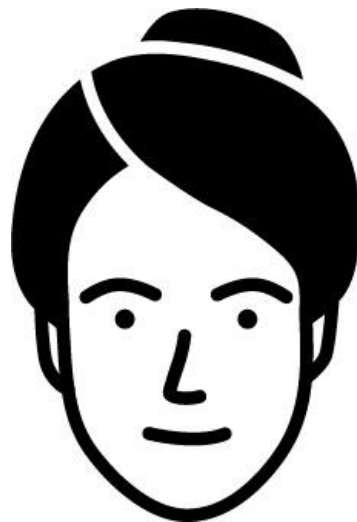
Husband



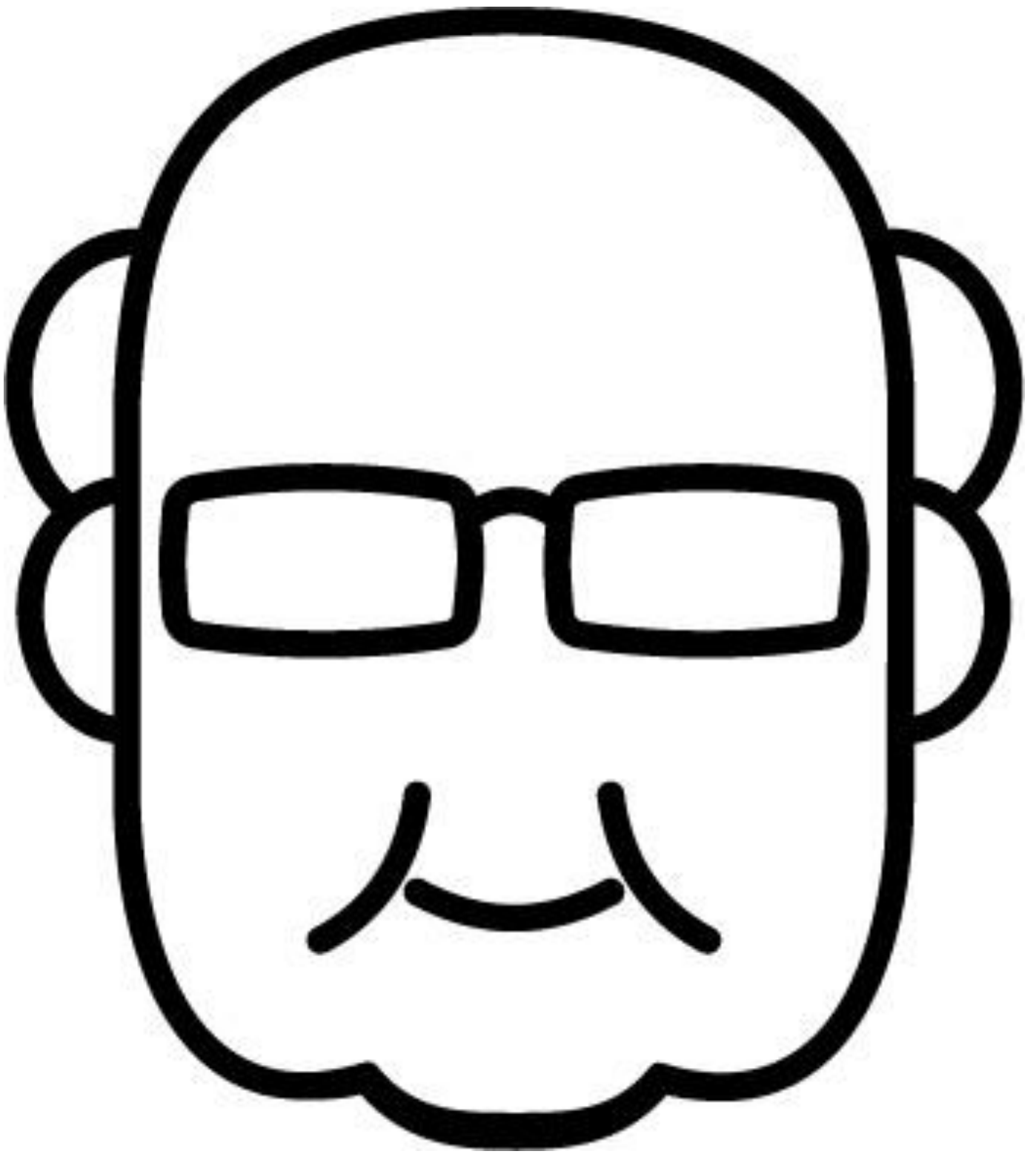
Elder woman



Family group



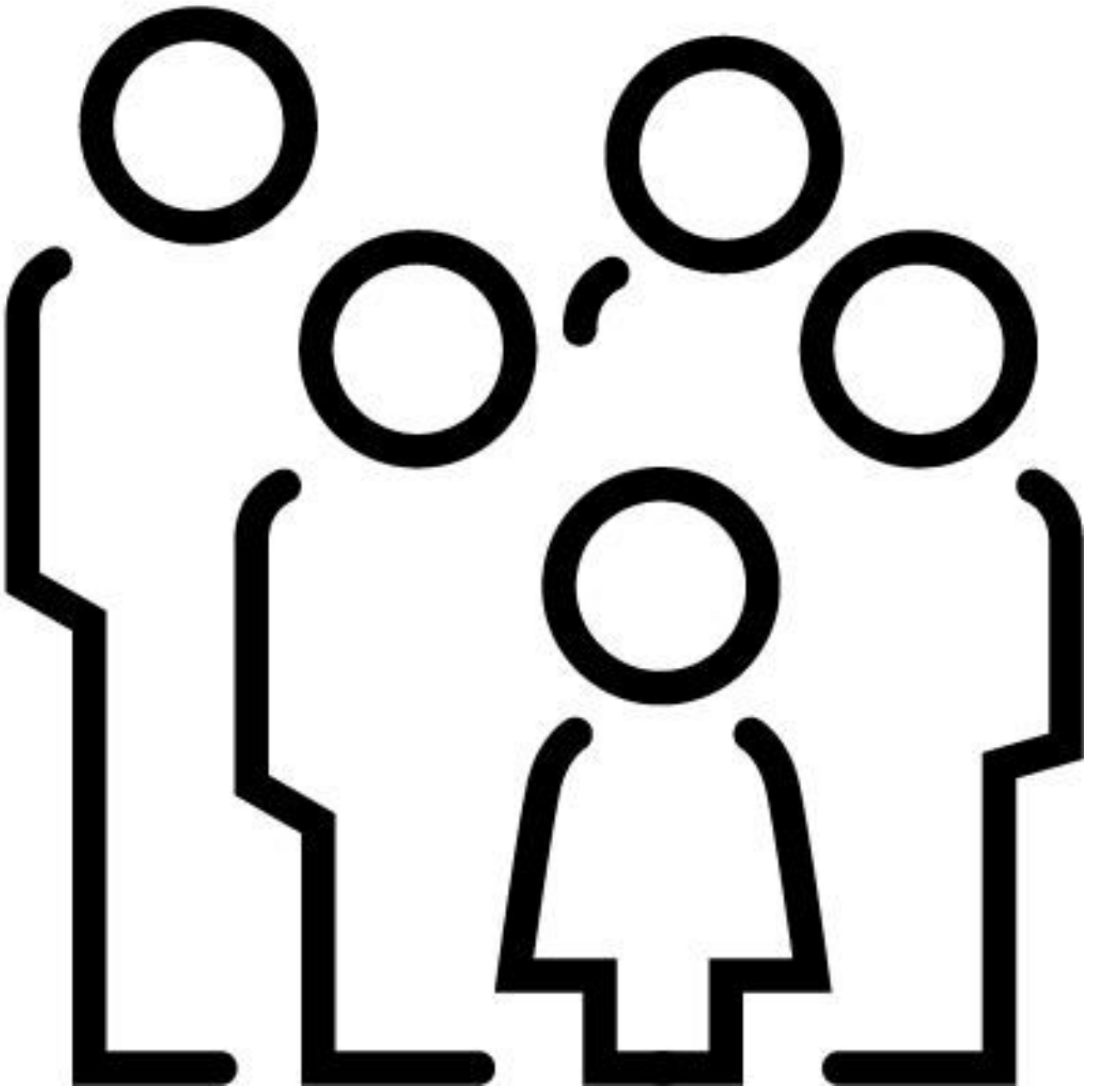
Wife



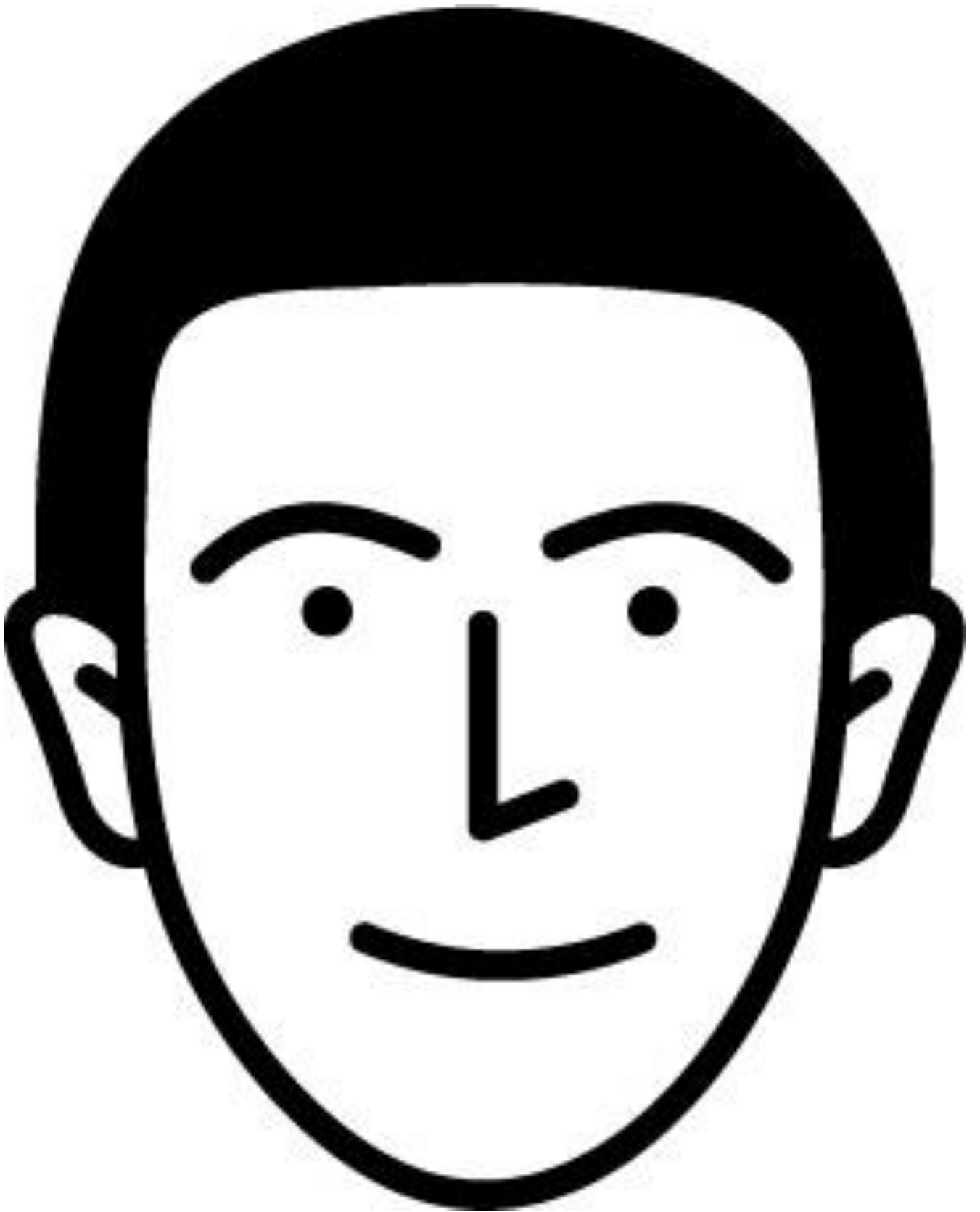
Elder man



Elder woman



Family group



Husband

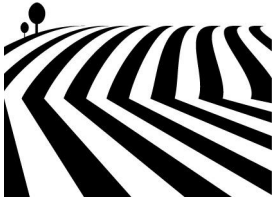


Wife

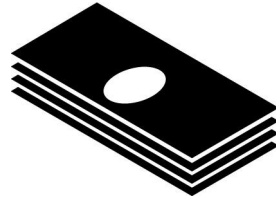
Session 7: Training Aids



Session 9: Training Aids



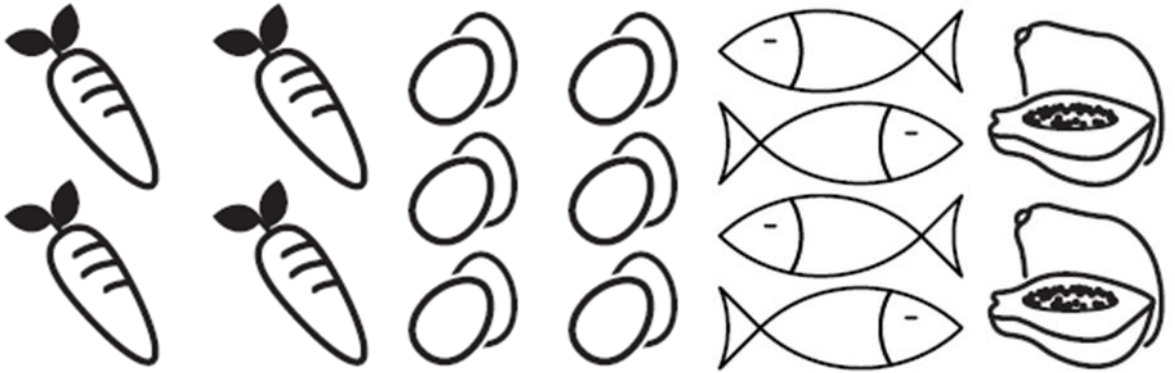
Grow/raise

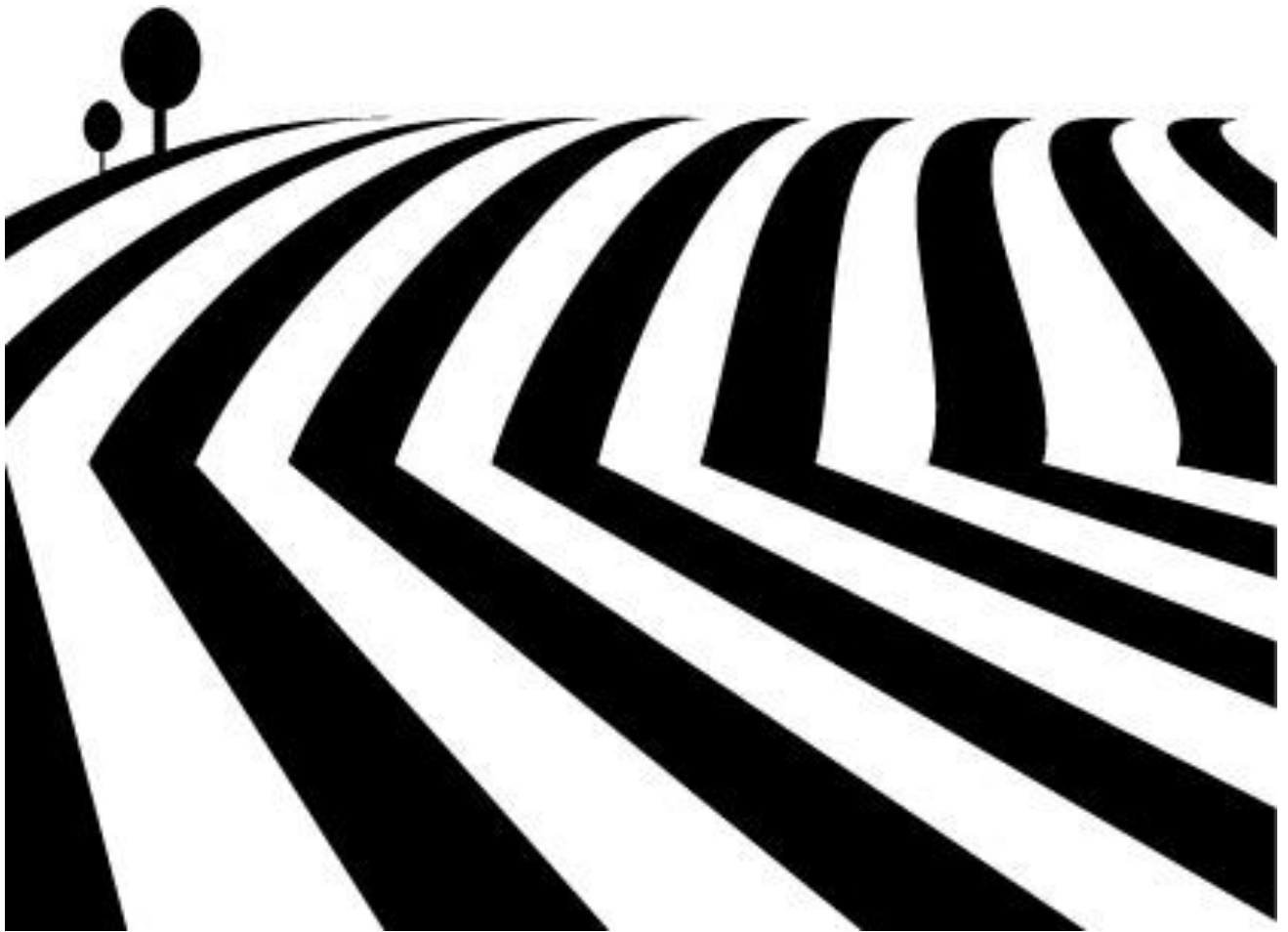


Sell/buy



Harvest/process/store

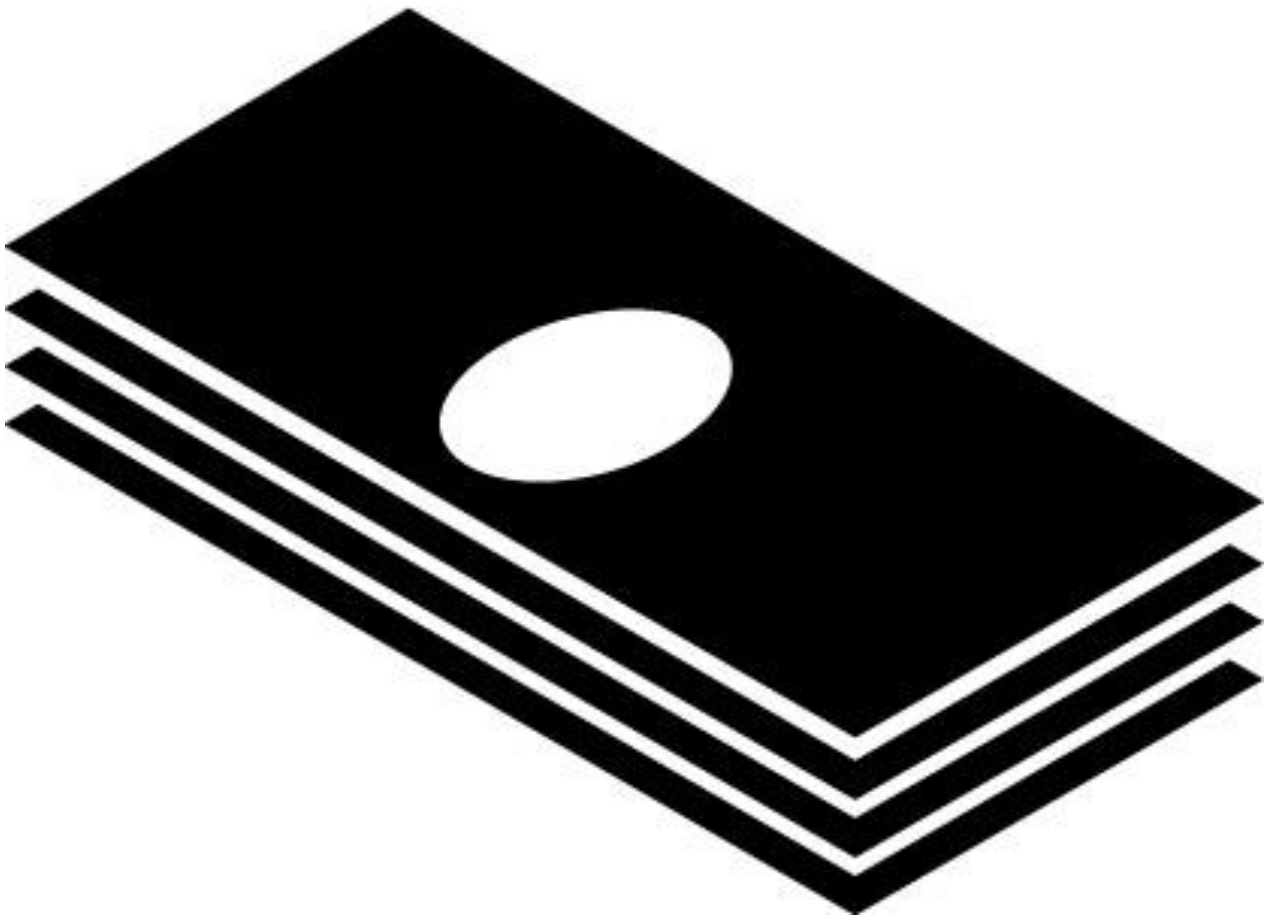




Grow/raise



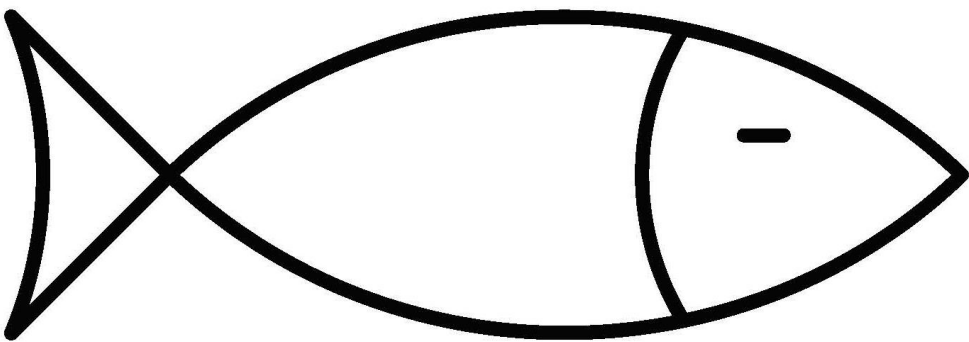
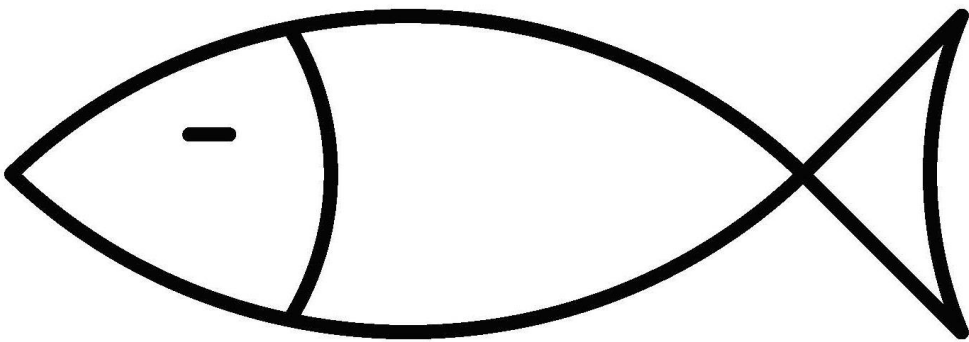
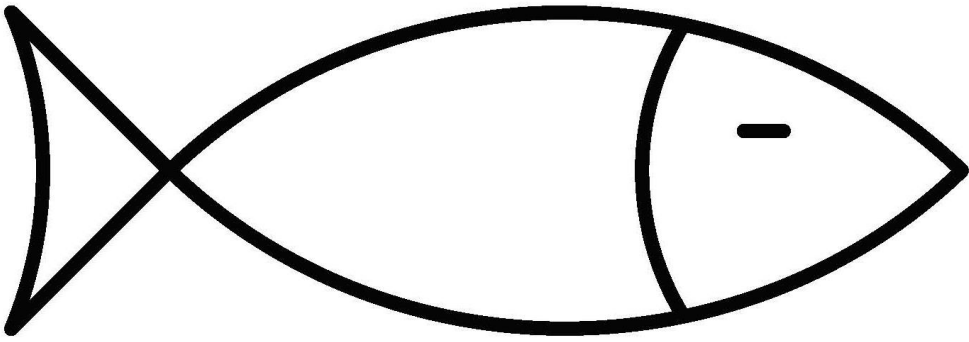
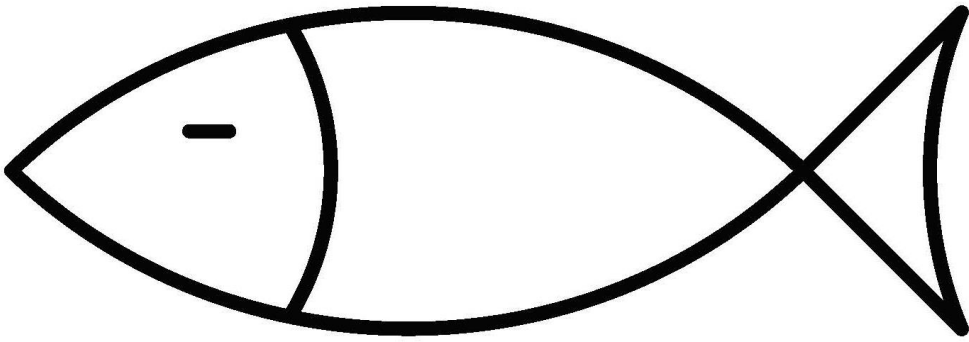
Harvest/process/store

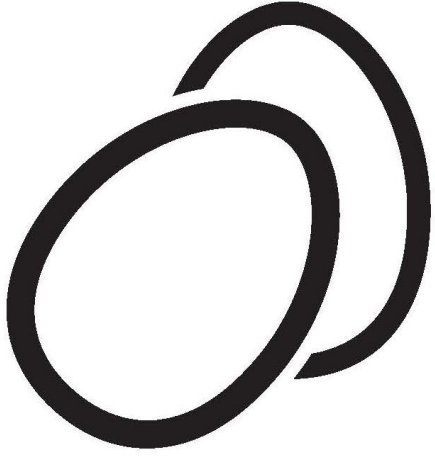
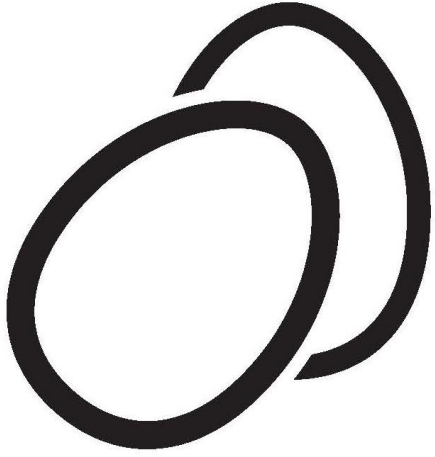
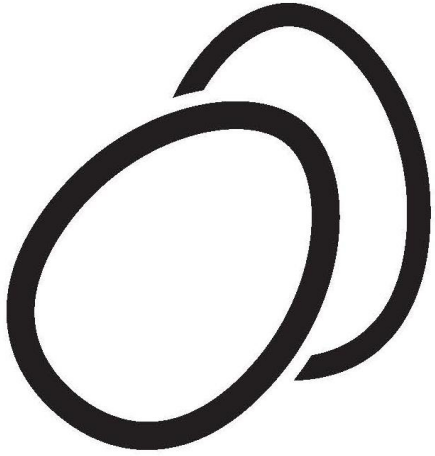


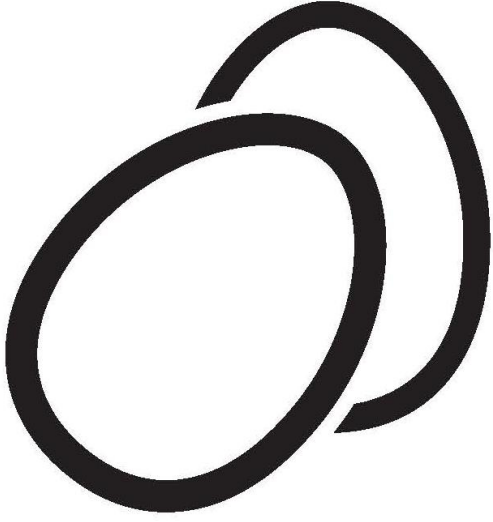
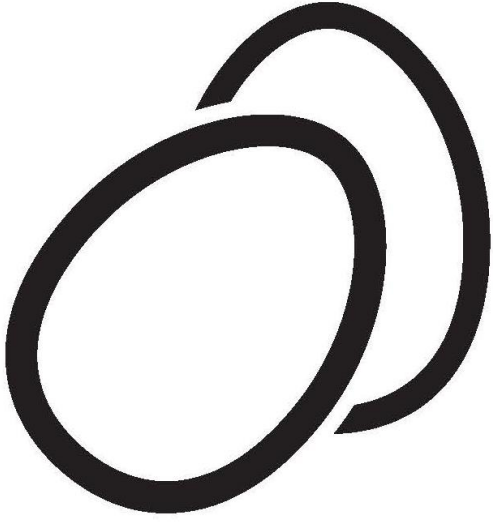
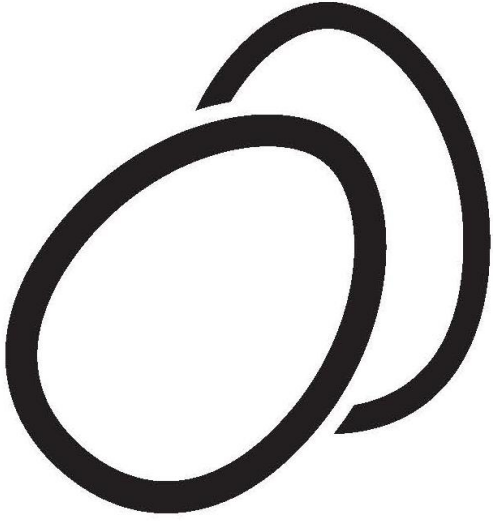
Sell/buy

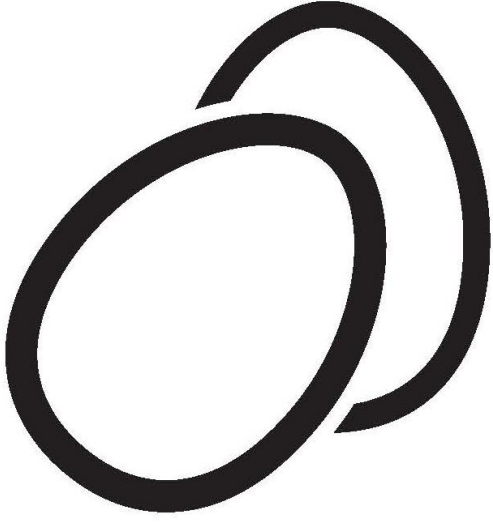
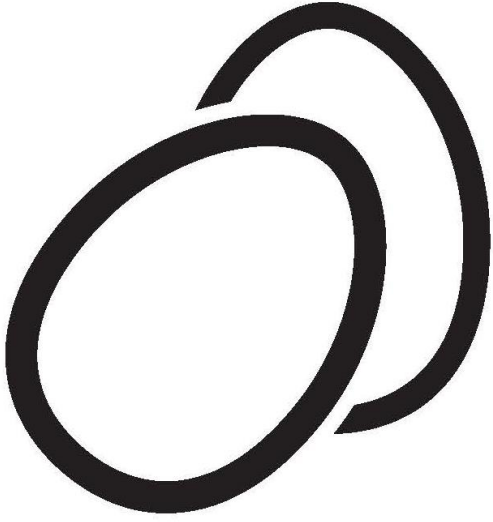
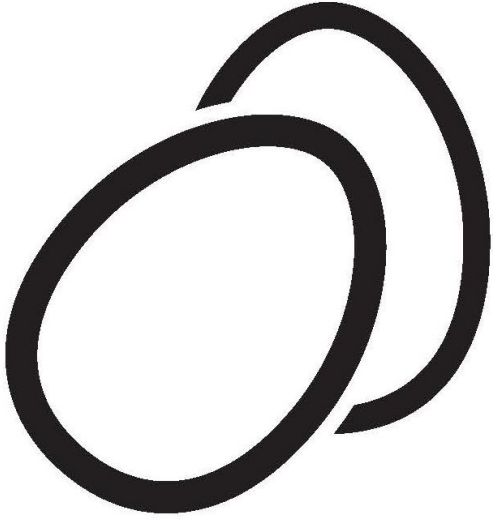


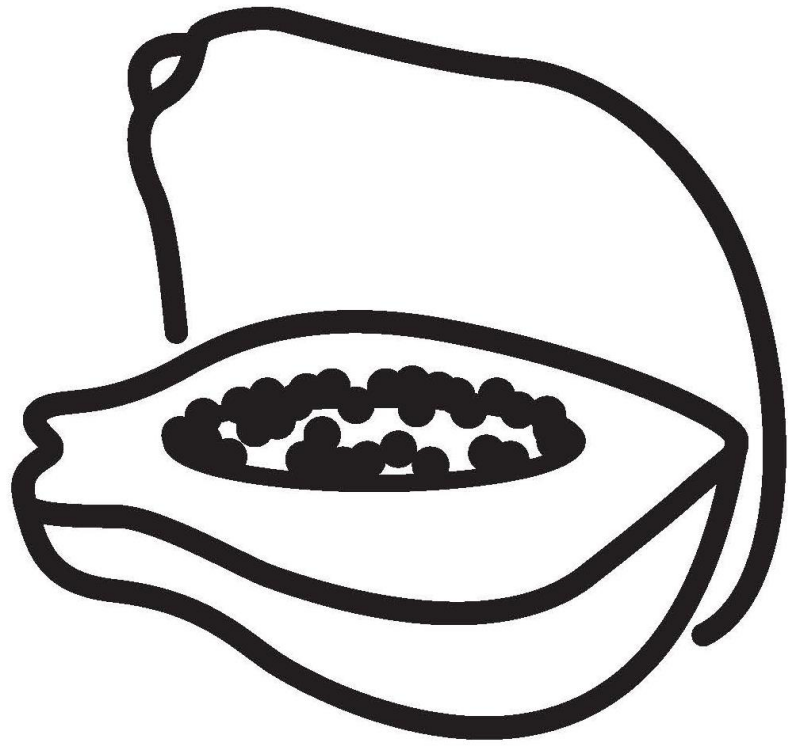
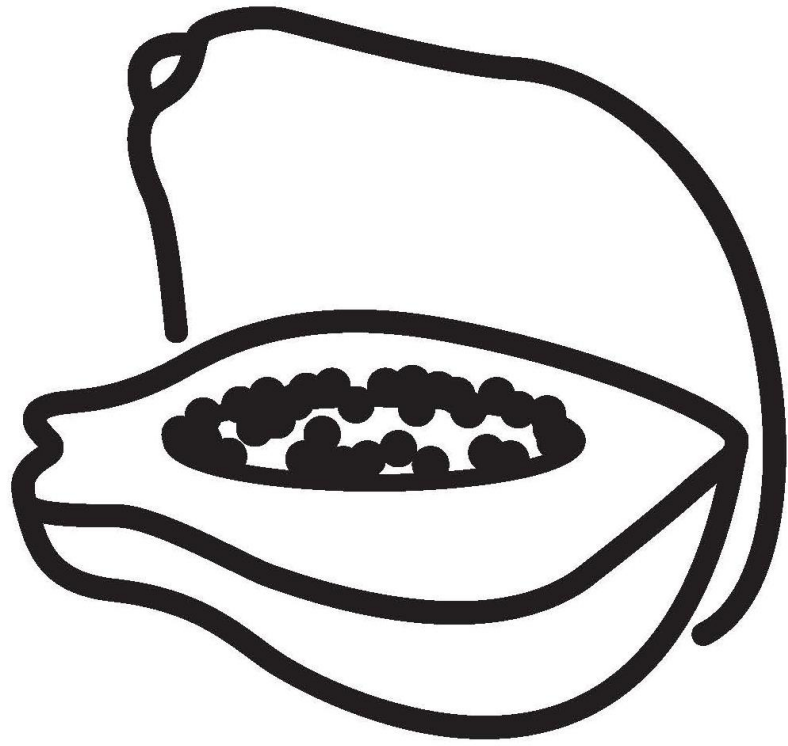


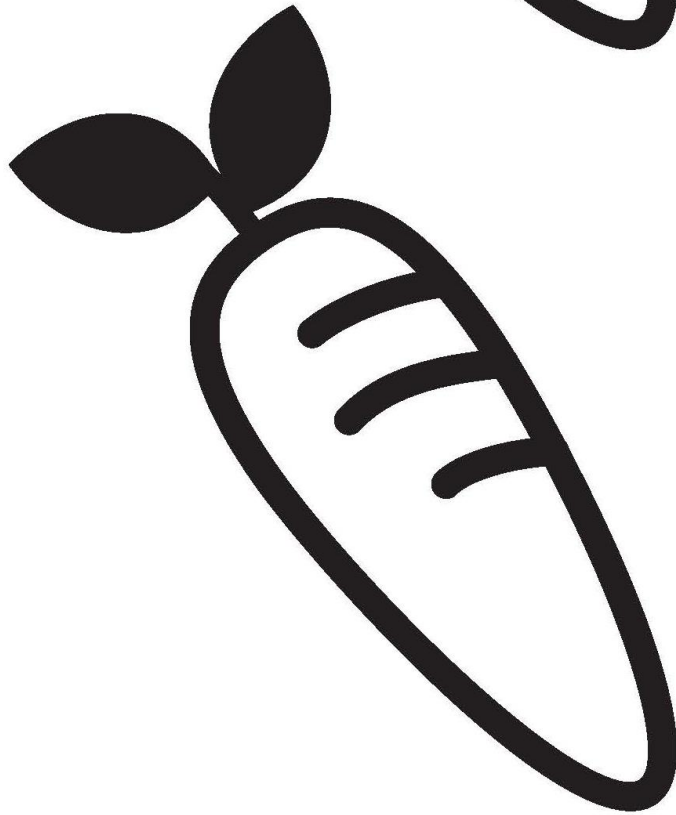
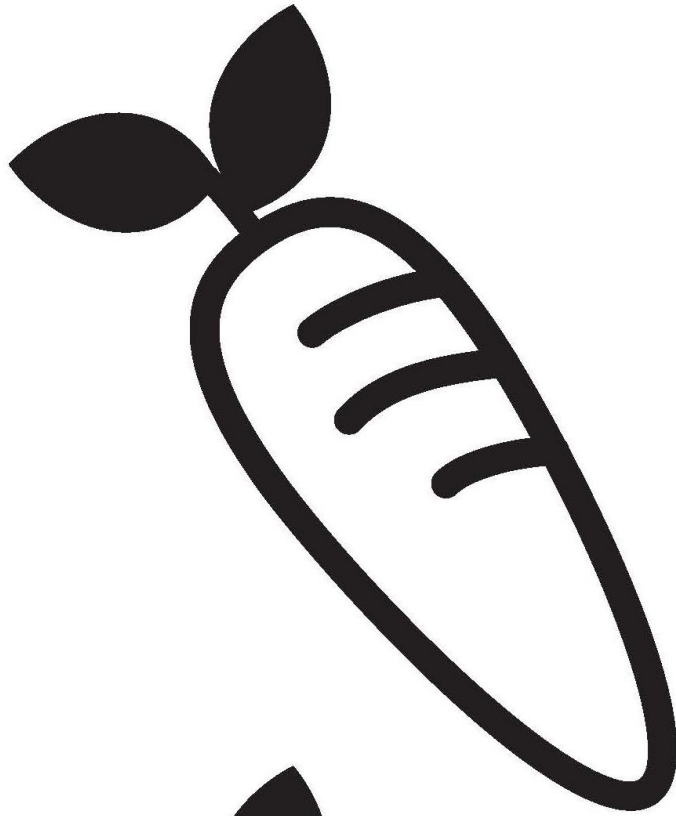


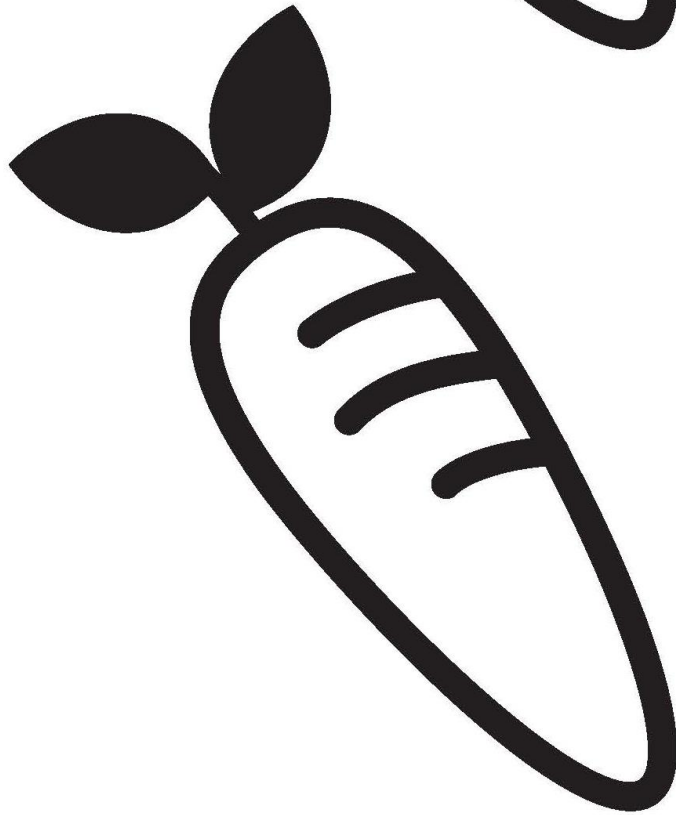
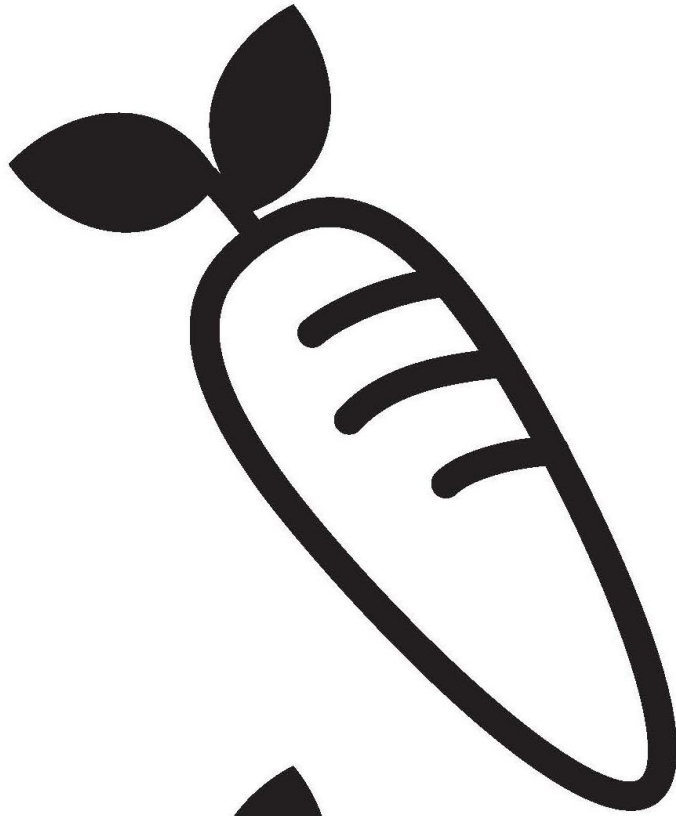


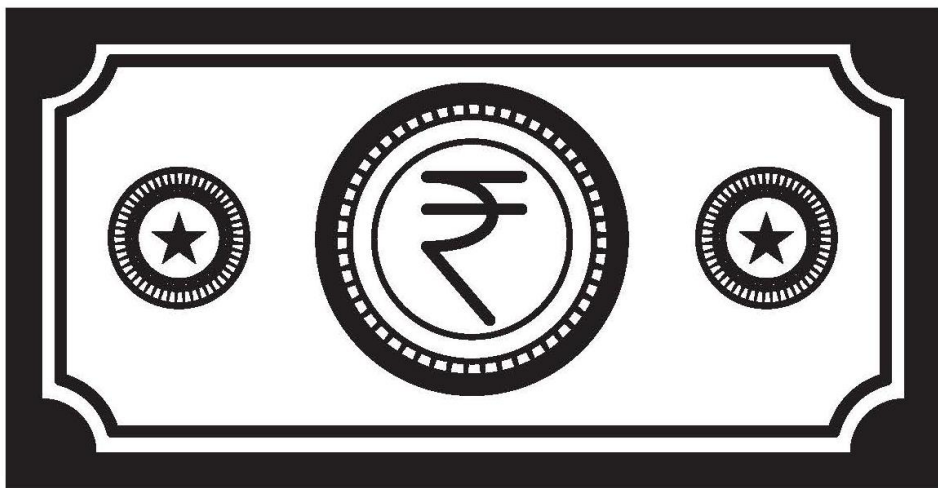
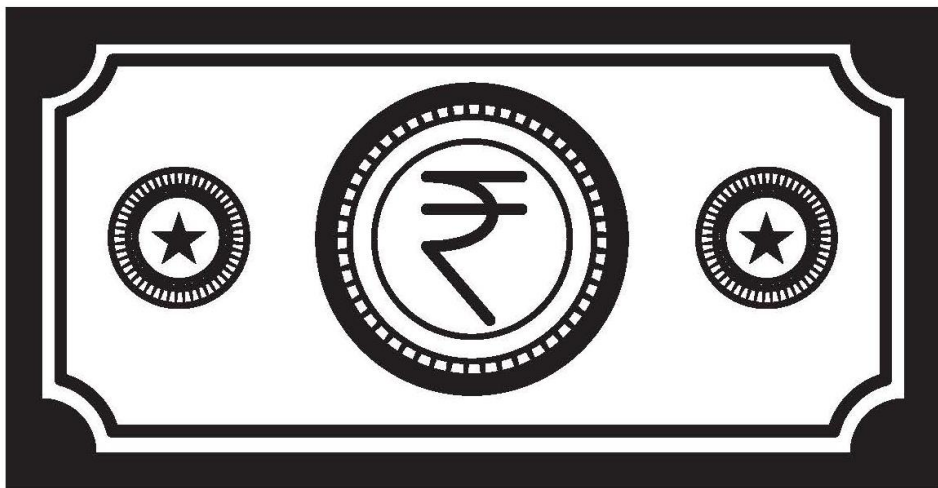
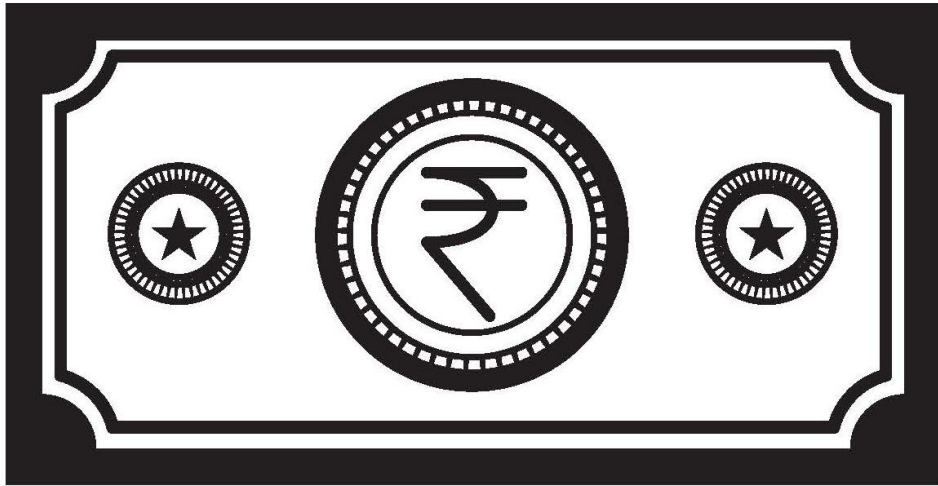


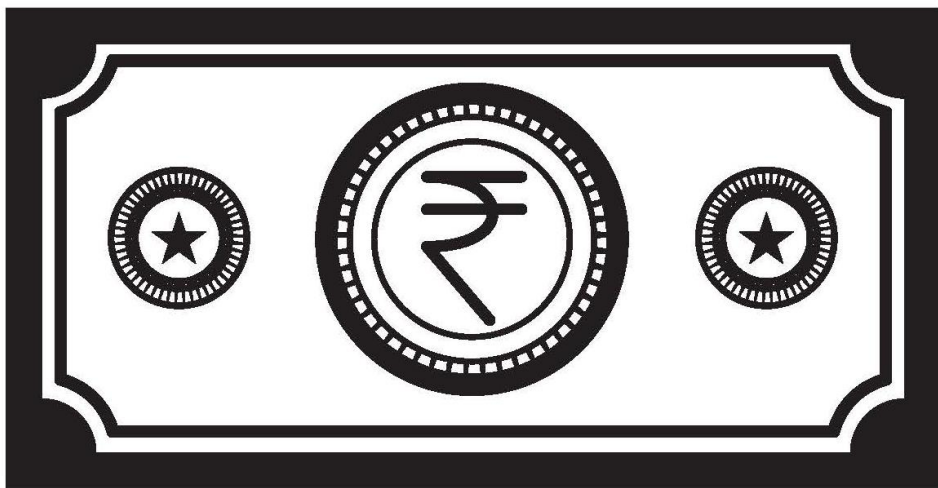
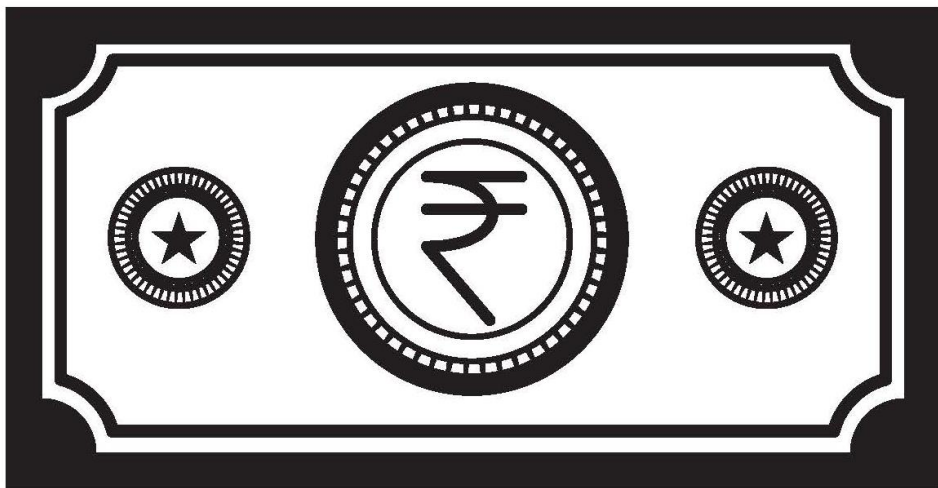
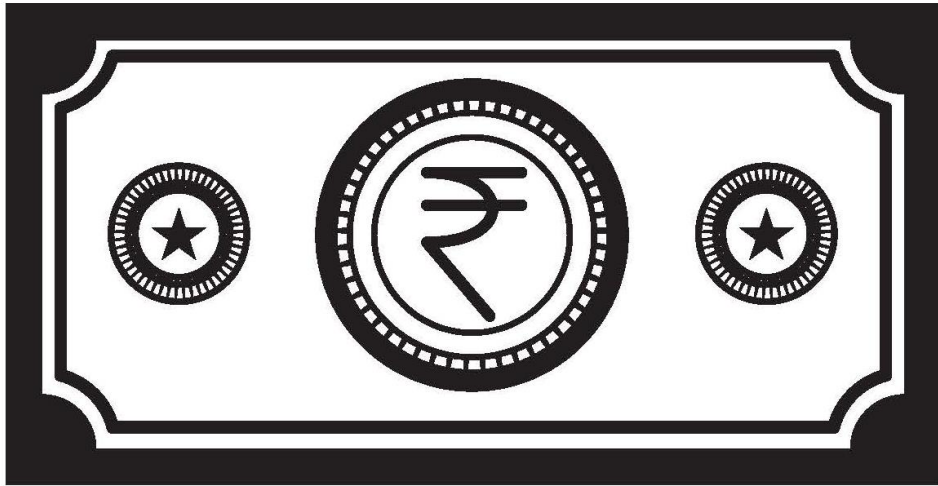


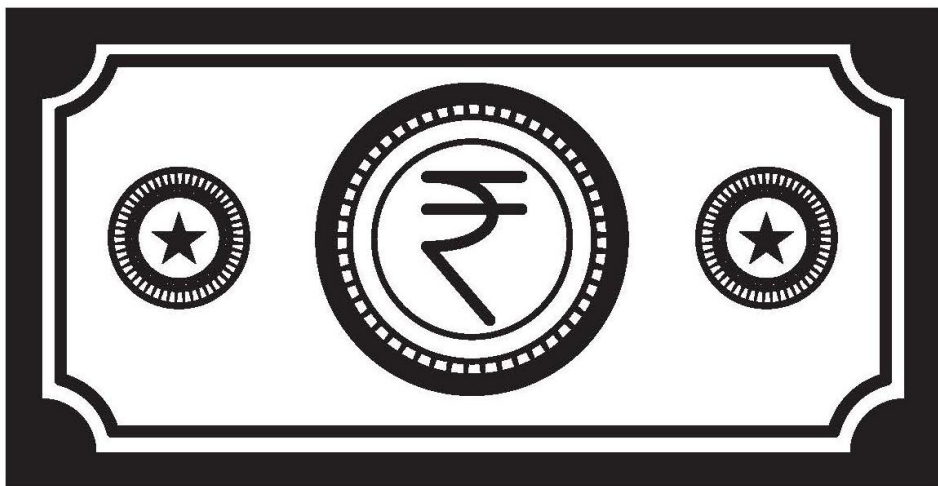
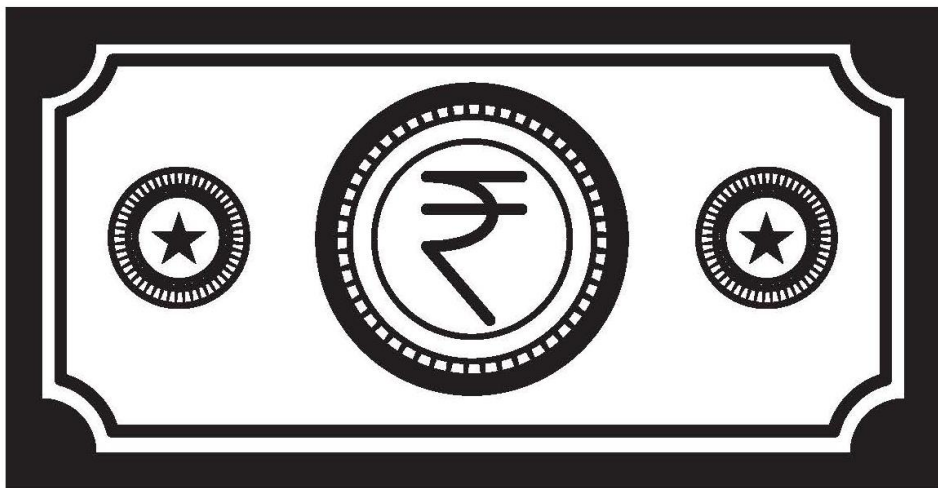
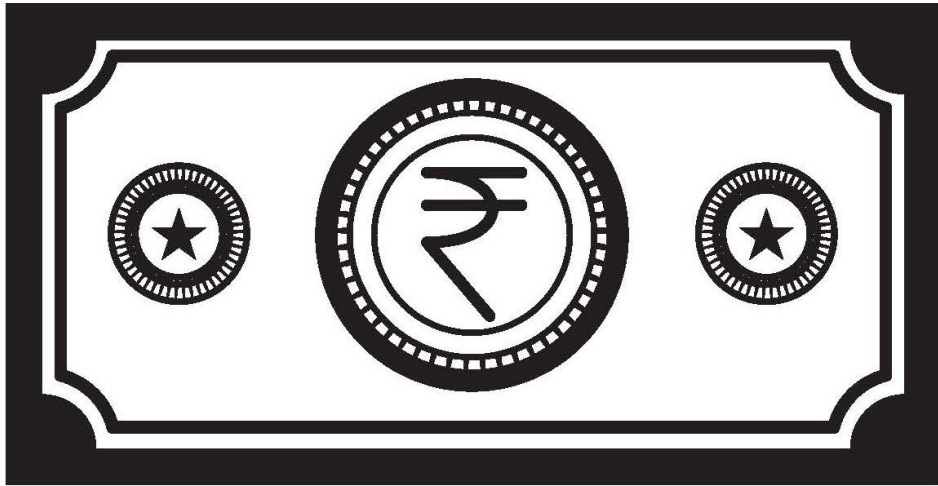


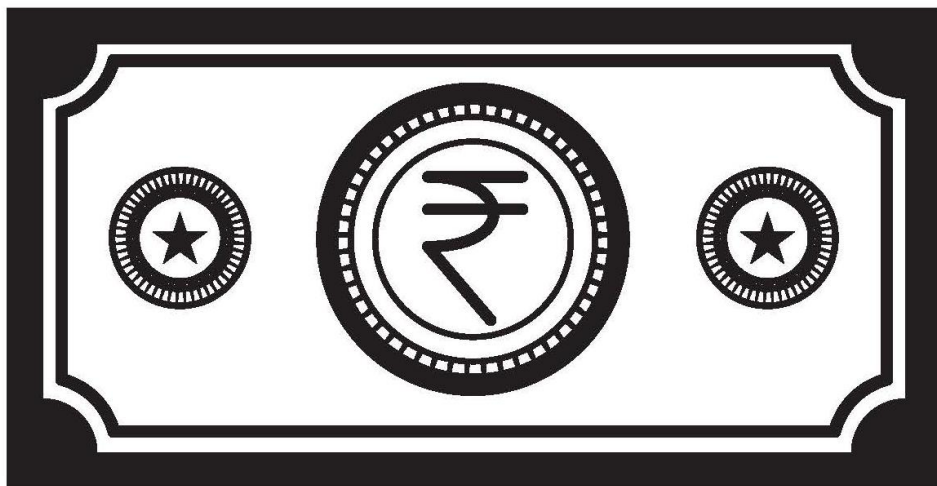
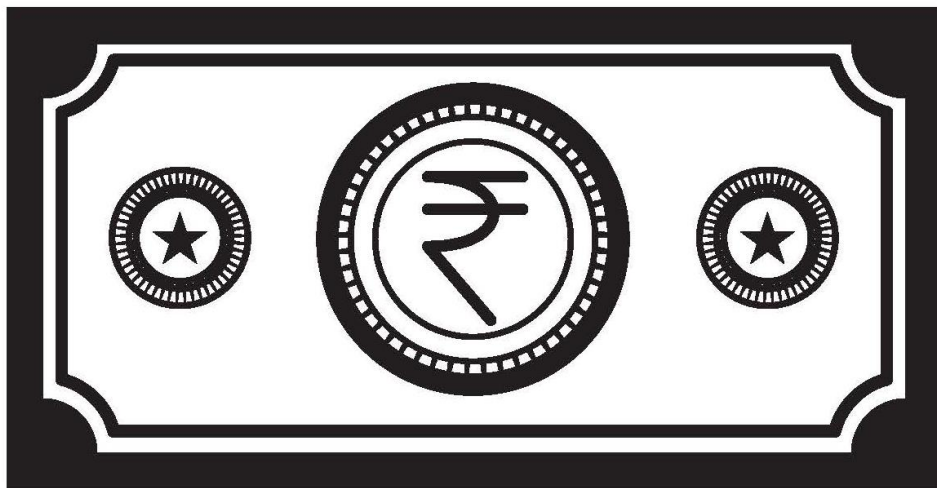
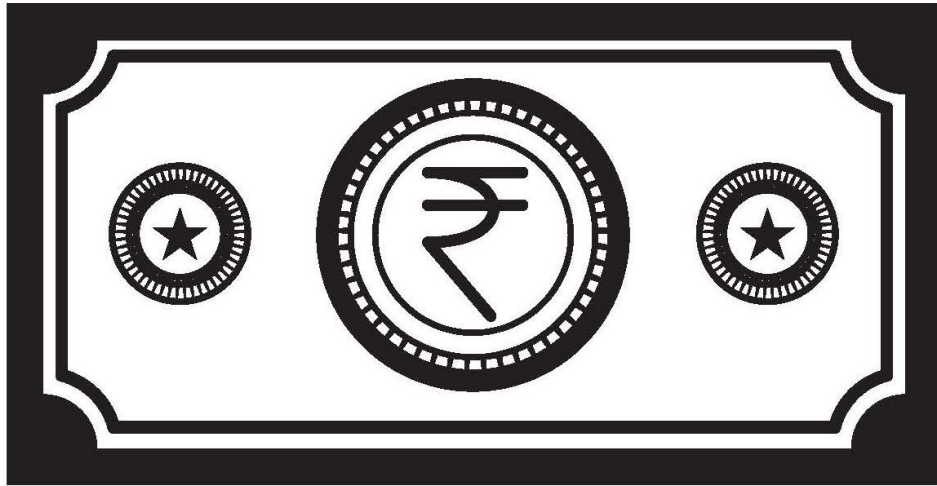


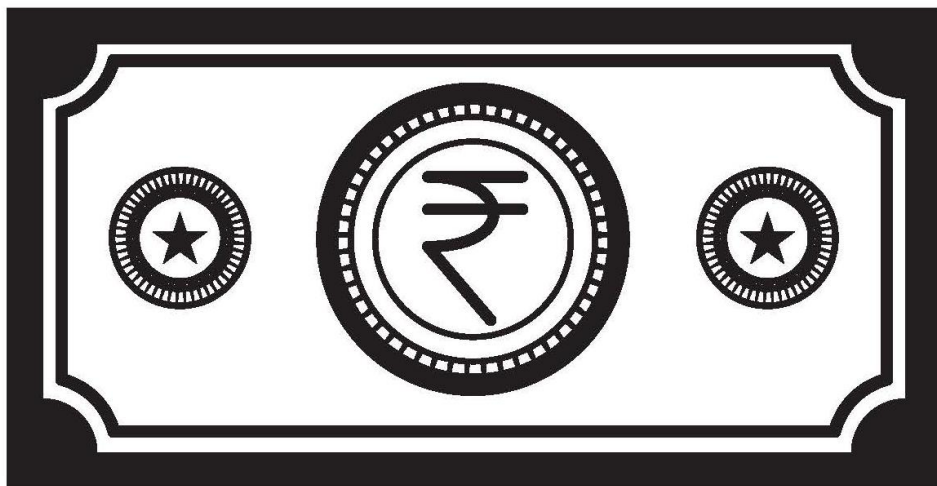
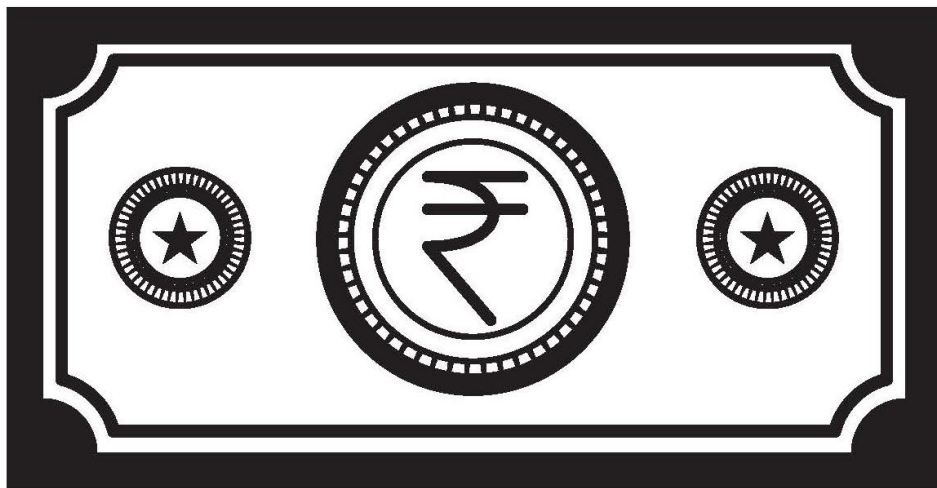
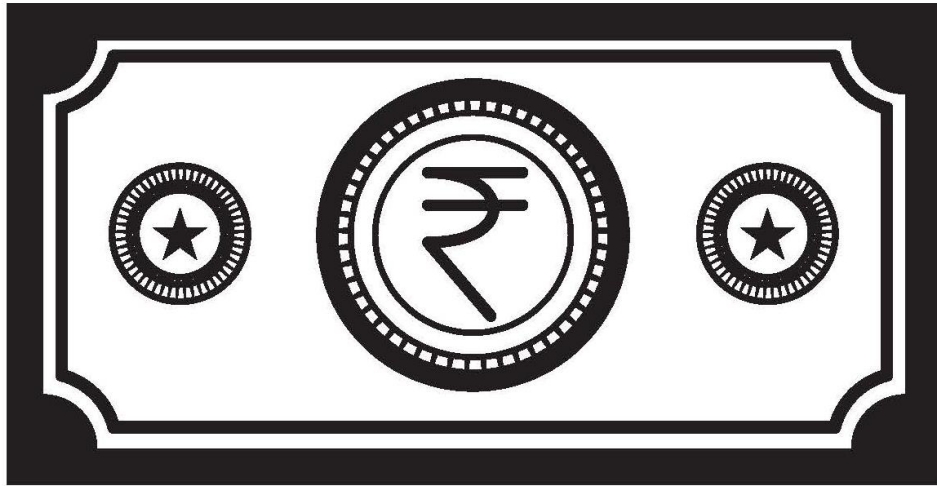




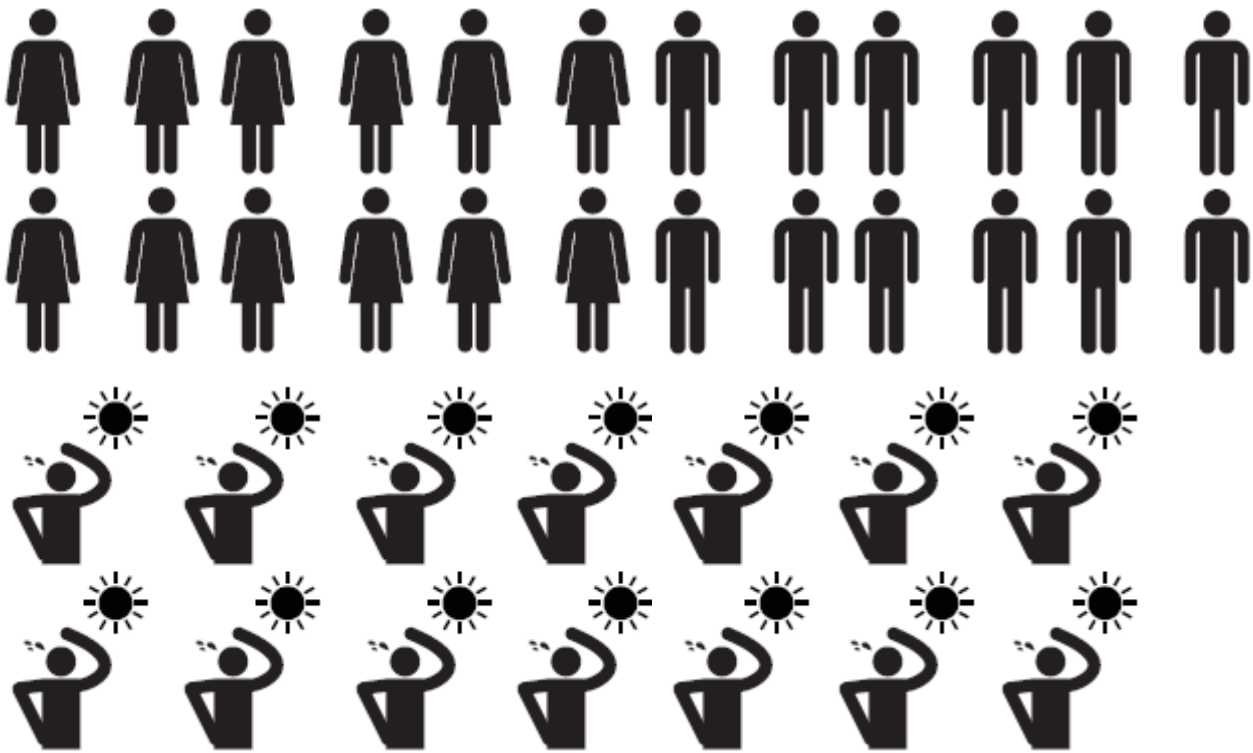


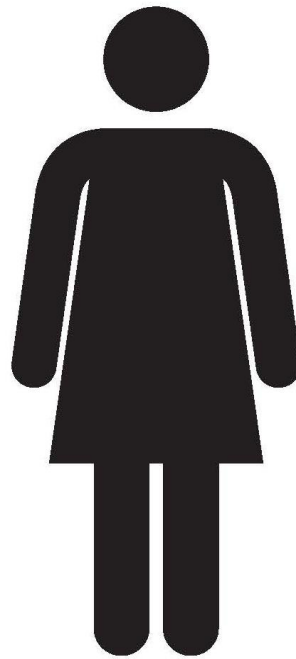
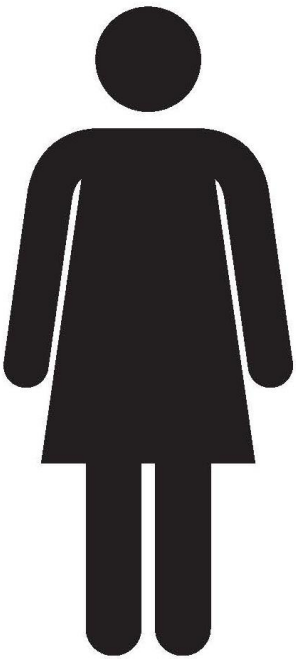
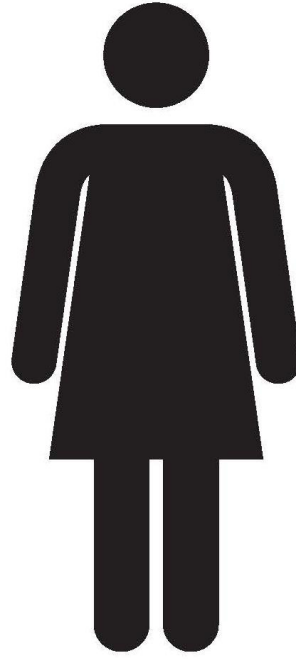
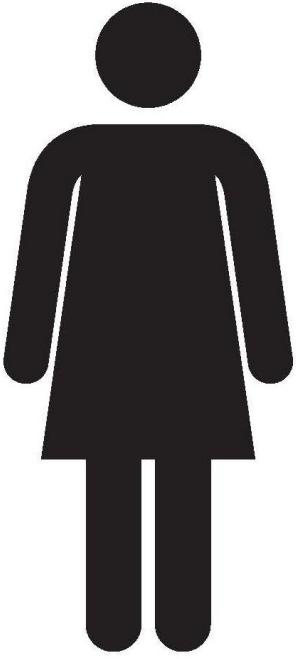


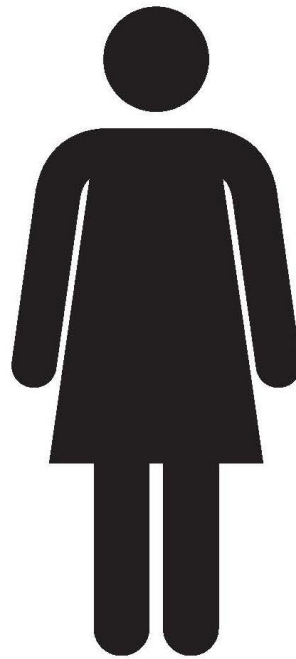
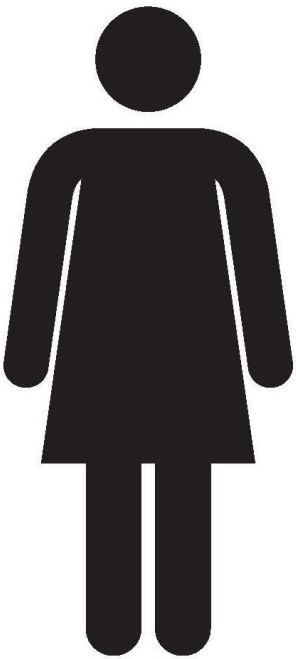
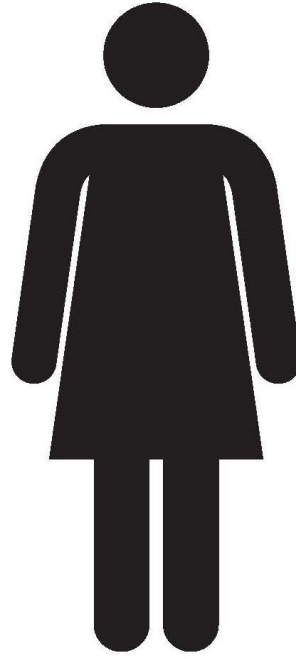
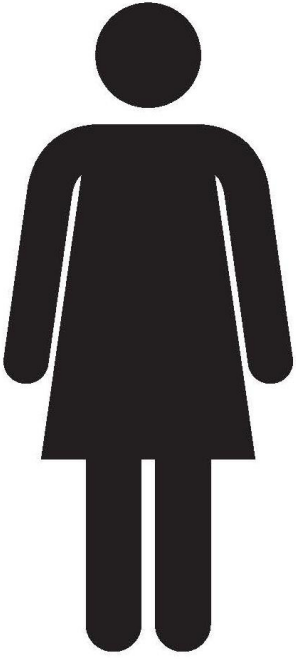


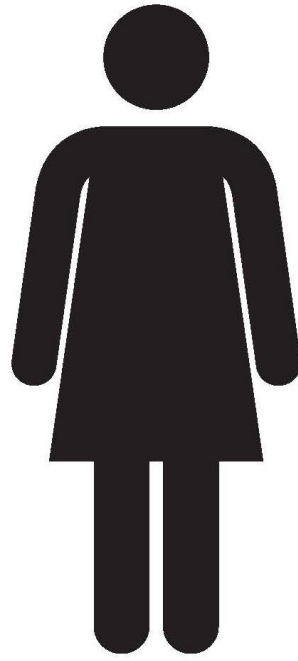
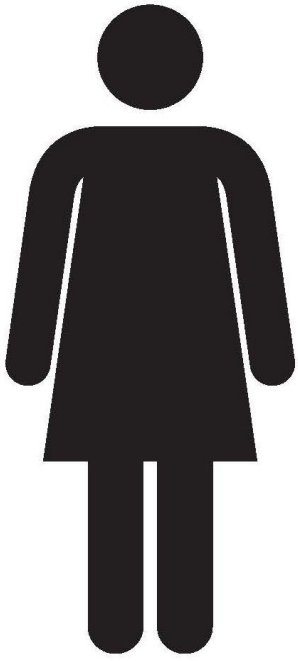
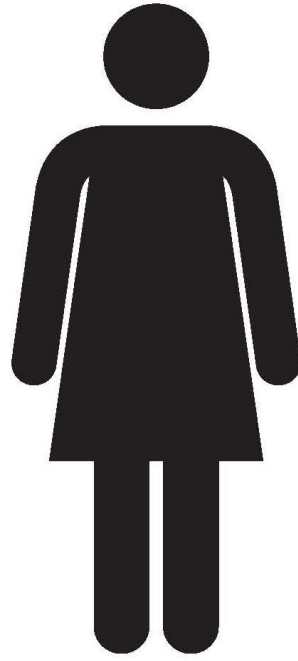
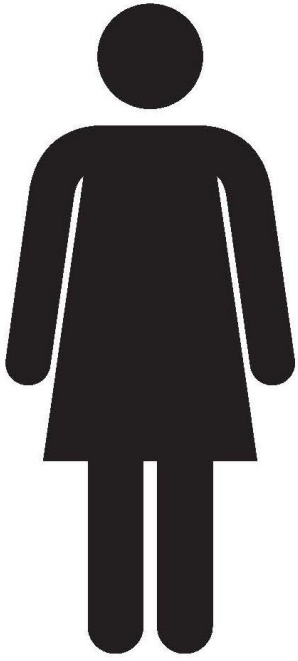


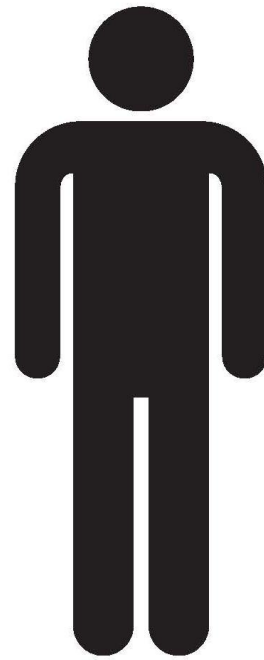
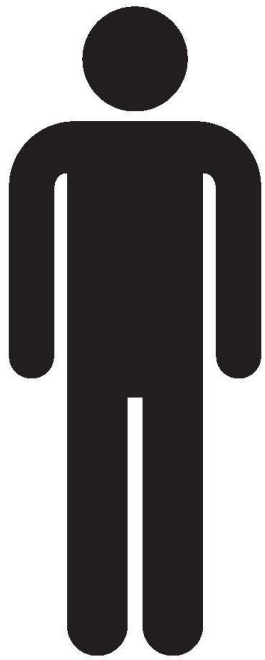
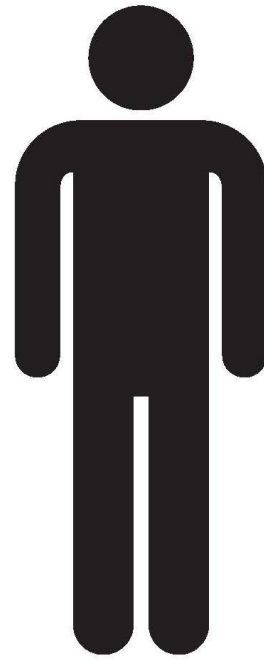
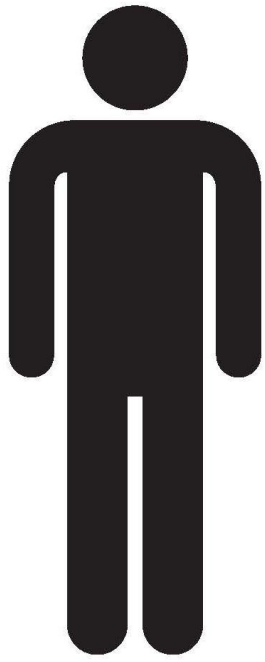
Session 11: Training Aids

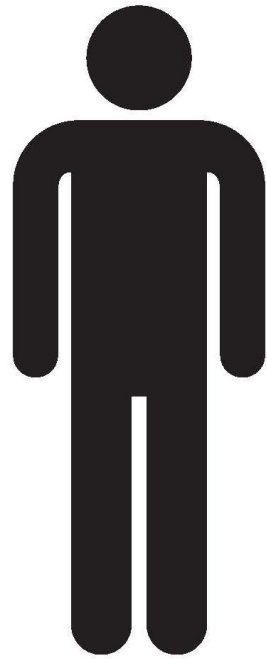
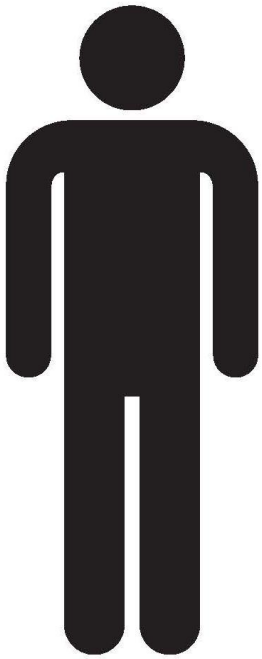
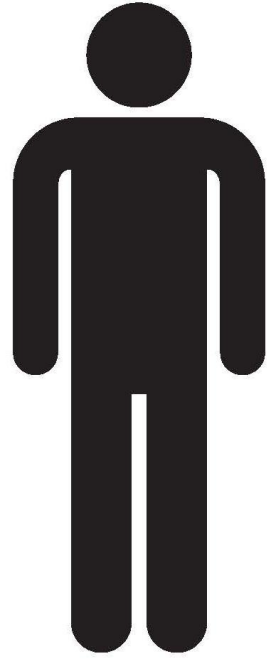
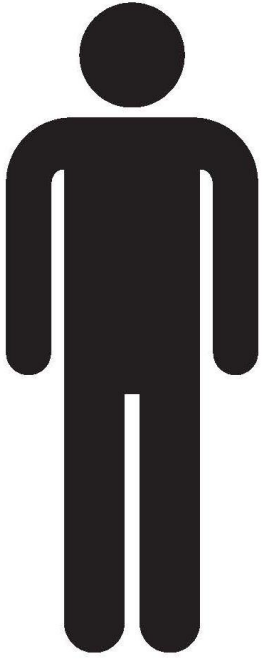


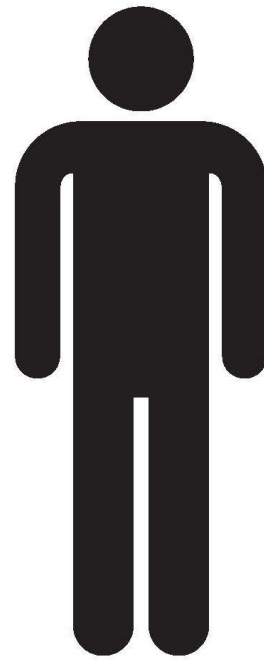
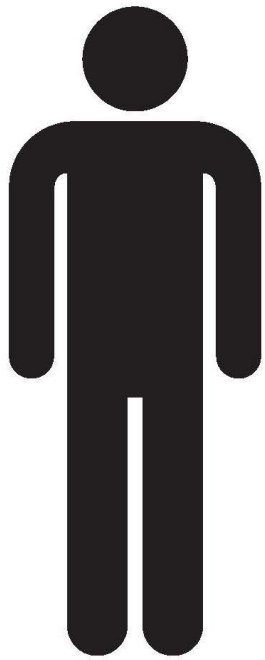
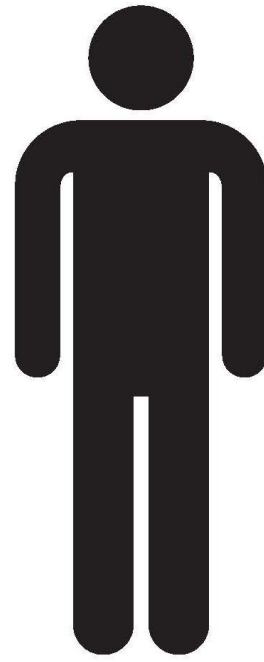
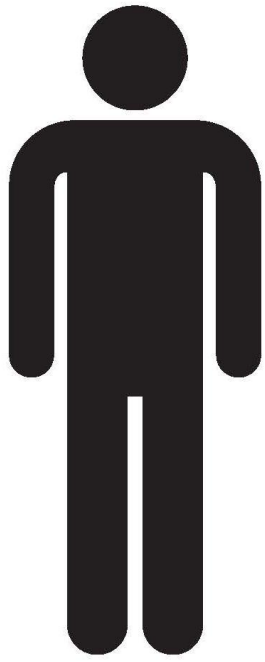




























Land preparation



Nursery preparation



Planting



Uprooting of seedlings



Transplanting



Transplanting



Weeding



Harvesting



Carrying paddy



Threshing



Winnowing



Drying



Storing



Milling



Marketing

Session 13: Training Aids





Step 1: Site

Clear a corner of yard by the fence or near the edge of the farm, **not too close to the home or other buildings, in case pests or snakes are attracted to the pile.** It should be close to a water source and **easy to reach** when you throw in household waste, but out of the main traffic flow and **away from areas where small children play.** It should also be out of direct sunlight; a great location is under trees that provide shade and **may benefit from the nutrients generated by the pile.**



Step 2: Dig

It is best if this work is not done by pregnant or breastfeeding mothers, who should not do heavy work.

Dig the pit(s) 1 meter in height, 1 meter in width, and 1 meter in length, or a bit larger. Anything larger than 1.5 meters will make it difficult to manage/turn and will not provide adequate air circulation. Making more than one pit will **make it easier to turn the compost.**



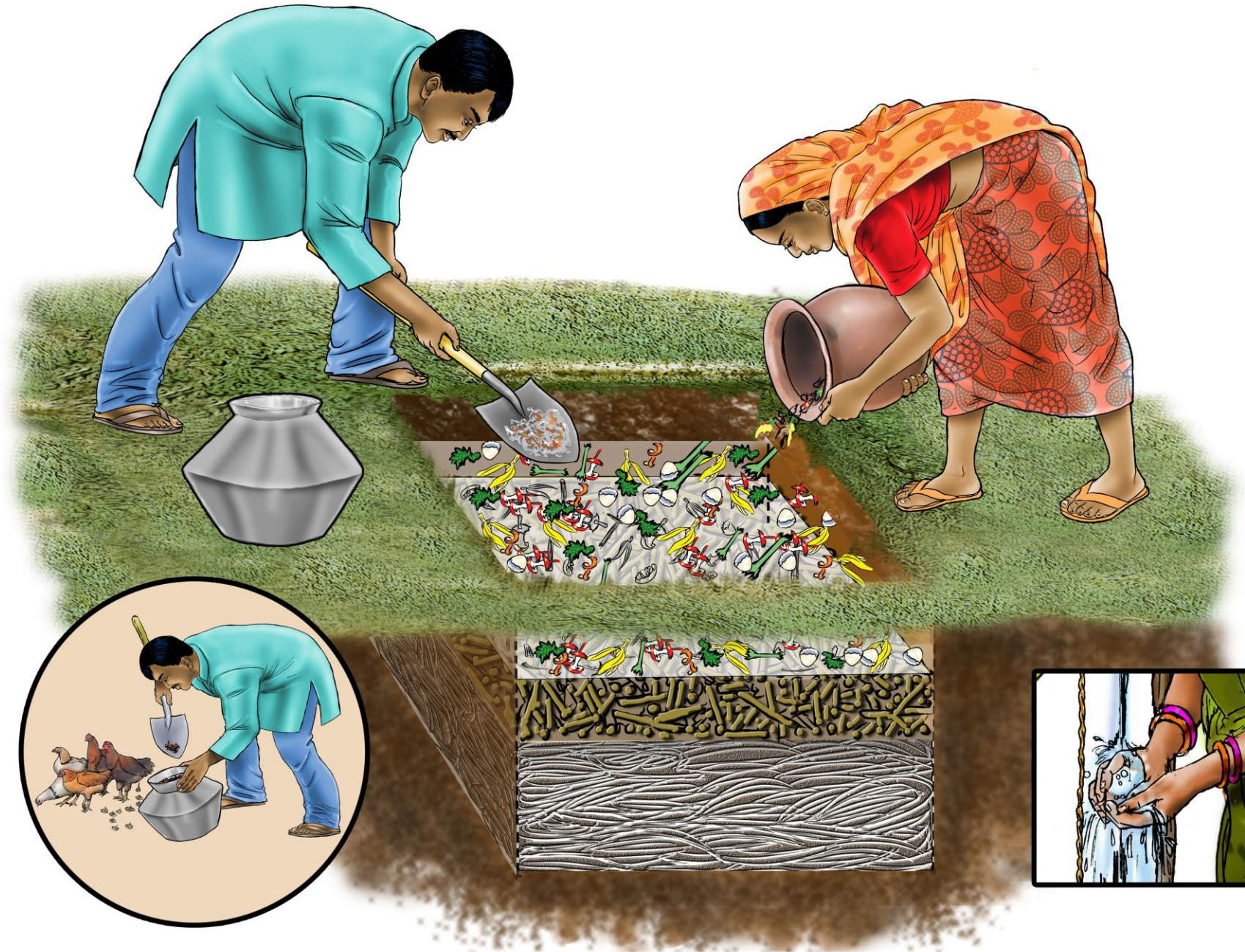
Step 3: Base

Make a 30 centimeter high base of coarse plant material—such as twigs, sticks, or straw—to ensure good air circulation and drainage.



Step 4: Brown

Add a 10 centimeter layer of dry *brown organic matter* that does not easily decompose—for example, maize stalks; fallen leaves, bark, twigs, and branches; sawdust; wood chips; and materials like shredded cardboard and paper. This brown matter doesn't usually have a smell and it may help manage smells. Always put a little on top of any "green" food scraps. ***Do not use plants treated with pesticides, diseased plants, or plants with seeds (e.g., weeds), which will grow in the pile.***



Step 5: Green

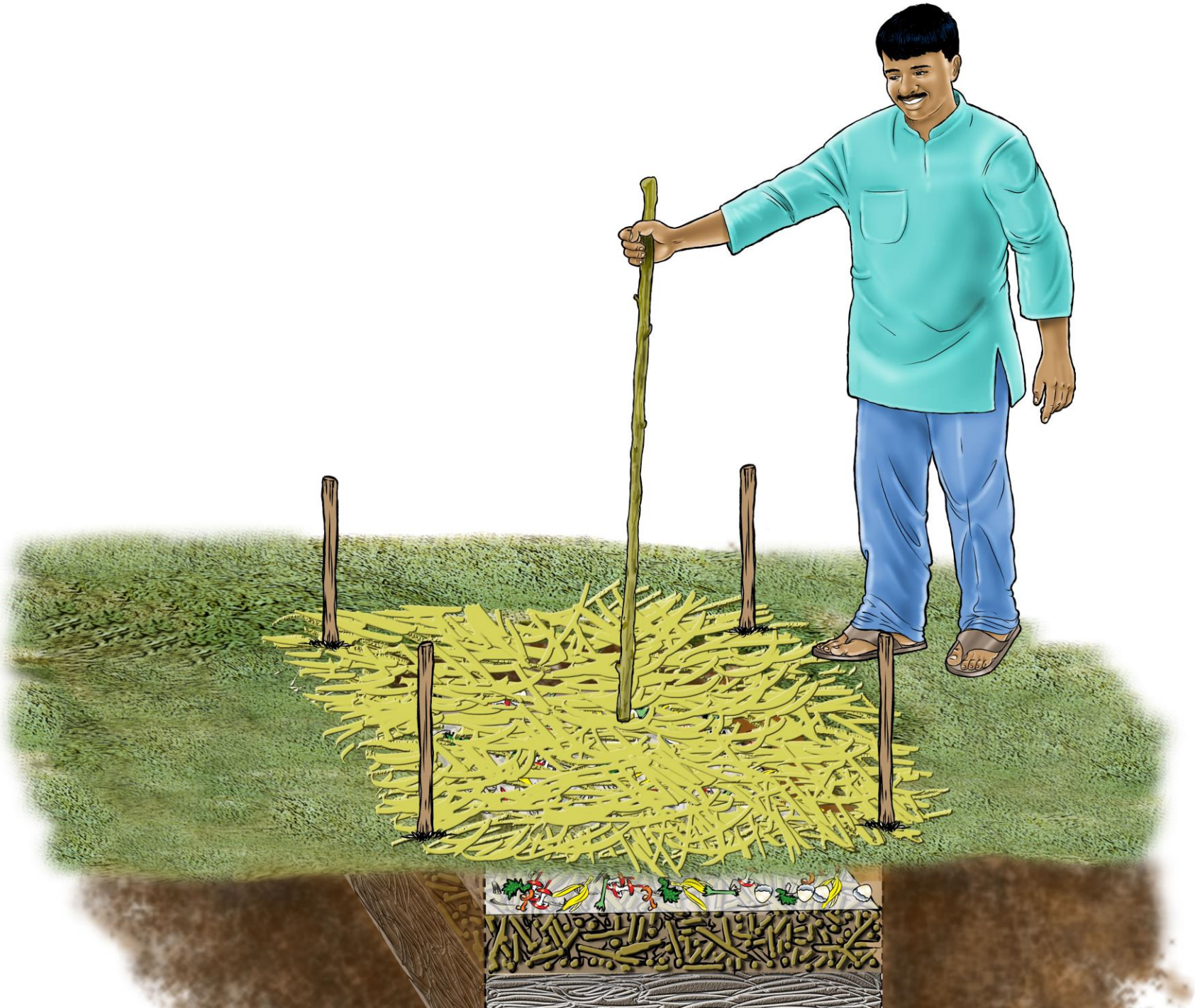
Add a 10 centimeter layer of fresh, moist *green organic matter* that decomposes—for example, small pieces of grass, vegetable scraps, coffee grounds, eggshells, fruits, and kitchen waste. This adds nitrogen, which gives off protein and heats the pile. Generally, these materials can cause a bad smell, especially if not managed properly. Add a small layer of brown to the top to help manage smells, but usually add no more than one layer of brown, then add green at once. ***Do not discard meat and dairy products in the compost, including meat and fish bones, carnivorous animal manure, or oils and grease; they may attract animals, rodents, and other pests.***

One “green” you can use is manure, if you manage it safely. Sometimes we think we should skip a step and let animals or humans defecate in the fields. But, if handled properly, feces from grass, grain, and hay eaters—cows, rabbits, and chickens, etc.—provide an excellent source of nitrogen to the compost pile. Dry all feces before handling, if possible. When collecting or managing manure, household members should **use a shovel or other tool, not touch it with their hands, and then wash up carefully, to prevent bringing these materials into the home. To avoid being exposed to pathogens, pregnant or breastfeeding mothers should not do this work.**



Step 6: Moisten

You can add a sprinkling of finished compost, healthy topsoil, or ash on the top of your pile. Then, moisten the pile with a bit of urine and some water to aid in composition. Cover the pile with grass or straw to keep it moist, but protected.



Step 7: Decompose

Wait for the pile to settle. After about 10 days, put a large pointed stick into the middle of the pile. After a few days, if the stick is—

- a) Too hot to touch: Turn the pile (a very hot pile—the inside of the pile could be over 70 degrees Celsius—may kill the good small organisms, so you need to turn it, which lets air in; you can add a small amount of water to cool it).

To turn the pile—

- take a shovel or hoe and move the materials
- then rebuild, with a bottom layer first, adding the existing pile back on top
- be sure to move items from the outside to the center so they can decompose, and let in air.

- b) Warm: Keep the pile as is, as it may be starting to decompose.

- c) Cool: You can still see whole pieces of original materials or if the pile is not smaller, **it needs to decompose more to become safe compost**. To help it decompose more, add water, turn the pile, and add more fresh, moist, green organic matter. Check again in several days.

Until the compost is ready, check the temperature every 10–15 days. When you check the temperature, also turn/rebuild the pile, as above. You will turn/rebuild the pile at least 2 or 3 times before it is ready.

Layering and regularly turning the material may make the compost ready in one to two months, otherwise it can take up to four months. **Remember: pregnant or breastfeeding mothers should not turn the pile, which is heavy work.**



Step 8: Use safely when ready

Compost is ready to use when it has an earthlike brown substance; is crumbly, clean-smelling, and cool; and is about half its original size. Only use the middle of the pile. Add the part of the pile to the bottom of your next pile. **Pregnant or breastfeeding mothers should do not do this heavy work or carry compost.**

SPRING

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