



Moving Forward

Current Safety Management Strategies at Strathcona-Tweedsmuir School

Strathcona Tweedsmuir School

Okotoks, Alberta

Session Objectives & Format

- ▲ Objectives
 - ▲ Briefly describe context of STS tragedy and resulting recommendations
 - ▲ Provide examples of safety strategies currently in use at STS
 - ▲ ... Implemented by a wide variety of staff
 - ▲ ... over an extended period of time
 - ▲ To get you thinking intentionally about applications to your program
 - ▲ Systematising
 - ▲ Matching needs, gifts & structures
- ▲ Format
 - ▲ Lecturette & Story Telling
 - ▲ brief questions, clarification, comments
 - ▲ Short application sessions in small groups
 - ▲ Discuss possible application of strategies for your program
 - ▲ Conclusion & wrap up

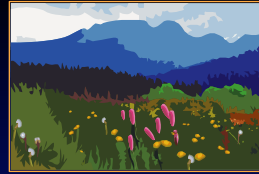


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Session Topics

- ▲ A simple model for change
- ▲ Using Purpose to drive Practice
- ▲ The Briefing Process
 - ▲ Info targeted to various groups (students, faculty, parents)
- ▲ Informed Consent
 - ▲ What is it?
 - ▲ How can it realistically be achieved?
- ▲ Trip Planning & Follow-up
 - ▲ Paperwork
 - ▲ Process
- ▲ Emergency Preparedness & Response

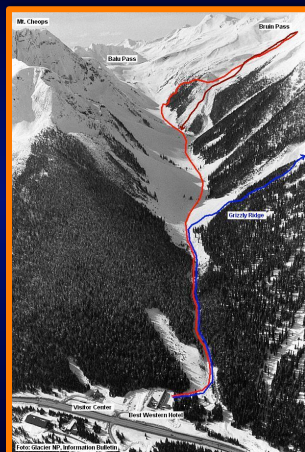


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Tragedy Context

Feb 1, 2003 - Rogers Pass, BC



- ▲ Avalanche involving 11 students & 3 staff
 - ▲ Staff & students undertook their own rescue in partnership with two guides
 - ▲ 7 student deaths resulted
- ▲ STS solicited several follow-up reports
 - ▲ Recommendations formed basis for program revisions
 - ▲ Ongoing process
- ▲ Accident had far reaching impacts
 - ▲ Personal impact for families & school community
 - ▲ New user group created by Parks Canada
 - ▲ Previous groups were *commercial & common adventure*
 - ▲ Custodial groups: Legislated change to Parks Canada Act
 - ▲ Parks Canada developed management strategies for CGs
 - ▲ Created catalyst for custodial programs to review their practices
 - ▲ Promoted increased reflection & interaction
 - ▲ Highlighted higher duty of care for minors
 - ▲ Increased focus on avalanche education for youth
 - ▲ Affirmation of outdoor education benefits but...

Facilitating Change

A Simple Model

- ▲ What are the **needs** of the organisation (staff, clients)?
- ▲ What are the **gifts** & abilities of the staff?
- ▲ What **structures** are needed to match the two & achieve your purpose?
 - ▲ Do existing structures help achieve the purpose or do they get in the way?



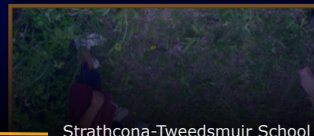
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STS Outdoor Programs K-12

Variety of Program Deliveries

- ▲ Elementary
 - ▲ Grade 4, 5, 6 Outdoor school
 - ▲ Multi-day, facility based
 - ▲ Classroom activities
 - ▲ Science focus
 - ▲ PE activities
 - ▲ e.g. xc skiing
- ▲ Junior High
 - ▲ PE trips & activities
 - ▲ Multi day, camping
 - ▲ Backpacking, canoeing
 - ▲ Co-curricular trips
- ▲ Senior High
 - ▲ PE activities
 - ▲ Canoeing, orienteering, Telemarking
 - ▲ OE15
 - ▲ Year long option course
 - ▲ 24 hr FA cert, AST I cert
 - ▲ Co-curricular trips



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Program Purpose

PURPOSE
VISION
VALUES
AVTDER

Process

- ▲ Selection of stakeholders
- ▲ Pre-work
 - ▲ Basic format
 - ▲ Individual discussions
 - ▲ Suggested material (with reference to STS mission)
 - ▲ Room set-up (including food)
- ▲ Group meeting
 - ▲ Activities to promote involvement
 - ▲ Gate keeping
- ▲ Vetting
 - ▲ All-faculty review via email
- ▲ Gained Formal Approval
 - ▲ Principals
 - ▲ Head of School
 - ▲ Board of Governors

Practice

- ▲ Keep us on track
 - ▲ Posted in visible locations
 - ▲ Included in briefings
 - ▲ Reviewed at parent meetings
- ▲ Used to make decisions
 - ▲ Developing progressions
 - ▲ Promoting staff training
- ▲ Benchmark
 - ▲ Evaluating effectiveness
 - ▲ Determining areas of need
- ▲ Revisiting & assessing
 - ▲ Future direction
 - ▲ Dialogue with others
 - ▲ Schools / organizations
 - ▲ Practitioners
 - ▲ Land managers

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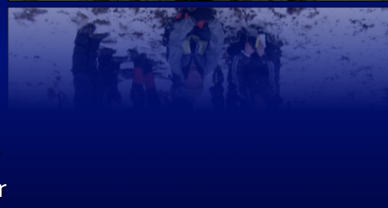
Purpose

What

- ▲ To help all STS students pursue wellness and 'personal best' through exploration and learning in the outdoors

How

- ▲ To encourage 'personal best' faculty will provide safety-oriented, intentional and challenging outdoor activities that guide students in their growth at STS and beyond



Vision



To be a program known for the quality of its people, practices & outcomes:

- ▲ Programs that are integrated throughout the school and which follow an intentional progression
- ▲ People who are professional, competent, collaborative, creative, caring and dedicated
- ▲ Practices that are effective, safety-oriented, sustainable, and demonstrate environmental stewardship
- ▲ Student outcomes that actively contribute to achieving the mission of the school:
 - ▲ Developing initiative, perseverance, problem-solving and compassion by immersion in challenging endeavours (*character*).
 - ▲ Achieving curriculum outcomes through experiential means (*scholarship*)
 - ▲ Providing opportunities for practical and intentional *leadership*
 - ▲ Building relationships through a small group context
 - ▲ Fostering life-long physical activity in the outdoors

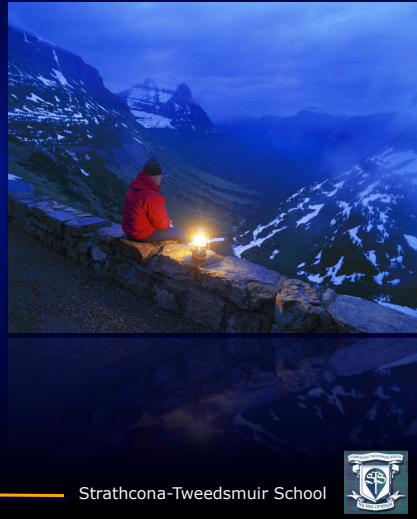
Values



- ▲ We intend to make a constructive contribution to society by impacting the lives of students, staff and parents
- ▲ We recognize the primary importance of safety and the shared responsibility of faculty, students and parents
- ▲ We value ongoing professional development in promoting safety and educational effectiveness
- ▲ We represent an educational partnership committed to creating positive, life-changing experiences
- ▲ We desire to be a place where people make significant progress toward achieving their potential
- ▲ We are committed to using wisely our environment and our finite resources
- ▲ We recognize that the most powerful way to teach is to model
- ▲ We believe that service is the highest form of leadership

Small Group Exercise

- ▲ With several of the people around you:
 - ▲ Summarize the purpose of your program in 25 words or less
 - ▲ Discuss how a clear purpose could have practical implications for practice



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Targeting specific needs Student Briefing

Slides Outline

- 16 Promoting Safety
- 17 Emergency Response
- 18 Student Prep & Planning
- 19 Traffic Light Risk Assessment Tool

Student Prep & Planning

- Packing
 - Equipment details coming up
- Equipment considerations
 - Bring ALL items on equipment list!
 - Break in your boots
 - Moleskin on heels for uphill
 - No electronic devices (inclu iPods & cell phones)
 - Bring ski poles if you have them and use them to hike
 - If you're not sure, ASK!

Take preparation seriously!

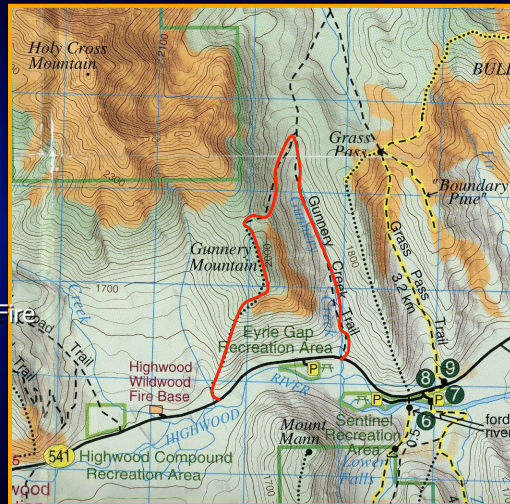
It could be hot or it could snow!

Photos from the spring Challenge Hike (June 7, 2008)

Student Briefing Example

Gunnery Mountain

- ▲ Summit elevation
 - ▲ 2050 meters
- ▲ Elevation gain
 - ▲ Approx 550 meters
- ▲ Travel time
 - ▲ About 3-5 hours
- ▲ Starting point
 - ▲ Hwy 541 just west of Highwood Wildwood Fire Base



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Student Briefing Example

Satellite View

Junction Hill



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Student Briefing Example
Gunnery Mountain
Terrain Example



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Student Briefing Example
Gunnery Mountain
Terrain Example



Ascending the moderately angled, vegetated ground on the lower ridge


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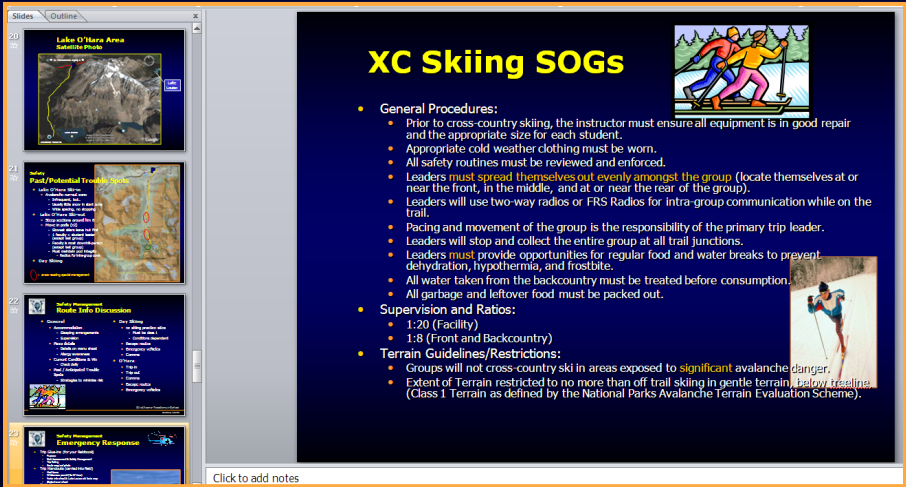
Targeting specific needs Instructor Briefing

- ▲ Making things work in a busy school schedule
 - ▲ Meet @ 7.30am before school
 - ▲ Continental breakfast provided
 - ▲ Work thorough PowerPoint & discuss topics such as:
 - ▲ Trip purpose
 - ▲ Roles & responsibilities
 - ▲ Medical info
 - ▲ Potential / past trouble spots
 - ▲ Standard Operating Guidelines
 - ▲ Logistical details
 - ▲ Emergency response

Instructors must be ready for anything... including changing poop barrels at the hut.



Targeting specific needs Instructor Briefing



XC Skiing SOGs

- General Procedures:
 - Prior to cross-country skiing, the instructor must ensure all equipment is in good repair and the appropriate size for each student.
 - Appropriate cold weather clothing must be worn.
 - All safety routines must be reviewed and enforced.
 - Leaders must spread themselves out evenly amongst the group (locate themselves at or near the front, in the middle, and at or near the rear of the group).
 - Leaders will use two-way radios or FRS Radios for intra-group communication while on the trail.
 - Pacing and movement of the group is the responsibility of the primary trip leader.
 - Leaders will stop and collect the entire group at all trail junctions.
 - Leaders must provide opportunities for regular food and water breaks to prevent dehydration, hypothermia, and frostbite.
 - All water taken from the backcountry must be treated before consumption.
 - All garbage and leftover food must be packed out.
- Supervision and Ratios:
 - 1:20 (Facility)
 - 1:8 (Front and Backcountry)
- Terrain Guidelines/Restrictions:
 - Groups will not cross-country ski in areas exposed to significant avalanche danger.
 - Extent of Terrain restricted to no more than off trail skiing in gentle terrain, below trailline. (Class 1 Terrain as defined by the National Parks Avalanche Terrain Evaluation Scheme).

Targeting specific needs Instructor Briefing

Slides Outline

- 21 Safety Past/Potential Trouble Spots
- 22 Safety Management Route Info Discussion
- 23 Safety Management Emergency Response
- 24 Safety Management Communications

Safety Past/Potential Trouble Spots

- Lake O'Hara Ski-in
 - Avalanche run-out zone @ km3.5
 - Last slid 1984; Late season
 - Rated class 1; Rarely reaches road
 - Usually little snow in start zone
 - Wide spacing, no stopping
 - Abort if conditions unfavourable
- Lake O'Hara Ski-out
 - Steep sections around km 8
 - Move in pods (x2)
 - Slowest skiers leave hut first
 - 1 faculty + student leader (except last group)
 - Faculty is most downhill-person (except last group)
 - Must maintain pod integrity
 - Radios for intra-group comm
- Day Skiing

○ = area needing special management

Click to add notes

Targeting specific needs Parent Briefing

Slides Outline

- 19 Risk Assessment & Safety Management
- 20 Risk Assessment & Safety Management
- 21 Emergency Response
- 22 Preparation & Planning

Risk Assessment & Safety Management

Hazard	Likelihood <small>(often, occasional, rare)</small>	Severity <small>(Severe, moderate, minor)</small>	Safety Management Strategies
Extreme Weather	Occasional	Minor • Severe	Check forecast; appropriate clothing & equipment; pacing to maintain warmth; carry emergency gear (spare mats, stove, tarp etc.)
Athletic Injuries <small>(e.g. sprains & strains)</small>	Occasional	Minor • Severe	Begin skiing in prepared tracks to lessen likelihood of falls; appropriate pacing; instructor coaching & supervision
Trips, Falls, Collisions <small>(sliding head & spinal injury)</small>	Rare	Minor • Severe	Advise students about potentially dangerous terrain; control speed; keep tidy cabin; faculty supervision; discontinue involvement for students who fail to obey instructions
Falls from Height	Rare	Moderate • Severe	Students to remain a minimum of 2-3 body lengths from edges, drop offs etc.; careful routefinding
Driving Accident	Rare	Minor • Severe	Keep vehicles in good repair; check road conditions if they are suspect; monitor student behaviour in vehicle;
Animal Encounter	Rare	Minor • Severe	Check alerts on the web when applicable; stick together as large group if dangerous animals are spotted
Equipment Failure	Occasional	Minor • Severe	Use quality equipment; provide clear equipment list; check student-owned equipment
Avalanches	Rare	Minor • Severe	Choose Class 1 terrain when possible; Class 2 terrain only w/ certified mountain guide; monitor conditions; pull the plug if conditions warrant; group management to keep students in safe zones

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Click to add notes

Targeting specific needs Parent Briefing

Outline

- Back Country Skiing
ACMG recommended days
- Back Country Skiing
Terrain Examples
- Backcountry Skiing
Daily Routine
- Promoting Safety


Back Country Skiing Trip Location Options may vary depending on conditions


- Class 2 terrain
 - All skiing accompanied by ACMG guide
 - Requirement for custodial groups in Class 2 terrain
 - Change/abort if hazard level is unacceptable
- Ice Fields Parkway region
 - Bow Summit
 - Observation Peak
 - Cirque Peak
 - Crowfoot Glades
- General Reference
 - Ski Trails in the Canadian Rockies; Rock Mountain Books
 - www.rmbooks.com/
 - Banff Park website
 - www.pc.gc.ca/pn-np/ab/banff/




Small Group Exercise

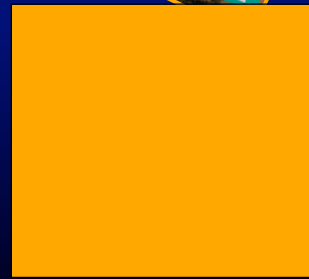
- ▲ With several of the people around you:
 - ▲ How could you more effectively inform participants / parents?
 - ▲ Come up with one idea you have not seen so far that could help you more effectively convey info about trips / programs





Informed Consent

- ▲ What is it?
 - ▲ Giving people a realistic & understandable picture of what is involved in a program experience
 - ▲ Dates, Locations, Costs etc.
 - ▲ Acknowledge risks & relate strategies for minimizing them
 - ▲ Roles & responsibilities (provider & participant)
 - ▲ Options to decline participation
- ▲ What it is NOT!
 - ▲ Exclusion of liability (e.g. lift ticket)
 - ▲ Waiver of right to sue
- ▲ Purpose of Informed Consent
 - ▲ Help individuals make 'informed choices'
 - ▲ Requires more than words on a page
 - ▲ Extensive use of images, descriptions & comparisons
 - ▲ Photos of students doing the activity, in the environment under poor, not just ideal, conditions
 - ▲ Maps (topographic and planometric)
 - ▲ Satellite photos of terrain
 - ▲ Charts & diagrams (e.g. ATEs, river gradings, hazard assessment)
 - ▲ Ensure that a judge / juror would find the statement, "I had no idea of what my child was getting into" implausible



Informed Consent Process

- ▲ Clear, consistent process across programs
- ▲ Briefing (including submission requirements & time frames)
 - ▲ Face-to-face meeting
 - ▲ PowerPoint Presentation
 - ▲ Including Web links to further info
 - ▲ On-line briefing option
 - ▲ Opportunities for dialogue & questions
- ▲ Web-based materials (including submission requirements & time frames)
 - ▲ Parent Package
 - ▲ Information letter
 - ▲ Consent & Acknowledgement of Risk Form
 - ▲ Student behaviour contract
 - ▲ PowerPoint Briefing
 - ▲ Electronic signature & submission options for future

Parent Briefing Informed Consent

Parent Preparation

- Read Parent Briefing
- Read Parent Package
- Read Parent Consent & Acknowledgement of Risk form
- Read Parent Information Letter
- Read Parent Information Letter
- Read Parent Information Letter
- Read Parent Information Letter
- Read Parent Information Letter
- Read Parent Information Letter
- Read Parent Information Letter

Parent Essentials

(if these are not completed students cannot attend the trip)

- View on-line Parent Briefing
 - Available on parent portal; Instructions in information letter
- Parent Package (read, complete, return)
 - Information letter
 - Overview of trip details
 - location, transport, risks, preparation, cost etc.
 - Parent Consent & Acknowledgement of Risk form
 - Read, sign & return; **Remember to tick the box on #10**
 - Fax to (403) 938-8343 OR
 - Hand deliver to Reception desk
- Update student medical info if necessary
 - Email to Laurie Stach (stachl@sts.ab.ca)

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Informed Consent Follow-up

Track, Follow-up & Archive Consent Forms

- ▲ Returned to STS Reception desk
 - ▲ Held in folders by trip & group
 - ▲ Checked by faculty member
- ▲ Those missing forms are called or emailed
- ▲ Forms used for billing
 - ▲ Confirms student took part in trip
- ▲ Consent forms + student list archived in trip folder
 - ▲ Kept 'till 3 years past age of majority

STS Safety Management via Trip Planning

- ▲ Trip Schedule
 - ▲ Lists trips, briefings, debriefs, staffing etc.
 - ▲ Posted on-line
 - ▲ Coordinates events within STS calendar
- ▲ Pre-trip Checklist
 - ▲ All the basic to-do items
 - ▲ Provides record
- ▲ Trip Briefings
 - ▲ As per earlier examples
- ▲ Route Card
 - ▲ Trip & group specific
 - ▲ Allows location of individuals in emergency
 - ▲ Record of route & campsites
- ▲ Student Sheet
 - ▲ Tracks consent, med checks & transport
 - ▲ Provides record



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Trip Follow Up

- ▲ Post-trip Debrief
 - ▲ E-form
 - ▲ Completed as a group
 - ▲ Sent to all staff & divisional principals
- ▲ Trip Folder
 - ▲ Track & archive all related trip materials
 - ▲ Kept 'till 3 years past age of majority



The Trip Folder should include:

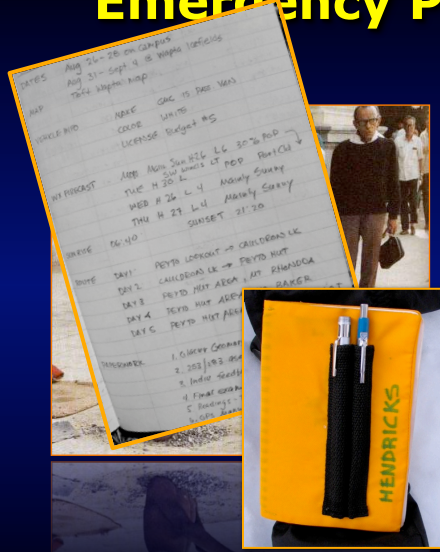
- Completed Pre-Trip Checklist
- Completed Outdoor Program Trip Plan/Route Card
- Copy of partially completed Student List for each group
- Parent/Guardian Consent & Acknowledgement of Risk forms (signed copies)
- Student Medical Summary forms (master copy for folder; separate copies carried by staff in field)
- Copy of Parent Briefing PowerPoint
- Copy of Instructor Briefing PowerPoint
- Transportation booking form/receipt (bus, rental car etc.)
- Post-Trip Debrief form (when completed)
- Accident Incident Reports (if applicable)
- Reimbursement forms (if applicable)
- Notes, emails, Logbook entries etc. related to noteworthy events which occurred on the trip (if applicable)

Person completing folder: _____
Date completed: _____

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Emergency Preparedness



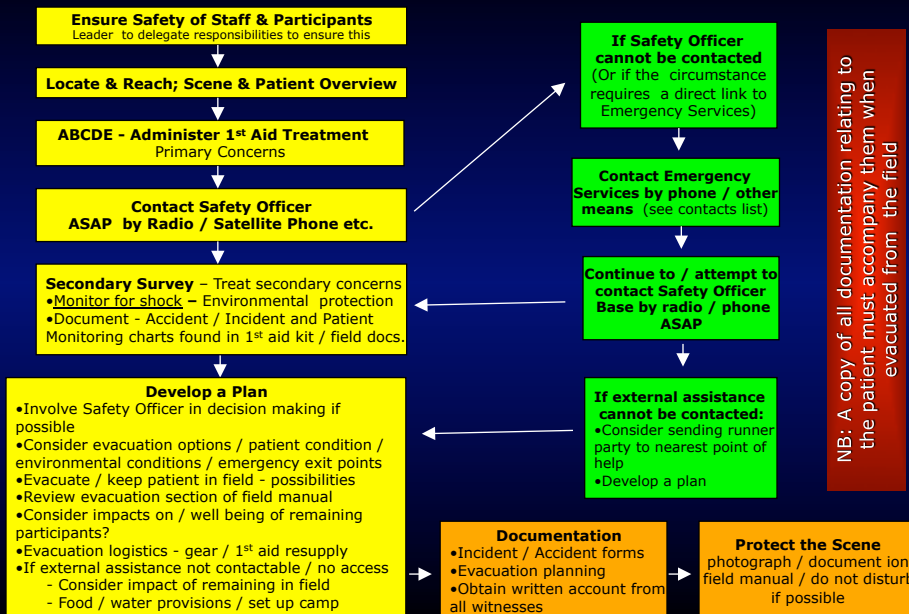
- ▲ Trip planning process
- ▲ Field materials
 - ▲ Field book
 - ▲ Instructor Field Manual
 - ▲ Contact numbers / frequencies
 - ▲ ER response protocol
 - ▲ Student Med forms
 - ▲ Accident-Incident report forms
- ▲ Safety officer
- ▲ Staff training
 - ▲ Scenarios
 - ▲ Training with Parks
- ▲ Emergency response protocol

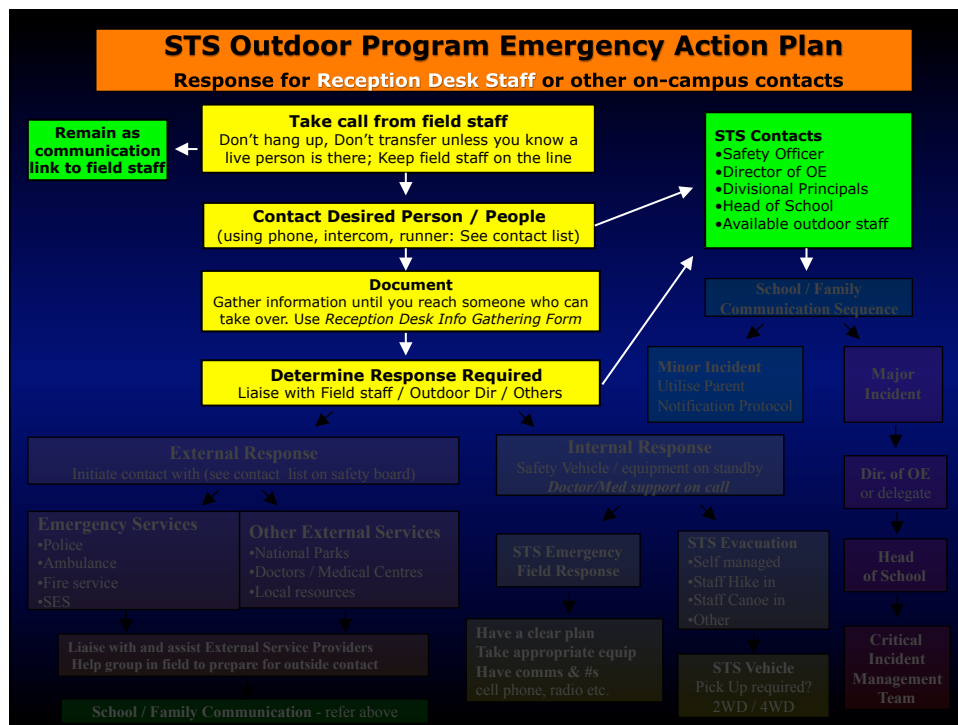
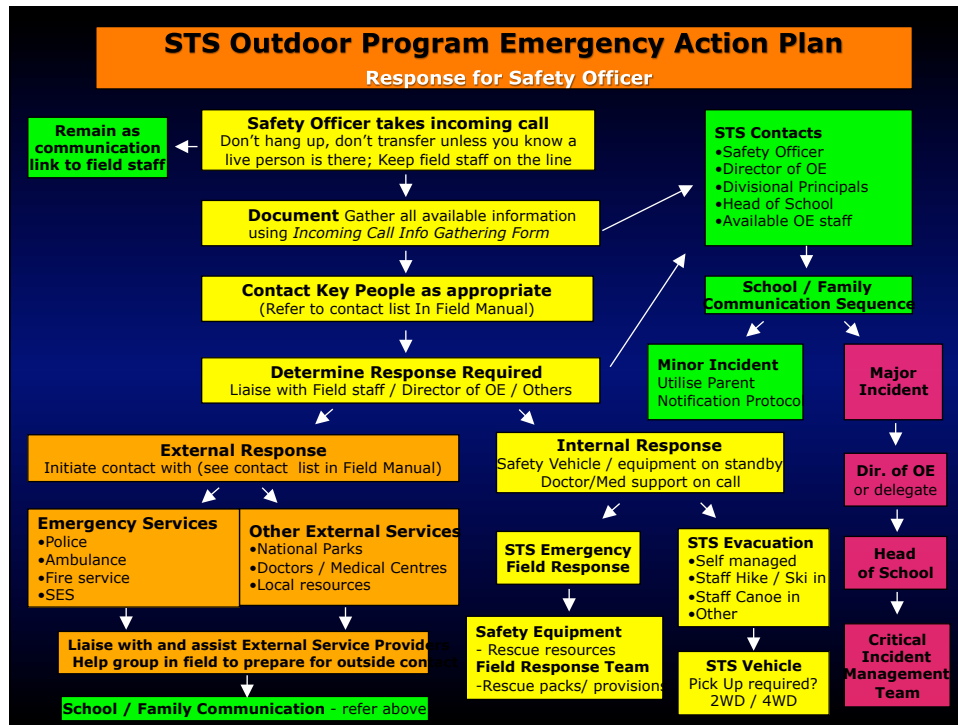
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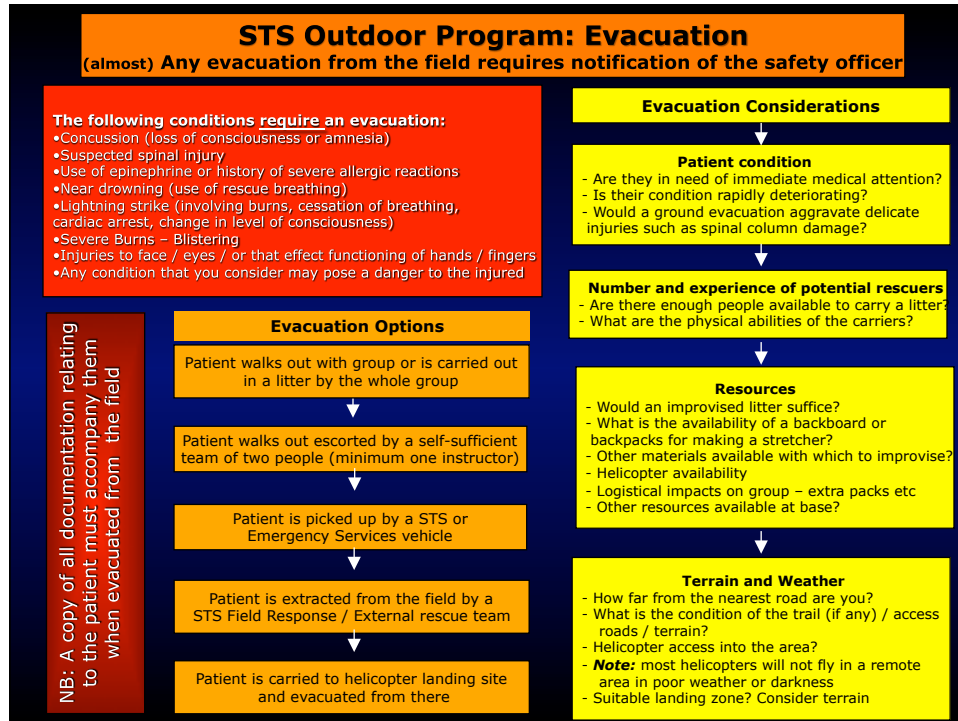


STS Outdoor Program Emergency Action Plan

Field response in outdoor areas without 'Urban' EMS response









Small Group Exercise

- ▲ With several of the people around you:
 - ▲ Do people get any indicators, other than written words, of what they will be involved in when 'signing up' for one of your programs?
 - ▲ What else could be done to more clearly communicate the program's risks, nature of activity, requirements, benefits etc?
 - ▲ If something legal happened five years after a course ended would you have the records to detail & defend your actions?





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Review & Wrap Up

Did we achieve our purpose?

- ▲ Briefly describe context of STS tragedy and resulting recommendations
- ▲ A simple model for change
- ▲ Provide examples of safety strategies currently in use at STS
 - ▲ Using Purpose to drive Practice
 - ▲ The Briefing Process
 - ▲ Informed Consent
 - ▲ What is it?
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 - ▲ Trip Planning & Follow-up
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 - ▲ Emergency Response
- ▲ To get you thinking intentionally about applications to your program
 - ▲ Systematising
 - ▲ Matching needs, gifts & structures



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