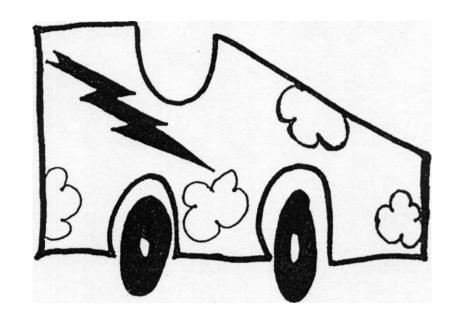
# Tapping the Community: Expanding Career Opportunities for Young Women

**GETT Camp & Role Modeling Manual** 



**GETT: Girls Exploring Trades & Technology** 

**Kootenay WITT** 

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In 1995, Kootenay WITT initiated a two part project in the West Kootenays: first providing women in trades, technology and science occupations as role models to local schools, and then running three Girls Exploring Trades & Technology Camps (GETT) at Selkirk College in Nelson.

Many links were made between role models and teachers, WITT women and employers, and the local college and WITT group. Students throughout our region have more information on women in under-represented occupations: women who work as carpenters, heavy equipment operators, painters, foresters, ambulance attendants, horticulturalists, surveyors, mechanics, electricians, engineers, back-country rangers, welders and more. And at this very moment, there are 32 girls in flashy go-karts wheeling around small and large communities across the West Kootenays ...



#### **Acknowledgements:**

Our sincere thanks to Maggie McDonald who ran the first GETT Camp at Fanshawe College, and to Valerie Overend at Saskatchewan Institute of Applied Science & Technology for her continued efforts and promotion of the Camps. We are also thankful for the many women role models working in GETT Camps and in classrooms, and to the educators, community groups and businesses who work with us on our projects.

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#### **KOOTENAY WITT**

Kootenay WITT is an non-profit organization which supports, advocates and educates to increase women in trades, technology, operations and blue collar work. Working since 1983, and incorporated in 1988, Kootenay WITT has produced:

- What Happens to Women in Tradesland (video)
- Workplace in Transition: Integrating Women Effectively (seminar)
- The Conference on Women in Trades & Technology at Naramata (1992 Conference)
- Surviving & Thriving: Women in Trades & Technology and Employment Equity (a book of Conference workshops & presentations)
- Worked with the West Kootenay Women's Association in producing *Options Unlimited:*A Role Modelling and Teacher Training Guide

Kootenay WITT also sponsored the development of the WITT National Network.

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#### Introduction

This manual describes how to organize two projects designed to increase girls' interest in trades and technological occupations. Both of these projects identify the need for girls to be more aware of the variety of occupations open to them, and both use role modelling to address this need.

#### 1. Role Models into Schools

The first project is to bring women in trades, technical and scientific occupations into local classrooms. Through this activity, students broaden their ideas about career goals, and teachers have the opportunity to talk to students about equity issues relating to training and jobs.

#### 2. GETT Camps

The second project is a Girls Exploring Trades & Technology (GETT) Camp. Girls learn skills in carpentry, auto mechanics, drafting and more to build go-karts... and race them! The five-day long sessions are held in the summer for girls in grades 6-8. This type of camp has been very successful in introducing girls to many skills and occupations in many parts of the country.

These projects may be run separately or together by WITT groups<sup>2</sup>, school boards, colleges or other women's or educational organizations. They can be successful in urban areas serving students in one school district or in rural areas such as the West Kootenays where many districts across our region participate.

Sponsorship of projects like these may begin with one group, but always includes the wider involvement of teachers, employers, parents, unions and government. The premise is that girls are an important and invaluable resource - and that the responsibility for girls' education is shared.

#### The goals of the projects are to:

- expand the career aspirations of young women, particularly into technical occupations and other fields where women are under-represented
- operate the projects in such a way as to integrate project activities into the ongoing curriculum of the schools, college systems and the activities of the community.

<sup>&#</sup>x27; GETT Camps were first run in 1989 at Fanshawe College in London Ontario by Maggie Mcdonald, and were further developed at the Saskatchewan Institute of Applied Science & Technology by Valerie Overend.

There are over 40 active WITT groups (women in trades, technology operations & blue collar work) across Canada, along with the umbrella WITT National Network, that all work to increase opportunities for women and girls.

#### The Need to Expand Career Ideas through Role Modelling

- Career opportunities for girls are perceived as limited by both girls and the society around them. Young women are socialized into a limited number of occupations, which are often low paying. Well paying and satisfying employment is something all girls must consider, as women are likely to be in the workforce for 30 to 50 years, often supporting children as single parents.
- Teachers and guidance counsellors generally come from a background which values university education over trades or technical training. Providing examples of trades and technical careers gives students a broader picture of the variety of occupations available, and of other paths such as apprenticeship and college.
- Students seeing women in trades and technical careers realize that both women and men work at these jobs, and that women and men work together on the job.
- Boys often have greater access to these occupations, as they are encouraged to engage in related hobbies and to take shop courses. Boys have role models outside of schools in that men are quite visible in these occupations, and within schools as most math, science and shop teachers are male.
- Girls do not have the same opportunities for the hands-on exploration of tool skills to inspire their interest and provide the confidence to enjoy high school shop courses. Girls still tend to drop math and do not take elective shop courses, further decreasing options open to them.

#### Role Modelling Works

Girls receive many double messages about what women can and cannot do - and many are about the world of work. Girls are told that women can be truck drivers or electricians or builders - but they do not see women in those positions. Using WITT women as role models changes that double message, and:

- provides real world examples of women doing interesting work
- allows girls to identify with and visualize becoming what they choose

## Community Involvement: Support & Funding

Role Modelling projects and GETT Camps have run for many years across Canada. Projects are favourably received by employers, government, educators, WITT women and media. When seeking funding and support for operating one or both projects, there are many places to turn.

As the message is both to increase awareness of trade and technical jobs and to promote girls' interest in these fields, both dollars and in-kind support of time and materials can be found by approaching:

- trade unions (local, provincial or national offices)
- local businesses who employ trades people
- service organizations who support youth & education
- Foundations which support equity and youth education
- provincial employers: utilities companies, forestry, mining resource based or secondary industry
- women's secretariats or ministries through both education and economic programming
- ministries of education: through college funding and/or through local boards of education
- Local school boards or Principals to sponsor individual girls
- parent groups or small businesses
- individuals

All financial and in-kind donations demonstrate strong support from the community, giving the girls and other funders the message that these are important projects.

#### **Funding** Requirements

Actual dollars needed to organize Role Models into Schools & GETT Camps are varied - depending upon who initiates the project, and who "hosts" it.

If a role modelling project is initiated by school boards or within a school, external funding requirements may be limited to requests for employers to pay women time and travel to attend classroom activities, and for the cost of purchasing role modelling kits.

For GETT Camps, monies required depend upon whether the project is initiated *within* a community college, and/or the support that college is willing to provide. For example, staff who already teach WITT courses may teach GETT Camps in the summer, allowing access to the college infrastructure (mailings,

buildings, tools) without having to raise additional funds for those costs.

Frequently, projects are initiated by WITT groups or other women's organizations, and host schools and colleges are approached and become partners. Monies are then required for the organization and administration of the project.

In-kind Support

Many employers are able and willing to sponsor their employees to attend events. Large employers, like industry or government will have personnel divisions and community relations divisions who deal with these requests.

Business and unions may also be willing to provide assistance locating role models, and provide access to some of their office services and networks.

For GETT Camps, many large and small businesses are much more able to donate materials or labour rather than cash - and may be willing to contact their suppliers to provide free or discounted go-kart materials. Next to monies to pay staff for organizing the projects, the cost of wheels and wood is quite high.

Time & Energy

One of the most important donations is from individuals and organizations who participate on advisory committees. The expertise and networking provided by all stake-holders is invaluable.

In turn, the public relations impact and increased visibility for sponsors provide many benefits to them.

# **Determining Your Budget**

#### When determining your budget consider that:

- Expenses for organizing first year are much higher
- Many items can he donated BUT you will require more in salary for a coordinator to fund-raise

Budget Item	Role models Into Schools:	GETT Camps
Coordinator	<ul> <li>How large is your project?</li> <li>Will she be developing a role model list?</li> <li>Will she be scheduling and planning events or will teachers?</li> <li>How much support is available from other agencies: do you already have local contacts in ministries, school boards etc.?</li> </ul>	<ul> <li>How large is your project / How many camps?</li> <li>Will she be developing a role model list?</li> <li>Do you have contacts or working relationship with local college or school? Business &amp; Unions?</li> <li>will she also be the Camp instructor?</li> </ul>
Camp Instructor		<ul><li>Wages provided by a community college?</li><li>Include wages for preparation time</li></ul>
Role Model Honorarium	<ul><li> How many events will be run?</li><li> How many wages can be donated by employers?</li><li> Can schools cover honorariums?</li></ul>	<ul><li> How many camps will be run?</li><li> How many wages can be donated by employers?</li></ul>
Travel	<ul> <li>How many schools/ how far apart?</li> <li>a major consideration for rural areas</li> </ul>	<ul> <li>consider cost of visiting a Camp that is already running</li> <li>How many schools/how far apart?</li> </ul>
Office: fax telephone courier postage	Consider: office supplies, utilities, administrative support, bookkeeping, photocopying, mailing • flyers, pamphlets, exercises, thankyou letters • some items are major consideration for rural areas and small offices	
Equipment		-may need to rent large equipment & tools -may need to buy small miscellaneous items: drill bits, chalk, etc.
Materials	purchase of role model kit     ensure that schools purchase kit	-wood, wheels, miscellaneous hardware (see appendix) -wheels are costly
Promotion/ Advertising	<ul> <li>critical for finding role models, generating public interest &amp; support</li> <li>important for parents and educators</li> </ul>	<ul> <li>critical for finding role models,</li> <li>generating public interest &amp; support,</li> <li>sponsorships</li> <li>important for parents and students</li> </ul>

#### The Projects:

#### **Role Models into Schools**

The goals of expanding girls access to a variety of careers and of encouraging schools to adopt role modelling as a strategy are met by both small and large interventions. As an organizer, your job may simply be to promote expanded career information by providing the names and telephone numbers of role models to teachers. However, it is more likely to involve generating a comprehensive list of role models, approaching several school boards and many schools, working with teachers to contact role models, scheduling, facilitating and evaluating events. Unfortunately, simply providing a role modelling kit to teachers with enclosed activities and instructions is not always enough - teachers do not always have time to read material and act on it.

Important outcomes:

- teachers using role models the following year
- teachers recommending the activity to others
- teachers and school boards generating their own role model lists and using appropriate role model kits

Rather than re-inventing the wheel, we recommend the use of a role model kit to assist teachers, role models and students. References to *Options Unlimited: A Role Modelling Program* are made in this manual. This resource was developed by the West Kootenay Women's Association and Kootenay WITT, and was used in our own project.

To begin this project, the organizers will need to:

- acquire funding for organizing events or for encouraging teachers to organize events
- identify teachers and school hoards who are willing to participate
- *develop a list of appropriate role models*

Approaching Schools

It is important to meet personally with superintendents to show them materials and obtain written confirmation of their approval. This also saves the superintendent many calls from individual teachers or principals. Smaller projects may approach principals before talking with teachers - but it is still important to contact the superintendent.

Timing

The role modelling project should be introduced very early in the school year, so that teachers can fit it logically into their particular course of study and schedule speakers, career days, etc. at their convenience. This also allows teachers more time to prepare for activities to do with their students.

Attempting to schedule anything during the last quarter of the school year without prior commitment is very difficult. Younger

students are active in sports days and field trips, and year-end wrap up activities. Older students are studying for exams. Teachers are involved in graduation, year book activities, preparing for exams, and winding up the term.

#### **Approaching Teachers**

Perhaps you know teachers or principals through your children or others' children? Use your personal contacts. Teachers are too busy to try out new things (particularly late in the school year) unless they have a personal recommendation that the activity is easy for the teacher to set up, and a worthwhile and enjoyable experience for students.

Many teachers contacted during the West Kootenay project were enthusiastic and readily volunteered, but at the last moment did not follow through to book the role models, and telephoned back with regrets. Count on some teachers backing out due to busy schedules and unforseen circumstances.

# Using a Role Model Guide:

Many teachers welcome the opportunity to bring a role model into the classroom if the leg work of finding that role model has been done. Teachers want a complete role model directory - not to have to seek out role models themselves. For some teachers, little other planning is required as they have experience in the classroom discussing related issues.

For most teachers, however, role model kits are helpful. Kits such as *Options Unlimited* contain information on:

- how to get / contact more role models
- suitable classroom activities
- rationale / discussion of why role modelling works
- information on gender equity issues

Most teachers will use activity plans provided by the kits if the material is easily accessible; again, teachers often do not have time to attend special meetings, or do lengthy preparation regardless of their interest in the project. A useful kit then:

- integrates with curriculum giving teachers activities that fit by grade and subject
- provides a good directory of role models
- provides a guide for role models on how to prepare for their presentation

#### Generating a Directory

Role model inventories or directories are lists of women by occupation and may include: name, job, length of employment,

salary, what tools they can bring to the classroom, what time of day they can be contacted, how much notice they need, whether their employer will provide wages. See Appendix for sample form.

#### Finding Role Models

Networking is the best way to find role models. Although advertisements in papers may be a source of contacts, WITT groups, women's centres, family and friends may produce more names of possible role models. Also try unions, employers and professional associations for potential role models. When meeting potential role models, ask if they know of other women in their field or related occupations.

Small projects can approach teachers with two or three role • models, and offer to come into classrooms or put on a special event. Larger projects should have a more comprehensive list that teachers can choose from.

It is very time consuming to initiate a complete and comprehensive role model inventory, and to update it each year. Ideally, this task is taken on by school board staff and distributed annually to schools.

# Make it a positive experience

It is important for the experience to be positive for students and teachers. A positive experience for students is essential for them to consider the options presented. A positive experience for teachers is essential for them to continue with these projects the following year(s).

The experience must also be rewarding for the role model. Ensure the adequate preparation of teachers (through role modelling kits or in discussion) and ask them to provide role models with information about what to expect from particular classes. Provide a guide or information session for role models too, and discuss with them their concerns and ideas about presenting.

Some role models are more appropriate to older/younger students- they may know this themselves. This should be recorded on their sheet in the inventory.

Several of our role models were called out time and time again, while others were not called at all. Our descriptions may have inadvertently made some role models appear to be better or

more skilled presenters than others.

It is important to note which role models are bilingual, as there is a high demand for Francophone speakers for French immersion classes. There may be a demand for speakers in other languages as well.

Honorariums

Many WITT women are self employed or work for small businesses which cannot afford to pay for classroom visits. Encourage schools to provide honorariums or cover travel expenses, or include this line item in your own budget.

Presentations to younger students

Elementary and Jr. Secondary students enjoy hands-on presentations where they can examine equipment, samples, etc., and preferably participate in an activity related to the job. Most verbal presentations should be supplemented by a vocabulary list to ensure that students are not confused by "jargon" or technical terminology. Although some of the younger students enjoy hearing on-the-job stories (especially if they are humorous, about animals, or relate dangerous or messy situations), many of them are put off by life histories (older students seem to relate to the life histories and enjoy them).

Longer hands-on presentations with a single presenter seem to work better than panel presentations with younger students. There is more opportunity for interaction with the role model, and more chance to participate in an activity. Most elementary students cannot sit through several presenters, unless it is part of a day-long format where "station stops" are an hour or more and include hands-on activities.

Presentations to older students

High School and Post-Secondary students would likely enjoy hands-on activities related to certain jobs if these activities could be set up, but they seem to enjoy and benefit from panel discussions which focus on career options, issues of discrimination and choice, and so forth. Panels are relatively easy to set up, compared to activity-based visits, and seem to have good results.

Because of greater life experience, mature students are able to visualize better than their younger counterparts from verbal presentations, and they identify their own personal situations with the life stories and educational requirements presented by role models. They can generalize the experiences related by individual role models to other situations, and many have some

work experience at part time jobs.

Day long events

Day long events with small group discussion and activities can be very successful - though they require much preparation and effort compared to classroom visits. Dynamic exercises involving multi-media hands-on activities can provide an intensive and inspiring experience for students. Students and teachers can be involved in planning the day.

The traditional "Career Day" model with separate booths and students travelling to areas which interest them pose some difficulty. Even with hands-on activities and encouragement it is often difficult to attract and inform girls. Stereotypical perceptions are reinforced when girls assume that the information is not for them and move on, while boys stop at the booth. These events *can* have a very positive effect - ensure that those staffing events are aware of these dynamics and active in talking to girls walking by their booth.

## Girls Exploring Trade & Technology Camp

GETT Camps were developed at Fanshawe College (Ontario) and the Saskatchewan Institute of Applied Science & Technology. They have been tremendously successful across the country, operating in 7 provinces in 1995.

GETT Camps introduce girls to technology and trades, widening their choices of possible careers. The Camp provides hands-on experience and skills with drafting, carpentry, painting and shop safety, which girls learn while building soap box style go-karts. The girls race the go-karts at week-end, with parents and sponsors attending. Materials and some labour are usually donated.

Depending on how the individual camp is structured, girls may also participate or see demonstrations in: welding, machining, auto mechanics, electrical and may visit local job sites.

The Camps are for girls between the ages of 10 and 14 - some camps have operated with grade 6 and 7 girls - others with girls in grade 7 and 8. This is an important time for girls as it is before they make decisions that affect their career choices, often about taking math and science courses. GETT Camps reinforce the importance of taking science and advanced math subjects by exposing the girls to them in fun and positive ways, and providing role models in interesting occupations that require these subjects.

The impact of the camps is widely felt - the girls attending, their friends and parents, neighbours who see the completed go-karts, teachers, sponsors and many more through press coverage are positively affected by the Camps activities and the enthusiasm of girls and staff. By the last few days of the project, people will be requesting forms for the following year, girls will want to come back to motorize their karts, college or school personnel will be offering to run six Camps the following year instead of three...

#### **Camp Format:**

The Camp format is quite flexible with room for organizers to reflect local, regional or cultural conditions Shop time to build go-karts is 15 to 18 hours - and although some girls build faster and others slower - go-karts do get built on time<sup>4</sup>. The rest of the week's curriculum is open for your committee to develop.

Some things about GETT Camps are NOT flexible. To meet the goals of operating the Camp, it is critical that the camps have:

- girls only
- a WITT woman instructor
- as many other female instructors (eg. for CAD components, machining or other) as possible

Finally, the Camp must provide a supportive and safe environment that assumes that all of the girls are capable of using tools and building go-karts: given encouragement, instruction and time to be comfortable in the shop.

# Main components of Project:

- an Advisory Committee
- •camp instructor(s)
- develop curriculum
- eliciting interest press & schools
- registration
- fund-raising
- shop time

# Striking an Advisory Committee:

First, identify all potential sources of members: unions, large and small employers, government personnel involved in apprenticeship, educators & parents. It is our preference to have a large committee of individuals who will provide assistance to staff through outside resources and perspectives, but who meet infrequently (once a month for three months). Staff report to and work with subcommittees more readily, and can contact individual members as needed in their area of expertise.

#### Local WITT Group

The local WITT group must be directly involved in the project.

SIAST has offered a GETT camp specifically designed for Aboriginal girls reflecting aboriginal culture and concerns.

We have heard stories about instructors staying late on the Wednesday evening of the camp and putting in a few woodsows to make all

Although they may not be the initiators of the project, local WITT groups and WITT women have the expertise and contacts required for acquiring role models and staff, developing the curriculum and many other facets of the project.

Staffing: Camp Instructor(s) There are many options available in arranging staffing for the Camps. The Camps could have two instructors, one for shop portions and the other a facilitator for maths games and other exercises outside of the shop. Or, the shop instructor could be the instructor for all of the camp - and have one or several assistants in the shop - paid or volunteer depending upon the hours required. This is the model we will discuss.

The instructor should be at least a second year apprentice who also has organizational skills, public relations and either formal or informal experience teaching youth. Most community colleges would prefer or require that the instructor have a ticket.

It is imperative that the instructor participate in building a gokart prior to the pre-camp and summer program. It is helpful if the instructor(s) build the go-kart in the shop which will be used by the girls.

Location & Shop Requirements:

The essential requirements for the camp are tools: jig saws, circular saws, drills (one per pair of girls). Access to a table saw and mitre saw is also desirable.

Most high schools have a wood, mechanical and metal work shop which will do nicely. A large room with outlets would do in a pinch! Ideally, the local college provides the facilities. It is something special for a girl in grade 6 - 8 to "go to college" and learn to be comfortable in a shop setting.

Community Colleges also have additional shops which may be used for demonstrations, tours or work: welding, automotive, machine shops. Colleges may also be able to provide photocopying, fax machine, telephones, printing of registration and perhaps the location to mail and collect registration forms.

**Deciding Parameters:** 

Depending upon the confirmed location, availability of staff and resources, decisions around how many girls of what age and from where must be answered. GETT Camps have operated with 8, 10 or 12 girls with ages from 10 - 14.

Girls work in pairs to build the go-karts, so it is necessary to have a list of confirmed alternates ready in case of last minute cancellation or no-show.

If you plan to operate a large camp, it is recommended that a pre-camp be done at the intended location prior to the summer camps. For example, the Lower Mainland WITT group operated a 4 day pre-camp at BCIT during the students spring break, and ran through the shop portions of the camp. This provides information for the planning of the longer summer events. (Remember: it is imperative that the instructor participate in building a go-kart prior to the pre-camp and summer program!)

Promotion: Schools & Press GETT Camps should be advertised to students and the community directly through schools and through press releases and coverage.

Superintendents and principals should be contacted early in the process of organizing - both to identify potential committee members and to promote the Camp. It is most effective for individual teachers to be asked to distribute the material to students. Find out who the grade 6-8 teachers are and mail material directly to them.

It is also advisable to set up visits to schools selected for applicants. Girls may more readily pick up an application form after a presentation than if the teacher simply reads out the brochure. Provide posters and visit schools with the go-kart you have made!

Visits can be done in conjunction with a role model visit. If you are running a GETT Camp and not a Role Model into Schools project, then why not slip in a role model visit here?

Members of the press are open to invitation to do stories before and during the GETT Camps. Although some reporters are interested only in pictures of go-kart races, many are willing to do more in-depth pieces. Make sure that permission from

parents is obtained for pictures of girls.

Press releases should also be issued in conjunction with fund raising donations of materials - individuals are likely to contribute when their interest has already been piqued by articles they have read.

Press Releases

Registration: Selecting participants Names of camp participants can be drawn from registration forms received. However, when it is important to have particular schools or towns represented, spaces should be allotted and names drawn by each category. This may be important for funders from different communities, as they may wish to know how many girls from their area will attend the camp. This is particularly important if the Camp is run in a rural location servicing a large area. It is also very worthwhile to have go-karts go back to as many communities as possible to spread the message.

#### **Fund-raising**

Fund-raising strategies and efforts should be tailored to the size of your project. Fund-raising is very time-consuming: consider the wages you are paying your organizers (are they fund-raised? from grants?) and the option of buying some materials.

On the other hand, fund-raising is one of the most important ways to raise the profile of the project in the community. First, you have opportunity to speak about the importance of the project. The weight of prominent sponsors attached to press releases and coverage also lends strong support. Second, even when individuals, groups, employers, or unions are not able to contribute, they will be made more aware of the issues.

Some items are easier to buy than to fund-raise - you may be able to fund-raise dollars to purchase food, as well as receive food donations to the BBQ. Try the alternative of asking the College or a community or women's group to organize and host the BBQ.

Extra monies can also be generated through sales of T-shirts to participants, or building and raffling a go-kart to the community. Many organizations have different dates for community grants or donations: they may put the Camp down for receiving money the following year.

#### **Sponsorships**

Target sponsors carefully as some larger organizations may be more able to donate larger items, but if you provide too many options they may choose the option of lesser value.

It may be difficult if companies or unions want to sponsor a particular girl attending the Camp (especially as names have not been selected before fund-raising begins). We provided several options for sponsors, and chose to request they provide *the cost* of sending one participant as opposed to assigning a particular sponsor to a particular girl.

Provide sponsors who have donated large amounts with photographs of girls and their gokarts, or certificates recognizing their contributions for display at their business.

#### Sample Options for Sponsors

- 1: Donate the approximate cost of sending one camp participant
- 2: Donate the approximate cost of a Go-Kart
- 3: Donate materials to build Go-Karts
- 4: Donate Cash to be used for project expenses
- **5:** Provide lunch for the girls; hats; tours of job sites; snacks...
- **6:** Volunteer at the BBQ/Go-kart race
- 7: Provide wages of WITT role models or Camp staff
- 8: Put GETT on the list for next year's donations

#### GETT Camp Curriculum

The Curriculum should reflect the community it serves. The possible components of the curriculum include:

- the shop portion building the go-kart
- other shop portions depending on facilities available and instructors available,
- tours of construction sites or businesses using technology (Newfoundland WITT used a local business for CAD components of the Camp)
- role models
- math & science games
- games to introduce girls to each other
- safety tours
- physical activities such as relay race
- Wrap up BBQ and race

## A Sample Curriculum

Monday A.M.  Introductions: name game, distribute schedule & kit  Overview of Activities: discuss girls' expectations, structure of week & days  Video eg. "She's Making Choices"  Safety Tour: hand out tool boxes/ intro to hand tools; general shop safety; techniques of lifting  Relay Race / Physical Game	P.M.  Overview of Go-Kart: bring in instructors go-kart, explain design  Drafting: CAD or by hand; design top & sides of go-kart  Shop: cut base, set lay-out lines, cut 2x4s
Tuesday A.M.  •Check In: Goals for the day •Electrical Shop: safety, wire circuit/ plug, socket & switch in teams of 3 •Drafting: draw top & sides •Shop: rout boards, drill for steering pin, drill holes in base, in 2x4	<ul> <li>P.M.</li> <li>Math Games</li> <li>Role Model Panel: short presentation</li> <li>Shop: finish shop above, invite role models</li> </ul>
Wednesday A.M. • Check In: Goals for the day • Shop: attach 2x4, construct top & sides	P.M. •Job Site Tour
<ul> <li>Thursday</li> <li>A.M.</li> <li>Check In: Goals for the day</li> <li>Shop: finish top &amp; sides</li> <li>Auto Shop: change tires</li> </ul>	P.M.  • Machine Shop Tour  -thread axles  • Shop: paint Go-Karts
Friday A.M. Check In: Goals for the day •Shop: assemble wheels, attach mending plate, fasten rope & screw eyes • Race set-up/ shop clean-up	BBQ Lunch • Go-Kart Race & Awards Evaluation & Tours: sponsors tour facilities used by participants; girls evaluate Camp

#### Role Models at Gett Camp

Role model panels work well in a school setting and provide a rich source of information, but are sometimes too much like school for the GETT Camps. If you have a panel, we recommend that role models have something to do with the girls main focus and main interest: those go-karts. If not, women who are machinists, welders, electricians, electronic technicians, mechanics and painters could all be involved at different steps of construction and not at one time as part of a panel.

Role models could give demonstrations or ideally they would assist/instruct a component of the camp. e.g. a machinist could talk about different machines, tools she uses, and assist girls in punching holes in mending plates for axles; a painter could . discuss her trade and instruct the girls re: painting karts.

Who is available in your area? How many different trades can you expose the girls to?

#### Supervision & Safety:

Supervision of the girls in the shop should be high for power tools - especially when girls are using the circular saw. Some girls have no experience, have little arm strength, and are not used to power tools. Shop safety tour should include all safety features of the shops, along with rules such as:

- No jewellery
- Hair tied back
- No food
- No horseplay
- No using table/mitre/circular saw without direct adult supervision
- Ear protection & eye protection at all times
- Long pants in shop
- Safety shoes in shop (borrowed from local WITT)

#### Assistants:

If possible, one or more assistants in the shop could be provided by a large local employer. Having one of the assistants be the same person for all camps is a good idea for consistency. For those who are "volunteering" for the full 15 to 18 hours, an honorarium is important.

# Demonstrate safety for each tool

The Instructor should demonstrate safety requirements around each tool. Girls might want to practice: eg. using a circular saw to cut a 2X4 before having them work with a full sheet of 3/4" plywood doing long cuts.

It may be possible to reduce the amount of supervision after the first two days, - as the girls are both more familiar with tools and less likely to be using circular saw.

Instructors and assistants must wear their safety equipment at all times in the shop - girls learn by example.

#### The Shop Portion

The instructions for building the go-karts (see Appendix) have been adapted from the Fanshawe and SIAST Camps to the conditions of the shop used at Selkirk College. The pattern provided is for the base of the go-kart, as the girls design the top and sides. CAD is desirable but not essential - if you do not have direct access try arranging a visit to a local business which utilizes CADs.

Girls should not work in the shop all day long, as their concentration fails and safety concerns arise. The shop portions should be divided among the days of the Camp - with special attention to Thursday. Go-karts MUST be painted on this day so they can dry by Friday's race.

Other Shop Ideas

Possibilities include electrical shop, sheet metal work, electronics,

welding...

Tours:

Girls at this age require an engaging tour with lots of activity. Ideally, there will be women leading the tour and working on site who can explain about their jobs.

There are many elements to consider for a good tour. We chose to go to the Kootenay Canal Generating Station for our first Camp. Parts of the tour were quite successful as employees were overhauling one of the generating units, but there were simply not enough moving parts to keep the girls attentive for the entire tour. Girls did enjoy meeting the role models on site: an electrician and an engineer.

At some job sites the action will be too hidden behind concrete or behind walls. A construction site or mill might be better - but only if there are a lot of different activities going on. Travel time may be a factor in both rural and city locations. Make it a good tour - a long time away from their go-karts makes the girls anxious.

#### Other Interesting Things We Learned

#### Group and Partner Dynamics:

Many girls noted in their evaluations of the West Kootenay Camp that dynamics between partners was difficult - some said that they wished they could pick their own partners while others commented on how much they learned about working with someone else. We recommend that the girls NEVER pick their own partners. Friends can become cliquish or distract each other from concentrating on the work at hand - remind them that on the job you don't get to pick who you will be working with.

Shop assistants and instructors must be involved and aware of possible conflict. Most often one partner may simply have more confidence and will use tools more readily. Make sure both partners have equal opportunity to develop skills. The project is something the girls care about strongly - do not underestimate the dynamics between and among them.

Each week the character of the group will be different - some more serious about building the go-kart while others are more interested in the social aspect of meeting each other. All are learning.

#### Be Flexible

Be able to adapt your curriculum over the weekend and before the next camp if need be. You may decide to skip that video or spend more time teaching the girls how to use hand tools before the relay race. Remember that things like the weather affects the girls ability to work long hours in the shop - schedule regular water fights or popsicles.

Other elements to consider when scheduling shop portions:

- in extreme heat it is cooler to work in the mornings
- when scheduling shop times, asking volunteers/shop assistants to come one morning, one afternoon or splitting shop portions in the day may preclude their ability to participate
- most college locations will provide access to Computer Assisted Drafting (CAD) though this is not always possible

#### **Food**

Food is a safety concern as girls who have not eaten cannot concentrate. Although it takes a long time to fund-raise for snacks, it is worthwhile. Retailers and wholesalers don't mind donating a dozen muffins or a box of oranges. Another option is to send a notice in the information package to parents that girls MUST bring snacks each day, in addition to lunch.

#### Wheels

Find them early! They are expensive and stores do not stock the quantity required to run three camps. Wheels with ball-bearings are better than plastic as they run smoother, faster and longer.

#### Billeting & Transportation

Some GETT Camps may require organizing to bring girls across the city to the camp location, such as distributing maps and suggesting bus routes. In the West Kootenays, girls from all over the region attended, some from hours away. Transportation to and from camp was provided by parents, with Camp organizers facilitating car pooling.

Many parents in rural communities are used to driving their children to events, and the standard practice for school teams and bands who have events across the province is to billet their children. However, the casualness of this practice may be ending, as people are becoming more sensitive to safety concerns. We requested that families make their own accommodation arrangements with relatives or friends. For those who were unable to find accommodation with people they knew, we sought billets from local parents with daughters attending the camp, then requested references from them. We found it important to billet girls with other girls attending - not with families who have other things happening in the busy summer.

## III. Appendix

A Work Plan & Timetable for Projects A Donation List The Instructions for Go-kart Sample Forms & Press Releases

# Work Plan for Projects

Month	Outline of Activities	
Fall	<ul> <li>Acquire Role modelling Kit</li> <li>Begin role model inventory/ Elicit interest from industry for GETT</li> <li>Identify and meet appropriate stake-holders: eg.Skills, Training &amp; Labour Program representative for Secondary School Apprenticeship program; school board personnel</li> <li>Identify interest/promote with school districts and individual school</li> <li>Establish advisory committee for GETT Camp of all stake-holders</li> </ul>	
January, February	<ul> <li>Continue role model inventory</li> <li>Meet with districts/ schools: provide with role model list</li> <li>Ensure role models prepared/ provide workshop or guide</li> <li>GETT Advisory Committee meets: identify shop location</li> </ul>	
March, April	<ul> <li>Role Models into schools:</li> <li>Determine with teachers appropriate events, assist in preparation/contact with role models</li> <li>Assist teachers and guidance counsellors to put on events Continue over entire spring session</li> <li>Evaluate events with teachers, students &amp; role-models</li> <li>Gett Tasks:</li> <li>Promote Camp in schools &amp; community</li> <li>Identify contributors of materials</li> <li>Begin fund-raising materials &amp; personnel</li> <li>Identify potential instructors</li> <li>Create process for selection of students</li> <li>Draft Curriculum</li> <li>Build Instructors go-kart</li> </ul>	
May	Gett Tasks  • Promote Camp in schools & community  • Identify girls to take part in GETT Camp  • Develop & collect resources: supplies, tools, food  • Identify local Billets if applicable  • Finalize Curriculum	
June	Gett Tasks  • Develop & collect resources: supplies, tools, food  • Brief teachers and role models for GETT camps: familiarize with shops, curriculum, etc.	
July	Gett Tasks • Run 3 one week camps • Evaluate camps	
August	Thank contributors, role models and advisory committee members	

#### **Partial Donation List**

#### Materials for 18 Go-Karts

5 - 3/4 " x 4' x 8' GIS Plywood 10 - 1/4" x 4' x 8' plywood (sheathing) 10 - 2" x 4" x 8'

miscellaneous scrap depending on girls design

#### HARDWARE:

72 - 8" lawnmower wheels: try to get metal not plastic

196 - 1/2" washers

196 - 1/2" nuts

196 - 1/2" lock washers

18 - 1/2" x 3 1/2" carriage bolts

36 - 1/2" x 3' threaded rod

72 - 1/4" lock washers

72 - 1/4" flat washers

144 - 1/4" nuts

36 - 1/2" screw eyes

400 - 2"screws

180' - 1/2" rope

3 bottles - woodworkers glue

18 - bells/whistles/horns

- assorted decorative accessories

#### Paint:

2" paint brushes and 3 1/2" paint brushes; lettering brushes latex semi-gloss paint - as many colours as possible, though girls in 1995 like black or brights (hard to find donated brights)

#### Other

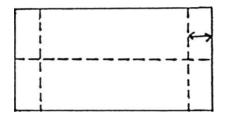
T-shirts; buttons; banner for finish line Coveralls or old clothes for painting Film & enlarging

Hot dogs & tofu dogs; Hamburgers/chicken burgers; Buns; Condiments/ tomatoes/cucumbers/ lettuce/ sprouts/ Napkins/ Glasses/plates/cutlery

These instructions are based upon those from Fanshawe College, but modified to reflect our needs. Vary these to suit your shop conditions: eg. we used threaded rod which the girls cut with hacksaws - try using a die and bench vice to cut threads into uncut rods. We tried to have girls use hand tools before using power tools: eg. they used a brace and bit before using a drill.

#### Building the Go-Kart

- 1) Using a  $1220 \times 2440 \text{ mm}$  sheet of plywood, measure and mark the go-kart base with a **tape** measure. The base is  $450 \times 1220 \text{ mm}$ .
- 2) Using a chalk line, snap a line at 450 mm. Cut along the chalk line with a **circular saw** (skill saw).
- 3) On the rough side of the base, snap lines 100 mm from each end and lengthwise down the centre. These will be your reference lines for the wheel bases.



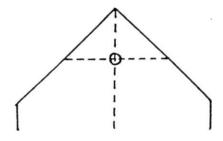
100 mm from ends

- 4) Mark and cut the shape of the base according to your design. You can use the **handsaw**, circular **saw** or jigsaw to make these cuts.
- 5) Cut 2 pieces of 2" x 4" to length for the axles. One piece will be 470 mm and the other will be 500 mm longer than the chalk line at the front of the cart.

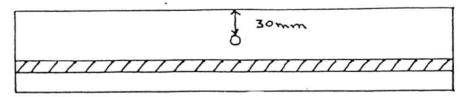


length of chalk line + 500mm=length of 2x4

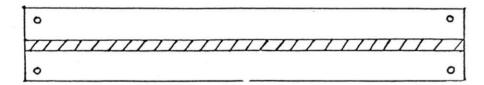
- 6) Using the dado blade on the table saw, the instructor will cut a groove into the 2x4 for the metal axles. The groove must be offset on the front axle and centred on the rear axle.
- 7) At the intersection of the front snap lines, drill a hole with a brace and 12 mm (1/2") bit. This will be the pivot point for steering the go-kart.



8) On the front axle (2x4) drill a 12 mm hole 30 mm in from the edge and at the halfway point lengthwise. You will use a **brace and bit.** 



9) On the 470 mm long 2x4, drill 6mm (1/4") holes approximately 50 mm from the ends with an **electric drill.** 



- 10) Line this 2x4 up on the inside of the chalk line on the back of the base. Make sure you have an equal amount of overhang at either end. Using the holes in the 2x4 as a guide, drill 6mm holes through the base with an **electric drill**. It is very important to keep this axle straight so the go-cart will steer straight.
- 11) Attach the front axle as follows: Push a 1/2" carriage bolt through the smooth side of the base. Apply a bit of lubricant between 2 flat washers and put on bolt, then a nut, lock washer and second nut. Tighten the nuts to each other. Do not over tighten the first nut, the 2x4 must move freely.
- 12) The rear assembly begins with a 1/4" carriage bolt pushed through from the smooth side of the base, then the 2x4, then a flat washer, lock washer and nut.
- 13) Build the sides and back of your go-kart according to your design using 1/4" plywood. The pieces will be attached using 1" x 2"s.
- 14) Paint and decorate your cart using creativity, paint and whatever you like.
- 15) Cut the threaded rod for your axles 160 mm longer than the 2x4s using a hacksaw.
- 16) Drill holes in each corner of the metal plate. Use a **drill press** to do this.
- 17) Insert rod into groove. Screw on metal plates. Attach flat washer, wheel, nut, lock washer, and another nut. Tighten the nuts to each other.
- 18) On the front axle, attach eye bolts and steering rope.

#### LOOK OUT!!!! YOU'RE ROLLING!!!!!

# Wanted: Women Role Models

Kootenay Women in Trades and Technology is organizing two exciting projects this spring and summer, to increase girls' awareness of trades and technical occupations.

#### 1. Options Unlimited

Our first project is to bring women in trades, technical and scientific occupations into local classrooms. We want students to broaden their ideas about career goals, and want to encourage teachers to talk about equity issues relating to training and jobs. We will be using a role model guide titled *Options Unlimited: A Role Modelling Program* to assist teachers, role models and students. This resource was developed in our region by the West Kootenay Women's Association and Kootenay WITT.

We are also updating the Role Modelling Directory of women role models in a variety of occupations for use this year and beyond.

#### 2. GETT Camps

Our second project is to run a Girls Exploring Trades & Technology (GETT) Camp. Girls will learn skills in carpentry, auto mechanics, drafting and more to build go-karts... and race them! There will be three five-day long sessions in July for more than 30 girls (age 12-14). This camp has been very successful in other parts of the country in introducing girls to many skills and occupations. GETT Camps will be run in 7 provinces this year!

#### Who can be a role model?

Would you make a good role model? You don't have to be an expert public speaker - but should be comfortable with your job and in answering questions about your job. You will be asked to present a balanced picture by talking about both the rewards and the difficulties of being in your field. Young people learn by example - you can contribute to students' awareness about what is possible and what they need to think about to make their own future. Sharing your tools and experiences can inspire and educate.

We will work with you to let you know what to expect, how to work with teachers and students, and to answer any questions you may have.

We are looking RIGHT NOW for women in trades, technology and blue collar work, and other occupations in which women are under-represented, such as senior management. We will be arranging for these role models to visit classrooms in April.

We are also looking for women in all fields for our *Role Model Directory*. This directory will be made available to local teachers for use this spring and next year. Teachers will read the information we provide about you and your occupation, and will invite role models into their classrooms based on their students' needs and interests.

Finally, we are looking for enthusiastic volunteers and role models with and without technical skills, for a variety of tasks for the July GETT Camps.

Kootenay WITT is a non-profit organization which educates and advocates for women in trades, technology, operations and blue collar work.

#### for Girls a



Linda Hawkins, Project Co-ordinator and Anna Gayton (oldersked floorsupport thin of project by pro-

irls will have an opportunity I this summer to build go-karts at the Selkirk College Nelson Campus at a summer day camp. The Girls Exploring Trades and Technologists to investigate career options in (GETT) Camp is being offered for the first time in the West Kootenays, for 30 girls in Grades 6 and 7. Three camps will be held: July 10-14, July 17-21 and July 24-28. Application forms for the camps have been sent out to schools across the West

Kootenays. A draw from completed applications will be held May 20 to choose camp participants.

This free camp will encourage the trades and technologies, and to stay in math and science courses to keep all career options open. Girls will do math games, fun relay races, work with women role models who are in trades and sciences, and will build soap-box style go-karts similar to the one pictured. At the end of each camp, there will a BBQ for sponsors, parents and guests, and the girls will race the go-karts they built.

According to camp instructor Sally Mackenzie, a journeyed cabinet maker, girls cannot always imagine themselves in trades or technology occupations unless they have seen a woman working in that field, or they experience tasks first-hand. "We will take the girls into foreign territory—to carpentry, automotive and machine shops...we need to expose them to these fields...give them some experience in a supportive atmosphere.. .I know that this is going to be lots of fun. I'm really looking forward to it."

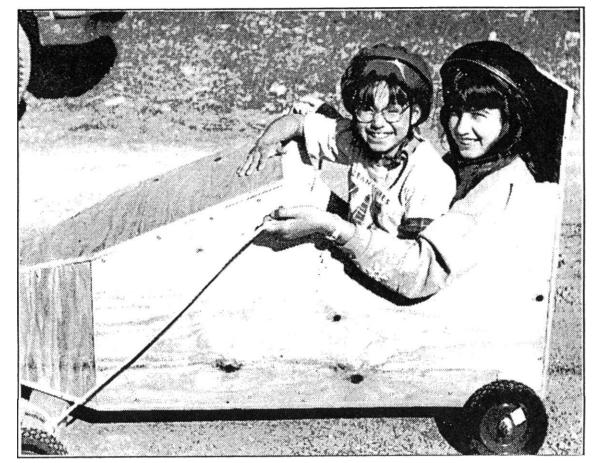
Local organizations are being viding materials to build the go-karts, financial assistance for sending girls from their community to the camp, furnish prizes and trophies for the race winners, or by flipping burgers at our final BBQ.

For applications or more information, please call: Linda Hawkins at 226-7019, Judy Gayton at 352-7864, or the Kootenay WITT office at 226-7624.

# Girls camp focus on trades and technology

Jackie, 9, (left) and Anna Gayton, 11, are looking forward to a Girls Exploring Trades and Technology day camp sometime in the future because this year it's only for grade six and seven girls. The gocart they're riding is a prototype of a GETT camp soap box derby go-cart that all kids will build at camp. The deadline for West Kootenay girls wishing to attend the camp has been extended until early June.

- Photo submitted



# Girls camp hands-on with trade skills NDN May

(Staff) — While girls typically balk at taking shop courses and continue to drop out of math and science courses, a unique summer camp is being set up to break those traditional patterns and give young women some hands-on experience with trades and technology.

The Girls Exploring Trades and Technology Camp (GETT) will operate out of Selkirk College this July, aiming to give 30 Grade 6 and 7 girls a taste of careers requiring technical and design skills.

"We will be taking the girls into foreign territory; to a carpentry shop, automotive shop and machine shop — even to a worksite outside of the college," says Sally Mackenzie the camp's instructor.

Camp, a journeyed cabinet maker herself, says girls cannot always imagine themselves in trades and technology occupations unless they have seen a woman working in that field.

"We need to expose them to these fields before they make course decisions. We need to give them some experience in a supportive atmosphere."

This summer the three, four-day camps will each build a go-kart—the perfect vehicle to give the kids a hand in operating saws, hammers and other tools. But best of all, besides the bracing thrill of building something themselves, the crews will have fun.

"Everyone we talk to is so excited about the project," says Judy Gayton one of the project coordinators.

"Parents and teachers know that girls still aren't taking shop courses and are dropping math and science courses — limiting their futures."

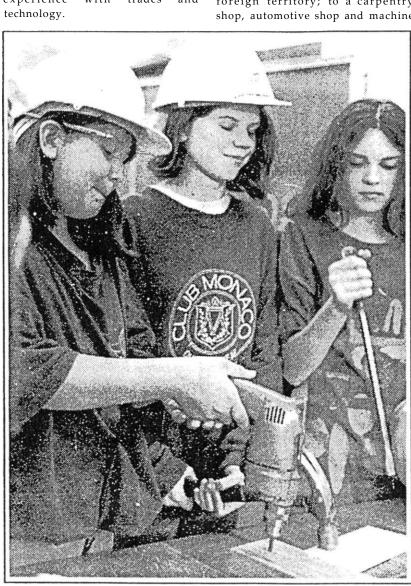
But just managing how to twist nuts and bolts isn't the only things girls will learn form the course.

"We'll be trying to get the message across, 'Don't just watch something you are interested in. Get out there and do it,'" says Linda Hawkins another GETT organizer.

Applications for the camp have been circulated to schools in the area and are due back by May 20. The girls will be chosen in a draw.

The West Kootenay GETT camp, one of two in the province, are supported by local businesses and community organizations as well as the Ministries of Skills Training and Labor and Women's Equality.

For more information contact Judy Gayton, 352-7864, Linda Hawkins 226-7019 or the Kootenay WITT office, 226-7624.



On Thursday, three Grade 6 students at South Nelson — Nikita Jones, Erin Kelly and Cassandra Gibb — try out some tools similar to those that would be used in the Girl's Exploring Trades and Technology Camp.

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#### ਂ!ETT going



Participants in the first GETT camp wrapped up last week with a go-kart race at Selkirk College Nelson campus. Eight girls age 11-13 years old participated in the first of three camps sponsored by the West Kootenay Women's Association, Ministry of Skills, Training, and Labour, Ministry of Women's Equality and Vancouver Foundation.

#### Letter of intent signed by government officials in Castlegar

bvAlexa I'ongracz
CASTLEGAR — Officials from (l»c Cily of Castlegar and Transport Canada signed the Icilcr of intent lasl Thursday which will begin the process of transfer of tl\*c Castlegar and District Airjxirt.

The letter of intent will see the final transfer of the airport by the year 2000. Edmonton-North MP John Loney, who attended the official ceremony on behalf of Transport Minister Douglas Young, said that the signing of the

teller of inlent was (he first step and thai a number of letters of intent kid already been signed iluoughoui ihe province.

Loney said I lull the transfer 10 local governments IULS merit in Iliai "ihey can tailor services to local demand."

"It's a great day for Castlegar and the suirounding area and it's lite fust step tliat 1 Ihink dial (he I>coplc in the area will sup|>ort Castleg r's position and what Please sec LETTER - page 7

#### SPECIAL FEATURE

# The emu has landed

#### · The emu can't fly, but its popularity is definitely taking off

bvSteve Thornton
WINLAW — The dog thai guards Stniltcrs Emu Ranch is al le;isl part Rottweiler, an animal whose jaws remind one of thai garden implement tliat took its name from the breed, the Rolotiller.

His name is Cooncy, and lie's lite first to greet a visitor lo lite Winlaw area ranch witcrc emus arc raised. But though Cooncy looks like he could mulch a lialf-acre plot in about to seconds, lie's actually a warmhearted, lovcable beast.

Just ask Mr. Peck, if you don't believe it. Mr. Peck is a full-grown

emu, which is a flightless biid, a sort of kid broll\*cr to llic ostrich He's one of lite first emus lo come lo Stniltcrs ranch, a flightless patriarch of a flock lliat started with six and now numbers 80.

Il was while we were visiting Mr. Peck the emu that Cooncy the Rottweiler approaclicd the fence Iliat keeps the large bird al home. Gabriclic and Dan Bachand were showing off their flock, which comprises several groups in different enclosures, including a greenhouse in which the pigcon-

l'Icasc sec THIS IS - page 12

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#### Media Release

#### **GETT READY - GETT SET**

Kootenay Women in Trades & Technology and Selkirk College are organizing a GIRLS EXPLORING TRADES & TECHNOLOGY SUMMER DAY CAMP for girls in grades 6 & 7. The GETT Camp will be held in July at the Nelson Campus of Selkirk College.

Application forms for the camps are being sent out this week for girls across the West Kootenays to sign up - a draw will be held on May 20 to choose camp participants.

This Camp is designed to encourage girls to investigate diverse career options primarily in the trades and technologies. Through career awareness activities, sessions with role models and hands on activities, the Camp provides participants with career exploration in a creative, supportive and enjoyable atmosphere.

Girls will visit and work at many of the College's shops, and visit local job sites. They will participate in science games and relay races. The exciting part is that in learning new skills and meeting new friends, they will also be building soap-box style go-karts. At the end of each five day camp, we will have a BBQ for sponsors, parents and guests, where the girls will race their go-karts.

Many communities across Canada are running GETT Camps - supported by community colleges, and supported by service organizations, business, labour and educators. Local organizations are being asked to support this project by providing materials to build the go-karts, financial assistance for sending girls from their community to the Camp, providing prizes or trophies to the race winners, or simply by flipping burgers at our final BBQ!

If you would like more information call: Judy Gayton 352-7864 or Linda Hawkins 226-7019, or the Kootenay WITT office: 226-7624.

Kootenay WITT is a non-profit organization which educates and advcates around women in trades, technology, operations and blue-collar work.

Electrical Introduction for the GETT Camp participants

Safety: Never work on a live circuit. Always verify that there is no electricity present by such means as a voltmeter. The average "load" plugged into a household outlet takes 1 Ampere. It only takes 50 milliamperes to kill a person.

System and circuit grounding provide a safe path for fault currents to travel to the ground. This lessens the chance of an electrical shock to people and of damage to equipment.

In the event that someone is receiving an electric shock, the first thing to do is to turn off the electricity. It is very important not to touch the person, as this could result in a shock to yourself.

#### Wiring Fundamentals:

Basic household circuits have two wires. One - the "hot" - brings the electricity to the load , the other - the "neutral" - returns it to the source . The neutral is always white, the hot is usually black, but may be red. The grounding wire is bare copper, and normally does not carry current - only in the case of a fault current - ie. an electrical current travelling in a path it is not meant to.

The terminals on household plugs and light fixtures are colour coded as well - the hot wire goes on the brass coloured screw, the neutral goes on the silver coloured screw. The bare neutral is attached to the remaining terminal on an outlet which is often coloured green.

In order for the electricity to travel through the whole circuit whether or not the individual loads are working, "pigtails" are used to wire in the various loads. The wires are spliced together to provide a continuous path, and then a short piece, known as a pigtail, is also spliced on. This pigtail provides a path for the electricity to flow to the load without interrupting the whole circuit.

Safety Glass + Jool Rouch Provided by Selkirk College Selkirk College.

C i (cu.i f

\$ \\ \psi \\ \

⇒ = Plug
⇒ = Switch
⇒ = LijU